VENIN

สายไฟฟ้าวีนายน์

VENINECABLE

POWER CABLE

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VENINE CABLE

วีนายน์เคเบิ้ล ผู้เชี่ยวชาญมากประสบการณ์ด้านการผลิตและจัดจำหน่ายสายไฟฟ้าแบบครบวงจร เหนือกว่าด้วยฐานการผลิตระดับแนวหน้าของวงการผลิตสายไฟฟ้าของอาเซียน ที่เพียบพร้อมด้วยเครื่องจักรสุดทันสมัย ผสานด้วยเทคโนโลยีพร้อมซอฟแวร์ควบคุมระบบการผลิตอัจฉริยะ และ Know-How จากประสบการณ์ของผู้ผลิตระดับชั้นนำ ดำเนินการบริหารจัดการและควบคุมคุณภาพภายใต้การรับรองมาตรฐานระดับสากล นำมาซึ่งผลิตภัณฑ์สายไฟฟ้าและสายสื่อสารคุณภาพระดับพรีเมี่ยมวีนายน์ ที่ตอบสนองทุกความต้องการ ครอบคลุมทุกภาคธุรกิจ อุตสาหกรรม และจัดจำหน่ายผ่านเครือข่ายวีนายน์ที่ครอบคลุมทั่วประเทศไทยและภูมิภาคอาเซียน

ด้วยความเป็นผู้นำของฐานการผลิตในทุกๆด้าน ผสานด้วยวิสัยทัศน์อันก้าวไกล วีนายน์เคเบิ้ลพร้อมแล้ว ที่จะนำการเปลี่ยนแปลงยกระดับมาตรฐานและปฏิวัติวงการผลิตสายไฟฟ้าของประเทศไทยและภูมิภาคอาเซียน ให้เทียบเท่ากับมาตรฐานสายไฟฟ้าระดับโลก

Venine Cable, a modern and cuttings edge manufacturer in Thailand, specializing in fully-integrated premium quality power and communication cables. Our manufacturing plant is a class above the rest of ASEAN, utilising state of the art industrial machines, smart technology, development of in-house expert knowledge and certified to international standard.

We produce a full range of power and communication cables meeting the exacting needs of customers in various industries, Our distribution network is strong in ASEAN and growing rapidly to all other parts of the world, enabling us to partner with your business, no matter where your location.

Venine Cable is committed to premium quality products and state of the art manufacture, and in doing so, driving up the standard of manufacturing in ASEAN, to compete on the same level as company's around the world.

OUR MANUFACTURING PLANT

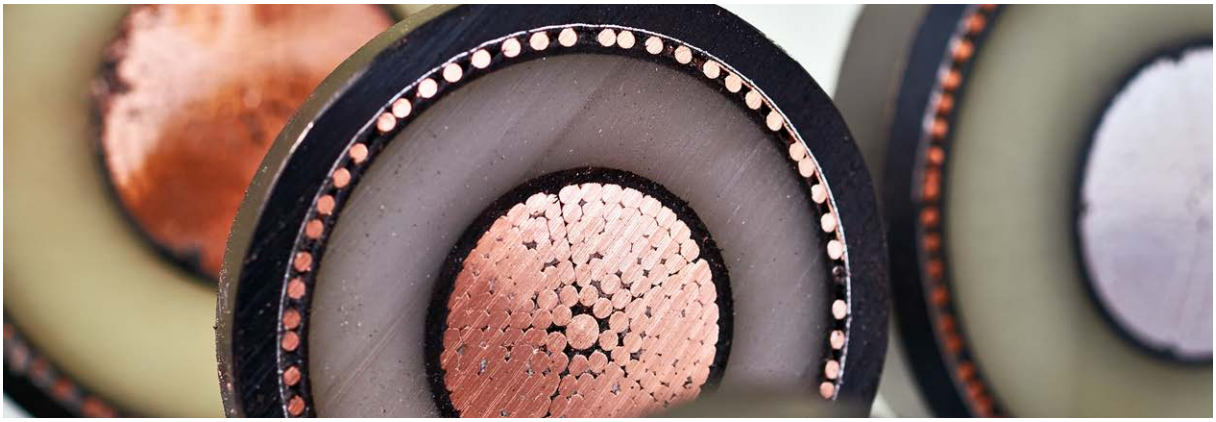
Our manufacturing plant is a class above the rest of ASEAN, covered an area of 52 acres located in Ladbualuang District, Ayutthaya, utilising state of the art industrial machines, demanding only the finest materials such as imported aluminum ingot, 99.99% pure copper cathode and top quality PVC available on the market and certified to international standards.

Currently, we have expansion plan of our manufacturing plant for high voltage power cable line, underground cable line and communication cable line and will be complete in 2018, to support the growths of the infrastructure of country and demand of ASEAN market beyond.

ฐานการผลิต

ฐานการผลิตของเรา คือฐานการผลิตที่ทันสมัยที่สุดในภูมิภาคอาเซียน เพียบพร้อมด้วยเครื่องจักรและเทคโนโลยีการผลิตที่ทรงประสิทธิภาพและทันสมัยที่สุดในยุคปี 2560 คัดสรรจากผู้ผลิตเครื่องจักรระดับชั้นนำที่เป็นที่สุดของในแต่ละกระบวนการจากยุโรป ประกอบด้วยโรงผลิตสายไฟฟ้าที่ครอบคลุมครบวงจร ตั้งแต่กระบวนการหลอมแปรรูปวัตถุดิบแผ่นทองแดงและแท่งอลูมิเนียมคุณภาพสูงนำเข้าจากต่างประเทศ สู่ขั้นตอนการรีด ตีเกลียว และหุ้มฉนวน เป็นผลิตภัณฑ์สายไฟฟ้าสำเร็จ ตั้งอยู่บนพื้นที่กว่า 130 ไร่ ณ อ.ลาดบัวหลวง จ.พระนครศรีอยุธยา

ปัจจุบัน เรามีการขยายฐานการผลิตของเราให้ครอบคลุมและเพิ่มขีดความสามารถในการผลิตที่มีประสิทธิภาพมากยิ่งขึ้น โดยมีการขยายสายการผลิตของสายไฟฟ้าแรงสูง สายไฟฟ้าใต้ดิน และสายสื่อสารไฟเบอร์ออพติก โดยจะเสร็จสิ้นสมบูรณ์ภายในปี 2561 เพื่อรองรับกับความต้องการและการเติบโตของโครงสร้างพื้นฐานของประเทศ



Standards & Certifications

Our reputation for quality is based on our systems and entire processes. In doing so, our manufacturing plants is certified to international certification with :

- ISO 9001:2015 Advanced Management System
- ISO 14001:2015 Environmental Management System
- ISO 50001:2011 Power Management System
- TIS/OHSAS 18001:2007 Health and Safety Management System
- Green Industry

Moreover, every our cables is certified and comply with Thai Industrial Standard (TIS), you can reassure the high quality, performance and safety of our cables in every usabilities.

การรับรองมาตรฐาน

เราให้ความสำคัญเรื่องคุณภาพในทุกๆขั้นตอนของกระบวนการผลิต ระบบการบริหารจัดการ เรามีการควบคุมดูแลคุณภาพและตรวจสอบมาตรฐานอย่างเข้มงวดและสม่ำเสมอ ทำให้ฐานการผลิตของเราได้รับการรับรองมาตรฐานระดับสากลต่างๆ ดังนี้

- ISO 9001:2015 มาตรฐานระบบบริหารงานคุณภาพ
- ISO 14001:2015 มาตรฐานระบบการจัดการสิ่งแวดล้อม
- ISO 50001:2011 มาตรฐานระบบการจัดการด้านพลังงาน
- TIS/OHSAS 18001:2007 มาตรฐานระบบการจัดการอาชีวอนามัยและความปลอดภัย
- Green Industry อุตสาหกรรมสีเขียว

นอกจากนี้ ทุกผลิตภัณฑ์สายไฟฟ้าของเรายังได้รับการรับรองตามมาตรฐานผลิตภัณฑ์อุตสาหกรรม(มอก.) ให้คุณมั่นใจได้ในคุณภาพ ประสิทธิภาพ และความปลอดภัยในทุกๆการใช้งาน

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VENINE สายไฟฟ้าวีนายน์

Topic I : Low Voltage Power Cables

Section A Copper Conductor

CONTENT

VENINE สายไฟฟ้าวีนายน์

CONTENT

LOW VOLTAGE POWER CABLES

450/750 V 70°C 60227 IEC 01 (THW)

SINGLE - CORE NON-SHEATHED CABLE WITH RIGID CONDUCTOR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid or circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Any colours)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. For installation in raceway and shall be protected water into raceway. Do not install in duct in ground or direct burial in ground		
REFERENCE STANDARD	TIS 11 PART 3-2553		

Conductor		Thickness of insulation	Overall diameter		Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
Nominal cross sectional area mm^2	Class of conductor	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
1.5	1	0.7	2.6	3.2	0.011	21	21	100/C
1.5	2	0.7	2.7	3.3	0.010	21	22	100/C
2.5	1	0.8	3.2	3.9	0.010	29	33	100/C
2.5	2	0.8	3.3	4.0	0.009	29	34	100/C
4	1	0.8	3.6	4.4	0.0085	37	48	100/C
4	2	0.8	3.8	4.6	0.0077	37	50	100/C
6	1	0.8	4.1	5.0	0.0070	48	68	100/C
6	2	0.8	4.3	5.2	0.0065	48	72	100/C
10	1	1.0	5.3	6.4	0.0070	67	110	100/C
10	2	1.0	5.6	6.7	0.0065	67	120	100/C
16	2	1.0	6.4	7.8	0.0050	92	180	100/C
25	2	1.2	8.1	9.7	0.0050	127	280	100/C
35	2	1.2	9.0	10.9	0.0043	157	380	100/C
50	2	1.4	10.6	12.8	0.0043	191	510	500/D
70	2	1.4	12.1	14.6	0.0035	244	720	500/D
95	2	1.6	14.1	17.1	0.0035	297	990	500/D
120	2	1.6	15.6	18.8	0.0032	345	1,220	500/D
150	2	1.8	17.3	20.9	0.0032	397	1,510	500/D
185	2	2.0	19.3	23.3	0.0032	453	1,880	500/D
240	2	2.2	22.0	26.6	0.0032	535	2,470	500/D
300	2	2.4	24.5	29.6	0.0030	617	3,080	500/D
400	2	2.6	27.5	33.2	0.0028	741	3,930	300/D

Class of conductor
1 : Solid
2 : Circular stranded annealed copper

C : Packing in coil
D : Packing in drum

450/750 V 70 °C 60227 IEC 02 (THW-F)

SINGLE - CORE NON-SHEATHED CABLE WITH FLEXIBLE CONDUCTOR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Any colours)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. For installation in raceway and shall be protected water into raceway. Do not install in duct in ground or direct burial in ground		
REFERENCE STANDARD	TIS 11 PART 3-2553		

Conductor		Thickness of insulation	Overall diameter		Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
Nominal cross sectional area mm^2	Class of conductor	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
1.5	5	0.7	2.8	3.4	0.010	21	22	100/C
2.5	5	0.8	3.4	4.1	0.009	28	34	100/C
4	5	0.8	3.9	4.8	0.007	38	50	100/C
6	5	0.8	4.4	5.3	0.006	48	73	100/C
10	5	1.0	5.7	6.8	0.0056	69	120	100/C
16	5	1.0	6.7	8.1	0.0046	92	180	100/C
25	5	1.2	8.4	10.2	0.0044	123	280	100/C
35	5	1.2	9.7	11.7	0.0038	154	380	100/C
50	5	1.4	11.5	13.9	0.0037	196	550	500/D
70	5	1.4	13.2	16.0	0.0032	247	760	500/D
95	5	1.6	15.1	18.2	0.0032	296	1,000	500/D
120	5	1.6	16.7	20.2	0.0029	350	1,310	500/D
150	5	1.8	18.6	22.5	0.0029	405	1,620	500/D
185	5	2.0	20.6	24.9	0.0029	467	1,930	500/D
240	5	2.2	23.5	28.4	0.0028	554	2,530	500/D

Class of conductor 5 : Bunch stranded anncaled copper

C : Packing in coil
D : Packing in drum

300/500 V 70 °C 60227 IEC 05 (IV)

SINGLE - CORE NON-SHEATHED CABLE WITH SOLID CONDUCTOR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Any colours)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for general purpose. For installation in raceway and shall be protected water into raceway. Do not install in duct in ground or direct burial in ground		
REFERENCE STANDARD	TIS 11 PART 3-2553		

Conductor		Thickness of insulation	Overall diameter		Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
Nominal cross sectional area mm^2	Class of conductor	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
0.5	1	0.6	1.9	2.3	0.015	11	9	100/C
0.75	1	0.6	2.1	2.5	0.012	14	11	100/C
1	1	0.6	2.2	2.7	0.011	16	14	100/C

Class of conductor 1 : Solid

C : Packing in coil

300/500 V 70 °C 60227 IEC 06 (VSF)

SINGLE - CORE NON-SHEATHED CABLE WITH FLEXIBLE CONDUCTOR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Any colours)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for general purpose. For installation in raceway and shall be protected water into raceway. Do not install in duct in ground or direct burial in ground		
REFERENCE STANDARD	TIS 11 PART 3-2553		

Conductor		Thickness of insulation	Overall diameter		Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
Nominal cross sectional area mm^2	Class of conductor	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
0.5	5	0.6	2.1	2.5	0.013	11	9	100/C
0.75	5	0.6	2.2	2.7	0.011	14	12	100/C
1	5	0.6	2.4	2.8	0.010	16	15	100/C

Class of conductor 5 : Bunch stranded anncaled copper

C : Packing in coil

300/500 V 90 °C 60227 IEC 07 (HIV)

SINGLE - CORE NON-SHEATHED CABLE WITH SOLID CONDUCTOR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Any colours)

CLASSIFICATION	Maximum conductor temperature 90°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for general purpose. For installation in raceway and shall be protected water into raceway. Do not install in duct in ground or direct burial in ground		
REFERENCE STANDARD	TIS 11 PART 3-2553		

Conductor		Thickness of insulation	Overall diameter		Insulation resistance at 90 °c	Current rating in free air	Cable weight	Standard length
Nominal cross sectional area mm^2	Class of conductor	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
0.5	1	0.6	1.9	2.3	0.015	15	9	100/C
0.75	1	0.6	2.1	2.5	0.013	18	11	100/C
1	1	0.6	2.2	2.7	0.012	22	14	100/C
1.5	1	0.7	2.6	3.2	0.011	28	21	100/C
2.5	1	0.8	3.2	3.9	0.009	38	33	100/C

Class of conductor 1 : Solid

C : Packing in coil

300/500 V 90°C 60227 IEC 08 (HVSF)

SINGLE - CORE NON-SHEATHED CABLE WITH FLEXIBLE CONDUCTOR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Any colours)

CLASSIFICATION	Maximum conductor temperature 90°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for general purpose. For installation in raceway and shall be protected water into raceway. Do not install in duct in ground or direct burial in ground		
REFERENCE STANDARD	TIS 11 PART 3-2553		

Conductor		Thickness of insulation	Overall diameter		Insulation resistance at 90 °c	Current rating in free air	Cable weight	Standard length
Nominal cross sectional area mm^2	Class of conductor	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
0.5	5	0.6	2.1	2.5	0.013	15	9	100/C
0.75	5	0.6	2.2	2.7	0.012	18	12	100/C
1	5	0.6	2.4	2.8	0.010	22	15	100/C
1.5	5	0.7	2.8	3.4	0.009	28	22	100/C
2.5	5	0.8	3.4	4.1	0.009	38	35	100/C

Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil

300/500 V 70 °C 60227 IEC 10

2 CORES - LIGHT POLYVINYL CHLORIDE SHEATHED CABLE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid or circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Light Blue, Brown)
3. Inner covering : Polyvinyl chloride (PVC) (Black colour)
4. Outer sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for general purpose. For installation in raceway and shall be protected water into raceway. Laid on cable trays/Cable ladder. Do not install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 4-2553		

Number of core	Conductor		Thickness of insulation	Thickness of inner covering	Thickness of outer sheath	Overall diameter		Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm²	Class of conductor	mm	mm (Approx.)	mm (Approx.)	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
2	1.5	1	0.7	0.4	1.2	7.6	10.0	0.011	19	120	100/C
	1.5	2	0.7	0.4	1.2	7.8	10.5	0.010	19	130	100/C
	2.5	1	0.8	0.4	1.2	8.6	11.5	0.010	26	160	100/C
	2.5	2	0.8	0.4	1.2	9.0	12.0	0.009	26	170	100/C
	4	1	0.8	0.4	1.2	9.6	12.5	0.0085	34	210	100/C
	4	2	0.8	0.4	1.2	10.0	13.0	0.0077	34	220	100/C
	6	1	0.8	0.4	1.2	10.5	13.5	0.0070	44	260	100/C
	6	2	0.8	0.4	1.2	11.0	14.0	0.0065	44	290	100/C
	10	1	1.0	0.6	1.4	13.0	16.5	0.0070	60	430	100/C
	10	2	1.0	0.6	1.4	13.5	17.5	0.0065	60	470	100/C
	16	2	1.0	0.6	1.4	15.5	20.0	0.0052	80	650	500/D
	25	2	1.2	0.8	1.4	18.5	24.0	0.0050	107	980	500/D
	35	2	1.2	1.0	1.6	21.0	27.5	0.0044	131	1,310	500/D

Class of conductor
1 : Solid
2 : Circular stranded annealed copper

C : Packing in coil
D : Packing in drum

300/500 V 70 °C 60227 IEC 10

3 CORES - LIGHT POLYVINYL CHLORIDE SHEATHED CABLE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid or circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Brown, Black, Grey)
3. Inner covering : Polyvinyl chloride (PVC) (Black colour)
4. Outer sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for general purpose. For installation in raceway and shall be protected water into raceway. Laid on cable trays/Cable ladder. Do not install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 4-2553		

Number of core	Conductor		Thickness of insulation	Thickness of inner covering	Thickness of outer sheath	Overall diameter		Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm²	Class of conductor	mm	mm (Approx.)	mm (Approx.)	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
3	1.5	1	0.7	0.4	1.2	8.0	10.5	0.011	17	140	100/C
	1.5	2	0.7	0.4	1.2	8.2	11.0	0.010	17	150	100/C
	2.5	1	0.8	0.4	1.2	9.2	12.0	0.010	22	190	100/C
	2.5	2	0.8	0.4	1.2	9.4	12.5	0.009	22	210	100/C
	4	1	0.8	0.4	1.2	10.0	13.0	0.0085	30	250	100/C
	4	2	0.8	0.4	1.2	10.5	13.5	0.0077	30	270	100/C
	6	1	0.8	0.4	1.4	11.5	14.5	0.0070	37	340	100/C
	6	2	0.8	0.4	1.4	12.0	15.5	0.0065	37	370	100/C
	10	1	1.0	0.6	1.4	14.0	17.5	0.0070	52	540	100/C
	10	2	1.0	0.6	1.4	14.5	19.0	0.0065	52	590	500/D
	16	2	1.0	0.8	1.4	16.5	21.5	0.0052	70	840	500/D
	25	2	1.2	0.8	1.6	20.5	26.0	0.0050	92	1,270	500/D
	35	2	1.2	1.0	1.6	22.5	29.0	0.0044	113	1,680	500/D

Class of conductor
1 : Solid
2 : Circular stranded annealed copper

C : Packing in coil
D : Packing in drum

300/500 V 70 °C 60227 IEC 10

4 CORES - LIGHT POLYVINYL CHLORIDE SHEATHED CABLE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid or circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Light Blue, Brown, Black, Grey)
3. Inner covering : Polyvinyl chloride (PVC) (Black colour)
4. Outer sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for general purpose. For installation in raceway and shall be protected water into raceway. Laid on cable trays/Cable ladder. Do not install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 4-2553		

Number of core	Conductor		Thickness of insulation	Thickness of inner covering	Thickness of outer sheath	Overall diameter		Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm^2	Class of conductor	mm	mm (Approx.)	mm (Approx.)	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
4	1.5	1	0.7	0.4	1.2	8.6	11.5	0.011	17	170	100/C
	1.5	2	0.7	0.4	1.2	9.0	12.0	0.010	17	180	100/C
	2.5	1	0.8	0.4	1.2	10.0	13.0	0.010	22	240	100/C
	2.5	2	0.8	0.4	1.2	10.0	13.5	0.009	22	250	100/C
	4	1	0.8	0.4	1.4	11.5	14.5	0.0085	30	330	100/C
	4	2	0.8	0.4	1.4	12.0	15.0	0.0077	30	350	100/C
	6	1	0.8	0.6	1.4	12.5	16.0	0.0070	37	440	100/C
	6	2	0.8	0.6	1.4	13.0	17.0	0.0065	37	480	100/C
	10	1	1.0	0.6	1.4	15.5	19.0	0.0070	52	670	500/D
	10	2	1.0	0.6	1.4	16.0	20.5	0.0065	52	740	500/D
	16	2	1.0	0.8	1.4	18.0	23.5	0.0052	70	1,060	500/D
	25	2	1.2	1.0	1.6	22.5	28.5	0.0050	92	1,640	500/D
	35	2	1.2	1.0	1.6	24.5	32.0	0.0044	113	2,130	500/D

Class of conductor
1 : Solid
2 : Circular stranded annealed copper

C : Packing in coil
D : Packing in drum

300/500 V 70 °C 60227 IEC 10

5 CORES - LIGHT POLYVINYL CHLORIDE SHEATHED CABLE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid or circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Light Blue, Brown, Black, Grey)
3. Inner covering : Polyvinyl chloride (PVC) (Black colour)
4. Outer sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for general purpose. For installation in raceway and shall be protected water into raceway. Laid on cable trays/Cable ladder. Do not install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 4-2553		

Number of core	Conductor		Thickness of insulation	Thickness of inner covering	Thickness of outer sheath	Overall diameter		Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm^2	Class of conductor	mm	mm (Approx.)	mm (Approx.)	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
5	1.5	1	0.7	0.4	1.2	9.4	12.0	0.011	17	210	100/C
	1.5	2	0.7	0.4	1.2	9.8	12.5	0.010	17	220	100/C
	2.5	1	0.8	0.4	1.2	11.0	14.0	0.010	22	290	100/C
	2.5	2	0.8	0.4	1.2	11.0	14.5	0.009	22	310	100/C
	4	1	0.8	0.6	1.4	12.5	16.0	0.0085	30	420	100/C
	4	2	0.8	0.6	1.4	13.0	17.0	0.0077	30	450	100/C
	6	1	0.8	0.6	1.4	13.5	17.5	0.0070	37	550	100/C
	6	2	0.8	0.6	1.4	14.5	18.5	0.0065	37	600	100/C
	10	1	1.0	0.6	1.4	17.0	21.0	0.0070	52	850	500/D
	10	2	1.0	0.6	1.4	17.5	22.0	0.0065	52	920	500/D
	16	2	1.0	0.8	1.6	20.5	26.0	0.0052	70	1,350	500/D
	25	2	1.2	1.0	1.6	24.5	31.5	0.0050	92	2,050	500/D
	35	2	1.2	1.2	1.6	27.0	35.0	0.0044	113	2,710	500/D

Class of conductor
1 : Solid
2 : Circular stranded annealed copper

C : Packing in coil
D : Packing in drum

300/500 V 70 °C 60227 IEC 10

2 CORES - LIGHT POLYVINYL CHLORIDE SHEATHED CABLE WITH GROUND

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid or circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Phase : Light Blue, Brown) (Ground : Green/Yellow)
3. Inner covering : Polyvinyl chloride (PVC) (Black colour)
4. Outer sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C | Rated voltage 300/500 V | AC test voltage 2,000 V
APPLICATION	Use for general purpose. For installation in raceway and shall be protected water into raceway. Laid on cable trays/Cable ladder. Do not install in duct in ground or direct burial in ground.
REFERENCE STANDARD	TIS 11 PART 4-2553

Number of core	Conductor: Nominal Cross sectional area mm² Phase	Conductor: Nominal Cross sectional area mm² Ground	Conductor: Class of conductor	Thickness of insulation mm	Thickness of inner covering mm (Approx.)	Thickness of outer sheath mm (Approx.)	Overall diameter: Min. mm	Overall diameter: Max. mm	Insulation resistance at 70 °c MΩ.km (Min.)	Current rating in free air A	Cable weight kg/km (Approx)	Standard length m
2+6	1.5	1.5	1	0.7	0.4	1.2	8.0	10.5	0.011	17	140	100/C
	1.5	1.5	2	0.7	0.4	1.2	8.2	11.0	0.010	17	150	100/C
	2.5	2.5	1	0.8	0.4	1.2	9.2	12.0	0.010	22	190	100/C
	2.5	2.5	2	0.8	0.4	1.2	9.4	12.5	0.009	22	210	100/C
	4	4	1	0.8	0.4	1.2	10.0	13.0	0.0085	30	250	100/C
	4	4	2	0.8	0.4	1.2	10.5	13.5	0.0077	30	270	100/C
	6	6	1	0.8	0.4	1.4	11.5	14.5	0.0070	37	340	100/C
	6	6	2	0.8	0.4	1.4	12.0	15.5	0.0065	37	370	100/C
	10	10	1	1.0	0.6	1.4	14.0	17.5	0.0070	52	540	100/C
	10	10	2	1.0	0.6	1.4	14.5	19.0	0.0065	52	590	500/D
	16	16	2	1.0	0.8	1.4	16.5	21.5	0.0052	70	840	500/D
	25	25	2	1.2	0.8	1.6	20.5	26.0	0.0050	92	1,270	500/D
	35	35	2	1.2	1.0	1.6	22.0	29.0	0.0044	113	1,680	500/D

Class of conductor
1 : Solid
2 : Circular stranded annealed copper

C : Packing in coil
D : Packing in drum

300/500 V 70 °C 60227 IEC 10

3 CORES - LIGHT POLYVINYL CHLORIDE SHEATHED CABLE WITH GROUND

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid or circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Phase : Brown, Black, Grey) (Ground : Green/Yellow)
3. Inner covering : Polyvinyl chloride (PVC) (Black colour)
4. Outer sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for general purpose. For installation in raceway and shall be protected water into raceway. Laid on cable trays/Cable ladder. Do not install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 4-2553		

Number of core	Conductor		Class of conductor	Thickness of insulation	Thickness of inner covering	Thickness of outer sheath	Overall diameter		Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm²						Min.	Max.				
	Phase	Ground		mm	mm (Approx.)	mm (Approx.)	mm	mm	MΩ.km (Min.)	A	kg/km (Approx)	m
3+G	1.5	1.5	1	0.7	0.4	1.2	8.6	11.5	0.011	17	170	100/C
	1.5	1.5	2	0.7	0.4	1.2	9.0	12.0	0.010	17	180	100/C
	2.5	2.5	1	0.8	0.4	1.2	10.0	13.0	0.010	22	240	100/C
	2.5	2.5	2	0.8	0.4	1.2	10.0	13.5	0.009	22	250	100/C
	4	4	1	0.8	0.4	1.4	11.5	14.5	0.0085	30	330	100/C
	4	4	2	0.8	0.4	1.4	12.0	15.0	0.0077	30	350	100/C
	6	6	1	0.8	0.6	1.4	12.5	16.0	0.0070	37	440	100/C
	6	6	2	0.8	0.6	1.4	13.0	17.0	0.0065	37	480	100/C
	10	10	1	1.0	0.6	1.4	15.5	19.0	0.0070	52	670	500/D
	10	10	2	1.0	0.6	1.4	16.0	20.5	0.0065	52	740	500/D
	16	16	2	1.0	0.8	1.4	18.0	23.5	0.0052	70	1,060	500/D
	25	25	2	1.2	1.0	1.6	22.5	28.5	0.0050	92	1,640	500/D
	35	35	2	1.2	1.0	1.6	24.5	32.0	0.0044	113	2,130	500/D

Class of conductor
1 : Solid
2 : Circular stranded annealed copper

C : Packing in coil
D : Packing in drum

300/500 V 70 °C 60227 IEC 10

4 CORES - LIGHT POLYVINYL CHLORIDE SHEATHED CABLE WITH GROUND

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid or circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Phase : Light Blue, Brown, Black, Grey) (Ground : Green/Yellow)
3. Inner covering : Polyvinyl chloride (PVC) (Black colour)
4. Outer sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C | Rated voltage 300/500 V | AC test voltage 2,000 V
APPLICATION	Use for general purpose. For installation in raceway and shall be protected water into raceway. Laid on cable trays/Cable ladder. Do not install in duct in ground or direct burial in ground.
REFERENCE STANDARD	TIS 11 PART 4-2553

Number of core	Conductor		Class of conductor	Thickness of insulation	Thickness of inner covering	Thickness of outer sheath	Overall diameter		Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm²						Min.	Max.				
	Phase	Ground		mm	mm (Approx.)	mm (Approx.)	mm	mm	MΩ.km (Min.)	A	kg/km (Approx)	m
4+G	1.5	1.5	1	0.7	0.4	1.2	9.4	12.0	0.011	17	210	100/C
	1.5	1.5	2	0.7	0.4	1.2	9.8	12.5	0.010	17	220	100/C
	2.5	2.5	1	0.8	0.4	1.2	11.0	14.0	0.010	22	290	100/C
	2.5	2.5	2	0.8	0.4	1.2	11.0	14.5	0.009	22	310	100/C
	4	4	1	0.8	0.6	1.4	12.5	16.0	0.0085	30	420	100/C
	4	4	2	0.8	0.6	1.4	13.0	17.0	0.0077	30	450	100/C
	6	6	1	0.8	0.6	1.4	13.5	17.5	0.0070	37	550	100/C
	6	6	2	0.8	0.6	1.4	14.5	18.5	0.0065	37	600	100/C
	10	10	1	1.0	0.6	1.4	17.0	21.0	0.0070	52	850	500/D
	10	10	2	1.0	0.6	1.4	17.5	22.0	0.0065	52	920	500/D
	16	16	2	1.0	0.8	1.6	20.5	26.0	0.0052	70	1,350	500/D
	25	25	2	1.2	1.0	1.6	24.5	31.5	0.0050	92	2,050	500/D
	35	35	2	1.2	1.2	1.6	27.0	35.0	0.0044	113	2,710	500/D

Class of conductor
1 : Solid
2 : Circular stranded annealed copper

C : Packing in coil
D : Packing in drum

300/300 V 70 °C 60227 IEC 43

SINGLE - CORE CORD FOR INDOOR DECORATIVE LIGHTING CHAINS

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation (inner layer) : Polyvinyl chloride (PVC) (Black or other colour)
3. Insulation (Outer layer) : Polyvinyl chloride (PVC) (Green colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/300 V	AC test voltage 2,000 V
APPLICATION	Use for connecting indoor decorate lighting		
REFERENCE STANDARD	TIS 11 PART 5-2553		

Conductor			Insulation of each layer of thickness	Overall insulation thickness		Overall diameter		Insulation resistance at 70 °c minimum	Cable weight	Standard length
Nominal Cross sectional area mm^2	Class of conductor	Diameter mm (Approx.)	mm (Min)	mm (Min.)	mm (Avg.)	Min. mm	Max. mm	MΩ.km (Min.)	kg/km (Approx)	m
0.5	5	0.92	0.2	0.6	0.7	2.3	2.7	0.014	11	100/C
0.75	5	1.13	0.2	0.6	0.7	2.4	2.9	0.012	14	100/C

Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil

300/300 V 70 °C 60227 IEC 52 (VKF)

2 CORES - LIGHT POLYVINYL CHLORIDE SHEATHED CORD

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Light Blue, Brown)
3. Insulation : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/300 V	AC test voltage 2,000 V
APPLICATION	Use for connecting portable electric appliance. Use for wiring within electric appliance.		
REFERENCE STANDARD	TIS 11 PART 5-2553		

Number of core	Conductor			Thickness of insulation	Thickness of sheath	Overall diameter		Insulation resistance at 70 °c minimum	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm^2	Class of conductor	Diameter mm (Approx.)	mm	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
2	0.5	5	0.92	0.5	0.6	3.0 x 4.9	3.7 x 5.9	0.012	10	29	100/C
	0.75	5	1.13	0.5	0.6	3.2 x 5.2	3.8 x 6.3	0.010	12	36	100/C

Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil

300/300 V 70 °C 60227 IEC 52

2 CORES - LIGHT POLYVINYL CHLORIDE SHEATHED CORD

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Light Blue, Brown)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/300 V	AC test voltage 2,000 V
APPLICATION	Use for connecting portable electric appliance. Use for wiring within electric appliance.		
REFERENCE STANDARD	TIS 11 PART 5-2553		

Number of core	Conductor			Thickness of insulation	Thickness of sheath	Overall diameter		Insulation resistance at 70 °c minimum	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm^2	Class of conductor	Diameter mm (Approx.)	mm	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
2	0.5	5	0.92	0.5	0.6	4.6	5.9	0.012	10	41	100/C
	0.75	5	1.13	0.5	0.6	4.9	6.3	0.010	12	50	100/C

Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil

300/300 V 70 °C 60227 IEC 52

2 CORES - LIGHT POLYVINYL CHLORIDE SHEATHED CORD WITH GROUND

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Phase : Light Blue, Brown) (Ground : Green/Yellow)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/300 V	AC test voltage 2,000 V
APPLICATION	Use for connecting portable electric appliance. Use for wiring within electric appliance.		
REFERENCE STANDARD	TIS 11 PART 5-2553		

Number of core	Conductor			Thickness of insulation	Thickness of sheath	Overall diameter		Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm²		Class of conductor			Min.	Max.		A		
	Phase	Ground		mm	mm	mm	mm	MΩ.km (Min.)		kg/km (Approx)	m
2+G	0.5	0.5	5	0.5	0.6	4.9	6.3	0.012	10	48	100/C
	0.75	0.75	5	0.5	0.6	5.2	6.7	0.010	12	60	100/C

Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil

300/500 V 70°C 60227 IEC 53 (VKF)

2 CORES - ORDINARY POLYVINYL CHLORIDE SHEATHED CORD

VENINE
สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Phase : Light Blue, Brown)
3. Sheath: Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for connecting portable electric appliance (heavy duty). Use for connecting lamp.		
REFERENCE STANDARD	TIS 11 PART 5-2553		

Number of core	Conductor		Thickness of insulation	Thickness of sheath	Overall diameter		Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm²	Class of conductor	mm	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
2	0.75	5	0.6	0.8	3.7 x 6.0	4.5 x 7.2	0.011	12	44	100/C
	1	5	0.6	0.8	3.9 x 6.2	4.7 x 7.5	0.010	15	52	100/C

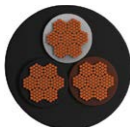
Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil

300/500 V 70 °C 60227 IEC 53

2,3,4,5 CORES - ORDINARY POLYVINYL CHLORIDE SHEATHED CORD

VENINE สายไฟฟ้าวีนายน์



CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC)
   (2 cores : Light Blue, Brown) (3 cores : Brown, Black, Grey)
   (4 cores : Light Blue, Brown, Black, Grey) (5 cores : Light Blue, Brown, Black, Grey, Black)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for connecting portable electric appliance (heavy duty). Use for connecting lamp.		
REFERENCE STANDARD	TIS 11 PART 5-2553		

Number of core	Conductor		Thickness of insulation	Thickness of sheath	Overall diameter		Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm²	Class of conductor	mm	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
2	0.75	5	0.6	0.8	5.7	7.2	0.011	12	63	100/C
	1	5	0.6	0.8	5.9	7.5	0.010	14	72	100/C
	1.5	5	0.7	0.8	6.8	8.6	0.010	18	96	100/C
	2.5	5	0.8	1.0	8.4	10.6	0.009	25	150	100/C
3	0.75	5	0.6	0.8	6.0	7.6	0.011	10	74	100/C
	1	5	0.6	0.8	6.3	8.0	0.010	12	87	100/C
	1.5	5	0.7	0.9	7.4	9.4	0.010	16	120	100/C
	2.5	5	0.8	1.1	9.2	11.4	0.009	21	190	100/C
4	0.75	5	0.6	0.8	6.6	8.3	0.011	10	91	100/C
	1	5	0.6	0.9	7.1	9.0	0.010	12	110	100/C
	1.5	5	0.7	1.0	8.4	10.5	0.010	16	150	100/C
	2.5	5	0.8	1.1	10.1	12.5	0.009	21	230	100/C
5	0.75	5	0.6	0.9	7.4	9.3	0.011	10	110	100/C
	1	5	0.6	0.9	7.8	9.8	0.010	12	130	100/C
	1.5	5	0.7	1.1	9.3	11.6	0.010	16	175	100/C
	2.5	5	0.8	1.2	11.2	13.9	0.009	21	265	100/C

Class of conductor 5 : Bunch stranded annealed copper C : Packing in coil

300/500 V 70 °C 60227 IEC 53

2,3,4 CORES - ORDINARY POLYVINYL CHLORIDE SHEATHED CORD WITH GROUND

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC)
   (2 cores : Light Blue, Brown) (3 cores : Brown, Black, Grey)
   (4 cores : Light Blue, Brown, Black, Grey) (5 cores : Light Blue, Brown, Black, Grey)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for connecting portable electric appliance. Use for connecting lamp .		
REFERENCE STANDARD	TIS 11 PART 5-2553		

Number of core	Conductor			Thickness of insulation	Thickness of sheath	Overall diameter		Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm²		Class of conductor			Min.	Max.		A		
	Phase	Ground		mm	mm	mm	mm	MΩ.km (Min.)		kg/km (Approx)	m
2+G	0.75	0.75	5	0.6	0.8	6.0	7.6	0.011	12	74	100/C
	1	1	5	0.6	0.8	6.3	8.0	0.010	14	87	100/C
	1.5	1.5	5	0.7	0.9	7.4	9.4	0.010	18	115	100/C
	2.5	2.5	5	0.8	1.1	9.2	11.4	0.009	25	175	100/C
3+G	0.75	0.75	5	0.6	0.8	6.6	8.3	0.011	10	91	100/C
	1	1	5	0.6	0.9	7.1	9.0	0.010	12	110	100/C
	1.5	1.5	5	0.7	1.0	8.4	10.5	0.010	16	145	100/C
	2.5	2.5	5	0.8	1.1	10.1	12.5	0.009	21	215	100/C
4+G	0.75	0.75	5	0.6	0.9	7.4	9.3	0.011	10	110	100/C
	1	1	5	0.6	0.9	7.8	9.8	0.010	12	130	100/C
	1.5	1.5	5	0.7	1.1	9.3	11.6	0.010	16	175	100/C
	2.5	2.5	5	0.8	1.2	11.2	13.9	0.009	21	265	100/C

Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil

300/300 V 90 °C 60227 IEC 56 (HVKF)

2 CORES - HEAT-RESISTANT LIGHT PVC- SHEATHED CORD

VENINE
สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Light Blue, Brown)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 90°C	Rated voltage 300/300 V	AC test voltage 2,000 V
APPLICATION	Use for connecting portable electric appliance (heavy duty).		
REFERENCE STANDARD	TIS 11 PART 5-2553		

Number of core	Conductor		Thickness of insulation	Thickness of sheath	Overall diameter		Insulation resistance at 90 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm^2	Class of conductor	mm	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
2	0.5	5	0.5	0.6	3.0 x 4.9	3.7 x 5.9	0.012	13	29	100/C
	0.75	5	0.5	0.6	3.2 x 5.2	3.8 x 6.3	0.010	16	36	100/C

Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil

300/300 V 90 °C 60227 IEC 56

2 CORES - HEAT-RESISTANT LIGHT PVC- SHEATHED CORD

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Light Blue, Brown)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 90°C	Rated voltage 300/300 V	AC test voltage 2,000 V
APPLICATION	Use for connecting portable electric appliance (heavy duty).		
REFERENCE STANDARD	TIS 11 PART 5-2553		

Number of core	Conductor		Thickness of insulation	Thickness of sheath	Overall diameter		Insulation resistance at 90 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm^2	Class of conductor	mm	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
2	0.5	5	0.5	0.6	4.6	5.9	0.012	13	41	100/C
	0.75	5	0.5	0.6	4.9	6.3	0.010	16	50	100/C

Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil

300/300 V 90 °C 60227 IEC 56

2 CORES - HEAT-RESISTANT LIGHT PVC- SHEATHED CORD WITH GROUND

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Phase : Light Blue, Brown) (Ground : Green/Yellow)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 90°C	Rated voltage 300/300 V	AC test voltage 2,000 V
APPLICATION	Use for connecting portable electric appliance.		
REFERENCE STANDARD	TIS 11 PART 5-2553		

Number of core	Conductor		Class of conductor	Thickness of insulation	Thickness of sheath	Overall diameter		Insulation resistance at 90 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm²					Min.	Max.				
	Phase	Ground		mm	mm	mm	mm	MΩ.km (Min.)	A	kg/km (Approx)	m
2	0.5	0.5	5	0.5	0.6	4.9	6.3	0.012	13	48	100/C
	0.75	0.75	5	0.5	0.6	5.2	6.7	0.010	16	60	100/C

Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil

300/500 V 90°C 60227 IEC 57 (HVKF)

2 CORES - HEAT-RESISTANT ORDINARY PVC-SHEATHED CORD

VENINE
สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Light Blue, Brown)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 90°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for connecting portable electric appliance. Use for wiring in lamp with/without ballast. Use in an advertisement board/an electric signs.		
REFERENCE STANDARD	TIS 11 PART 5-2553		

Number of core	Conductor		Thickness of insulation	Thickness of sheath	Overall diameter		Insulation resistance at 90 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm^2	Class of conductor	mm	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
2	0.75	5	0.6	0.8	3.7 x 6.0	4.5 x 7.2	0.011	13	44	100/C
	1	5	0.6	0.8	3.9 x 6.2	4.7 x 7.5	0.010	16	52	100/C

Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil

300/500 V 90 °C 60227 IEC 57

2,3,4,5 CORES - HEAT-RESISTANT ORDINARY PVC- SHEATHED CORD

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC)
   (2 cores : Light Blue, Brown) (3 cores : Brown, Black, Grey)
   (4 cores : Light Blue, Brown, Black, Grey) (5 cores : Light Blue, Brown, Black, Grey, Black)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 90°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for connecting portable electric appliance (heavy duty). Use for connecting lamp with or without ballast. Use in an advertisement board/an electric signs.		
REFERENCE STANDARD	TIS 11 PART 5-2553		

Number of core	Conductor		Thickness of insulation	Thickness of sheath	Overall diameter		Insulation resistance at 90 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm^2	Class of conductor	mm	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
2	0.75	5	0.6	0.8	5.7	7.2	0.011	16	63	100/C
	1	5	0.6	0.8	5.9	7.5	0.010	19	72	100/C
	1.5	5	0.7	0.8	6.8	8.6	0.010	24	96	100/C
	2.5	5	0.8	1.0	8.4	10.6	0.009	33	150	100/C
3	0.75	5	0.6	0.8	6.0	7.6	0.011	14	74	100/C
	1	5	0.6	0.8	6.3	8.0	0.010	16	87	100/C
	1.5	5	0.7	0.9	7.4	9.4	0.010	21	120	100/C
	2.5	5	0.8	1.1	9.2	11.4	0.009	28	190	100/C
4	0.75	5	0.6	0.8	6.6	8.3	0.011	14	91	100/C
	1	5	0.6	0.9	7.1	9.0	0.010	16	110	100/C
	1.5	5	0.7	1.0	8.4	10.5	0.010	21	150	100/C
	2.5	5	0.8	1.1	10.1	12.5	0.009	18	230	100/C
5	0.75	5	0.6	0.9	7.4	9.3	0.011	14	110	100/C
	1	5	0.6	0.9	7.8	9.8	0.010	16	130	100/C
	1.5	5	0.7	1.1	9.3	11.6	0.010	21	190	100/C
	2.5	5	0.8	1.2	11.2	13.9	0.009	28	290	100/C

Class of conductor 5 : Bunch stranded annealed copper C : Packing in coil

300/500 V 90 °C 60227 IEC 57

2,3,4 CORES - HEAT-RESISTANT ORDINARY PVC- SHEATHED CORD WITH GROUND

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC)
   (2 cores : Light Blue, Brown) (3 cores : Brown, Black, Grey)
   (4 cores : Light Blue, Brown, Black, Grey) (5 cores : Light Blue, Brown, Black, Grey)
   (Ground : Green/Yellow)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 90°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for connecting portable electric applianec (heavy duty). Use for wiring in lamp with or without ballast. Use in an advertisement board/an electric signs.		
REFERENCE STANDARD	TIS 11 PART 5-2553		

Number of core	Conductor		Class of conductor	Thickness of insulation	Thickness of sheath	Overall diameter		Insulation resistance at 90 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm²					Min.	Max.				
	Phase	Ground		mm	mm	mm	mm	MΩ.km (Min.)	A	kg/km (Approx)	m
2+G	0.75	0.75	5	0.6	0.8	6.0	7.6	0.011	16	74	100/C
	1	1	5	0.6	0.8	6.3	8.0	0.010	19	87	100/C
	1.5	1.5	5	0.7	0.9	7.4	9.4	0.010	24	120	100/C
	2.5	2.5	5	0.8	1.1	9.2	11.4	0.009	34	190	100/C
3+G	0.75	0.75	5	0.6	0.8	6.6	8.3	0.011	14	91	100/C
	1	1	5	0.6	0.9	7.1	9.0	0.010	16	110	100/C
	1.5	1.5	5	0.7	1.0	8.4	10.5	0.010	21	150	100/C
	2.5	2.5	5	0.8	1.1	10.1	12.5	0.009	28	230	100/C
4+G	0.75	0.75	5	0.6	0.9	7.4	9.3	0.011	14	110	100/C
	1	1	5	0.6	0.9	7.8	9.8	0.010	16	130	100/C
	1.5	1.5	5	0.7	1.1	9.3	11.6	0.010	21	190	100/C
	2.5	2.5	5	0.8	1.2	11.2	13.9	0.009	28	290	100/C

Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil

300/500 V 70 °C VAF

2 CORES - PVC INSULATED AND SHEATHED CABLE, FLAT TYPE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid or circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Light Blue, Brown)
3. Sheath : Polyvinyl chloride (PVC) (White colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for surface wiring. For installation in raceway. Do not install in conduit or burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Conductor			Thickness of sheath	Overall diameter		Insulation resistance at 70 °c	Current rating on wall	Cable weight	Standard length
Nominal Cross sectional area mm^2	Class of conductor	Thickness of insulation mm	mm	Min. mm	Max. mm	MΩ.km (Min.)	A	kg/km (Approx)	m
1	1	0.6	0.9	4.0 x 6.2	4.7 x 7.4	0.0110	14	50	100/C
1.5	1	0.7	0.9	4.4 x 7.0	5.4 x 8.4	0.0110	17	67	100/C
2.5	1	0.8	1.0	5.2 x 8.4	6.2 x 9.8	0.0100	23	100	100/C
4	2	0.8	1.1	5.6 x 9.6	7.2 x 11.5	0.0077	32	150	100/C
6	2	0.8	1.1	6.4 x 10.5	8.0 x 13.0	0.0065	41	200	100/C
10	2	1.0	1.2	7.8 x 13.0	9.6 x 16.0	0.0065	56	320	100/C
16	2	1.0	1.3	9.0 x 15.5	11.0 x18.5	0.0052	74	460	100/C

Class of conductor 1 : Solid
2 : Circular stranded annealed copper

C : Packing in coil

300/500V 70˚C VAF-G

2 CORES - PVC INSULATED AND SHEATHED CABLE, FLAT TYPE WITH GROUND

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid or circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Phase : Light Blue, Brown) (Ground : Green/Yellow)
3. Sheath : Polyvinyl chloride (PVC) (White colour)

CLASSIFICATION	Maximum conductor temperature 70˚C	Rated voltage 300/500 V	AC test voltage 2,000 V
APPLICATION	Use for surface wiring. For installation in raceway. Do not install in conduit or burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Conductor				Thickness of insulation mm		Thickness of sheath mm	Overall diameter		Insulation resistance at 70 °c MΩ.km (Min.)	Current rating on wall A	Cable weight kg/km (Approx)	Standard length m
Nominal Cross sectional area mm^2		Class of conductor					Min. mm	Max. mm				
Phase	Ground	Phase	Ground	Phase	Ground							
1	1	1	1	0.6	0.6	0.9	4.0 x 8.4	4.7 x 9.8	0.0110	14	73	100/C
1.5	1.5	1	1	0.7	0.7	0.9	4.4 x 9.8	5.4 x 11.5	0.0110	17	100	100/C
2.5	2.5	1	1	0.8	0.8	1.0	5.2 x 11.5	6.2 x 13.5	0.0100	23	150	100/C
4	4	2	2	0.8	0.8	1.1	5.8 x 13.4	7.4 x 16.5	0.0077	32	210	100/C
6	6	2	2	0.8	0.8	1.1	6.4 x 15.0	8.0 x 18.0	0.0065	41	300	100/C
10	10	2	2	1.0	1.0	1.2	7.8 x 19.0	9.6 x 22.5	0.0065	56	480	100/C
16	16	2	2	1.0	1.0	1.3	9.0 x 22.0	11.0 x26.5	0.0052	74	690	100/C

Class of conductor 1 : Solid
2 : Circular stranded annealed copper

C : Packing in coil

450/750 V 70 °C NYY

1-CORE PVC INSULATED AND SHEATHED CABLE, ROUND TYPE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid or circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Black colour)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. Laid on cable trays or cable ladder. Install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Conductor		Thickness of insulation	Thickness of sheath	Overall diameter	Insulation resistance at 70 °c	Current rating		Cable weight	Standard length
Nominal Cross sectional area mm²	Class of conductor	mm	mm	mm (Approx.)	MΩ.km (Min.)	Free air at 40 °c A	direct burial in ground A	kg/km (Approx)	m
1	1	1.5	1.8	8.6	0.0207	19	25	82	100/C
1	2	1.5	1.8	8.8	0.0200	19	25	85	100/C
1.5	1	1.5	1.8	9.0	0.0184	24	31	90	100/C
1.5	2	1.5	1.8	9.2	0.0175	24	31	94	100/C
2.5	1	1.5	1.8	9.4	0.0157	32	41	105	100/C
2.5	2	1.5	1.8	9.8	0.0146	32	41	110	100/C
4	1	1.5	1.8	10.0	0.0135	43	53	130	100/C
4	2	1.5	1.8	10.5	0.0124	43	53	130	100/C
6	2	1.5	1.8	11.0	0.0107	54	68	160	100/C
10	2	1.5	1.8	12.0	0.0088	73	79	220	500/D
16	2	1.5	1.8	13.0	0.0074	97	118	290	500/D
25	2	1.5	1.8	14.5	0.0061	129	153	400	500/D
35	2	1.5	1.8	16.0	0.0053	159	185	510	500/D
50	2	1.5	1.8	17.0	0.0046	191	220	650	500/D
70	2	1.5	1.8	19.0	0.0039	241	271	870	500/D
95	2	1.7	1.8	21.5	0.0038	297	326	1,170	500/D
120	2	1.7	1.8	23.0	0.0034	345	372	1,430	500/D
150	2	1.9	2.0	26.0	0.0034	397	418	1,760	500/D
185	2	2.1	2.0	28.0	0.0034	456	473	2,170	500/D
240	2	2.3	2.2	31.5	0.0033	541	549	2,830	500/D
300	2	2.5	2.2	35.0	0.0032	623	624	3,480	300/D
400	2	2.7	2.2	38.5	0.0030	741	713	4,400	300/D
500	2	3.1	2.4	43.0	0.0031	854	810	5,630	300/D

Class of conductor
1 : Solid
2 : Circular stranded annealed copper

C : Packing in coil
D : Packing in drum

450/750 V 70°C NYY

2 CORES - PVC INSULATED AND DOUBLE SHEATHED CABLE, ROUND TYPE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Light Blue, Brown)
3. Inner Sheath : Polyvinyl chloride (PVC) (Black colour)
4. Outer sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. Laid on cable trays or cable ladder. Install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Number of core	Conductor		Thickness of insulation	Thickness of inner sheath	Thickness of outer sheath	Overall diameter	Insulation resistance at 70 °c	Current rating		Cable weight	Standard length
	Nominal Cross sectional area mm^2	Class of conductor	mm	mm (Approx.)	mm	mm (Approx.)	MΩ.km (Min.)	Free air at 40 °c A	direct burial in ground A	kg/km (Approx)	m/drum
2	50	2	1.5	1.2	2.2	33.5	0.0046	160	195	1,850	500/D
	70	2	1.5	1.5	2.2	38.0	0.0039	200	249	2,500	500/D
	95	2	1.7	1.5	2.2	42.5	0.0038	245	288	3,300	500/D
	120	2	1.7	1.5	2.4	46.5	0.0034	285	329	4,010	500/D
	150	2	1.9	1.8	2.6	52.0	0.0034	325	368	4,970	300/D
	185	2	2.1	1.8	2.8	57.0	0.0034	374	417	6,110	300/D
	240	2	2.3	2.0	3.0	64.0	0.0033	440	481	7,900	300/D
	300	2	2.5	2.0	3.2	70.5	0.0032	505	541	9,690	200/D

Class of conductor 2 : Circular stranded annealed copper

D : Packing in drum

450/750 V 70 °C NYY

3 CORES - PVC INSULATED AND DOUBLE SHEATHED CABLE, ROUND TYPE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Brown, Black, Grey)
3. Inner Sheath : Polyvinyl chloride (PVC) (Black colour)
4. Outer sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. Laid on cable trays or cable ladder. Install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Number of core	Conductor		Thickness of insulation	Thickness of inner sheath	Thickness of outer sheath	Overall diameter	Insulation resistance at 70 °c	Current rating		Cable weight	Standard length
	Nominal Cross sectional area mm²	Class of conductor	mm	mm (Approx.)	mm	mm (Approx.)	MΩ.km (Min.)	Free air at 40 °c A	direct burial in ground A	kg/km (Approx)	m/drum
3	50	2	1.5	1.5	2.2	36.0	0.0046	156	181	2,410	500/D
	70	2	1.5	1.5	2.2	40.5	0.0039	174	223	3,200	500/D
	95	2	1.7	1.5	2.4	46.0	0.0038	213	267	4,300	500/D
	120	2	1.7	1.8	2.6	50.5	0.0034	247	304	5,320	300/D
	150	2	1.9	1.8	2.8	56.0	0.0034	284	342	6,490	300/D
	185	2	2.1	2.0	3.0	61.5	0.0034	325	386	8,060	300/D
	240	2	2.3	2.0	3.2	69.0	0.0033	384	448	10,360	200/D
	300	2	2.5	2.2	3.4	76.0	0.0032	438	507	12,810	200/D

Class of conductor 2 : Circular stranded annealed copper

D : Packing in drum

450/750 V 70 °C NYY

4 CORES - PVC INSULATED AND DOUBLE SHEATHED CABLE, ROUND TYPE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Light Blue, Brown, Black, Grey)
3. Inner Sheath : Polyvinyl chloride (PVC) (Black colour)
4. Outer sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. Laid on cable trays or cable ladder. Install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Number of core	Conductor		Thickness of insulation	Thickness of inner sheath	Thickness of outer sheath	Overall diameter	Insulation resistance at 70 °c	Current rating		Cable weight	Standard length
	Nominal Cross sectional area mm^2	Class of conductor	mm	mm (Approx.)	mm	mm (Approx.)	MΩ.km (Min.)	on cable ladder A	direct burial in ground A	kg/km (Approx)	m/drum
4	50	2	1.5	1.5	2.2	39.5	0.0046	136	181	3,020	500/D
	70	2	1.5	1.5	2.4	44.5	0.0039	174	223	4,090	500/D
	95	2	1.7	1.8	2.6	51.5	0.0038	213	267	5,580	300/D
	120	2	1.7	1.8	2.8	56.0	0.0034	247	304	6,800	300/D
	150	2	1.9	2.0	3.0	62.0	0.0034	284	342	8,360	300/D
	185	2	2.1	2.0	3.2	68.0	0.0034	325	386	10,310	200/D
	240	2	2.3	2.2	3.4	76.5	0.0033	384	448	13,350	200/D
	300	2	2.5	2.2	3.8	85.0	0.0032	438	507	16,500	200/D

Class of conductor 2 : Circular stranded annealed copper

D : Packing in drum

450/750 V 70 °C NYY-G

2 CORES - PVC INSULATED AND DOUBLE SHEATHED CABLE, ROUND TYPE WITH GROUND

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Phase : Light Blue, Brown) (Ground : Green/Yellow)
3. Inner Sheath : Polyvinyl chloride (PVC) (Black colour)
4. Outer sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. Laid on cable trays or cable ladder. Install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Number of core	Conductor				Thickness of Insulation mm		Thickness of inner sheath mm (Approx.)	Thickness of outer sheath mm	Overall diameter mm (Approx.)	Insulation resistance at 70 °c MΩ.km (Min.)	Current rating		Cable weight kg/km (Approx.)	Standard length m/drum
	Nominal cross Sectional area (mm^2)		Class of conductor								Free air at 40 °c A	direct burial in ground A		
	Phase	Ground	Phase	Ground	Phase	Ground								
2+G	25	16	2	2	1.3	1.1	1.2	2.0	28.0	0.0054	108	136	1,280	500/D
	35	16	2	2	1.3	1.1	1.2	2.0	30.0	0.0047	132	165	1,550	500/D
	50	25	2	2	1.5	1.3	1.2	2.2	34.0	0.0046	160	195	2,080	500/D
	70	35	2	2	1.5	1.3	1.5	2.2	38.5	0.0039	200	239	2,810	500/D
	95	50	2	2	1.7	1.5	1.5	2.2	43.5	0.0038	245	288	3,710	500/D
	120	70	2	2	1.7	1.5	1.5	2.4	47.5	0.0034	285	329	4,620	300/D
	150	95	2	2	1.9	1.7	1.8	2.6	53.0	0.0034	325	368	5,840	300/D
	185	95	2	2	2.1	1.7	1.8	2.8	57.5	0.0034	374	417	6,910	300/D
	240	120	2	2	2.3	1.7	2.0	3.0	64.5	0.0033	440	481	8,860	200/D
	300	150	2	2	2.5	1.9	2.0	3.2	71.0	0.0032	505	541	10,880	200/D

Class of conductor 2 : Circular stranded annealed copper

G : Ground Conductor
D : Packing in drum

450/750 V 70 °C NYY-G

3 CORES - PVC INSULATED AND DOUBLE SHEATHED CABLE, ROUND TYPE WITH GROUND

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Phase : Brown, Black, Grey) (Ground : Green/Yellow)
3. Inner Sheath : Polyvinyl chloride (PVC) (Black colour)
4. Outer sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. Laid on cable trays or cable ladder. Install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Number of core	Conductor				Thickness of Insulation mm		Thickness of inner sheath mm (Approx.)	Thickness of outer sheath mm	Overall diameter mm (Approx.)	Insulation resistance at 70 °c MΩ.km (Min.)	Current rating		Cable weight kg/Km (Approx.)	Standard length m/drum
	Nominal cross Sectional area (mm^2)		Class of conductor								Free air at 40 °c A	direct burial in ground A		
	Phase	Ground	Phase	Ground	Phase	Ground								
3+G	25	16	2	2	1.3	1.1	1.2	2.0	30.5	0.0054	94	117	1,620	500/D
	35	16	2	2	1.3	1.1	1.2	2.0	33.0	0.0047	115	141	1,990	500/D
	50	25	2	2	1.5	1.3	1.5	2.2	38.5	0.0046	136	164	2,730	500/D
	70	35	2	2	1.5	1.3	1.5	2.2	42.5	0.0039	174	205	3,630	500/D
	95	50	2	2	1.7	1.5	1.5	2.4	48.5	0.0038	213	245	4,870	500/D
	120	70	2	2	1.7	1.5	1.8	2.6	53.5	0.0034	247	279	6,120	300/D
	150	95	2	2	1.9	1.7	1.8	2.8	59.0	0.0034	284	315	7,610	300/D
	185	95	2	2	2.1	1.7	2.0	3.0	64.5	0.0034	325	355	9,130	300/D
	240	120	2	2	2.3	1.7	2.0	3.2	72.0	0.0033	384	411	11,660	200/D
	300	150	2	2	2.5	1.9	2.2	3.4	79.5	0.0032	438	462	14,410	200/D

Class of conductor 2 : Circular stranded annealed copper

G : Ground Conductor
D : Packing in drum

450/750 V 70 °C NYY-G

4 CORES - PVC INSULATED AND DOUBLE SHEATHED CABLE, ROUND TYPE WITH GROUND

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Phase : Light Blue, Brown, Black, Grey) (Ground : Green/Yellow)
3. Inner Sheath : Polyvinyl chloride (PVC) (Black colour)
4. Outer sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. Laid on cable trays or cable ladder. Install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Number of core	Conductor				Thickness of Insulation mm		Thickness of inner sheath mm (Approx.)	Thickness of outer sheath mm	Overall diameter mm (Approx.)	Insulation resistance at 70 °c MΩ.km (Min.)	Current rating		Cable weight kg/km (Approx.)	Standard length m/drum
	Nominal cross Sectional area (mm^2)		Class of conductor								Free air at 40 °c A	direct burial in ground A		
	Phase	Ground	Phase	Ground	Phase	Ground								
4+G	25	16	2	2	1.3	1.1	1.2	2.0	34.0	0.0054	94	117	1,990	500/D
	35	16	2	2	1.3	1.1	1.5	2.2	39.0	0.0047	115	141	2,570	500/D
	50	25	2	2	1.5	1.3	1.5	2.2	43.5	0.0046	136	164	3,390	500/D
	70	35	2	2	1.5	1.3	1.5	2.4	49.0	0.0039	174	205	4,570	500/D
	95	50	2	2	1.7	1.5	1.8	2.6	56.5	0.0038	213	245	6,230	300/D
	120	70	2	2	1.7	1.5	1.8	2.8	61.5	0.0034	247	279	7,700	300/D
	150	95	2	2	1.9	1.7	2.0	3.0	68.0	0.0034	284	315	9,610	300/D
	185	95	2	2	2.1	1.7	2.0	3.2	75.0	0.0034	325	355	11,530	200/D
	240	120	2	2	2.3	1.7	2.2	3.4	84.5	0.0033	384	411	14,840	200/D
	300	150	2	2	2.5	1.9	2.2	3.8	93.5	0.0032	438	462	18,340	150/D

Class of conductor 2 : Circular stranded annealed copper

G : Ground Conductor
D : Packing in drum

450/750 V 70 °C VCT

1-CORE PVC INSULATED AND SHEATHED CABLE, ROUND TYPE, FLEXIBLE CONDUCTOR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Black colour)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. Use for connecting electric appliance. Laid on cable trays . Install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Conductor		Thickness of insulation	Thickness of sheath	Overall diameter	Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
Nominal Cross sectional area mm^2	Class of conductor	mm	mm	mm (Approx.)	MΩ.km (Min.)	A	Kg/km (Approx)	m/drum
4	5	0.9	1.4	8.6	0.0084	41	93	100/C
6	5	0.9	1.4	9.4	0.0071	53	120	100/C
10	5	1.1	1.8	12.0	0.0068	74	210	500/D
16	5	1.1	1.8	13.5	0.0050	99	280	500/D
25	5	1.3	2.2	16.0	0.0048	129	420	500/D
35	5	1.3	2.2	17.5	0.0041	160	540	500/D

Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil
D : Packing in drum

450/750 V 70 °C VCT

2 CORES - PVC INSULATED AND SHEATHED CABLE ROUND TYPE, FLEXIBLE CONDUCTOR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Light Blue, Brown)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. Use for connecting electric appliance. Laid on cable trays . Install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Number of core	Conductor		Thickness of insulation	Thickness of sheath	Overall diameter	Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm^2	Class of conductor	mm	mm	mm (Approx.)	MΩ.km (Min.)	A	kg/km (Approx)	m/drum
2	4	5	0.9	1.6	14.5	0.0084	34	250	100/C
	6	5	0.9	1.6	16.0	0.0071	44	340	100/C
	10	5	1.1	1.8	20.0	0.0068	63	540	500/D
	16	5	1.1	2.2	23.0	0.0050	82	770	500/D
	25	5	1.3	2.4	27.5	0.0048	108	1,130	500/D
	35	5	1.3	2.6	31.0	0.0041	133	1,470	500/D

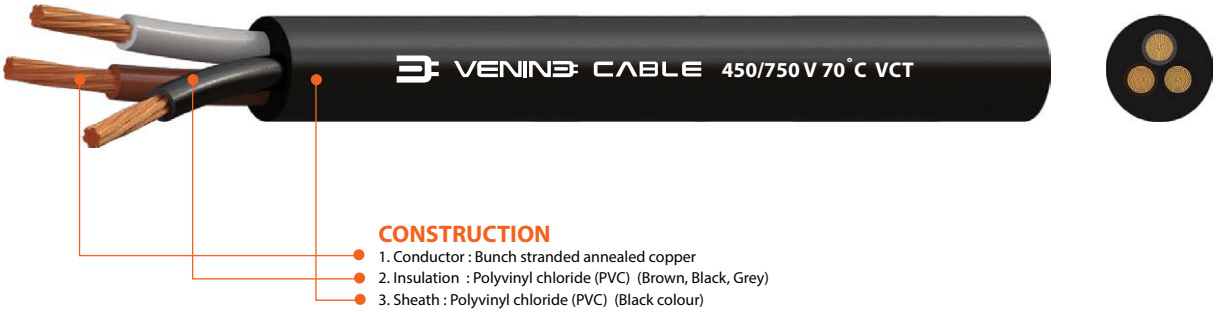
Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil
D : Packing in drum

450/750 V 70 °C VCT

3 CORES - PVC INSULATED AND SHEATHED CABLE ROUND TYPE, FLEXIBLE CONDUCTOR

VENINE สายไฟฟ้าวีนายน์



CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Brown, Black, Grey)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. Use for connecting electric appliance. Laid on cable trays . Install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Number of core	Conductor		Thickness of insulation	Thickness of sheath	Overall diameter	Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm^2	Class of conductor	mm	mm	mm (Approx.)	MΩ.km (Min.)	A	kg/km (Approx)	m/drum
3	4	5	0.9	1.6	15.5	0.0084	29	300	100/C
	6	5	0.9	1.8	17.5	0.0071	38	420	100/C
	10	5	1.1	2.0	21.5	0.0068	53	670	500/D
	16	5	1.1	2.4	25.0	0.0050	71	960	500/D
	25	5	1.3	2.6	30.0	0.0048	94	1,420	500/D
	35	5	1.3	2.8	33.5	0.0041	116	1,860	500/D

Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil
D : Packing in drum

450/750 V 70 °C VCT

4 CORES - PVC INSULATED AND SHEATHED CABLE ROUND TYPE, FLEXIBLE CONDUCTOR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Light Blue,Brown, Black, Grey)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. Use for connecting electric appliance. Laid on cable trays . Install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Number of core	Conductor		Thickness of insulation	Thickness of sheath	Overall diameter	Insulation resistance at 70 °c	Current rating in free air	Cable weight	Standard length
	Nominal Cross sectional area mm^2	Class of conductor	mm	mm	mm (Approx.)	MΩ.km (Min.)	A	kg/km (Approx)	m/drum
4	4	5	0.9	1.8	17.0	0.0084	25	380	100/C
	6	5	0.9	2.0	19.5	0.0071	38	540	100/C
	10	5	1.1	2.2	24.0	0.0068	53	860	500/D
	16	5	1.1	2.6	28.0	0.0050	71	1,220	500/D
	25	5	1.3	2.8	33.0	0.0048	94	1,800	500/D
	35	5	1.3	3.1	37.0	0.0041	116	2,380	500/D

Class of conductor 5 : Bunch stranded annealed copper

C : Packing in coil
D : Packing in drum

450/750 V 70 °C VCT-G

2 CORES - PVC INSULATED AND SHEATHED CABLE, ROUND TYPE FLEXIBLE CONDUCTOR WITH GROUND

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Phase : Light Blue, Brown) (Ground : Green/Yellow)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. Use for connecting electric appliance. Laid on cable trays . Install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Number of core	Conductor				Thickness of Insulation mm		Thickness of sheath mm (Approx.)	Overall diameter mm (Approx.)	Insulation resistance at 70 °c MΩ.km (Min.)	Current rating in free air A	Cable weight kg/km (Approx.)	Standard length m/drum
	Nominal cross Sectional area (mm^2)		Class of conductor									
	Phase	Ground	Phase	Ground	Phase	Ground						
2+G	4	4	0.31	0.31	0.9	0.9	1.6	15.5	0.0084	34	300	100/C
	6	6	0.31	0.31	0.9	0.9	1.8	17.5	0.0071	44	420	100/C
	10	10	0.41	0.41	1.1	1.1	2.0	21.5	0.0068	63	670	500/D
	16	16	0.41	0.41	1.1	1.1	2.4	25.0	0.0050	82	960	500/D
	25	16	0.41	0.41	1.3	1.1	2.6	28.5	0.0048	108	1,290	500/D
	35	16	0.41	0.41	1.3	1.1	2.8	31.5	0.0041	133	1,610	500/D

Class of conductor 5 : Bunch stranded annealed copper

G : Ground Conductor
C: Packing in coil
D : Packing in drum

450/750 V 70 °C VCT-G

3 CORES - PVC INSULATED AND SHEATHED CABLE, ROUND TYPE FLEXIBLE CONDUCTOR WITH GROUND

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Phase : Brown, Black, Grey) (Ground : Green/Yellow)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION

Maximum conductor temperature 70°C | Rated voltage 450/750 V | AC test voltage 2,500 V

APPLICATION

Use for general purpose.
Use for connecting electric appliance.
Laid on cable trays .
Install in duct in ground or direct burial in ground.

REFERENCE STANDARD

TIS 11 PART 101-2553

Number of core	Conductor				Thickness of Insulation mm		Thickness of sheath mm (Approx.)	Overall diameter mm (Approx.)	Insulation resistance at 70 °c MΩ.km (Min.)	Current rating in free air A	Cable weight kg/km (Approx.)	Standard length m/drum
	Nominal cross Sectional area (mm^2)		Class of conductor									
	Phase	Ground	Phase	Ground	Phase	Ground						
3+G	4	4	5	5	0.9	0.9	1.8	17.0	0.0084	29	380	100/C
	6	6	5	5	0.9	0.9	2.0	19.5	0.0071	38	540	100/C
	10	10	5	5	1.1	1.1	2.2	24.0	0.0068	53	860	500/D
	16	16	5	5	1.1	1.1	2.6	28.0	0.0050	71	1,220	500/D
	25	16	5	5	1.3	1.1	2.8	33.0	0.0048	94	1,670	500/D
	35	16	5	5	1.3	1.1	3.1	37.0	0.0041	116	2,110	500/D

Class of conductor 5 : Bunch stranded annealed copper

G : Ground Conductor
C: Packing in coil
D : Packing in drum

450/750 V 70 °C VCT-G

4 CORES - PVC INSULATED AND SHEATHED CABLE, ROUND TYPE FLEXIBLE CONDUCTOR WITH GROUND

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunch stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) (Phase : Light Blue, Brown, Black, Grey) (Ground : Green/Yellow)
3. Sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	Use for general purpose. Use for connecting electric appliance. Laid on cable trays . Install in duct in ground or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Number of core	Conductor				Thickness of Insulation mm		Thickness of sheath mm (Approx.)	Overall diameter mm (Approx.)	Insulation resistance at 70 °c MΩ.km (Min.)	Current rating in free air A	Cable weight kg/km (Approx.)	Standard length m/drum
	Nominal cross Sectional area (mm^2)		Class of conductor									
	Phase	Ground	Phase	Ground	Phase	Ground						
4+G	4	4	5	5	0.9	0.9	1.8	18.5	0.0084	29	460	100/C
	6	6	5	5	0.9	0.9	2.0	21.5	0.0071	38	650	100/C
	10	10	5	5	1.1	1.1	2.2	26.5	0.0068	53	1,030	500/D
	16	16	5	5	1.1	1.1	2.6	30.5	0.0050	71	1,480	500/D
	25	16	5	5	1.3	1.1	2.8	36.5	0.0048	94	2,050	500/D
	35	16	5	5	1.3	1.1	3.1	41.5	0.0041	116	2,630	500/D

Class of conductor 5 : Bunch stranded annealed copper

G : Ground Conductor
C: Packing in coil
D : Packing in drum

450/750 V 70 ° C NYCY

3 CORES - POLYVINYL CHLORIDE INSULATED AND DOUBLE SHEATHED, ROUND TYPE WITH CONCENTRIC CONDUCTOR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular stranded annealed copper
2. Insulation : Polyethylene chloride (PVC) (Brown, Black, Grey)
3. Inner sheath : Polyethylene chloride (PVC) (Black colour)
4. Concentric conductor : Copper wires with copper contact tape
5. Binding tape : Polyester tape and/or Spunbond tape
6. Outer sheath : Polyvinyl chloride (PVC)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 450/750 V	AC test voltage 2,500 V
APPLICATION	For installation exposed or in raceway, day or wet location or direct burial in ground.		
REFERENCE STANDARD	TIS 11 PART 101-2553		

Conductor		Thickness of Insulation	Thickness of inner sheath	Concentric Conductor		Thickness of outer sheath	Overall diameter	Insulation resistance at 70 °c	current rating		Cable weight	Standard length
Cross Sectional area	Number of wires			Cross Sectional area	Number & Diameter of wires				on cable lader	direct burial in ground		
mm^2	(Min.)	mm	mm (Approx.)	mm^2	No./mm	mm	mm (Approx.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	m/drum
25	7	1.3	1.2	16	32/0.80	2.0	29.5	0.0054	88	128	1,620	500
35	7	1.3	1.2	16	32/0.80	2.0	32.5	0.0047	110	154	2,020	500
50	19	1.5	1.5	25	50/0.80	2.2	37.0	0.0046	133	181	2,740	500
70	19	1.5	1.5	35	70/0.80	2.2	41.0	0.0039	171	223	3,640	300
95	19	1.7	1.5	50	69/0.96	2.4	46.5	0.0038	207	267	4,900	300
120	37	1.7	1.8	70	72/1.11	2.6	51.5	0.0034	240	304	6,130	200
150	37	1.9	1.8	95	68/1.33	2.8	56.5	0.0034	278	342	7,570	200
185	37	2.1	2.0	95	68/1.33	3.0	62.5	0.0034	317	386	9,160	150
240	37	2.3	2.0	120	67/1.51	3.2	70.0	0.0033	374	448	11,740	150
300	61	2.5	2.2	150	68/1.67	3.4	77.5	0.0032	432	507	14,520	100

CONSTRUCTION

1. Conductor : Circular stranded or circular compacted stranded annealed copper
2. Insulation : Cross-linked polyvinylene (XLPE) (Natural colour)
3. Sheath : Polyvinyl chloride (PVC) (Black colour) (Optional : FR-PVC)

CLASSIFICATION	Maximum conductor temperature 90°C	Maximum circuit voltage 1,000V	AC test voltage 3,500 V
APPLICATION	For general purpose power distribution in dry or wet location. Installation exposed in conduit or duct or direct burial in ground		
REFERENCE STANDARD	IEC 60502-1		

Conductor		Thickness of Insulation	Thickness of sheath	Overall diameter	DC conductor resistance at 20 °c	Insulation resistance at 20 °c	current rating		Cable weight	Standard length
Cross Sectional area	Number of wires						in free air at 40 °c ambient	direct burial in ground at 30 °c		
mm^2	No./mm	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	m/drum
1.5	7	0.7	1.4	6.50	12.1	2,550	27	33	50	500
2.5	7	0.7	1.4	7.00	7.41	2,100	38	43	60	500
4	7	0.7	1.4	7.50	4.61	1,700	51	56	80	500
6	7	0.7	1.4	8.00	3.08	1,450	66	71	110	500
10	6	0.7	1.4	9.00	1.83	1,250	92	94	150	500
16	6	0.7	1.4	9.50	1.15	1,000	124	120	210	500
25	6	0.9	1.4	11.50	0.727	1,050	166	155	310	500
35	6	0.9	1.4	12.50	0.524	900	206	185	410	500
50	6	1.0	1.4	14.00	0.387	850	259	225	550	500
70	12	1.1	1.4	15.50	0.268	800	321	275	750	500
95	15	1.1	1.5	17.50	0.193	700	391	330	1,020	500
120	18	1.2	1.5	19.50	0.153	650	455	375	1,270	500
150	18	1.4	1.6	21.50	0.124	700	525	425	1,560	500
185	30	1.6	1.6	23.50	0.0991	700	602	480	1,940	500
240	34	1.7	1.7	26.50	0.0754	650	711	560	2,520	500
300	34	1.8	1.8	29.00	0.0601	600	821	635	3,130	500
400	53	2.0	1.9	32.50	0.0470	600	988	725	3,980	500
500	53	2.2	2.0	36.50	0.0366	600	1,140	830	5,080	500
630	53	2.4	2.2	41.00	0.0283	550	1,323	945	6,540	400
800	53	2.6	2.3	45.50	0.0221	550	1,543	1,060	8,310	400

0.6/1 kV CV

2 CORES - CROSSLINKED POLYETHYLENE POWER CABLE

VENINE
สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular stranded or circular compacted stranded annealed copper
2. Insulation : Cross-linked polyvinylene (XLPE) (Light Blue, Brown)
3. Filler : Polyethylene (Non-hygroscopic material)
4. Binding tape : Polyester tape or Spunbond tape
5. Sheath : Polyvinyl chloride (PVC) (Black colour) (Optional : FR-PVC)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 1,000V	AC test voltage 3,500 V
APPLICATION	For general purpose power distribution in dry or wet location. Installation exposed in conduit or duct or direct burial in ground.		
REFERENCE STANDARD	IEC 60502-1		

Number of core	Conductor		Thickness of Insulation	Thickness of sheath	Overall diameter	conductor resistance at 20 °c	Insulation resistance at 20 °c	current rating		Cable weight	Standard length
	Cross Sectional area	Number of wires						in free air at 40 °c ambient	direct burial in ground at 30 °c		
	mm²	(Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	m/drum
2	1.5	7	0.7	1.8	11.0	12.1	2,550	27	33	120	500
	2.5	7	0.7	1.8	11.5	7.41	2,100	35	44	160	500
	4	7	0.7	1.8	12.5	4.61	1,700	46	58	200	500
	6	7	0.7	1.8	14.0	3.08	1,450	59	73	260	500
	10	6	0.7	1.8	15.0	1.83	1,250	79	97	360	500
	16	6	0.7	1.8	17.0	1.15	1,000	106	125	510	500
	25	6	0.9	1.8	20.5	0.727	1,050	141	165	760	500
	35	6	0.9	1.8	22.5	0.524	900	173	195	1,000	500
	50	6	1.0	1.8	26.0	0.387	850	213	235	1,330	500
	70	12	1.1	1.8	29.5	0.268	800	268	290	1,820	500
	95	15	1.1	1.9	33.0	0.193	700	329	350	2,440	500
	120	18	1.2	2.0	36.5	0.153	650	381	400	3,060	500
	150	18	1.4	2.1	40.5	0.124	700	456	450	3,750	500
	185	30	1.6	2.3	45.0	0.0991	700	503	505	4,700	400
	240	34	1.7	2.5	51.0	0.0754	650	593	585	6,110	300
	300	34	1.8	2.6	56.0	0.0601	600	676	665	7,550	250
	400	53	2.0	2.9	63.5	0.0470	600	812	750	9,630	200

0.6/1 kV CV

3 CORES - CROSSLINKED POLYETHYLENE POWER CABLE

VENINE
สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular stranded or circular compacted stranded annealed copper
2. Insulation : Cross-linked polyvinylene (XLPE) (Brown, Black, Grey)
3. Filler : Polyethylene (Non-hygroscopic material)
4. Binding tape : Polyester tape or Spunbond tape
5. Sheath : Polyvinyl chloride (PVC) (Black colour) (Optional : FR-PVC)

CLASSIFICATION	Maximum conductor temperature 90°C	Maximum circuit voltage 1,000V	AC test voltage 3,500 V
APPLICATION	For general purpose power distribution in dry or wet location. Installation exposed in conduit or duct or direct burial in ground.		
REFERENCE STANDARD	IEC 60502-1		

Number of core	Conductor		Thickness of Insulation	Thickness of sheath	Overall diameter	conductor resistance at 20 °c	Insulation resistance at 20 °c	current rating		Cable weight	Standard length
	Cross Sectional area	Number of wires						in free air at 40 °c ambient	direct burial in ground at 30 °c		
	mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	m/drum
3	1.5	7	0.7	1.8	11.5	12.1	2,550	22	28	140	500
	2.5	7	0.7	1.8	12.0	7.41	2,100	29	37	190	500
	4	7	0.7	1.8	13.5	4.61	1,700	39	49	250	500
	6	7	0.7	1.8	14.5	3.08	1,450	49	61	330	500
	10	6	0.7	1.8	16.0	1.83	1,250	66	82	470	500
	16	6	0.7	1.8	18.0	1.15	1,000	88	105	670	500
	25	6	0.9	1.8	21.5	0.727	1,050	118	135	1,020	500
	35	6	0.9	1.8	24.0	0.524	900	145	165	1,350	500
	50	6	1.0	1.8	27.5	0.387	850	176	200	1,800	500
	70	12	1.1	1.9	31.5	0.268	800	224	245	2,500	500
	95	15	1.1	2.0	35.5	0.193	700	271	295	3,370	500
	120	18	1.2	2.1	39.5	0.153	650	320	335	4,220	500
	150	18	1.4	2.2	43.5	0.124	700	363	380	5,190	400
	185	30	1.6	2.4	48.5	0.0991	700	422	425	6,490	400
	240	34	1.7	2.6	55.0	0.0754	650	498	495	8,440	300
	300	34	1.8	2.7	60.5	0.0601	600	565	560	10,470	250
	400	53	2.0	3.0	68.0	0.0470	600	652	630	13,350	200

0.6/1 kV CV

4 CORES - CROSSLINKED POLYETHYLENE POWER CABLE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular stranded or circular compacted stranded annealed copper
2. Insulation : Cross-linked polyvinylene (XLPE) (Light Blue, Brown, Black, Grey)
3. Filler : Polyethylene (Non-hygroscopic material)
4. Binding tape : Polyester tape or Spunbond tape
5. Sheath : Polyvinyl chloride (PVC) (Black colour) (Optional : FR-PVC)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 1,000V	AC test voltage 3,500 V
APPLICATION	For general purpose power distribution in dry or wet location. Installation exposed in conduit or duct or direct burial in ground.		
REFERENCE STANDARD	IEC 60502-1		

Number of core	Conductor		Thickness of Insulation	Thickness of sheath	Overall diameter	conductor resistance at 20 °c	Insulation resistance at 20 °c	current rating		Cable weight	Standard length
	Cross Sectional area	Number of wires						in free air at 40 °c ambient	direct burial in ground at 30 °c		
	mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	m/drum
4	1.5	7	0.7	1.8	12	12.1	2,550	22	28	170	500
	2.5	7	0.7	1.8	13	7.41	2,100	29	37	230	500
	4	7	0.7	1.8	15	4.61	1,700	38	49	300	500
	6	7	0.7	1.8	16	3.08	1,450	49	61	410	500
	10	6	0.7	1.8	18	1.83	1,250	66	82	590	500
	16	6	0.7	1.8	20	1.15	1,000	88	105	860	500
	25	6	0.9	1.8	24	0.727	1,050	116	135	1,300	500
	35	6	0.9	1.8	27	0.524	900	144	165	1,740	500
	50	6	1.0	1.8	31	0.387	850	176	200	2,320	500
	70	12	1.1	2.0	35	0.268	800	224	245	3,250	500
	95	15	1.1	2.1	39	0.193	700	271	295	4,390	500
	120	18	1.2	2.3	44	0.153	650	320	335	5,520	400
	150	18	1.4	2.4	49	0.124	700	363	380	6,780	400
	185	30	1.6	2.6	54	0.0991	700	422	425	8,480	300
	240	34	1.7	2.8	61	0.0754	650	498	495	11,040	200
	300	34	1.8	3.0	68	0.0601	600	565	560	13,720	150
	400	53	2.0	3.3	76	0.0470	600	652	630	17,490	150

0.6/1 kV CV-AWA

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular stranded or circular compacted stranded annealed copper
2. Insulation : Cross-linked polyvinylene (XLPE) (Natural colour)
3. Inner sheath : Polyethylene chloride (PVC) (Black colour)
4. Armour : Aluminium wires
5. Binding tape : Polyester tape and/or Spunbond tape
6. Outer sheath : Polyvinyl chloride (PVC) (Black colour) (Optional : FR-PVC)

CLASSIFICATION	Maximum conductor temperature 90°C	Maximum circuit voltage 1,000V	AC test voltage 3,500 V
APPLICATION	For general purpose power distribution in dry or wet location, best suitable for direct burial in ground		
REFERENCE STANDARD	IEC 60502-1		

Conductor		Thickness of Insulation	Thickness of inner sheath	Diameter under armour	Diameter of wire armour	Thickness of outer sheath	Overall diameter	conductor resistance at 20 °c	current rating		Cable weight	Standard length
Cross Sectional area	Number of wires								in free air at 40 °c ambient	direct burial in ground at 30 °c		
mm^2	(Min.)	mm (Nominal)	mm (Approx.)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	A	kg/km (Approx.)	m/drum
1.5	7	0.7	1.0	5.5	0.8	1.8	11.5	12.1	28	34	150	500
2.5	7	0.7	1.0	6.0	0.8	1.8	12.0	7.41	37	45	170	500
4	7	0.7	1.0	6.5	0.8	1.8	12.5	4.61	49	58	190	500
6	7	0.7	1.0	7.0	0.8	1.8	13.0	3.08	61	73	220	500
10	6	0.7	1.0	8.0	0.8	1.8	13.5	1.83	82	96	270	500
16	6	0.7	1.0	9.0	0.8	1.8	14.5	1.15	105	120	350	500
25	6	0.9	1.0	10.5	0.8	1.8	16.5	0.727	140	160	470	500
35	6	0.9	1.0	11.5	1.3	1.8	18.5	0.524	175	190	630	500
50	6	1.0	1.0	13.0	1.3	1.8	20.0	0.387	210	225	790	500
70	12	1.1	1.0	15.0	1.3	1.8	21.5	0.268	265	280	1,020	500
95	15	1.1	1.0	16.5	1.6	1.8	24.0	0.193	325	335	1,360	500
120	18	1.2	1.0	18.0	1.6	1.8	26.0	0.153	380	385	1,640	500
150	18	1.4	1.0	20.0	1.6	1.8	27.5	0.124	430	430	1,960	500
185	30	1.6	1.0	22.0	1.6	1.8	30.0	0.0991	495	485	2,370	500
240	34	1.7	1.0	25.0	1.6	1.9	33.0	0.0754	585	565	3,000	500
300	34	1.8	1.0	27.5	2.0	2.0	36.5	0.0601	675	640	3,750	500
400	53	2.0	1.2	31.0	2.0	2.2	40.5	0.0470	770	730	4,720	500
500	53	2.2	1.2	34.5	2.0	2.3	44.5	0.0366	880	830	5,910	400
630	53	2.4	1.2	38.5	2.5	2.4	49.5	0.0283	985	940	7,590	400
800	53	2.6	1.4	43.5	2.5	2.6	55.0	0.0221	1,085	1,050	9,550	300

0.6/1 kV CV-SWA

2 CORES - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular stranded or circular compacted stranded annealed copper
2. Insulation : Cross-linked polyvinylene (XLPE) (Light Blue, Brown)
3. Filler : Polyethylene (Non-hygroscopic material)
4. Binding tape : Polyester tape and /or Spunbond tape
5. Inner sheath : Polyvinyl chloride (PVC) (Black colour)
6. Armour : Galvanized steel wires
7. Binding tape : Polyester tape and /or Spunbond tape
8. Outer sheath : Polyvinyl chloride (PVC) (Black colour) (Optional : FR-PVC)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 1,000V	AC test voltage 3,500 V
APPLICATION	For general purpose power distribution in dry or wet location, best suitable for direct burial in ground		
REFERENCE STANDARD	IEC 60502-1		

Number of core	Conductor		Thickness of Insulation	Thickness of inner sheath	Diameter under armour	Diameter of wire armour	Thickness of outer sheath	Overall diameter	conductor resistance at 20 °c	current rating		Cable weight	Standard length
	Cross Sectional area	Number of wires								in free air at 40 °c ambient	direct burial in ground at 30 °c		
	mm²	(Min.)	mm (Nominal)	mm (Approx.)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	A	kg/km (Approx.)	m/drum
2	1.5	7	0.7	1.0	9.0	0.8	1.8	15.0	12.1	26	33	340	500
	2.5	7	0.7	1.0	10.0	0.8	1.8	15.5	7.41	35	44	390	500
	4	7	0.7	1.0	11.0	1.3	1.8	17.5	4.61	46	57	560	500
	6	7	0.7	1.0	12.0	1.3	1.8	19.0	3.08	59	72	660	500
	10	6	0.7	1.0	13.5	1.3	1.8	20.0	1.83	80	96	800	500
	16	6	0.7	1.0	15.0	1.3	1.8	22.0	1.15	105	125	1,000	500
	25	6	0.9	1.0	18.5	1.6	1.8	26.5	0.727	140	160	1,520	500
	35	6	0.9	1.0	20.5	1.6	1.8	28.5	0.524	170	195	1,830	500
	50	6	1.0	1.0	24.0	1.6	1.9	32.0	0.387	210	235	2,310	500
	70	12	1.1	1.0	27.5	2.0	2.1	36.5	0.268	260	285	3,180	500
	95	15	1.1	1.2	31.5	2.0	2.2	40.5	0.193	320	345	4,020	500
	120	18	1.2	1.2	35.0	2.0	2.3	44.5	0.153	370	390	4,820	400
	150	18	1.4	1.2	38.5	2.5	2.4	49.5	0.124	420	435	6,110	400
	185	30	1.6	1.4	43.0	2.5	2.6	54.5	0.0991	480	490	7,390	300
	240	34	1.7	1.4	48.5	2.5	2.8	60.5	0.0754	560	565	9,090	250
	300	34	1.8	1.6	54.0	2.5	2.9	66.0	0.0601	635	630	10,930	150
	400	53	2.0	1.6	60.5	2.5	3.2	73.0	0.0470	725	705	13,400	100

0.6/1 kV CV-SWA

3 CORES-CROSSLINKED POLYETHYLENG POWER CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular stranded or circular compacted stranded annealed copper
2. Insulation : Cross-linked Polyethylene (XLPE)
   Colour code : Brown, Black, Grey
3. Filler : Polyethylene (Non-hygroscopic material)
4. Binding tape : Polyester tape and/or Spunbond tape
5. Inner sheath : Polyvinyl chloride (PVC), Black colour
6. Armour : Galvanized steel wires
7. Binding tape : Polyester tape and/or Spunbond tape
8. Outer sheath : Polyvinyl chloride (PVC), Black colour (Optional : FR-PVC)

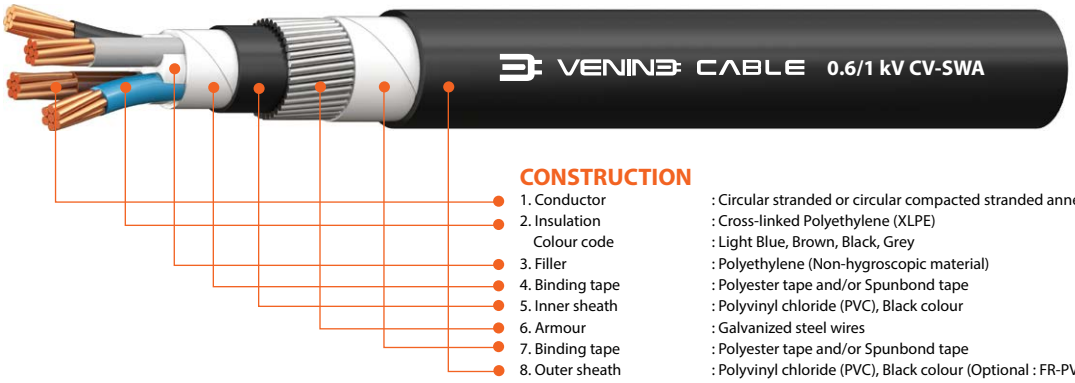
CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 1,000 V	AC test voltage 3,500 V
APPLICATION	For general purpose power distribution in dry or wet locaton, best suitable for direct burial in ground.		
REFERENCE STANDARD	IEC 60502-1		

Conductor		Thickness of insulation	Thickness of inner sheath	Diameter under armour	Diameter of wires armour	Thickness of outer sheath	Overall diameter	Conductor resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires								in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Approx.)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	A	kg/km (Approx.)	m/drum
1.5	7	0.7	1.0	9.5	0.8	1.8	15.5	12.1	22	28	370	500
2.5	7	0.7	1.0	10.5	0.8	1.8	16.5	7.41	29	38	440	500
4	7	0.7	1.0	11.5	1.3	1.8	18.5	4.61	39	49	630	500
6	7	0.7	1.0	13.0	1.3	1.8	19.5	3.08	50	62	750	500
10	6	0.7	1.0	14.0	1.3	1.8	21.0	1.83	67	83	930	500
16	6	0.7	1.0	16.5	1.6	1.8	23.5	1.15	89	105	1,320	500
25	6	0.9	1.0	20.0	1.6	1.8	27.5	0.727	120	140	1,810	500
35	6	0.9	1.0	22.0	1.6	1.9	30.0	0.524	145	170	2,250	500
50	6	1.0	1.0	26.0	1.6	2.0	34.0	0.387	175	200	2,850	500
70	12	1.1	1.2	30.0	2.0	2.1	39.0	0.268	220	245	3,990	500
95	15	1.1	1.2	33.5	2.0	2.2	43.0	0.193	275	295	5,050	400
120	18	1.2	1.2	37.5	2.5	2.4	48.0	0.153	315	335	6,490	400
150	18	1.4	1.4	41.5	2.5	2.5	52.5	0.124	360	375	7,780	300
185	30	1.6	1.4	46.5	2.5	2.7	58.0	0.0991	410	420	9,370	250
240	34	1.7	1.6	52.5	2.5	2.9	64.5	0.0754	480	480	11,770	200
300	34	1.8	1.6	58.0	2.5	3.1	70.5	0.0601	550	535	14,120	150
400	53	2.0	1.6	64.5	3.2	3.4	79.5	0.0470	625	595	18,330	100

0.6/1 kV CV-SWA

4 CORES-CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์



CONSTRUCTION

1. Conductor	: Circular stranded or circular compacted stranded annealed copper
2. Insulation	: Cross-linked Polyethylene (XLPE)
Colour code	: Light Blue, Brown, Black, Grey
3. Filler	: Polyethylene (Non-hygroscopic material)
4. Binding tape	: Polyester tape and/or Spunbond tape
5. Inner sheath	: Polyvinyl chloride (PVC), Black colour
6. Armour	: Galvanized steel wires
7. Binding tape	: Polyester tape and/or Spunbond tape
8. Outer sheath	: Polyvinyl chloride (PVC), Black colour (Optional : FR-PVC)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 1,000 V	AC test voltage 3,500 V
APPLICATION	For general purpose power distribution in dry or wet locaton, best suitable for direct burial in ground.		
REFERENCE STANDARD	IEC 60502-1		

Conductor			Thickness of insulation	Thickness of inner sheath	Diameter under armour	Diameter of wires armour	Thickness of outer sheath	Overall diameter	DC. Conductor resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	No. of wires	Diameter								in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Approx.)	mm (Nominal)	mm (Approx.)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	A	kg/km (Approx.)	m/drum
1.5	7	1.53	0.7	1.0	10.0	0.8	1.8	16.0	12.1	22	28	420	500
2.5	7	1.98	0.7	1.0	11.5	1.3	1.8	18.0	7.41	29	38	610	500
4	7	2.49	0.7	1.0	12.5	1.3	1.8	19.5	4.61	39	49	720	500
6	7	3.09	0.7	1.0	14.0	1.3	1.8	21.0	3.08	50	62	870	500
10	6	3.72	0.7	1.0	15.5	1.3	1.8	22.5	1.83	67	83	1,090	500
16	6	4.69	0.7	1.0	18.0	1.6	1.8	25.5	1.15	89	105	1,570	500
25	6	5.90	0.9	1.0	22.0	1.6	1.8	29.5	0.727	120	140	2,170	500
35	6	6.95	0.9	1.0	24.5	1.6	1.9	32.5	0.524	145	170	2,740	500
50	6	8.33	1.0	1.0	28.5	2.0	2.1	38.0	0.387	175	200	3,740	500
70	12	9.73	1.1	1.2	33.0	2.0	2.2	42.5	0.268	220	245	4,900	400
95	15	11.43	1.1	1.2	37.0	2.5	2.4	48.0	0.193	275	295	6,660	400
120	18	12.95	1.2	1.4	42.0	2.5	2.6	53.0	0.153	315	335	8,120	300
150	18	14.27	1.4	1.4	46.0	2.5	2.7	58.0	0.124	360	375	9,620	250
185	30	15.98	1.6	1.6	52.0	2.5	2.9	64.0	0.0991	410	420	11,750	200
240	34	18.47	1.7	1.6	58.5	2.5	3.1	71.0	0.0754	480	480	14,710	100
300	34	20.68	1.8	1.6	64.5	3.2	3.3	78.5	0.0601	550	535	18,660	100
400	53	23.39	2.0	1.8	72.5	3.2	3.6	87.5	0.0470	625	595	23,100	100

0.6/1 kV NYY-SWA

2 CORES-PVC INSULATED AND DOUBLE SHEATHED, ROUND TYPE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid or circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC)
   Colour code : Light Blue, Brown
3. Inner covering : Polyvinyl chloride (PVC), Black colour
4. Armour : Galvanized steel wires
5. Binding tape : Polyvinyl tape and/or Spunbond tape
6. Outer sheath : Polyvinyl chloride (PVC), Black colour

CLASSIFICATION	Maximum conductor temperature 70˚C	Maximum circuit voltage 1,000 V	AC test voltage 3,500 V
APPLICATION	For installation in underground or direct burial in ground.		
REFERENCE STANDARD	IEC 60502-1		

Conductor			Thickness of insulation	Thickness of inner covering	Diameter under armour	Diameter of wires armour	Thickness of outer sheath	Overall diameter	DC. Conductor resistance at 20˚C	Current ratin	Cable weight	Standard length
Cross Sectional area	number wires	Diameter								in free air at 40˚C ambient		
mm^2	(Min.)	mm (Approx.)	mm (Nominal)	mm (Approx.)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	kg/km (Approx.)	m/drum
1.5	1	1.36	0.8	1.0	9.0	0.8	1.8	15.0	12.1	20	380	500
1.5	7	1.53	0.8	1.0	9.0	0.8	1.8	15.0	12.1	20	400	500
2.5	1	1.75	0.8	1.0	9.5	0.8	1.8	15.5	7.41	27	440	500
2.5	7	1.98	0.8	1.0	10.0	0.8	1.8	16.0	7.41	27	460	500
4	1	2.21	1.0	1.0	11.5	1.3	1.8	18.5	4.61	36	670	500
4	7	2.49	1.0	1.0	12.0	1.3	1.8	19.0	4.61	36	710	500
6	7	3.09	1.0	1.0	13.5	1.3	1.8	20.0	3.08	46	820	500
10	7	3.99	1.0	1.0	15.0	1.3	1.8	22.0	1.83	63	1,000	500
16	7	5.01	1.0	1.0	17.0	1.3	1.8	24.0	1.15	84	1,240	500
25	7	6.30	1.2	1.0	20.5	1.6	1.8	28.5	0.727	110	1,840	500
35	7	7.55	1.2	1.0	23.0	1.6	1.8	31.0	0.524	135	2,220	500
50	19	8.75	1.4	1.0	26.5	1.6	1.9	34.5	0.387	165	2,750	500
70	19	10.50	1.4	1.0	30.0	2.0	2.1	39.0	0.268	205	3,750	500
95	19	12.35	1.6	1.2	35.0	2.0	2.2	44.5	0.193	250	4,820	400
120	37	13.93	1.6	1.2	38.0	2.0	2.3	48.0	0.153	290	5,660	400
150	37	15.47	1.8	1.2	42.0	2.5	2.5	53.5	0.124	330	7,170	300
185	37	17.29	2.0	1.4	47.0	2.5	2.6	58.5	0.0991	375	8,640	250
240	37	19.89	2.2	1.4	53.5	2.5	2.8	65.0	0.0754	435	10,680	200
300	61	22.23	2.4	1.6	59.5	2.5	3.0	71.5	0.0601	495	12,890	100
400	61	25.20	2.6	1.6	66.0	2.5	3.2	79.0	0.0470	560	15,780	100

0.6/1 kV NYY-SWA

3 CORES - PVC INSULATED AND DOUBLE SHEATHED, ROUND TYPE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Solid or circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC)
   Colour code : Brown, black,grey
3. Inner covering: Polyvinyl chloride (PVC), Black colour
4. Armour: Galvanized steel wires
5. Binding tape: Polyvinyl tape and/or Spunbond tape
6. Outer sheath: Polyvinyl chloride (PVC), Black colour

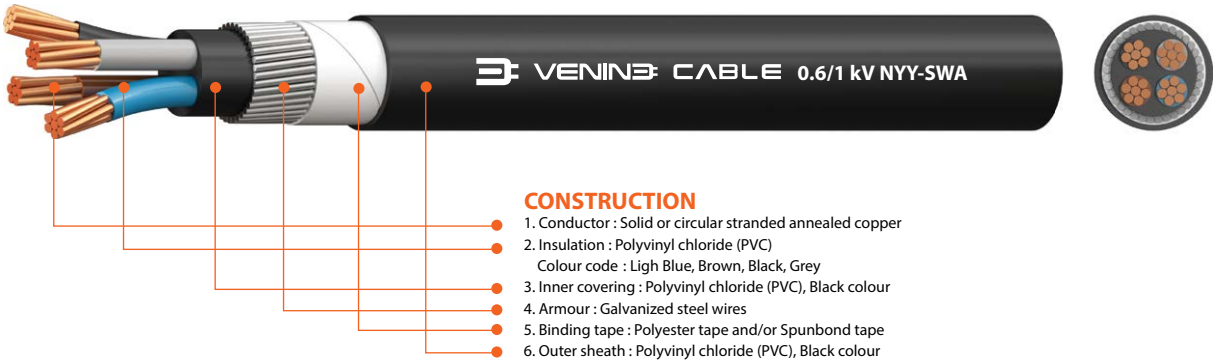
CLASSIFICATION	Maximum conductor temperature 70˚C	Maximum circuit voltage 1,000 V	AC test voltage 3,500 V
APPLICATION	For installation in underground or direct burial in ground.		
REFERENCE STANDARD	IEC 60502-1		

Conductor			Thickness of insulation	Thickness of inner covering	Diameter under armour	Diameter of wires armour	Thickness of outer sheath	Overall diameter	DC. Conductor resistance at 20˚C	Current rating in free air at 40˚C ambient	Cable weight	Standard length
Cross Sectional area mm²	of wires (Min.)	Diameter mm (Approx.)	mm (Nominal)	mm (Approx.)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	kg/km (Approx.)	m/drum
1.5	1	1.36	0.8	1.0	9.5	0.8	1.8	15.5	12.1	17	420	500
1.5	7	1.53	0.8	1.0	10.0	0.8	1.8	15.5	12.1	17	430	500
2.5	1	1.75	0.8	1.0	10.5	0.8	1.8	16.0	7.41	23	480	500
2.5	7	1.98	0.8	1.0	11.0	0.8	1.8	16.5	7.41	23	510	500
4	1	2.21	1.0	1.0	12.0	1.3	1.8	19.0	4.61	31	740	500
4	7	2.49	1.0	1.0	13.0	1.3	1.8	19.5	4.61	31	780	500
6	7	3.09	1.0	1.0	14.0	1.3	1.8	21.0	3.08	39	920	500
10	7	3.99	1.0	1.0	16.0	1.3	1.8	23.0	1.83	54	1,150	500
16	7	5.01	1.0	1.0	18.5	1.6	1.8	26.0	1.15	72	1,600	500
25	7	6.30	1.2	1.0	22.0	1.6	1.8	30.0	0.727	95	2,160	500
35	7	7.55	1.2	1.0	25.0	1.6	1.9	32.5	0.524	115	2,660	500
50	19	8.75	1.4	1.0	28.5	2.0	2.0	37.5	0.387	140	3,580	500
70	19	10.50	1.4	1.2	32.5	2.0	2.1	42.0	0.268	175	4,610	400
95	19	12.35	1.6	1.2	37.5	2.0	2.3	47.5	0.193	215	5,910	400
120	37	13.93	1.6	1.2	41.0	2.5	2.4	52.0	0.153	250	7,440	300
150	37	15.47	1.8	1.4	46.0	2.5	2.6	57.0	0.124	285	8,920	250
185	37	17.29	2.0	1.4	50.5	2.5	2.7	62.5	0.0991	325	10,660	200
240	37	19.89	2.2	1.6	58.0	2.5	2.9	70.0	0.0754	380	13,410	150
300	61	22.23	1.4	1.6	64.0	2.5	3.1	76.5	0.0601	430	16,140	100
400	61	25.20	2.6	1.8	71.5	3.2	3.4	86.0	0.0470	485	21,000	100

0.6/1 kV NYY-SWA

4 CORES - PVC INSULATED AND DOUBLE SHEATHED, ROUND TYPE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์



CONSTRUCTION

1. Conductor : Solid or circular stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC)
   Colour code : Ligh Blue, Brown, Black, Grey
3. Inner covering : Polyvinyl chloride (PVC), Black colour
4. Armour : Galvanized steel wires
5. Binding tape : Polyester tape and/or Spunbond tape
6. Outer sheath : Polyvinyl chloride (PVC), Black colour

CLASSIFICATION	Maximum conductor temperature 70˚C	Maximum circuit voltage 1,000 V	AC test voltage 3,500 V
APPLICATION	For installation exposed or in raceway, dry or wet location or direct burial in ground.		
REFERENCE STANDARD	IEC 60502-1		

Conductor			Thickness of insulation	Thickness of inner covering	Diameter under armour	Diameter of wire armour	Thickness of outer sheath	Overall diameter	DC. Conductor resistance at 20˚C	Current rating in free air at 40˚C ambient	Cable weight	Standard length
Cross Sectional area mm²	of wires (Min.)	Diameter mm (Approx.)	mm (Nominal)	mm (Approx.)	mm (Approx.)	mm (Approx.)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	kg/km (Approx.)	m/drum
1.5	1	1.36	0.8	1.0	10.0	0.8	1.8	16.0	12.1	17	470	500
1.5	7	1.53	0.8	1.0	10.5	0.8	1.8	16.5	12.1	17	490	500
2.5	1	1.75	0.8	1.0	11.0	1.3	1.8	18.0	7.41	23	660	500
2.5	7	1.98	0.8	1.0	11.5	1.3	1.8	18.5	7.41	23	700	500
4	1	2.21	1.0	1.0	13.5	1.3	1.8	20.0	4.61	31	850	500
4	7	2.49	1.0	1.0	14.0	1.3	1.8	21.0	4.61	31	900	500
6	7	3.09	1.0	1.0	15.5	1.3	1.8	22.5	3.08	39	1,060	500
10	7	3.99	1.0	1.0	17.5	1.6	1.8	25.5	1.83	54	1,490	500
16	7	5.01	1.0	1.0	20.0	1.6	1.8	28.0	1.15	72	1,890	500
25	7	6.30	1.2	1.0	24.5	1.6	1.9	32.5	0.727	95	2,590	500
35	7	7.55	1.2	1.0	27.5	1.6	2.0	35.5	0.524	115	3,220	500
50	19	8.75	1.4	1.2	32.0	2.0	2.1	41.0	0.387	140	4,400	400
70	19	10.50	1.4	1.2	36.0	2.0	2.3	46.0	0.268	175	5,640	400
95	19	12.35	1.6	1.2	42.0	2.5	2.5	53.0	0.193	215	7,750	300
120	37	13.39	1.6	1.4	46.0	2.5	2.6	57.5	0.153	250	9,220	250
150	37	15.47	1.8	1.4	51.0	2.5	2.7	62.5	0.124	285	10,950	200
185	37	17.29	2.0	1.6	57.0	2.5	2.9	69.0	0.0991	325	13,300	150
240	37	19.89	2.2	1.6	64.5	2.5	3.1	77.0	0.0754	380	16,660	100
300	61	22.23	2.4	1.6	71.0	3.2	3.4	85.5	0.0601	430	21,120	100
400	61	25.20	2.6	1.8	80.0	3.2	3.7	95.0	0.0470	485	26,170	100

0.6/1 kV NYCY

3 CORES - POLYVINYL CHLORIDE INSULATED AND DOUBLE SHEATHED, ROUND TYPE WITH CONCENTRIC CONDUCTOR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular stranded annealed copper
2. Insulation : Polyethylene chloride (PVC) (Black, Brown, Grey)
3. Inner covering : Polyethylene chloride (PVC) (Black colour)
4. Concentric conductor : Copper wires with copper contact tape
5. Binding tape : Polyester tape and/or Spunbond tape
6. Outer sheath : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Rated voltage 1,000V	AC test voltage 3,500 V
APPLICATION	For installation exposed or in raceway, dry or wet location or direct burial in ground.		
REFERENCE STANDARD	IEC 60502-1		

Conductor			Thickness of Insulation	Thickness of inner covering	Diameter over inner covering	Concentric Conductor		Thickness of outer sheath	Overall diameter	DC. conductor resistance at 20 °c	Current rating in free air at 40 °c ambient	Cable weight	Standard length
Cross Sectional area mm²	Number of wires (Min.)	Diameter mm (Approx.)	mm (Nominal)	mm (Approx.)	mm (Approx.)	Cross Sectional area mm²	Number & Diameter of wires No./mm	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	kg/km (Approx.)	m/drum
1.5	7	1.53	0.8	1.0	10.0	1.5	21/0.30	1.8	14.5	12.1	17	270	500
2.5	7	1.98	0.8	1.0	11.0	2.5	20/0.40	1.8	16.0	7.41	22	340	500
4	7	2.49	1.0	1.0	13.0	4	20/0.50	1.8	18.0	4.61	30	460	500
6	7	3.09	1.0	1.0	14.0	6	18/0.66	1.8	19.5	3.08	38	590	500
10	7	3.99	1.0	1.0	16.0	10	20/0.80	1.8	22.0	1.83	50	810	500
16	7	5.01	1.0	1.0	18.5	16	32/0.80	1.8	24.5	1.15	65	1,120	500
25	7	6.30	1.2	1.0	22.0	16	32/0.80	1.8	28.0	0.727	90	1,540	500
35	7	7.55	1.2	1.0	25.0	16	32/0.80	1.8	31.0	0.524	110	1,930	500
50	19	8.75	1.4	1.0	28.5	25	50/0.80	1.9	34.5	0.387	135	2,560	500
70	19	10.50	1.4	1.2	32.5	35	70/0.80	2.1	39.5	0.268	165	3,520	400
95	19	12.35	1.6	1.2	37.5	50	69/0.96	2.2	45.0	0.193	205	4,740	400
120	37	13.93	1.6	1.2	41.0	70	72/1.11	2.3	49.0	0.153	240	5,850	300
150	37	15.47	1.8	1.4	46.0	70	72/1.11	2.5	54.0	0.124	275	7,070	250
150	37	15.47	1.8	1.4	46.0	95	68/1.33	2.5	54.5	0.124	275	7,320	250
185	37	17.29	2.0	1.4	50.5	95	68/1.33	2.7	60.0	0.0991	315	8,820	200
240	37	19.89	2.2	1.6	58.0	120	67/1.51	2.9	68.0	0.0754	370	11,430	150
300	61	22.23	2.4	1.6	64.0	150	68/1.67	3.1	74.5	0.0601	425	14,090	100
400	61	25.20	2.6	1.8	71.5	185	48/2.21	3.4	84.5	0.0470	490	17,880	100
400	61	25.20	2.6	1.8	71.5	240	50/2.47	3.4	85.0	0.0470	490	18,430	100

ALUMINUM CONDUCTOR

CONSTRUCTION

1. Conductor : Stranded hard-drawn aluminium wires
2. Insulation : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C	Maximum circuit voltage 750 V	AC test voltage 2,500 V
APPLICATION	For low voltage overhead distribution line.		
REFERENCE STANDARD	TIS 293-2541 Table 1		

Conductor		Thickness of Insulation	Overall diameter	Conductor resistance at 20 °c	Insulation resistance at 70 °c	Breaking strength	Current rating in free air at 40 °c ambient	Cable weight	Standard length
Nominal cross Sectional area mm²	Number & diameter of wires No./mm	mm (Normal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	N (Min.)	A	kg/km (Approx.)	m
10	7/1.32	1.1	6.7	3.08	0.0070	1,769	58	56	100/C
16	7/1.68	1.1	7.8	1.91	0.0057	2,781	70	80	100/C
25	7/2.12	1.3	9.6	1.20	0.0054	4,241	95	124	100/C
35	7/2.49	1.3	10.8	0.868	0.0047	5,703	117	155	100/C
50	19/1.76	1.5	12.5	0.641	0.0046	8,114	143	209	100/C
70	19/2.12	1.5	14.3	0.443	0.0039	11,487	185	284	100/C
95	19/2.49	1.7	16.6	0.320	0.0038	15,470	225	388	100/C
120	37/2.01	1.7	18.3	0.253	0.0034	20,114	263	468	1,000/D
150	37/2.23	1.9	20.3	0.206	0.0034	24,704	302	578	1,000/D
185	37/2.50	2.1	22.6	0.164	0.0034	30,187	352	723	1,000/D
240	61/2.23	2.3	25.8	0.125	0.0032	38,568	421	930	1,000/D
300	61/2.49	2.5	28.6	0.100	0.0032	46,901	487	1,151	1,000/D
400	61/2.82	2.7	32	0.0778	0.0030	57,948	574	1,458	500/D
500	61/3.20	3.1	36.3	0.0605	0.0031	73,194	675	1,883	500/D

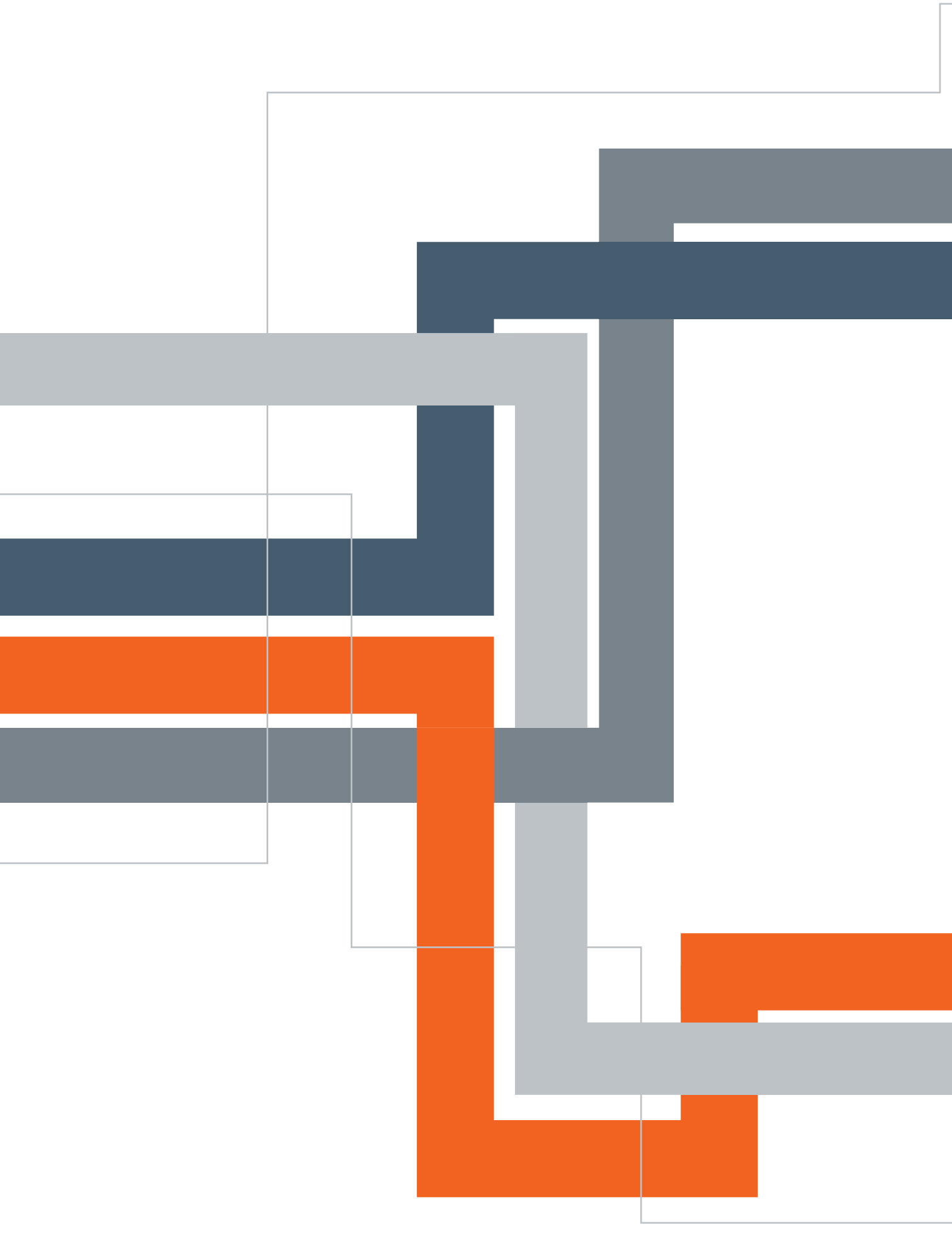
C : Packing in coil
D : Packing in drum

CONSTRUCTION

1. Conductor : Compact round stranded hard-drawn aluminium wires
2. Insulation : Polyvinyl chloride (PVC) (Black colour)

CLASSIFICATION	Maximum conductor temperature 70°C | Maximum circuit voltage 750 V | AC test voltage 2,500 V
APPLICATION	For low voltage overhead distribution line.
REFERENCE STANDARD	TIS 293-2541 Table 2

Conductor			Thickness of Insulation	Overall diameter	Conductor resistance at 20 °c	Insulation resistance at 70 °c	Breaking strength	Current rating in free air at 40 °c ambient	Cable weight	Standard length
Nominal cross Sectional area mm²	Number & diameter of wires No./mm	Conductor diameter mm (Approx.)	mm (Normal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	N (Min.)	A	kg/km (Approx.)	m/drum
10	6	3.68	1.1	6.2	3.08	0.0076	1,768	52	54	3,000
16	6	4.65	1.1	7.2	1.91	0.0063	2,734	69	77	3,000
25	6	5.82	1.3	8.9	1.20	0.0060	4,120	93	118	3,000
35	6	6.88	1.3	9.9	0.868	0.0052	5,591	115	153	3,000
50	6	7.92	1.5	11.4	0.641	0.0052	7,313	141	208	2,000
70	12	9.55	1.5	13.0	0.443	0.0044	10,420	178	273	2,000
95	15	11.27	1.7	15.1	0.320	0.0043	14,098	220	373	1,000
120	15	12.68	1.7	16.5	0.253	0.0038	18,518	258	456	1,000
150	15	14.05	1.9	18.4	0.206	0.0039	22,457	294	562	1,000
185	30	15.75	2.1	20.5	0.164	0.0038	28,974	342	694	1,000
240	30	18.23	2.3	23.4	0.125	0.0037	37,506	410	900	1,000
300	30	20.38	2.5	26.0	0.100	0.0036	45,642	475	1,117	1,000
400	53	23.25	2.7	30.7	0.0778	0.0034	56,992	560	1,414	500
500	53	26.22	3.1	33.1	0.0605	0.0035	72,195	659	1,823	500



MEDIUM VOLTAGE POWER CABLES

1.8/3(3.6) kV CV

1 CORE-CROSSLINKED POLYETHYLENE POWER CABLE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Insulation : Cross-linked polyethylene (XLPE) compound
3. Binding tape : Polyester or spunbond tape
4. Metallic screen : Copper tape
5. Binding tape : Polyester or Spunbond tape
6. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 3.6 kV	AC test voltage 6.5 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-1		

Conductor		Thickness of insulation	Thickness of sheath	Overall diameter	Conductor resistance at 20˚C	Insulation resistance at 20˚C	Current rating in		Cable weight	Standard length
Cross-sectional area	Number of wires						free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	Ω.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
10	6	2.0	1.4	13	1.83	3,210	93	95	250	500
16	6	2.0	1.4	14	1.15	2,720	120	120	320	500
25	6	2.0	1.4	15	0.727	2,300	160	155	420	500
35	6	2.0	1.4	16	0.524	2,020	195	190	530	500
50	6	2.0	1.4	18	0.387	1,750	235	225	660	500
70	12	2.0	1.5	20	0.268	1,540	295	275	880	500
95	15	2.0	1.5	21	0.193	1,350	365	330	1,150	500
120	18	2.0	1.6	23	0.153	1,210	420	375	1,410	500
150	18	2.0	1.6	24	0.124	1,110	480	420	1,690	500
185	30	2.0	1.7	26	0.0991	1,010	555	480	2,060	500
240	34	2.0	1.8	29	0.0754	890	660	555	2,640	500
300	34	2.0	1.8	32	0.0601	800	760	630	3,240	500
400	53	2.0	1.9	35	0.0470	720	880	720	4,070	500
500	53	2.2	2.0	39	0.0366	690	1,020	825	5,170	300
630	53	2.4	2.2	43	0.0283	670	1,170	940	6,620	300
800	53	2.6	2.3	48	0.0221	650	1,325	1,055	8,380	250

1.8/3(3.6) kV CV

3 CORES-CROSSLINKED POLYETHYLENE POWER CABLE

VENINE
สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Insulation : Cross-linked polyethylene (XLPE) compound
3. Filler : Polypropylene (Nun-hygroscopic material)
4. Binding tape : Polyester or spunbond tape
5. Metallic screen : Copper tape
6. Binding tape : Polyester or Spunbond tape
7. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

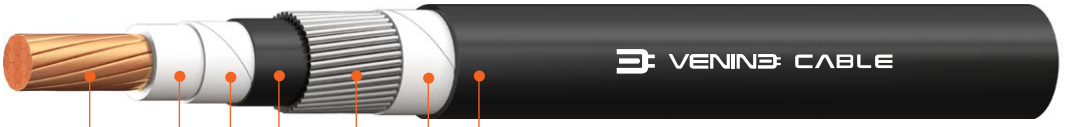
CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 3.6 kV	AC test voltage 6.5 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-1		

Conductor		Thickness of insulation	Thickness of sheath	Overall diameter	Conductor resistance at 20˚C	Insulation resistance at 20˚C	Current rating		Cable weight	Standard length
Cross-sectional area	Number of wires						in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	Ω.km (Min.)	A	A	kg/km (Approx.)	m/drum
10	6	2.0	1.8	24	1.83	3,210	67	78	740	500
16	6	2.0	1.8	26	1.15	2,720	90	100	970	500
25	6	2.0	1.8	29	0.727	2,300	120	130	1,310	500
35	6	2.0	1.8	31	0.524	2,020	145	160	1,650	500
50	6	2.0	1.9	35	0.387	1,750	175	190	2,110	500
70	12	2.0	2.0	38	0.268	1,540	220	235	2,820	500
95	15	2.0	2.2	42	0.193	1,350	275	280	3,740	500
120	18	2.0	2.3	46	0.153	1,210	320	320	4,570	500
150	18	2.0	2.4	49	0.124	1,110	365	360	5,500	300
185	30	2.0	2.5	53	0.0991	1,010	415	410	6,720	300
240	34	2.0	2.7	59	0.0754	890	495	470	8,630	250
300	34	2.0	2.8	64	0.0601	800	570	530	10,610	200
400	53	2.0	3.1	71	0.0470	720	655	600	13,370	150

1.8/3(3.6) kV CV-AWA

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์



CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Insulation : Cross-linked polyethylene (XLPE) compound
3. Binding tape : Polyester or spunbond tape
4. Inner sheath : Black Polyvinyl chloride (PVC), (Optional : PE)
5. Armour : Aluminium wires
6. Binding tape : Polyester or Spunbond tape
7. Outer Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 3.6 kV	AC test voltage 6.5 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-1		

Conductor		Thickness of insulation	Thickness of inner sheath	Diameter of wire armour	Thickness of outer sheath	Overall diameter	Conductor resistance at 20˚C	Current rating in		Cable weight	Standard length
Cross-sectional area	Number of wires							free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Approx.)	mm (Approx.)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	A	kg/km (Approx.)	(m/drum)
10	6	2.0	1.0	0.8	1.4	17	1.83	82	92	360	500
16	6	2.0	1.0	1.25	1.5	19	1.15	105	120	490	500
25	6	2.0	1.0	1.25	1.5	20	0.727	140	150	610	500
35	6	2.0	1.0	1.25	1.5	21	0.524	175	180	730	500
50	6	2.0	1.0	1.25	1.6	23	0.387	210	215	890	500
70	12	2.0	1.0	1.6	1.7	25	0.268	265	265	1,180	500
95	15	2.0	1.0	1.6	1.7	27	0.193	325	315	1,470	500
120	18	2.0	1.0	1.6	1.8	29	0.153	380	360	1,760	500
150	18	2.0	1.0	1.6	1.8	30	0.124	430	405	2,050	500
185	30	2.0	1.0	1.6	1.9	32	0.0991	495	460	2,460	500
240	34	2.0	1.0	1.6	1.9	35	0.0754	585	530	3,060	500
300	34	2.0	1.1	2.0	2.0	38	0.0601	675	600	3,810	500
400	53	2.0	1.1	2.0	2.1	41	0.0470	770	685	4,690	500
500	53	2.2	1.2	2.0	2.3	46	0.0366	880	780	5,900	300
630	53	2.4	1.3	2.5	2.4	51	0.0283	985	880	7,600	300
800	53	2.6	1.3	2.5	2.6	56	0.0221	1,085	980	9,480	250

1.8/3(3.6) kV CV-SWA

3 CORES - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Insulation : Cross-linked polyethylene (XLPE) compound
3. Filler : Polypropylene (Non-hygroscopic material)
4. Binding tape : Polyester or Spunbond tape
5. Inner sheath : Black Polyvinyl chloride (PVC), (Optional : PE)
6. Armour : Galvanized steel wires
7. Binding tape : Polyester or Spunbond tape
8. Outer Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

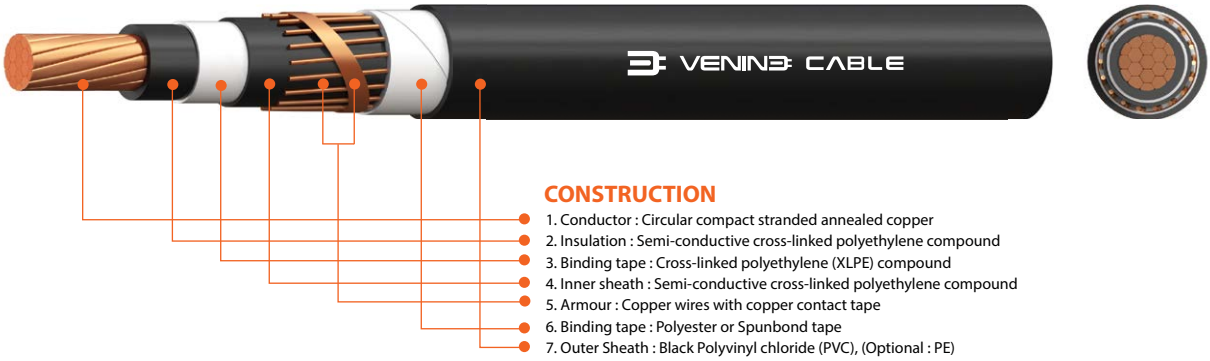
CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 3.6 kV	AC test voltage 6.5 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-1		

Conductor		Thickness of insulation	Thickness of inner sheath	Diameter under armour	Diameter of wire armour	Thickness of outer sheath	Overall diameter	Conductor resistance at 20˚C	Current rating in		Cable weight	Standard length
Cross-sectional area	Number of wires								free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Approx.)	mm (Approx.)	mm (Approx.)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	A	kg/km (Approx.)	(m/drum)
10	6	2.0	1.0	20.5	1.6	1.8	29	1.83	69	75	1,510	500
16	6	2.0	1.0	23.0	1.6	1.9	32	1.15	92	100	1,820	500
25	6	2.0	1.0	25.5	1.6	1.9	34	0.727	120	130	2,250	500
35	6	2.0	1.1	28.0	2.0	2.1	38	0.524	150	160	2,970	500
50	6	2.0	1.1	31.0	2.0	2.2	41	0.387	180	185	3,570	500
70	12	2.0	1.2	34.0	2.0	2.3	45	0.268	225	230	4,440	500
95	15	2.0	1.3	38.0	2.5	2.4	50	0.193	275	275	5,920	300
120	18	2.0	1.3	41.5	2.5	2.5	54	0.153	315	315	6,940	300
150	18	2.0	1.4	44.5	2.5	2.6	57	0.124	360	350	8,070	300
185	30	2.0	1.5	48.5	2.5	2.8	62	0.0991	410	395	9,560	200
240	34	2.0	1.6	54.0	2.5	3.0	68	0.0754	480	455	11,830	200
300	34	2.0	1.6	58.5	2.5	3.1	73	0.0601	550	505	14,080	150
400	53	2.0	1.8	65.0	3.15	3.4	82	0.0470	625	560	18,150	100

3.6/6(7.2) kV CV

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE

VENINE
สายไฟฟ้าวีนายน์



CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Insulation : Semi-conductive cross-linked polyethylene compound
3. Binding tape : Cross-linked polyethylene (XLPE) compound
4. Inner sheath : Semi-conductive cross-linked polyethylene compound
5. Armour : Copper wires with copper contact tape
6. Binding tape : Polyester or Spunbond tape
7. Outer Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 7.2 kV	AC test voltage 12.5 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Area of metallic screen	Thickness of sheath	Overall diameter	Conductor resistance at 20˚C	Insulation resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires							in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm^2	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
10	6	2.5	10	1.4	17	1.83	2,870	95	95	400	500
16	6	2.5	10	1.5	19	1.15	2,520	125	120	480	500
25	6	2.5	10	1.5	20	0.727	2,190	165	155	590	500
35	6	2.5	10	1.6	21	0.524	1,970	205	190	710	500
50	6	2.5	10	1.6	23	0.387	1,740	245	225	850	500
70	12	2.5	10	1.6	24	0.268	1,550	305	275	1,070	500
95	15	2.5	10	1.7	26	0.193	1,370	375	330	1,350	500
120	18	2.5	10	1.8	28	0.153	1,250	435	375	1,620	500
150	18	2.5	16	1.8	29	0.124	1,160	495	425	1,960	500
185	30	2.5	16	1.9	31	0.0991	1,050	570	480	2,340	500
240	34	2.6	25	1.9	34	0.0754	970	680	560	3,010	500
300	34	2.8	25	2.0	37	0.0601	940	780	635	3,650	500
400	53	3.0	25	2.2	41	0.0470	900	905	725	4,540	500
500	53	3.2	25	2.3	46	0.0366	840	1,055	830	5,700	300
630	53	3.2	25	2.4	49	0.0283	750	1,225	945	7,130	300
800	53	3.2	25	2.5	53	0.0221	680	1,410	1,065	8,890	250

3.6/6(7.2) kV CV

3 CORES - CROSSLINKED POLYETHYLENE POWER CABLE

VENINE
สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Compact round stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape
6. Filler : Polyester (Non-hygroscopic materal)
7. Binding tape : Polyester or Spunbond tape
8. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 7.2 kV	AC test voltage 12.5 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Thickness of sheath	Overall diameter	Conductor resistance at 20˚C	Insulation resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires						in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
10	6	2.5	1.9	31	1.83	2,870	80	80	1,110	500
16	6	2.5	2.0	34	1.15	2,520	110	110	1,380	500
25	6	2.5	2.1	37	0.727	2,190	140	145	1,780	500
35	6	2.5	2.1	39	0.524	1,970	170	175	2,160	500
50	6	2.5	2.2	42	0.387	1,740	210	205	2,670	500
70	12	2.5	2.3	46	0.268	1,550	260	250	3,410	500
95	15	2.5	2.5	50	0.193	1,370	315	300	4,390	500
120	18	2.5	2.6	53	0.153	1,250	365	340	5,290	300
150	18	2.5	2.7	57	0.124	1,160	415	385	6,250	300
185	30	2.5	2.8	61	0.0991	1,050	475	435	7,520	300
240	34	2.6	3.0	67	0.0754	970	570	505	9,570	250
300	34	2.8	3.2	73	0.0601	940	650	570	11,740	200
400	53	3.0	3.4	81	0.0470	900	750	650	14,690	150

3.6/6(7.2) kV CV-AWA

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper wires with copper contact tape
6. Binding tape : Polyester or Spunbond tape
7. Inner Sheath : Black Polyvinyl chloride (PVC),(Optional : PE)*
8. Armour : Aluminium wires
9. Binding tape : Polyester or Spunbond tape
10. Outer Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 7.2 kV	AC test voltage 12.5 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Area of metallic screen	Thickness of inner sheath	Diameter of wire armour	Thickness of outer sheath	Overall diameter	Conductor resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires								in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm^2	mm (Nominal)	mm (Nominal.)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	A	kg/km (Approx.)	m/drum
10	6	2.5	10	1.2	1.6	1.6	24	1.83	95	90	760	500
16	6	2.5	10	1.2	1.6	1.7	25	1.15	130	120	860	500
25	6	2.5	10	1.2	1.6	1.7	27	0.727	170	155	990	500
35	6	2.5	10	1.2	1.6	1.7	28	0.524	205	185	1,120	500
50	6	2.5	10	1.2	1.6	1.8	29	0.387	250	220	1,310	500
70	12	2.5	10	1.2	1.6	1.8	31	0.268	310	265	1,550	500
95	15	2.5	10	1.2	1.6	1.9	33	0.193	375	320	1,870	500
120	18	2.5	10	1.2	1.6	1.9	34	0.153	435	360	2,150	500
150	18	2.5	16	1.2	2.0	2.0	37	0.124	495	405	2,610	500
185	30	2.5	16	1.2	2.0	2.1	39	0.0991	565	460	3,040	500
240	34	2.6	25	1.2	2.0	2.2	42	0.0754	670	535	3,800	500
300	34	2.8	25	1.2	2.0	2.3	45	0.0601	770	605	4,500	500
400	53	3.0	25	1.3	2.5	2.4	50	0.0470	895	685	5,610	300
500	53	3.2	25	1.3	2.5	2.5	54	0.0366	1,035	775	6,870	300
630	53	3.2	25	1.4	2.5	2.7	59	0.0283	1,190	875	8,460	250
800	53	3.2	25	1.5	2.5	2.8	63	0.0221	1,350	980	10,360	200

3.6/6(7.2) kV CV-SWA

3 CORES - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE
สายไฟฟ้าวีนายน์

CONSTRUCTION

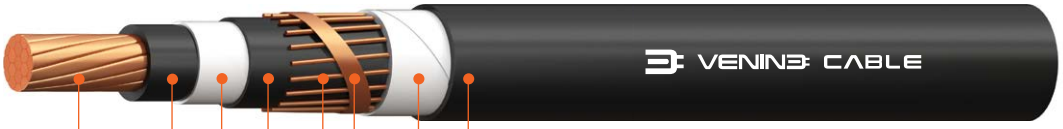
1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape
6. Filler : Polypropylene (Non-hygroscopic material)
7. Binding tape : Polyester or Spunbond tape
8. Inner Sheath : Black Polyviny chlorlde (PVC), (Optiond : PE)*
9. Armour : Galvanized steel wires
10. Binding tape : Polyester or Spunbond tape
11. Outer Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

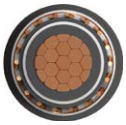
CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 7.2 kV	AC test voltage 12.5 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Thickness of inner sheath	Diameter under armour	Diameter under armour	Thickness of outer sheath	Overall diameter	Conductor resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires								in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	A	kg/km (Approx.)	(m/drum)
10	6	2.5	1.2	29.0	2.0	2.1	39	1.83	80	85	2,570	500
16	6	2.5	1.2	31.0	2.0	2.2	41	1.15	110	110	2,940	500
25	6	2.5	1.2	33.5	2.0	2.3	44	0.727	145	145	3,460	500
35	6	2.5	1.3	36.0	2.5	2.4	48	0.524	175	170	4,400	500
50	6	2.5	1.3	39.0	2.5	2.5	51	0.387	210	205	5,100	300
70	12	2.5	1.4	42.5	2.5	2.6	55	0.268	260	245	6,050	300
95	15	2.5	1.4	46.0	2.5	2.8	59	0.193	315	295	7,230	300
120	18	2.5	1.5	49.5	2.5	2.9	63	0.153	360	335	8,390	250
150	18	2.5	1.6	52.5	2.5	3.0	66	0.124	405	375	9,570	250
185	30	2.5	1.6	56.5	2.5	3.1	70	0.0991	465	420	11,050	200
240	34	2.6	1.7	62.5	3.15	3.3	78	0.0754	545	480	14,370	150
300	34	2.8	1.8	68.0	3.15	3.5	85	0.0601	615	535	17,030	100

6/10(12) kV CV

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE





CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper wires with copper contact tape
6. Binding tape : Polyester or Spunbond tape
7. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 12 kV	AC test voltage 21 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Area of metallic screen	Thickness of sheath	Overall diameter	Conductor resistance at 20˚C	Insulation resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires							in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm^2	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
16	6	3.4	10	1.5	20	1.15	3,140	130	115	540	500
25	6	3.4	10	1.6	22	0.727	2,750	170	150	660	500
35	6	3.4	10	1.6	23	0.524	2,490	205	180	770	500
50	6	3.4	10	1.7	25	0.387	2,210	245	215	930	500
70	12	3.4	10	1.7	26	0.268	1,990	305	265	1,150	500
95	15	3.4	10	1.8	28	0.193	1,770	375	315	1,440	500
120	18	3.4	10	1.8	30	0.153	1,620	435	360	1,700	500
150	18	3.4	16	1.9	31	0.124	1,500	495	405	2,050	500
185	30	3.4	16	1.9	33	0.0991	1,370	570	455	2,430	500
240	34	3.4	25	2.0	36	0.0754	1,220	675	530	3,120	500
300	34	3.4	25	2.1	39	0.0601	1,120	780	600	3,740	500
400	53	3.4	25	2.2	42	0.0470	1,010	905	685	4,590	500
500	53	3.4	25	2.3	46	0.0366	890	1,055	780	5,730	300
630	53	3.4	25	2.4	50	0.0283	800	1,225	890	7,160	300
800	53	3.4	25	2.5	54	0.0221	720	1,410	1,000	8,920	250

6/10(12) kV CV

3 CORES - CROSSLINKED POLYETHYLENE POWER CABLE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape
6. Filler : Polypropylene (Non-hygroscopic material)
7. Binding tape : Polyester or Spunbond tape
8. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

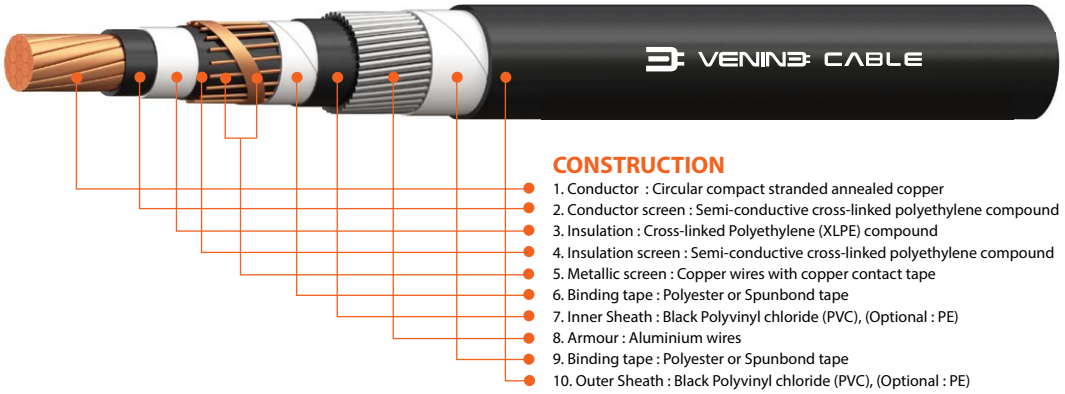
CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 12 kV	AC test voltage 21 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Thickness of sheath	Overall diameter	Conductor resistance at 20˚C	Insulation resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires						in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
16	6	3.4	2.1	38	1.15	3,140	110	110	1,630	500
25	6	3.4	2.2	41	0.727	2,750	140	145	2,040	500
35	6	3.4	2.3	43	0.524	2,490	175	175	2,460	500
50	6	3.4	2.4	47	0.387	2,210	210	205	2,990	500
70	12	3.4	2.5	50	0.268	1,990	260	250	3,760	500
95	15	3.4	2.6	54	0.193	1,770	315	300	4,740	500
120	18	3.4	2.7	58	0.153	1,620	365	340	5,650	300
150	18	3.4	2.8	61	0.124	1,500	415	385	6,630	300
185	30	3.4	2.9	65	0.0991	1,370	475	435	7,930	250
240	34	3.4	3.1	71	0.0754	1,220	570	505	9,970	200
300	34	3.4	3.3	76	0.0601	1,120	650	570	12,080	200
400	53	3.4	3.5	83	0.0470	1,010	750	655	14,950	150

6/10(12) kV CV-AWA

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE
สายไฟฟ้าวีนายน์



CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper wires with copper contact tape
6. Binding tape : Polyester or Spunbond tape
7. Inner Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)
8. Armour : Aluminium wires
9. Binding tape : Polyester or Spunbond tape
10. Outer Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 12 kV	AC test voltage 21 V
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Area of metallic screen	Thickness of inner sheath	Diameter under armour	Diameter of wire armour	Thickness of outer sheath	Overall diameter	Conductor resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires									in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm^2	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	A	kg/km (Approx.)	(m/drum)
16	6	3.4	10	1.2	19.5	1.6	1.7	27	1.15	130	120	950	500
25	6	3.4	10	1.2	20.5	1.6	1.8	29	0.727	170	155	1,100	500
35	6	3.4	10	1.2	21.5	1.6	1.8	30	0.524	205	185	1,230	500
50	6	3.4	10	1.2	23.0	1.6	1.9	32	0.387	250	215	1,420	500
70	12	3.4	10	1.2	24.5	1.6	1.9	33	0.268	310	265	1,660	500
95	15	3.4	10	1.2	26.0	1.6	2.0	35	0.193	375	320	1,990	500
120	18	3.4	10	1.2	27.5	2.0	2.0	37	0.153	435	360	2,370	500
150	18	3.4	16	1.2	29.0	2.0	2.1	39	0.124	495	405	2,750	500
185	30	3.4	16	1.2	30.5	2.0	2.1	41	0.0991	565	460	3,170	500
240	34	3.4	25	1.2	33.5	2.0	2.2	44	0.0754	670	535	3,920	500
300	34	3.4	25	1.2	36.0	2.0	2.3	46	0.0601	770	605	4,600	500
400	53	3.4	25	1.3	38.5	2.5	2.4	51	0.0470	890	685	5,680	300
500	53	3.4	25	1.3	42.5	2.5	2.6	55	0.0366	1,030	785	6,950	300
630	53	3.4	25	1.4	46.0	2.5	2.7	59	0.0283	1,190	890	8,500	250
800	53	3.4	25	1.5	50.0	2.5	2.8	63	0.0221	1,350	995	10,390	200

6/10(12) kV CV-SWA

3 CORES - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape
6. Filler : Polypropylene (Non-hygroscopic material)
7. Binding tape : Polyester or Spunbond tape
8. Inner Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)
9. Armour : Galvanized steel wires
10. Binding tape : Polyester or Spunbond tape
11. Outer Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 12 kV	AC test voltage 21 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Thickness of inner sheath	Diameter under armour	Diameter of wire armour	Thickness of outer sheath	Overall diameter	Conductor resistance at 20˚C	Current rating		Cable weight	Standard length
Conductor Cross Sectional area mm²	Number of wires (Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	in free air at 40˚C ambient A	direct burial in ground at 30˚C A	kg/km (Approx.)	(m/drum)
16	6	3.4	1.2	35.0	2.0	2.3	46	1.15	110	110	3,370	500
25	6	3.4	1.3	38.0	2.5	2.5	50	0.727	145	140	4,380	500
35	6	3.4	1.3	40.0	2.5	2.5	52	0.524	175	170	4,910	500
50	6	3.4	1.4	43.5	2.5	2.6	56	0.387	210	200	5,660	300
70	12	3.4	1.5	46.5	2.5	2.8	60	0.268	260	245	6,670	300
95	15	3.4	1.5	50.5	2.5	2.9	64	0.193	315	295	7,890	300
120	18	3.4	1.6	54.0	2.5	3.0	68	0.153	365	330	9,030	250
150	18	3.4	1.6	56.5	2.5	3.1	71	0.124	410	370	10,200	200
185	30	3.4	1.7	60.5	2.5	3.2	75	0.0991	465	415	11,780	200
240	34	3.4	1.8	66.0	3.15	3.5	83	0.0754	550	475	15,090	150
300	34	3.4	1.9	71.0	3.15	3.6	88	0.0601	620	530	17,570	100

8.7/15(17.5) kV CV

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper wires with copper contact tape
6. Binding tape : Polyester or Spunbond tape
7. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 17.5 kV	AC test voltage 30.5 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Area of metallic screen	Thickness of sheath	Overall diameter	Conductor resistance at 20˚C	Insulation resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires							in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm^2	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
25	6	4.5	10	1.7	25	0.727	3,350	170	150	750	500
35	6	4.5	10	1.7	26	0.524	3,050	205	180	870	500
50	6	4.5	10	1.7	27	0.387	2,730	245	215	1,020	500
70	12	4.5	10	1.8	29	0.268	2,470	305	260	1,250	500
95	15	4.5	10	1.8	30	0.193	2,210	375	315	1,540	500
120	18	4.5	10	1.9	32	0.153	2,020	435	360	1,820	500
150	18	4.5	16	1.9	34	0.124	1,890	495	400	2,160	500
185	30	4.5	16	2.0	36	0.0991	1,730	565	455	2,560	500
240	34	4.5	25	2.1	39	0.0754	1,550	675	530	3,260	500
300	34	4.5	25	2.2	41	0.0601	1,420	775	600	3,890	500
400	53	4.5	25	2.3	44	0.0470	1,290	900	685	4,760	500
500	53	4.5	25	2.4	49	0.0366	1,130	1,050	780	5,900	300
630	53	4.5	25	2.5	52	0.0283	1,020	1,220	890	7,360	300
800	53	4.5	25	2.6	56	0.0221	930	1,400	1,000	9,130	250

8.7/15(17.5) kV CV

3 CORES - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape
6. Filler : Polyester (Non-hygroscopic materal)
7. Binding tape : Polyester or Spunbond tape
8. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 17.5 kV	AC test voltage 30.5 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Thickness of sheath	Overall diameter	Conductor resistance at 20˚C	Insulation resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires						in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
25	6	4.5	2.4	46	0.727	3,350	145	145	2,420	500
35	6	4.5	2.5	49	0.524	3,050	175	175	2,860	500
50	6	4.5	2.6	52	0.387	2,730	210	205	3,420	500
70	12	4.5	2.7	56	0.268	2,470	265	250	4,210	500
95	15	4.5	2.8	60	0.193	2,210	320	300	5,220	300
120	18	4.5	2.9	63	0.153	2,020	370	340	6,170	300
150	18	4.5	3.0	66	0.124	1,890	420	385	7,170	300
185	30	4.5	3.1	70	0.0991	1,730	480	435	8,510	250
240	34	4.5	3.3	76	0.0754	1,550	570	505	10,590	200
300	34	4.5	3.4	82	0.0601	1,420	655	570	12,710	150
400	53	4.5	3.7	88	0.0470	1,290	755	650	15,660	150

8.7/15(17.5) kV CV-AWA

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper wires with copper contact tape
6. Binding tape : Polyester or Spunbond tape
7. Inner Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)
8. Armour : Aluminium wires
9. Binding tape : Polyester or Spunbond tape
10. Outer Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 17.5 kV	AC test voltage 30.5 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Area of metallic screen	Thickness of inner sheath	Diameter under armour	Diameter of wire armour	Thickness of outer sheath	Overall diameter	Conductor resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires									in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm^2	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	A	kg/km (Approx.)	(m/drum)
25	6	4.5	10	1.2	23.0	1.6	1.9	31	0.727	170	150	1,230	500
35	6	4.5	10	1.2	24.0	1.6	1.9	32	0.524	205	180	1,370	500
50	6	4.5	10	1.2	25.5	1.6	1.9	34	0.387	250	215	1,550	500
70	12	4.5	10	1.2	27.0	1.6	2.0	36	0.268	305	265	1,820	500
95	15	4.5	10	1.2	28.5	2.0	2.1	38	0.193	375	320	2,240	500
120	18	4.5	10	1.2	30.0	2.0	2.1	40	0.153	435	360	2,540	500
150	18	4.5	16	1.2	31.0	2.0	2.2	42	0.124	490	405	2,930	500
185	30	4.5	16	1.2	33.0	2.0	2.2	43	0.0991	565	460	3,350	500
240	34	4.5	25	1.2	36.0	2.0	2.3	47	0.0754	665	530	4,120	500
300	34	4.5	25	1.3	38.5	2.5	2.4	50	0.0601	765	600	4,980	300
400	53	4.5	25	1.3	41.0	2.5	2.5	53	0.0470	885	680	5,910	300
500	53	4.5	25	1.4	45.0	2.5	2.6	58	0.0366	1,025	775	7,190	300
630	53	4.5	25	1.4	48.5	2.5	2.7	61	0.0283	1,180	875	8,730	250
800	53	4.5	25	1.5	52.5	2.5	2.9	66	0.0221	1,340	975	10,670	200

8.7/15(17.5) kV CV-SWA

3 CORES - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape
6. Filler : Polypropylene (Non-hygroscopic material)
7. Binding tape : Polyester or Spunbond tape
8. Inner Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)
9. Armour : Galvanized steel wires
10. Binding tape : Polyester or Spunbond tape
11. Outer Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

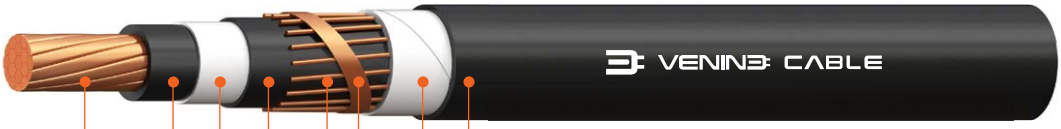
CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 17.5 kV	AC test voltage 30.5 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

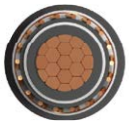
Conductor		Thickness of insulation	Thickness of inner sheath	Diameter under armour	Diameter of wire armour	Thickness of outer sheath	Overall diameter	Conductor resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires								in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	A	kg/km (Approx.)	(m/drum)
25	6	4.5	1.4	43.0	2.5	2.6	56	0.727	145	140	5,090	300
35	6	4.5	1.4	45.5	2.5	2.7	58	0.524	175	170	5,630	300
50	6	4.5	1.5	48.5	2.5	2.8	62	0.387	210	200	6,400	300
70	12	4.5	1.5	51.5	2.5	2.9	65	0.268	265	245	7,390	300
95	15	4.5	1.6	55.5	2.5	3.1	70	0.193	320	295	8,700	250
120	18	4.5	1.7	59.0	2.5	3.2	73	0.153	365	330	9,920	200
150	18	4.5	1.7	62.0	3.15	3.3	78	0.124	415	370	11,910	200
185	30	4.5	1.8	65.5	3.15	3.5	82	0.0991	470	415	13,610	150
240	34	4.5	1.9	71.5	3.15	3.6	88	0.0754	550	475	16,150	150
300	34	4.5	2.0	76.5	3.15	3.8	94	0.0601	620	530	18,730	100

12/20(24) kV CV

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE

VENINE
สายไฟฟ้าวีนายน์





CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper wires with copper contact tape
6. Binding tape : Polyester or Spunbond tape
7. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 24 kV	AC test voltage 42 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Area of metallic screen	Thickness of sheath	Overall diameter	Conductor resistance at 20˚C	Insulation resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires							in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm^2	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
35	6	5.5	10	1.8	28	0.524	3,500	205	180	960	500
50	6	5.5	10	1.8	29	0.387	3,140	245	215	1,110	500
70	12	5.5	10	1.9	31	0.268	2,850	305	260	1,360	500
95	15	5.5	10	1.9	33	0.193	2,570	375	315	1,650	500
120	18	5.5	10	2.0	35	0.153	2,360	435	355	1,940	500
150	18	5.5	16	2.0	36	0.124	2,210	490	400	2,280	500
185	30	5.5	16	2.1	38	0.0991	2,030	565	460	2,690	500
240	34	5.5	25	2.2	41	0.0754	1,830	670	530	3,400	500
300	34	5.5	25	2.2	43	0.0601	1,680	775	600	4,020	500
400	53	5.5	25	2.3	47	0.0470	1,520	900	690	4,890	500
500	53	5.5	25	2.4	51	0.0366	1,350	1,045	780	6,050	300
630	53	5.5	25	2.5	54	0.0283	1,220	1,215	890	7,520	300
800	53	5.5	25	2.7	59	0.0221	1,110	1,390	1,000	9,330	250

12/20(24) kV CV

3 CORES - CROSSLINKED POLYETHYLENE POWER CABLE

VENINE
สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape
6. Filler : Polyester (Non-hygroscopic materal)
7. Binding tape : Polyester or Spunbond tape
8. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

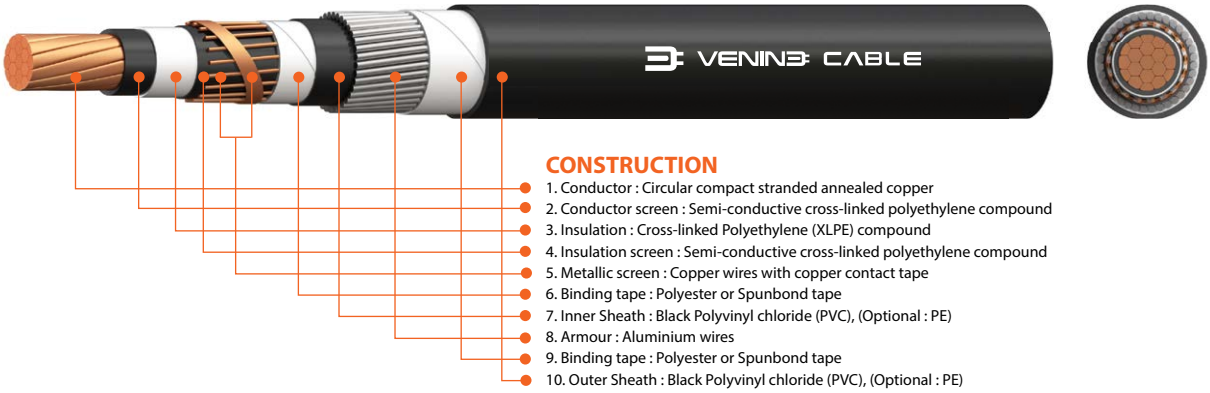
CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 24 kV	AC test voltage 42 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Thickness of sheath	Overall diameter	Conductor resistance at 20˚C	Insulation resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires						in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
35	6	5.5	2.6	54	0.524	3,500	180	175	3,240	500
50	6	5.5	2.7	57	0.387	3,140	215	205	3,820	500
70	12	5.5	2.8	61	0.268	2,850	265	250	4,640	500
95	15	5.5	2.9	65	0.193	2,570	325	300	5,680	300
120	18	5.5	3.0	68	0.153	2,360	370	340	6,650	300
150	18	5.5	3.1	71	0.124	2,210	420	385	7,670	300
185	30	5.5	3.3	76	0.0991	2,030	485	435	9,070	250
240	34	5.5	3.4	81	0.0754	1,830	575	505	11,160	200
300	34	5.5	3.6	87	0.0601	1,680	660	570	13,350	150
400	53	5.5	3.8	93	0.0470	1,520	760	645	16,310	150

12/20(24) kV CV-AWA

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์



CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper wires with copper contact tape
6. Binding tape : Polyester or Spunbond tape
7. Inner Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)
8. Armour : Aluminium wires
9. Binding tape : Polyester or Spunbond tape
10. Outer Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

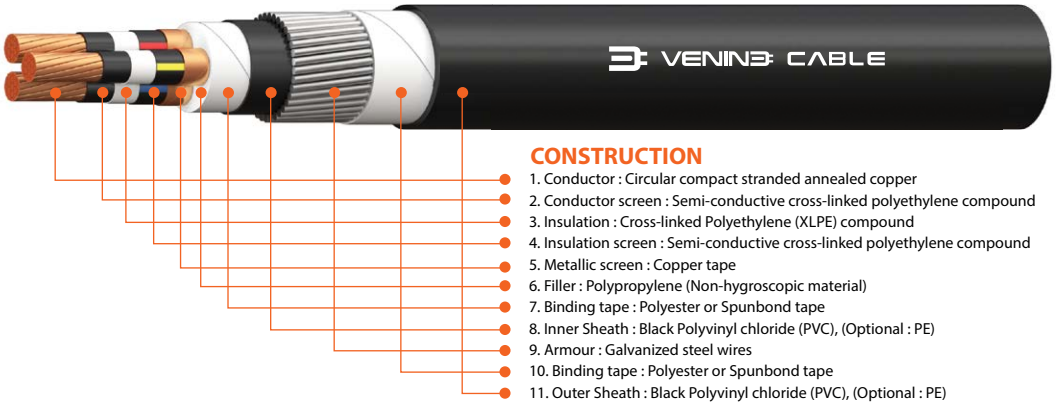
CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 24 kV	AC test voltage 42 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC60502-2		

Conductor		Thickness of insulation	Area of metallic screen	Thickness of inner sheath	Diameter under armour	Diameter of wire armour	Thickness of outer sheath	Overall diameter	Conductor resistance at 20˚C	Current rating		Cable weight	Standard length
Conductor Cross Sectional area mm^2	Number of wires (Min.)	mm (Nominal)	mm^2	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	in free air at 40˚C ambient A	direct burial in ground at 30˚C A	kg/km (Approx.)	(m/drum)
35	6	5.5	10	1.2	26.0	1.6	2.0	35	0.524	205	180	1,510	500
50	6	5.5	10	1.2	27.5	2.0	2.0	37	0.387	250	215	1,770	500
70	12	5.5	10	1.2	29.0	2.0	2.1	39	0.268	310	265	2,060	500
95	15	5.5	10	1.2	30.5	2.0	2.1	41	0.193	375	315	2,380	500
120	18	5.5	10	1.2	32.0	2.0	2.2	42	0.153	430	360	2,710	500
150	18	5.5	16	1.2	33.5	2.0	2.2	44	0.124	490	405	3,080	500
185	30	5.5	16	1.2	35.0	2.0	2.3	46	0.0991	560	460	3,520	500
240	34	5.5	25	1.3	38.0	2.5	2.4	50	0.0754	665	535	4,470	500
300	34	5.5	25	1.3	40.5	2.5	2.5	53	0.0601	760	600	5,180	300
400	53	5.5	25	1.4	43.5	2.5	2.6	56	0.0470	880	685	6,160	300
500	53	5.5	25	1.4	47.0	2.5	2.7	60	0.0366	1,020	780	7,430	300
630	53	5.5	25	1.5	50.5	2.5	2.8	64	0.0283	1,170	890	9,010	250
800	53	5.5	25	1.6	54.5	2.5	3.0	69	0.0221	1,330	995	10,970	200

12/20(24) kV CV-SWA

3 CORES - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์



CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape
6. Filler : Polypropylene (Non-hygroscopic material)
7. Binding tape : Polyester or Spunbond tape
8. Inner Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)
9. Armour : Galvanized steel wires
10. Binding tape : Polyester or Spunbond tape
11. Outer Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

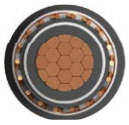
CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 24 kV	AC test voltage 42 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Thickness of inner sheath	Diameter under armour	Diameter of wire armour	Thickness of outer sheath	Overall diameter	Conductor resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires								in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	A	kg/km (Approx.)	(m/drum)
35	6	5.5	1.5	50.0	2.5	2.9	64	0.524	180	170	6,350	300
50	6	5.5	1.6	53.5	2.5	3.0	67	0.387	215	200	7,150	300
70	12	5.5	1.6	56.5	2.5	3.1	70	0.268	265	245	8,160	300
95	15	5.5	1.7	60.0	2.5	3.2	75	0.193	320	295	9,480	250
120	18	5.5	1.8	63.5	3.15	3.4	80	0.153	365	330	11,600	200
150	18	5.5	1.8	66.5	3.15	3.5	83	0.124	410	370	12,850	150
185	30	5.5	1.9	70.5	3.15	3.6	87	0.0991	465	415	14,550	150
240	34	5.5	2.0	76.0	3.15	3.8	94	0.0754	545	475	17,120	100
300	34	5.5	2.1	81.0	3.15	3.9	99	0.0601	615	530	19,690	100

18/30(36) kV CV

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE

VENINE
สายไฟฟ้าวีนายน์



CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper wires with copper contact tape
6. Binding tape : Polyester or Spunbond tape
7. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 36 kV	AC test voltage 63 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Area of metallic screen	Thickness of sheath	Overall diameter	Conductor resistance at 20˚C	Insulation resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires							in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm^2	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
50	6	8.0	10	2.0	35	0.387	4,030	245	215	1,390	500
70	12	8.0	10	2.0	37	0.268	3,690	305	260	1,630	500
95	15	8.0	10	2.1	39	0.193	3,350	375	315	1,950	500
120	18	8.0	10	2.1	40	0.153	3,100	430	355	2,240	500
150	18	8.0	16	2.2	42	0.124	2,910	490	400	2,620	500
185	30	8.0	16	2.2	44	0.0991	2,700	560	455	3,020	500
240	34	8.0	25	2.3	47	0.0754	2,440	665	530	3,750	500
300	34	8.0	25	2.4	49	0.0601	2,250	765	595	4,410	500
400	53	8.0	25	2.5	52	0.0470	2,060	890	680	5,310	300
500	53	8.0	25	2.6	56	0.0366	1,840	1,035	780	6,510	300
630	53	8.0	25	2.7	60	0.0283	1,670	1,200	890	8,010	300
800	53	8.0	25	2.8	64	0.0221	1,520	1,375	1,000	9,830	250

18/30(36) kV CV

3 CORES - CROSSLINKED POLYETHYLENE POWER CABLE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape
6. Filler : Polyester (Non-hygroscopic materal)
7. Binding tape : Polyester or Spunbond tape
8. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

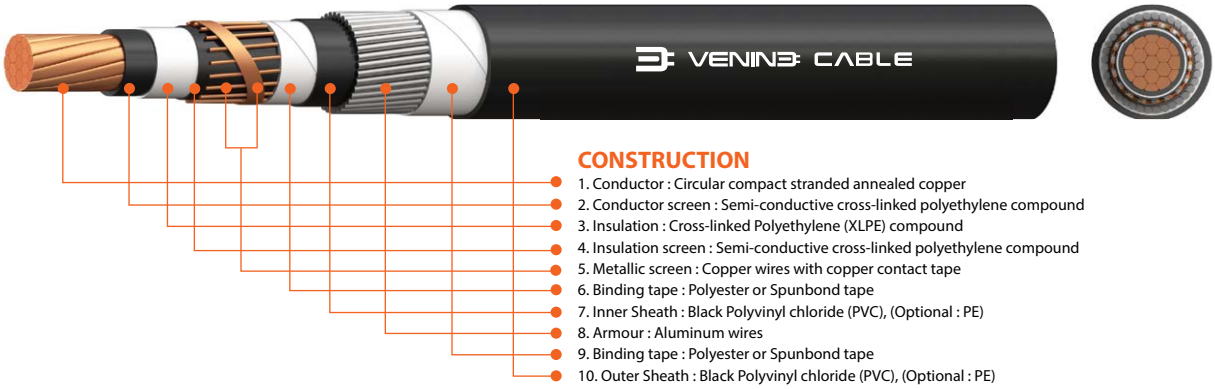
CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 36 kV	AC test voltage 63 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Thickness of sheath	Overall diameter	Conductor resistance at 20˚C	Insulation resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires						in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
50	6	8.0	3.1	70.0	0.387	4,030	220	205	5,020	300
70	12	8.0	3.2	73.0	0.268	3,690	270	250	5,900	300
95	15	8.0	3.3	77.0	0.193	3,350	330	300	7,010	300
120	18	8.0	3.4	81.0	0.153	3,100	380	340	8,040	300
150	18	8.0	3.5	84.0	0.124	2,910	430	380	9,130	250
185	30	8.0	3.6	88.0	0.0991	2,700	490	435	10,560	200
240	34	8.0	3.8	94.0	0.0754	2,440	580	505	12,800	150
300	34	8.0	4.0	99.0	0.0601	2,250	660	570	15,080	150
400	53	8.0	4.2	106.0	0.0470	2,060	765	650	18,160	100

18/30(36) kV CV-AWA

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE
สายไฟฟ้าวีนายน์



CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper wires with copper contact tape
6. Binding tape : Polyester or Spunbond tape
7. Inner Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)
8. Armour : Aluminum wires
9. Binding tape : Polyester or Spunbond tape
10. Outer Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

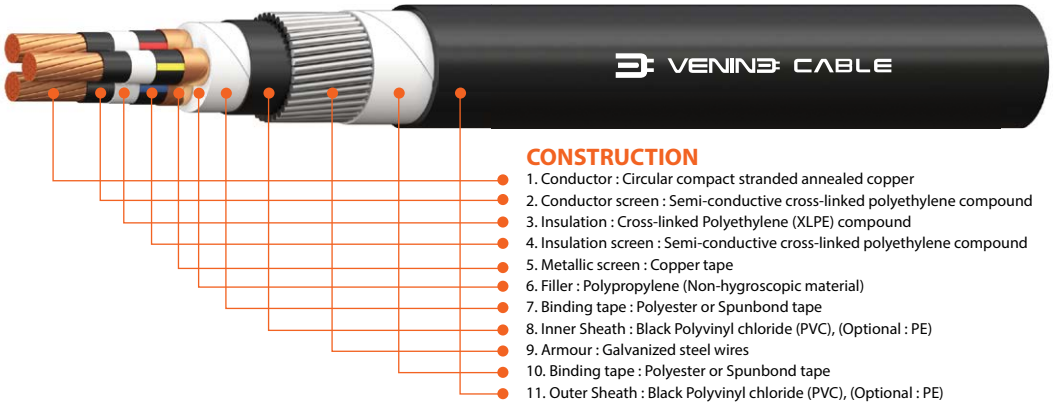
CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 36 kV	AC test voltage 63 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Area of metallic screen	Thickness of inner sheath	Diameter under armour	Diameter of wire armour	Thickness of outer sheath	Overall diameter	Conductor resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires									in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm^2	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	A	kg/km (Approx.)	(m/drum)
50	6	8.0	10	1.2	32.5	2.0	2.2	43	0.387	245	215	2,170	500
70	12	8.0	10	1.2	34.0	2.0	2.3	45	0.268	305	265	2,460	500
95	15	8.0	10	1.2	35.5	2.0	2.3	46	0.193	370	315	2,800	500
120	18	8.0	10	1.3	37.5	2.5	2.4	49	0.153	430	360	3,310	500
150	18	8.0	16	1.3	38.5	2.5	2.5	51	0.124	485	400	3,730	500
185	30	8.0	16	1.3	40.5	2.5	2.5	53	0.0991	555	455	4,170	500
240	34	8.0	25	1.4	43.5	2.5	2.6	56	0.0754	655	530	5,020	300
300	34	8.0	25	1.4	46.0	2.5	2.7	59	0.0601	750	595	5,750	300
400	53	8.0	25	1.5	48.5	2.5	2.8	62	0.0470	870	675	6,760	300
500	53	8.0	25	1.5	52.5	2.5	2.9	66	0.0366	1,005	770	8,070	250
630	53	8.0	25	1.6	56.0	2.5	3.0	70	0.0283	1,155	870	9,690	250
800	53	8.0	25	1.7	60.0	2.5	3.1	74	0.0221	1,310	970	11,650	200

18/30(36) kV CV-SWA

3 CORES - CROSSLINKED POLYETHYLENE POWER CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์



CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked Polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape
6. Filler : Polypropylene (Non-hygroscopic material)
7. Binding tape : Polyester or Spunbond tape
8. Inner Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)
9. Armour : Galvanized steel wires
10. Binding tape : Polyester or Spunbond tape
11. Outer Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 36 kV	AC test voltage 63 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	IEC 60502-2		

Conductor		Thickness of insulation	Thickness of inner sheath	Diameter under armour	Diameter of wire armour	Thickness of outer sheath	Overall diameter	Conductor resistance at 20˚C	Current rating		Cable weight	Standard length
Cross Sectional area	Number of wires								in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	A	A	kg/km (Approx.)	(m/drum)
50	6	8.0	1.8	65.0	3.15	3.4	81	0.387	215	200	10,020	200
70	12	8.0	1.9	68.0	3.15	3.5	85	0.268	265	245	11,160	200
95	15	8.0	1.9	72.0	3.15	3.7	89	0.193	320	290	12,610	150
120	18	8.0	2.0	75.5	3.15	3.8	93	0.153	365	330	13,990	150
150	18	8.0	2.0	78.0	3.15	3.9	96	0.124	415	370	15,240	150
185	30	8.0	2.1	82.0	3.15	4.0	100	0.0991	470	415	17,020	100
240	34	8.0	2.2	87.5	3.15	4.2	107	0.0754	545	475	19,770	100

15 kV CV

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE (100% INSULATION LEVELS)

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi conductive cross-linked polyethylene compound
3. Insulation : Cross-linked polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape (or copper wires)
6. Binding tape : Polyester or Spunbond tape
7. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 15 kV	AC test voltage 35 kV , 44 kV for size over 500 mm²
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	ICEA S-93-639		

Conductor		Thickness of insulation	Thickness of sheath	Overall diammeter	Conductor resistance at 20˚C	Insulation resistance at 15.6˚C	Current rating		Cable weight	Standard length
Cross-sectional area	Number of wires						in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm²	(Min.)	mm (Nominal)	mm (Min.)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
25	6	4.45	1.78	23	0.727	2,209	160	150	690	500
35	6	4.45	1.78	24	0.524	2,009	200	180	820	500
50	6	4.45	1.78	26	0.387	1,797	245	215	970	500
70	12	4.45	1.78	27	0.268	1,624	300	260	1,200	500
95	15	4.45	1.78	29	0.193	1,455	370	315	1,490	500
120	18	4.45	1.78	30	0.153	1,332	425	355	1,760	500
150	18	4.45	1.78	32	0.124	1,242	485	400	2,050	500
185	30	4.45	1.78	34	0.0991	1,141	560	455	2,430	500
240	34	4.45	1.78	36	0.0754	1,021	665	530	3,030	500
300	34	4.45	1.78	38	0.0601	934	765	595	3,650	500
400	53	4.45	1.78	41	0.0470	846	890	680	4,490	500
500	53	4.45	1.78	45	0.0366	746	1,040	780	5,620	300
630	53	5.59	2.54	53	0.0283	673	1,200	885	7,420	300
800	53	5.59	2.54	57	0.0221	609	1,380	995	9,190	250

15 kV CV

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE (133% INSULATION LEVELS)

VENINE
สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi conductive cross-linked polyethylene compound
3. Insulation : Cross-linked polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape (or copper wires)
6. Binding tape : Polyester or Spunbond tape
7. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 15 kV	AC test voltage 44 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	ICEA S-93-639		

Conductor		Thickness of insulation	Thickness of sheath	Overall diammeter	Conductor resistance at 20˚C	Insulation resistance at 15.6˚C	Current rating		Cable weight	Standard length
Cross-sectional area	Number of wires						in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Min.)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
25	6	5.59	1.78	26	0.727	2,568	160	150	790	500
35	6	5.59	1.78	27	0.524	2,347	200	180	910	500
50	6	5.59	1.78	28	0.387	2,111	245	215	1,070	500
70	12	5.59	1.78	30	0.268	1,918	300	260	1,310	500
95	15	5.59	1.78	31	0.193	1,728	370	315	1,600	500
120	18	5.59	1.78	33	0.153	1,588	425	355	1,880	500
150	18	5.59	1.78	34	0.124	1,484	485	400	2,170	500
185	30	5.59	1.78	36	0.0991	1,368	560	455	2,560	500
240	34	5.59	1.78	39	0.0754	1,230	665	530	3,170	500
300	34	5.59	1.78	41	0.0601	1,128	765	595	3,800	500
400	53	5.59	1.78	44	0.0470	1,025	890	680	4,650	500
500	53	5.59	2.54	49	0.0366	908	1,040	780	5,970	300
630	53	5.59	2.54	53	0.0283	821	1,200	885	7,420	300
800	53	5.59	2.54	57	0.0221	745	1,380	995	9,190	250

25 kV CV

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE (100% INSULATION LEVELS)

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi conductive cross-linked polyethylene compound
3. Insulation : Cross-linked polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape (or copper wires)
6. Binding tape : Polyester or Spunbond tape
7. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 25 kV	AC test voltage 52 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	ICEA S-93-639		

Conductor		Thickness of insulation	Thickness of sheath	Overall diammeter	Conductor resistance at 20˚C	Insulation resistance at 15.6˚C	Current rating		Cable weight	Standard length
Cross-sectional area	Number of wires						in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Min.)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
35	6	6.6	1.78	29	0.524	2,614	200	180	1,010	500
50	6	6.6	1.78	30	0.387	2,362	245	215	1,170	500
70	12	6.6	1.78	32	0.268	2,154	305	260	1,410	500
95	15	6.6	1.78	33	0.193	1,948	370	310	1,710	500
120	18	6.6	1.78	35	0.153	1,795	425	355	1,990	500
150	18	6.6	1.78	36	0.124	1,682	485	400	2,290	500
185	30	6.6	1.78	38	0.0991	1,555	560	455	2,690	500
240	34	6.6	1.78	41	0.0754	1,402	660	525	3,300	500
300	34	6.6	1.78	43	0.0601	1,289	760	595	3,930	500
400	53	6.6	2.54	47	0.0470	1,174	880	680	4,970	500
500	53	6.6	2.54	51	0.0366	1,043	1,025	775	6,130	300
630	53	6.6	2.54	55	0.0283	946	1,190	885	7,600	300
800	53	6.6	2.54	59	0.0221	860	1,365	995	9,380	250

25 kV CV

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE (133% INSULATION LEVELS)

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi conductive cross-linked polyethylene compound
3. Insulation : Cross-linked polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape (or copper wires)
6. Binding tape : Polyester or Spunbond tape
7. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 25 kV	AC test voltage 64 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	ICEA S-93-639		

Conductor		Thickness of insulation	Thickness of sheath	Overall diammeter	Conductor resistance at 20˚C	Insulation resistance at 15.6˚C	Current rating		Cable weight	Standard length
Cross-sectional area	Number of wires						in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Min.)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
35	6	8.13	1.78	32	0.524	2,974	200	180	1,170	500
50	6	8.13	1.78	34	0.387	2,702	245	215	1,340	500
70	12	8.13	1.78	35	0.268	2,475	305	260	1,580	500
95	15	8.13	1.78	37	0.193	2,250	370	310	1,890	500
120	18	8.13	1.78	38	0.153	2,081	425	355	2,180	500
150	18	8.13	1.78	40	0.124	1,956	485	400	2,480	500
185	30	8.13	1.78	41	0.0991	1,814	560	455	2,890	500
240	34	8.13	1.78	44	0.0754	1,643	660	525	3,510	500
300	34	8.13	2.54	48	0.0601	1,516	760	595	4,330	500
400	53	8.13	2.54	51	0.0470	1,386	880	680	5,210	500
500	53	8.13	2.54	55	0.0366	1,236	1,025	775	6,400	300
630	53	8.13	2.54	58	0.0283	1,124	1,190	885	7,880	300
800	53	8.13	2.54	62	0.0221	1,025	1,365	995	9,680	250

35 kV CV

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE (100% INSULATION LEVELS)

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape (or copper wires)
6. Binding tape : Polyester or Spunbond tape
7. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 35 kV	AC test voltage 69 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	ICEA S-93-639		

Conductor		Thickness of insulation	Thickness of sheath	Overall diammeter	Conductor resistance at 20˚C	Insulation resistance at 15.6˚C	Current rating		Cable weight	Standard length
Cross-sectional area	Number of wires						in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Min.)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
50	6	8.76	1.78	35	0.387	2,830	245	210	1,410	500
70	12	8.76	1.78	36	0.268	2,597	305	260	1,650	500
95	15	8.76	1.78	38	0.193	2,364	370	310	1,970	500
120	18	8.76	1.78	40	0.153	2,191	425	355	2,260	500
150	18	8.76	1.78	41	0.124	2,061	485	400	2,560	500
185	30	8.76	1.78	43	0.0991	1,914	555	450	2,970	500
240	34	8.76	1.78	45	0.0754	1,736	655	525	3,600	500
300	34	8.76	2.54	49	0.0601	1,604	750	595	4,430	500
400	53	8.76	2.54	52	0.0470	1,468	870	680	5,320	300
500	53	8.76	2.54	56	0.0366	1,311	1,015	775	6,510	300
630	53	8.76	2.54	60	0.0283	1,194	1,180	885	7,990	300
800	53	8.76	2.54	64	0.0221	1,090	1,350	995	9,800	200

35 kV CV

1 CORE - CROSSLINKED POLYETHYLENE POWER CABLE (133% INSULATION LEVELS)

VENINE
สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Metallic screen : Copper tape (or copper wires)
6. Binding tape : Polyester or Spunbond tape
7. Sheath : Black Polyvinyl chloride (PVC), (Optional : PE)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 35 kV	AC test voltage 84 kV
APPLICATION	For general purpose power distribution in dry or wet location. Exposed in aerial, direct burial, conduit, open tray and underground duct installation.		
REFERENCE STANDARD	ICEA S-93-639		

Conductor		Thickness of insulation	Thickness of sheath	Overall diammeter	Conductor resistance at 20˚C	Insulation resistance at 15.6˚C	Current rating		Cable weight	Standard length
Cross-sectional area	Number of wires						in free air at 40˚C ambient	direct burial in ground at 30˚C		
mm^2	(Min.)	mm (Nominal)	mm (Min.)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	A	A	kg/km (Approx.)	(m/drum)
50	6	10.67	1.78	39	0.387	3,184	245	210	1,640	500
70	12	10.67	1.78	40	0.268	2,935	305	260	1,890	500
95	15	10.67	1.78	42	0.193	2,685	370	310	2,220	500
120	18	10.67	1.78	44	0.153	2,497	425	355	2,510	500
150	18	10.67	2.54	47	0.124	2,356	480	400	3,000	500
185	30	10.67	2.54	49	0.0991	2,196	550	450	3,420	500
240	34	10.67	2.54	51	0.0754	2,000	655	525	4,080	500
300	34	10.67	2.54	53	0.0601	1,854	750	595	4,740	500
400	53	10.67	2.54	56	0.0470	1,703	870	680	5,650	300
500	53	10.67	2.54	60	0.0366	1,528	1,015	775	6,860	300
630	53	10.67	2.54	64	0.0283	1,395	1,180	885	8,370	300
800	53	10.67	2.54	68	0.0221	1,278	1,350	995	10,200	200

ALUMINUM CONDUCTOR

15 kV 90°C SAC

SPACED AERIAL CABLE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Compact round stranded hard-drawn aluminum wires
2. Conductor screen : Semi-conductive cross-linked polyethylene (XLPE) compound
3. Insulation : Cross-linked polyethylene (XLPE)
4. Jacket : Black cross-linked polyethylene (XLPE)

CLASSIFICATION	Maximum conductor temperature 90°C	Maximum circuit voltage 15,000 V	AC test voltage 27,000 V
APPLICATION	For aerial power transmission and distribution line		
REFERENCE STANDARD	ICEA S-66-524/MEA		

Conductor		Thickness of conductor screen	Thickness of insulation	Thickness of jacket	Overall diammeter	Conductor resistance at 20°C	Insulation resistance at 15.6°C	Conductor breaking strength	Current rating in free air at 40°C ambient	Cable weight	Standard length
Cross Sectional area mm² (Nominal)	Number of wires (Min.)	mm (Average)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	N (Min.)	A	kg/km (Approx.)	m/drum
35	6	0.3	1.91	1.91	16.1	0.868	2,182	5,591	152	245	1,500
50	6	0.3	1.91	1.91	17.2	0.641	1,976	7,313	182	295	1,500
70	12	0.3	1.91	1.91	18.9	0.443	1,728	10,420	228	370	1,500
95	15	0.3	1.91	1.91	20.6	0.320	1,527	14,098	279	465	1,500
120	15	0.3	1.91	1.91	22.0	0.253	1,395	18,518	324	552	1,000
150	15	0.3	1.91	1.91	23.4	0.206	1,288	22,457	368	646	1,000
185	30	0.3	1.91	1.91	25.1	0.164	1,176	28,974	426	766	1,000
240	30	0.3	1.91	1.91	27.6	0.125	1,043	37,506	509	955	1,000

25 kV 90°C SAC

SPACED AERIAL CABLE

VENINE
สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Compact round stranded hard-drawn aluminum wires
2. Conductor screen : Semi-conductive cross-linked polyethylene (XLPE) compound
3. Insulation : Cross-linked polyethylene (XLPE)
4. Jacket : Black cross-linked polyethylene (XLPE)

CLASSIFICATION	Maximum conductor temperature 90°C	Maximum circuit voltage 25,000 V	AC test voltage 38,000 V
APPLICATION	For aerial power transmission and distribution line		
REFERENCE STANDARD	TIS 2341 - 2555		

Conductor		Thickness of conductor screen	Thickness of insulation	Thickness of jacket	Overall diammeter	Conductor resistance at 20°C	Insulation resistance at 15.6°C	Conductor breaking strength	Current rating in free air at 40°C ambient	Cable weight	Standard length
Cross Sectional area mm² (Nominal)	Number of wires (Min.)	mm (Average)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	N (Min.)	A	kg/km (Approx.)	m/drum
35	6	0.3	3.18	3.18	21.0	0.868	2,580	5,591	150	381	1,500
50	6	0.3	3.18	3.18	22.0	0.641	2,380	7,313	181	438	1,500
70	12	0.3	3.18	3.18	23.5	0.443	2,126	10,420	225	527	1,500
95	15	0.3	3.18	3.18	25.5	0.320	1,913	14,098	275	636	1,500
120	15	0.3	3.18	3.18	27.0	0.253	1,759	18,518	319	734	1,000
150	15	0.3	3.18	3.18	28.0	0.206	1,648	22,457	362	838	1,000
185	30	0.3	3.18	3.18	30.0	0.164	1,521	28,974	418	970	1,000
240	30	0.3	3.18	3.18	32.5	0.125	1,367	37,506	497	1,178	1,000

35 kV 90°C SAC

SPACED AERIAL CABLE

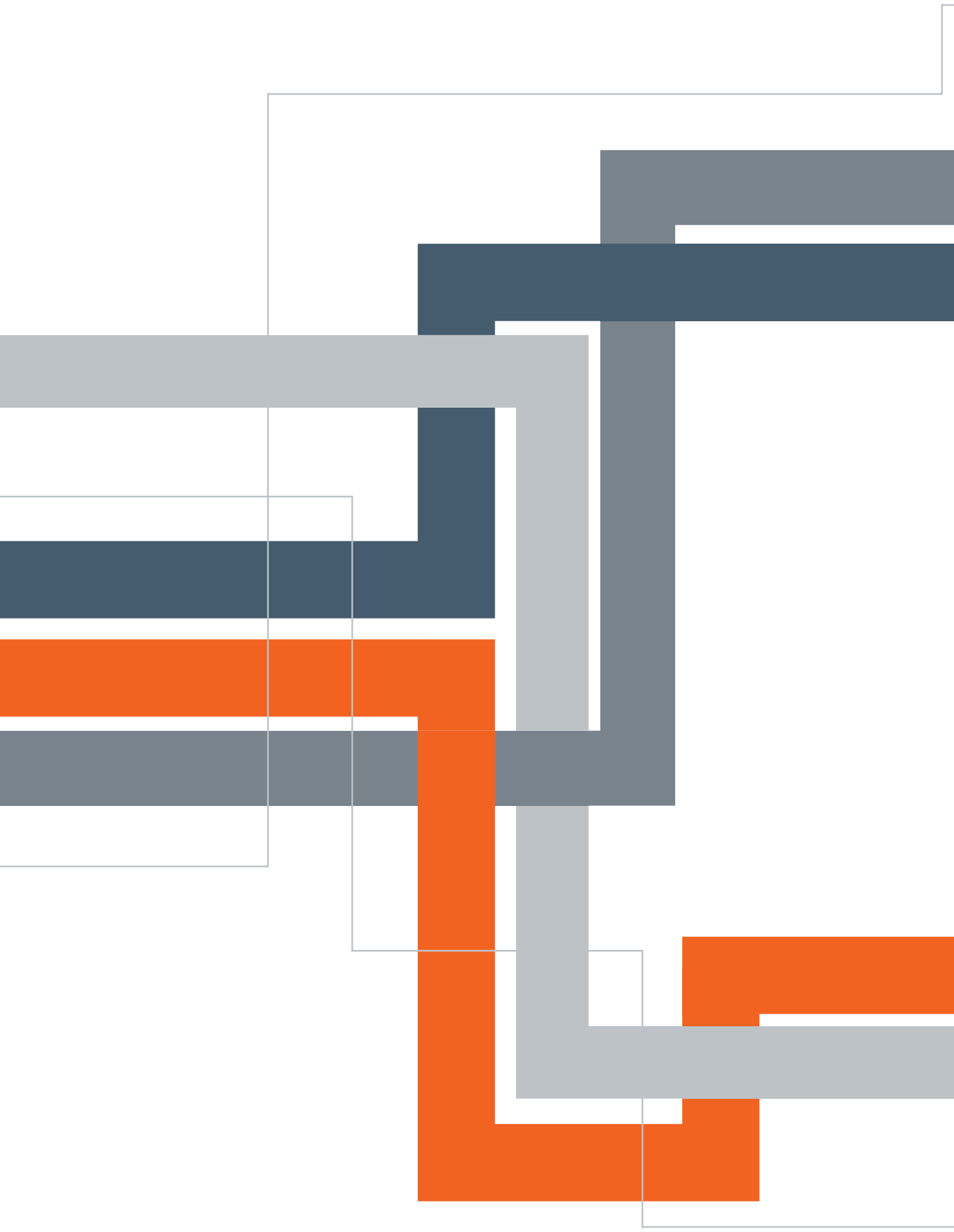
VENINE
สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Compact round stranded hard-drawn aluminum wires
2. Conductor screen : Semi-conductive cross-linked polyethylene (XLPE) compound
3. Insulation : Cross-linked polyethylene (XLPE)
4. Jacket : Black cross-linked polyethylene (XLPE)

CLASSIFICATION	Maximum conductor temperature 90°C	Maximum circuit voltage35,000 V	AC test voltage 49,000 V
APPLICATION	For aerial power transmission and distribution line		
REFERENCE STANDARD	TIS 2341 - 2555		

Conductor		Thickness of conductor screen	Thickness of insulation	Thickness of jacket	Overall diammeter	Conductor resistance at 20°C	Insulation resistance at 15.6°C	Conductor breaking strength	Current rating in free air at 40°C ambient	Cable weight	Standard length
Cross Sectional area mm² (Nominal)	Number of wires (Min.)	mm (Average)	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	N (Min.)	A	kg/km (Approx.)	m/drum
50	6	0.3	4.45	3.18	22.0	0.641	2,677	7,313	181	525	1,500
70	12	0.3	4.45	3.18	23.5	0.443	2,403	10,420	225	621	1,500
95	15	0.3	4.45	3.18	25.5	0.320	2,172	14,098	274	736	1,000
120	15	0.3	4.45	3.18	27.0	0.253	2,004	18,518	317	840	1,000
150	15	0.3	4.45	3.18	28.0	0.206	1,883	22,457	360	948	1,000
185	30	0.3	4.45	3.18	30.0	0.164	1,743	28,974	415	1,087	1,000
240	30	0.3	4.45	3.18	32.5	0.125	1,573	37,506	493	1,305	1,000

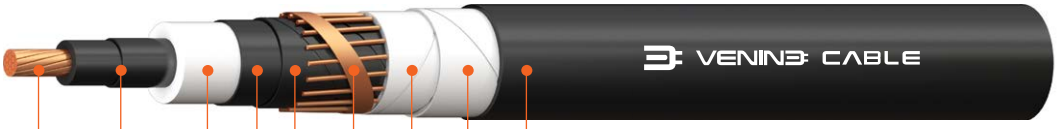


HIGH VOLTAGE POWER CABLES

69 kV CE

1 CORE CROSSLINKED POLYETHYLENE POWER CABLE

VENINE สายไฟฟ้าวีนายน์



CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive tape with extruded Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Water blocking tape : Semi-conductive water blocking tape
6. Metallic screen : Copper wires with copper contact tape
7. Water blocking and Cushioning tape : Non-conductive water blocking tape
8. Radial water barrier : Copolymer aluminum tape
9. Sheath : Black Polyethylene (PE) , (Optional : with RIB)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 72.5 kV	AC test voltage 90 kV
APPLICATION	Preferably laid in substations, factories and urban area. the cable shall be suitable for use in ducts, trays and direct burial in ground. subjected to immerse in water all time.		
REFERENCE STANDARD	IEC 60840 , TIS 2202		

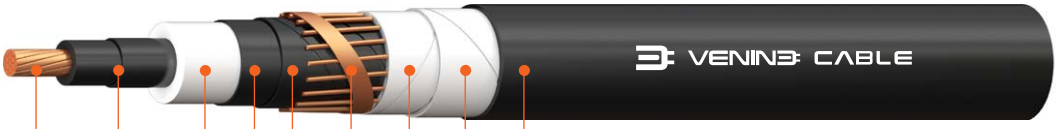
conductor		Thickness of conductor screen	Thickness of Insulation	Thickness of insulation screen	Area of metallic screen	Thickness of sheath	Overall diameter (Excluding Rib)	Conductor resistance at 20˚C	Capacitance	Current rating direct burial in ground at 30˚C	Cable weight (Excluding Rib)	Standard length
Cross Sectional area	Number of wires											
mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Nominal)	mm^2	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	μF/km (Nominal)	A	kg/km (Approx.)	(m/drum)
400	53	1.5	11.0	1.5	120	3.5	68	0.0470	0.222	680	7,280	500
500	53	1.5	11.0	1.5	120	3.5	71	0.0366	0.246	775	8,520	500
630	53	1.5	11.0	1.5	120	3.5	75	0.0283	0.269	885	10,050	300
800	53	1.5	11.0	1.5	120	3.5	79	0.0221	0.292	995	11,900	300

*The area of metallic screen can be designed upon request by not less than 95 mm^2

115 kV CE

1 CORE CROSSLINKED POLYETHYLENE POWER CABLE

VENINE สายไฟฟ้าวีนายน์



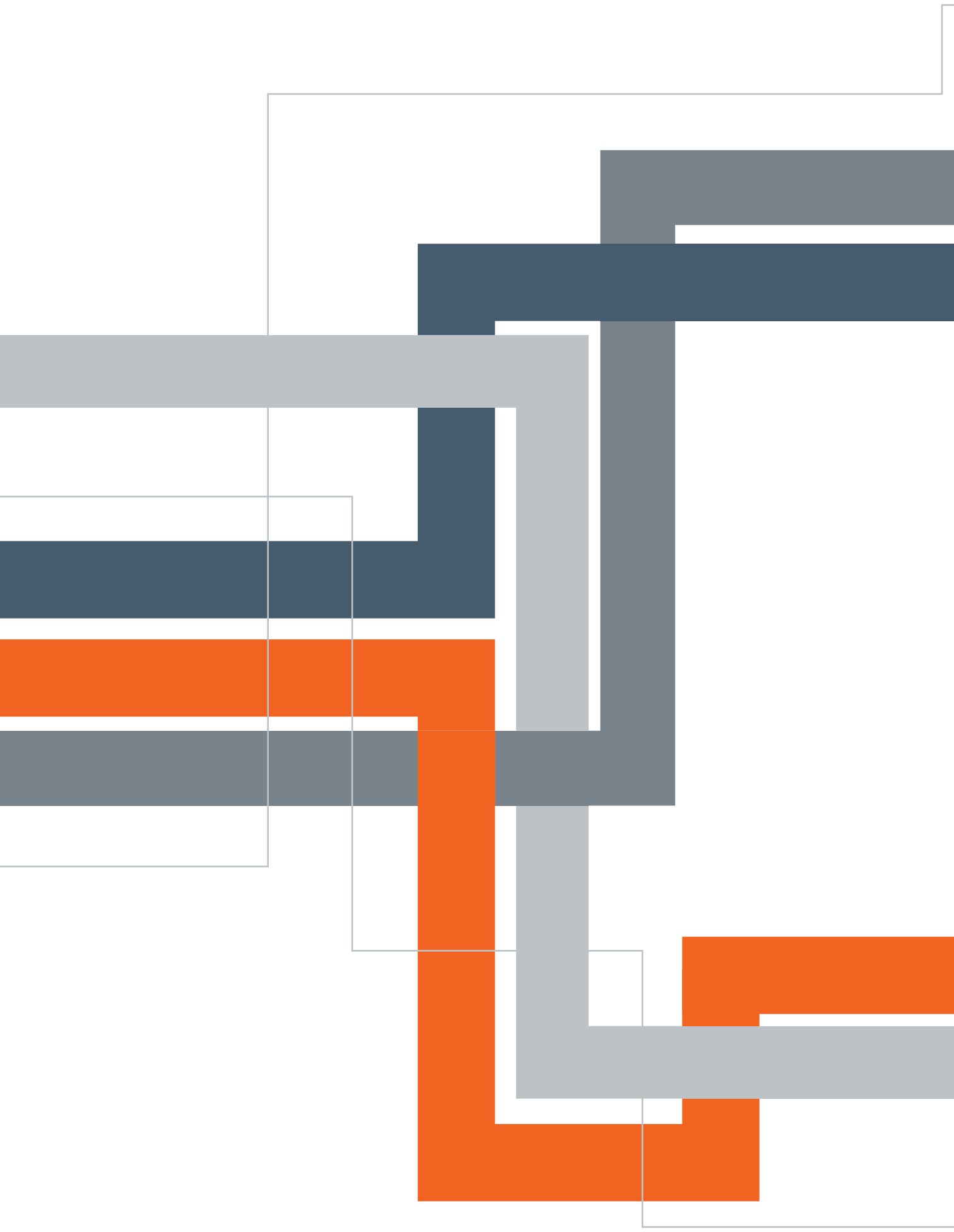
CONSTRUCTION

1. Conductor : Circular compact stranded annealed copper
2. Conductor screen : Semi-conductive tape with extruded Semi-conductive cross-linked polyethylene compound
3. Insulation : Cross-linked polyethylene (XLPE) compound
4. Insulation screen : Semi-conductive cross-linked polyethylene compound
5. Water blocking tape : Semi-conductive water blocking tape
6. Metallic screen : Copper wires with copper contact tape
7. Water blocking and Cushioning tape : Non-conductive water blocking tape
8. Radial water barrier : Copolymer aluminum tape
9. Sheath : Black Polyethylene (PE) , (Optional : with RIB)

CLASSIFICATION	Maximum conductor temperature 90˚C	Maximum circuit voltage 123 kV	AC test voltage 160 KV
APPLICATION	Preferably laid in substations, factories and urban area. The cable shall be suitable for use in ducts, trays and direct burial in ground, subjected to immerse in water all time.		
REFERENCE STANDARD	IEC 60840, TIS 2202		

conductor		Thickness of conductor screen	Thickness of Insulation	Thickness of insulation screen	Area of metallic screen	Thickness of sheath	Overall diameter (Excluding Rib)	Conductor resistance at 20˚C	Capacitance	Current rating direct burial in ground at 30˚C	Cable weight (Excluding Rib)	Standard length
Cross Sectional area	Number of wires											
mm^2	(Min.)	mm (Nominal)	mm (Nominal)	mm (Nominal)	mm^2	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	μF/km (Nominal)	A	kg/km (Approx.)	(m/drum)
400	53	1.5	16.0	1.5	120	3.5	78	0.0470	0.170	680	8,320	500
500	53	1.5	16.0	1.5	120	3.5	82	0.0366	0.187	775	9,620	500
630	53	1.5	16.0	1.5	120	3.5	85	0.0283	0.203	880	11,210	300
800	53	1.5	16.0	1.5	120	3.5	89	0.0221	0.219	990	13,120	300

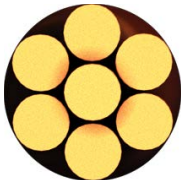
*The area of metallic screen can be designed upon request by not less than 95 mm^2



BARE CONDUCTORS

BCW

SOFT DRAWN COPPER STRANDED CONDUCTOR



CONSTRUCTION

1. Conductor : Stranded soft-drawn copper

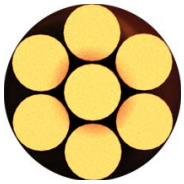
APPLICATION Conductor for grounding system ro general use for electrical purposes.

REFERENCE STANDARD ASTM B 3 & ASTM B 8 , TIS 2427

Number cross sectional area mm²	Calculated cross sectional area mm²	Number&dia. fo wires mm	Overall diameter mm	Conductor resistance at 20 °c Ω/km (Max.)	Curren arting in free air at 40 °c ambient A	Cable weight kg/km (approx)	Standard length m
6	5.83	7/1.03	3.09	3.08	65	53	1,000
10	9.73	7/1.33	3.99	1.83	90	89	1,000
16	15.33	7/1.67	5.01	1.15	125	140	1,000
25	24.25	7/2.10	6.30	0.727	160	221	1,000
35	34.02	19/1.51	7.55	0.524	200	311	1,000
50	45.70	19/1.75	8.75	0.387	250	417	1,000
70	65.81	19/2.10	10.50	0.268	310	601	1,000
95	91.04	19/2.47	12.35	0.193	380	831	1,000
120	115.08	37/1.99	13.93	0.153	440	1,053	1,000
150	141.93	37/2.21	15.47	0.124	510	1,300	1,000
185	177.29	37/2.47	17.29	0.0991	585	1,624	1,000
240	233.99	61/2.21	19.89	0.0754	700	2,158	1,000
300	292.29	61/2.47	22.23	0.0601	800	2,696	500
400	375.61	61/2.80	25.20	0.0470	900	3,464	500
500	481.44	61/3.17	28.53	0.0366	1,110	4,440	500

FHC

HARD DRAWN COPPER STRANDED CONDUCTOR



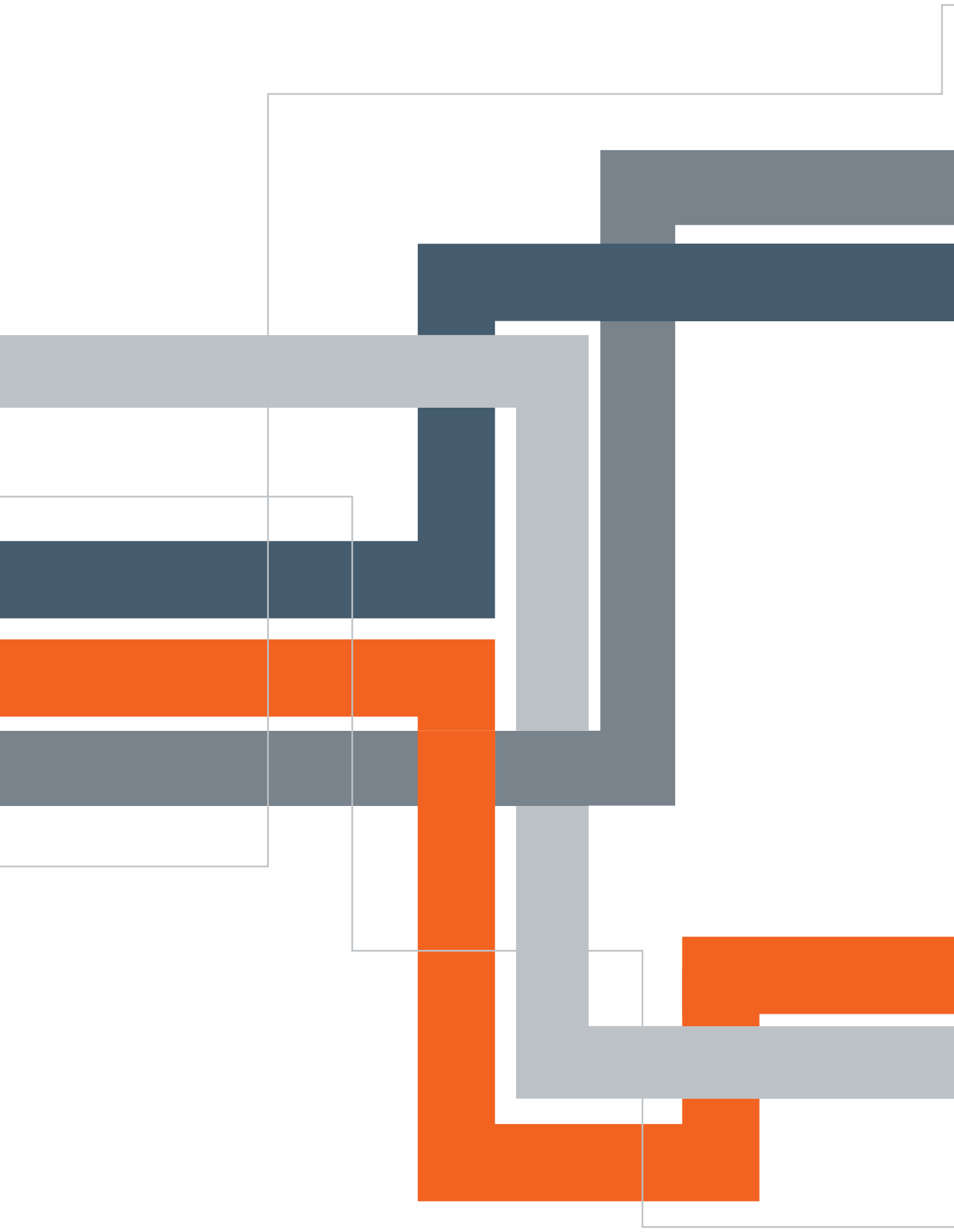
CONSTRUCTION

1. Conductor : Stranded hard-drawn copper

APPLICATION Aerial power transmission and distribution line.

REFERENCE STANDARD TIS 64-2517

Number Cross Sectional area mm²	Calculated cross sectional area mm²	Numer&dia. diameter No./mm	Overall diameter mm	Conductor resistance at 20 °c Ω/km (Max.)	Breaking Strength (kgf)	Curren arting in free air at 40 °c ambient A	Cable weight kg/km (approx)	Standard length m
10	10.02	7/1.35	4.05	1.80548	438	90	90	1,000
16	15.89	7/1.70	5.10	1.13857	694	125	143	1,000
25	25.18	7/2.14	6.42	0.71851	1,076	160	227	1,000
35	34.91	7/2.52	7.56	0.51815	1,459	200	314	1,000
50	50.14	7/3.02	9.06	0.35896	2,095	250	452	1,000
50	47.28	19/1.78	8.90	0.38252	2,021	250	428	1,000
70	68.34	19/2.14	10.70	0.26466	2,921	310	618	1,000
95	94.77	19/2.52	12.60	0.19183	3,961	380	858	1,000
120	121.21	19/2.85	14.20	0.14922	5,067	440	1,097	1,000
150	147.12	37/2.25	15.75	0.12384	6,289	510	1,334	1,000
185	184.54	37/2.52	17.64	0.09873	7,713	585	1,673	500
240	242.54	61/2.25	20.25	0.07528	10,369	700	2,200	500
300	304.24	61/2.52	22.68	0.06002	17,717	800	2,760	500
400	389.14	61/2.85	25.65	0.04692	16,266	900	3,530	300
500	490.59	61/3.20	28.80	0.03703	20,506	1,110	4,451	300



ALUMINUM CONDUCTOR

AAC (A1)

ALL ALUMINUM STRANDED CONDUCTOR

CONSTRUCTION

1. Conductor : stranded hard-drawn aluminum wires (A1)

APPLICATION For aerial power transmission and distribution

REFERENCE STANDARD TIS 85 - 2548 , Table ง.1

Code sectional area mm² (Nominal)	Cross-sectional area mm² (Approx.)	Number of wires	Overall diameter mm (Approx.)	Conductor resistance at 20˚C Ω/km (Max.)	Rated tensile stength kN (Min.)	Current rating in free air at 40˚C ambient A	Conductor weight kg/km (Approx.)	Standard length (m/drum)
10	10	7	4.05	2.8633	1.95	81	27	3,000
16	16	7	5.12	1.7896	3.04	109	44	3,000
25	25	7	6.40	1.1453	4.50	146	68	3,000
40	40	7	8.09	0.7158	6.80	197	109	2,500
63	63	7	10.20	0.4545	10.39	264	172	2,500
100	100	19	12.90	0.2877	17.00	355	275	2,500
125	125	19	14.50	0.2302	21.25	411	344	2,000
160	160	19	16.40	0.1798	26.40	482	440	2,000
200	200	19	18.30	0.1439	32.00	556	550	2,000
250	250	19	20.50	0.1151	40.00	643	687	1,500
315	315	37	23.00	0.0916	51.97	745	868	1,500
400	400	37	26.00	0.0721	64.00	870	1,102	1,000
450	450	37	27.50	0.0641	72.00	938	1,240	1,000
500	500	37	29.00	0.0577	80.00	1,003	1,378	1,000
560	560	37	30.70	0.0515	89.60	1,078	1,543	1,000
630	630	61	32.60	0.0458	100.80	1,162	1,738	1,000
710	710	61	34.60	0.0407	113.60	1,252	1,959	500
800	800	61	36.80	0.0361	128.00	1,349	2,207	500
900	900	61	39.00	0.0321	144.00	1,450	2,483	500
1000	1000	61	41.10	0.0289	160.00	1,545	2,759	500

CONSTRUCTION
1. Conductor : stranded hard-drawn aluminum wires

APPLICATION For aerial power transmission and distribution

REFERENCE STANDARD TIS 85 - 2548 (Reference to TIS 85 - 2522)

Code sectional area mm² (Nominal)	Cross-sectional area mm² (Actual)	Number of wires	Overall diameter mm (Approx.)	Conductor resistance at 20°C Ω/km (Max.)	Rated tensile stength kN (Min.)	Current rating in free air at 40°C ambient A	Conductor weight kg/km (Approx.)	Standard length (m/drum)
16	15.89	7	5.10	1.8022	2.844	110	44	4,000
25	25.18	7	6.42	1.1373	4.315	145	69	4,000
35	34.91	7	7.56	0.8202	5.737	180	96	3,000
50	50.14	7	9.06	0.5711	7.894	225	137	3,000
50	49.97	19	9.15	0.5758	8.727	225	137	3,000
70	68.98	19	10.75	0.4171	11.816	270	190	2,500
95	94.76	19	12.60	0.3036	15.543	340	261	2,500
120	121.21	19	14.25	0.2374	19.416	390	333	2,500
150	147.12	37	15.75	0.1960	25.201	455	406	2,500
185	184.54	37	17.64	0.1563	30.252	550	509	2,500
240	242.54	61	20.25	0.1191	39.371	625	670	1,500
300	304.24	61	22.68	0.0949	47.265	710	840	1,500
400	389.14	61	25.65	0.0742	59.081	855	1,075	1,000
500	506.04	61	29.25	0.0571	78.105	990	1,398	1,000
625	626.20	91	32.56	0.0462	95.060	1,140	1,735	1,000
800	802.08	91	36.85	0.0360	118.211	1,340	2,222	500
1,000	999.71	91	41.14	0.0289	145.570	1,540	2,769	500

ACSR (A1/S1A)

ALUMINUM CONDUCTOR , STEEL-REINFORCED

CONSTRUCTION

1. Steel Core : Solid or stranded regular stength galvanized steel wires (S1 A)
2. Conductor : Stranded hard-drawn aluminum wires (A1)

APPLICATION For aerial power transmission and distribution line

REFERENCE STANDARD TIS 85 - 2548, Table 4

Code No.	Steel Ratio %	Cross - sectional		Number		Conductor resistance at 20°C ambient	Rated Tensile Stength	Current rating in free air at 40°C ambient	Conduc- or weight	Standard length
		area Al mm² (Approx.)	area Steel mm² (Approx.)	of wires Al	of wires Steel	Ω/km (Max.)	kN (Min.)	(A)	kg/km (Approx.)	(m/drum)
16	17	16	0.00	6	1	1.7934	6.08	112	64.6	4,000
25	17	25	4.17	6	1	1.1478	9.13	149	100.9	4,000
40	17	40	6.67	6	1	0.7174	14.40	201	161.5	3,000
63	17	63	10.5	6	1	0.4555	21.63	269	254.4	3,000
100	17	100	16.7	6	1	0.2869	34.33	363	403.8	3,000
125	6	125	6.9	18	1	0.2304	29.17	414	397.9	2,000
125	16	125	20.4	26	7	0.2310	45.69	420	503.9	2,000
160	6	160	8.9	18	1	0.1800	36.18	485	509.3	2,000
160	16	160	26.1	26	7	0.1805	57.69	492	644.9	2,000
200	6	200	11.1	18	1	0.1440	44.22	560	636.7	2,000
200	16	200	32.6	26	7	0.1444	70.13	568	806.2	2,000
250	10	250	24.6	22	7	0.1154	68.72	652	880.6	1,500
250	16	250	40.7	26	7	0.1155	87.67	657	1,007.7	1,500
315	7	315	21.8	45	7	0.0917	79.03	754	1,039.6	1,500
315	16	315	51.3	26	7	0.0917	106.83	763	1,269.7	1,500
400	7	400	27.7	45	7	0.0722	98.36	879	1,320.1	1,000
400	13	400	51.9	54	7	0.0723	123.04	885	1,510.3	1,000
450	7	450	31.1	45	7	0.0642	107.47	947	1,485.2	1,000
450	13	450	58.3	54	7	0.0643	138.42	955	1,699.1	1,000
500	7	500	34.6	45	7	0.0578	119.41	1,014	1,650.2	1,000
500	13	500	64.8	54	7	0.0578	153.80	1,022	1,887.9	1,000
560	7	560	38.7	45	7	0.0516	133.74	1,089	1,848.2	1,000
560	13	560	70.9	54	19	0.0516	172.59	1,099	2,103.4	1,000
630	7	630	43.6	45	7	0.0459	150.45	1,174	2,079.2	1,000
630	13	630	79.8	54	19	0.0459	191.77	1,184	2,366.3	1,000
710	7	710	49.1	45	7	0.0407	169.56	1,266	2,343.2	500
710	13	710	89.9	54	19	0.0407	216.12	1,276	2,666.8	500

ACSR

ALUMINUM CONDUCTOR, STEEL-REINFORCED

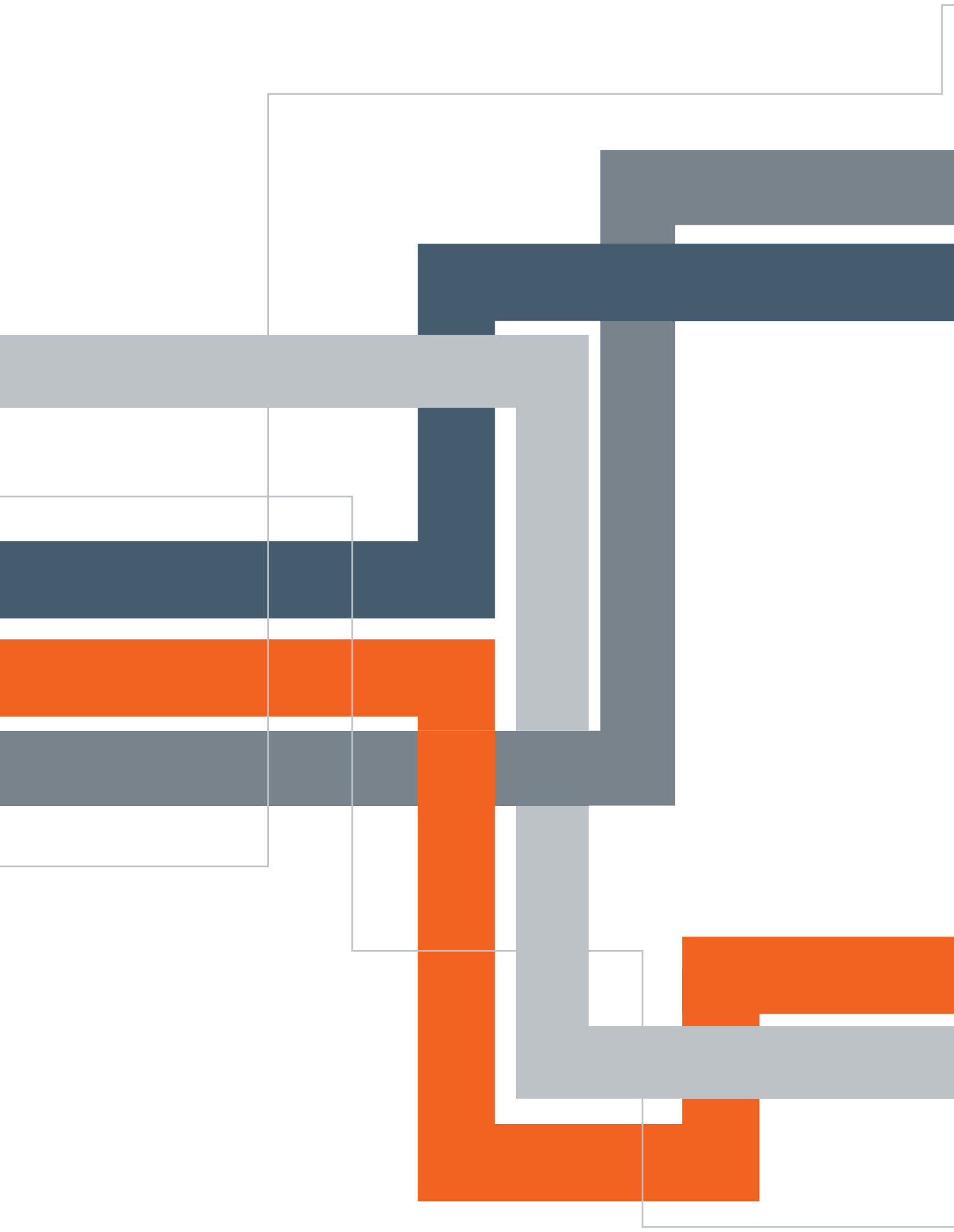
CONSTRUCTION

1. Steel Core : Solid or stranded regular stength galvanized steel wires
2. Conductor : Stranded hard-drawn aluminum wires

APPLICATION For aerial power transmission and distribution line.

REFERENCE STANDARD TIS 85-2548 (Reference to TIS 86 - 2522)

Cross sectional area (Al/St)	Cross sectional area		Number		Conductor resistance at 20°C ambient	Rated Tensile Stength	Current rating in free air at 40°C ambient	Conductor weight	Standard length
	Al	Steel	of wires	of wires					
mm² (Nominal)	mm² (Approx.)	mm² (Approx.)	Al	Steel	Ω/km (Max.)	kN (Min.)	A	kg/km (Approx.)	m/drum
16/2.5	15.3	2.6	6	1	1.8786	5.805	90	62	4,000
25/4	23.8	4.0	6	1	1.2023	8.982	125	97	4,000
35/6	34.3	5.7	6	1	0.8349	12.405	145	139	3,000
50/8	48.3	8.0	6	1	0.5944	16.827	170	195	3,000
50/30	51.2	29.8	12	7	0.5642	42.95	170	375	2,000
70/12	69.9	11.4	26	7	0.413	26.241	290	282	2,000
95/15	94.4	15.3	26	7	0.3058	34.958	350	381	2,000
95/55	96.5	56.3	12	7	0.2991	78.105	350	708	2,000
120/20	121.6	19.8	26	7	0.2374	44.666	410	491	2,000
120/70	122	71.3	12	7	0.2363	98.393	410	896	2,000
125/30	127.9	29.8	30	7	0.2258	56.473	425	587	2,000
150/25	148.9	24.2	26	7	0.1939	54.06	470	601	1,500
170/40	171.8	40.1	30	7	0.1682	75.261	520	789	1,500
185/30	183.8	29.8	26	7	0.1571	64.896	535	741	1,500
210/35	209.1	34.1	26	7	0.138	73.437	590	844	1,500
210/50	212.1	49.5	30	7	0.1362	92.078	610	974	1,000
230/30	230.9	29.8	24	7	0.1249	71.711	630	871	1,000
240/40	243	39.5	26	7	0.1188	84.724	645	981	1,000
265/35	263.7	34.1	24	7	0.1094	81.458	680	995	1,000
300/50	304.3	49.5	26	7	0.0949	104.944	740	1,228	1,000
305/40	304.6	39.5	54	7	0.0949	97.491	740	1,152	1,000
380/50	382	49.5	54	7	0.0756	120.731	840	1,443	1,000
435/55	434.3	56.3	54	7	0.0666	134.077	900	1,642	1,000
490/65	490.3	63.6	54	7	0.059	150.453	960	1,853	1,000
550/70	550	71.3	54	7	0.0526	167.643	1,020	2,078	1,000
680/85	678.8	86.0	54	19	0.0426	206.318	1,150	2,552	500



CONTROL CABLES

600 V CVV

2-30 CORES - POLYVINYL CHLORIDE FLEXIBLE CONTROL CABLE

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunched stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC), Black colour with marking number on the surface of insulation
3. Filler : Optional Polypropylene (Non-hygroscopic material)
4. Binding tape : Polyester tape and/or Spunbond tape
5. Sheath : Polyvinyl chloride (PVC), Black colour

CLASSIFICATION	Maximum conductor temperature 70˚C	Maximum circuit voltage 600 V	AC test voltage / 2,000 V
APPLICATION	For supervisory electrical equipment, station control circuits. Out door, suitable installation in the wet or dry cable trenches.		
REFERENCE STANDARD	TIS 838 - 2531 TABLE 10 (TYPE B)		

Number of core	Conductor: Cross Sectional area mm²	Thickness of Insulation mm (Nominal)	Thickness of outer Sheath mm (Nominal)	Overall diameter mm (Approx.)	Conductor resistance at 20˚C Ω/km (Max.)	Insulation resistance at 15.6˚C MΩ.km (Min.)	Cable weight kg/km (Approx.)	Standard length m/drum
2	0.75	0.76	1.14	8.5	24.5	257	90	500
	1.00	0.76	1.14	9.0	18.1	228	100	500
	1.50	0.76	1.14	11.5	12.1	252	150	500
	2.50	1.14	1.14	12.5	7.41	209	190	500
	4.00	1.14	1.14	14.0	4.61	177	240	500
	6.00	1.14	1.52	16.0	3.08	153	330	500
	10.00	1.52	1.52	19.5	1.83	154	520	500
3	0.75	0.76	1.14	9.0	24.5	257	100	500
	1.00	0.76	1.14	9.5	18.1	228	110	500
	1.50	0.76	1.14	12.0	12.1	252	180	500
	2.50	1.14	1.14	13.5	7.41	209	230	500
	4.00	1.14	1.52	15.5	4.61	177	320	500
	6.00	1.14	1.52	17.0	3.08	153	410	500
	10.00	1.52	1.52	21.0	1.83	154	650	500
4	0.75	0.76	1.14	10.0	24.5	257	120	500
	1.00	0.76	1.14	10.5	18.1	228	130	500
	1.50	0.76	1.14	13.5	12.1	252	210	500
	2.50	1.14	1.52	15.5	7.41	209	310	500
	4.00	1.14	1.52	17.0	4.61	177	400	500
	6.00	1.14	1.52	18.5	3.08	153	510	500
	10.00	1.52	2.03	24.0	1.83	154	860	500

Number of core	Conductor: Cross Sectional area mm²	Thickness of Insulation mm (Nominal)	Thickness of outer Sheath mm (Nominal)	Overall diameter mm (Approx.)	Conductor resistance at 20°C Ω/km (Max.)	Insulation resistance at 15.6°C MΩ.km (Min.)	Cable weight kg/km (Approx.)	Standard length m/drum
5	0.75	0.76	1.14	11.0	24.5	257	130	500
	1.00	0.76	1.14	11.5	18.1	228	160	500
	1.50	0.76	1.52	15.5	12.1	252	270	500
	2.50	1.14	1.52	17.0	7.41	209	360	500
	4.00	1.14	1.52	18.7	4.61	177	470	500
	6.00	1.14	1.52	20.5	3.08	153	600	500
	10.00	1.52	2.03	26.5	1.83	154	1020	500
6	0.75	0.76	1.14	12.0	24.5	257	160	500
	1.00	0.76	1.14	12.5	18.1	228	190	500
	1.50	0.76	1.52	17.0	12.1	252	330	500
	2.50	1.14	1.52	18.5	7.41	209	430	500
	4.00	1.14	1.52	20.5	4.61	177	560	500
	6.00	1.14	1.52	22.0	3.08	153	720	500
	10.00	1.52	2.03	29.0	1.83	154	1220	500
7	0.75	0.76	1.14	12.0	24.5	257	160	500
	1.00	0.76	1.14	12.5	18.1	228	200	500
	1.50	0.76	1.52	17.0	12.1	252	340	500
	2.50	1.14	1.52	18.5	7.41	209	450	500
	4.00	1.14	1.52	20.5	4.61	177	600	500
	6.00	1.14	1.52	22.0	3.08	153	770	500
	10.00	1.52	2.03	29.0	1.83	154	1300	500
8	0.75	0.76	1.14	13.0	24.5	257	190	500
	1.00	0.76	1.14	13.5	18.1	228	220	500
	1.50	0.76	1.52	18.0	12.1	252	390	500
	2.50	1.14	1.52	20.0	7.41	209	520	500
	4.00	1.14	1.52	22.0	4.61	177	690	500
	6.00	1.14	2.03	25.0	3.08	153	950	500
	10.00	1.52	2.03	31.5	1.83	154	1500	500
9	0.75	0.76	1.14	13.5	24.5	257	210	500
	1.00	0.76	1.52	15.5	18.1	228	280	500
	1.50	0.76	1.52	19.5	12.1	252	440	500
	2.50	1.14	1.52	21.5	7.41	209	590	500
	4.00	1.14	2.03	25.0	4.61	177	830	500
	6.00	1.14	2.03	27.0	3.08	153	1070	500
	10.00	1.52	2.03	34.0	1.83	154	1700	500
10	0.75	0.76	1.52	15.5	24.5	257	270	500
	1.00	0.76	1.52	16.5	18.1	228	310	500
	1.50	0.76	1.52	21.5	12.1	252	500	500
	2.50	1.14	2.03	24.5	7.41	209	720	500
	4.00	1.14	2.03	27.0	4.61	177	940	500
	6.00	1.14	2.03	29.5	3.08	153	1210	500
	10.00	1.52	2.03	37.0	1.83	154	1930	500

Number of core	Conductor: Cross Sectional area mm²	Thickness of Insulation mm (Nominal)	Thickness of outer Sheath mm (Nominal)	Overall diameter mm (Approx.)	Conductor resistance at 20°C Ω/km (Max.)	Insulation resistance at 15.6°C MΩ.km (Min.)	Cable weight kg/km (Approx.)	Standard length m/drum
11	0.75	0.76	1.52	15.5	24.5	257	280	500
	1.00	0.76	1.52	16.5	18.1	228	330	500
	1.50	0.76	1.52	21.5	12.1	252	520	500
	2.50	1.14	2.03	27.0	7.41	209	760	500
	4.00	1.14	2.03	29.5	4.61	177	990	500
	6.00	1.14	2.03	37.0	3.08	153	1290	500
	10.00	1.52	2.03	39.5	1.83	154	2060	500
12	0.75	0.76	1.52	16.0	24.5	257	300	500
	1.00	0.76	1.52	17.0	18.1	228	350	500
	1.50	0.76	1.52	22.0	12.1	252	560	500
	2.50	1.14	2.03	25.5	7.41	209	810	500
	4.00	1.14	2.03	28.0	4.61	177	1060	500
	6.00	1.14	2.03	30.5	3.08	153	1380	500
	10.00	1.52	2.03	28.0	1.83	154	2210	500
13	0.75	0.76	1.52	16.5	24.5	257	310	500
	1.00	0.76	1.52	17.5	18.1	228	370	500
	1.50	0.76	1.52	22.5	12.1	252	590	500
	2.50	1.14	2.03	26.0	7.41	209	860	500
	4.00	1.14	2.03	28.5	4.61	177	1130	500
	6.00	1.14	2.03	31.0	3.08	153	1470	500
	10.00	1.52	2.03	39.0	1.83	154	2360	500
14	0.75	0.76	1.52	17.0	24.5	257	330	500
	1.00	0.76	1.52	18.0	18.1	228	390	500
	1.50	0.76	2.03	24.0	12.1	252	690	500
	2.50	1.14	2.03	26.5	7.41	209	920	500
	4.00	1.14	2.03	29.5	4.61	177	1210	500
	6.00	1.14	2.03	32.0	3.08	153	1570	500
	10.00	1.52	2.03	40.0	1.83	154	2530	500
15	0.75	0.76	1.52	17.5	24.5	257	350	500
	1.00	0.76	1.52	18.5	18.1	228	420	500
	1.50	0.76	2.03	25.0	12.1	252	720	500
	2.50	1.14	2.03	27.5	7.41	209	970	500
	4.00	1.14	2.03	30.0	4.61	177	1280	500
	6.00	1.14	2.03	33.0	3.08	153	1670	500
	10.00	1.52	2.03	41.5	1.83	154	2690	500
16	0.75	0.76	1.52	18.0	24.5	257	370	500
	1.00	0.76	1.52	19.0	18.1	228	440	500
	1.50	0.76	2.03	25.5	12.1	252	760	500
	2.50	1.14	2.03	28.0	7.41	209	1020	500
	4.00	1.14	2.03	31.0	4.61	177	1350	500
	6.00	1.14	2.03	34.0	3.08	153	1760	500
	10.00	1.52	2.03	42.5	1.83	154	2840	500

Number of core	Conductor	Thickness of Insulation	Thickness of outer Sheath	Overall diameter	Conductor resistance at 20°C	Insulation resistance at 15.6°C	Cable weight	Standard length
	Cross Sectional area mm²	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	kg/km (Approx.)	m/drum
17	0.75	0.76	1.52	18.5	24.5	257	390	500
	1.00	0.76	1.52	19.5	18.1	228	460	500
	1.50	0.76	2.03	26.5	12.1	252	850	500
	2.50	1.14	2.03	29.0	7.41	209	1080	500
	4.00	1.14	2.03	32.0	4.61	177	1430	500
	6.00	1.14	2.03	35.0	3.08	153	1860	500
	10.00	1.52	2.03	44.0	1.83	154	3010	500
18	0.75	0.76	1.52	19.0	24.5	257	410	500
	1.00	0.76	1.52	20.0	18.1	228	490	500
	1.50	0.76	2.03	27.0	12.1	252	850	500
	2.50	1.14	2.03	29.5	7.41	209	1140	500
	4.00	1.14	2.03	32.5	4.61	177	1510	500
	6.00	1.14	2.03	35.5	3.08	153	1970	500
	10.00	1.52	2.03	45.0	1.83	154	3190	500
19	0.75	0.76	1.52	19.0	24.5	257	410	500
	1.00	0.76	1.52	20.0	18.1	228	490	500
	1.50	0.76	2.03	27.0	12.1	252	860	500
	2.50	1.14	2.03	29.5	7.41	209	1160	500
	4.00	1.14	2.03	32.5	4.61	177	1540	500
	6.00	1.14	2.03	35.5	3.08	153	2020	500
	10.00	1.52	2.03	45.0	1.83	154	3270	500
20	0.75	0.76	1.52	19.0	24.5	257	430	500
	1.00	0.76	1.52	20.5	18.1	228	520	500
	1.50	0.76	2.03	27.5	12.1	252	900	500
	2.50	1.14	2.03	30.5	7.41	209	1220	500
	4.00	1.14	2.03	33.5	4.61	177	1630	500
	6.00	1.14	2.03	37.0	3.08	153	2130	500
	10.00	1.52	2.79	48.3	1.83	154	3600	500
21	0.75	0.76	1.52	19.5	24.5	257	450	500
	1.00	0.76	1.52	21.0	18.1	228	540	500
	1.50	0.76	2.03	28.0	12.1	252	940	500
	2.50	1.14	2.03	31.0	7.41	209	1270	500
	4.00	1.14	2.03	34.5	4.61	177	1700	500
	6.00	1.14	2.03	37.5	3.08	153	2230	500
	10.00	1.52	2.79	49.0	1.83	154	3760	500
22	0.75	0.76	1.52	20.0	24.5	257	470	500
	1.00	0.76	1.52	21.5	18.1	228	570	500
	1.50	0.76	2.03	29.0	12.1	252	990	500
	2.50	1.14	2.03	32.0	7.41	209	1330	500
	4.00	1.14	2.03	35.5	4.61	177	1780	500
	6.00	1.14	2.03	39.0	3.08	153	2330	500
	10.00	1.52	2.79	50.5	1.83	154	3950	500

Number of core	Conductor	Thickness of Insulation	Thickness of outer Sheath	Overall diameter	Conductor resistance at 20°C	Insulation resistance at 15.6°C	Cable weight	Standard length
	Cross Sectional area mm²	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	kg/km (Approx.)	m/drum
23	0.75	0.76	1.52	20.5	24.5	257	490	500
	1.00	0.76	1.52	22.0	18.1	228	590	500
	1.50	0.76	2.03	29.8	12.1	252	1020	500
	2.50	1.14	2.03	32.5	7.41	209	1390	500
	4.00	1.14	2.03	36.0	4.61	177	1860	500
	6.00	1.14	2.03	39.5	3.08	153	2430	500
	10.00	1.52	2.79	51.5	1.83	154	4110	500
24	0.75	0.76	1.52	21.5	24.5	257	530	500
	1.00	0.76	1.52	24.5	18.1	228	690	500
	1.50	0.76	2.03	31.0	12.1	252	1100	500
	2.50	1.14	2.03	34.5	7.41	209	1490	500
	4.00	1.14	2.03	38.0	4.61	177	2000	500
	6.00	1.14	2.03	42.0	3.08	153	2610	500
	10.00	1.52	2.79	55.0	1.83	154	4400	500
25	0.75	0.76	1.52	21.5	24.5	257	540	500
	1.00	0.76	1.52	24.5	18.1	228	700	500
	1.50	0.76	2.03	31.0	12.1	252	1130	500
	2.50	1.14	2.03	34.5	7.41	209	1530	500
	4.00	1.14	2.03	38.0	4.61	177	2050	500
	6.00	1.14	2.03	42.0	3.08	153	2680	500
	10.00	1.52	2.79	55.0	1.83	154	4530	500
26	0.75	0.76	1.52	21.5	24.5	257	550	500
	1.00	0.76	1.52	24.5	18.1	228	720	500
	1.50	0.76	2.03	31.0	12.1	252	1160	500
	2.50	1.14	2.03	34.5	7.41	209	1570	500
	4.00	1.14	2.03	38.0	4.61	177	2100	500
	6.00	1.14	2.03	42.0	3.08	153	2760	500
	10.00	1.52	2.79	55.0	1.83	154	4660	500
27	0.75	0.76	1.52	22.0	24.5	257	570	500
	1.00	0.76	1.52	24.5	18.1	228	740	500
	1.50	0.76	2.03	32.0	12.1	252	1200	500
	2.50	1.14	2.03	35.5	7.41	209	1620	500
	4.00	1.14	2.03	39.0	4.61	177	2170	500
	6.00	1.14	2.03	43.0	3.08	153	2850	500
	10.00	1.52	2.79	56.0	1.83	154	4820	500
28	0.75	0.76	1.52	22.0	24.5	257	580	500
	1.00	0.76	1.52	24.5	18.1	228	760	500
	1.50	0.76	2.03	32.0	12.1	252	1220	500
	2.50	1.14	2.03	35.5	7.41	209	1670	500
	4.00	1.14	2.03	39.0	4.61	177	2230	500
	6.00	1.14	2.03	43.0	3.08	153	2930	500
	10.00	1.52	2.79	56.0	1.83	154	4950	500

600 V CVV

2-30 CORES - POLYVINYL CHLORIDE FLEXIBLE CONTROL CABLE

VENINE
สายไฟฟ้าวีนายน์

Number of core	Conductor	Thickness of Insulation	Thickness of outer Sheath	Overall diameter	Conductor resistance at 20°C	Insulation resistance at 15.6°C	Cable weight	Standard length
	Cross Sectional area mm²	mm (Nominal)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	kg/km (Approx.)	m/drum
29	0.75	0.76	1.52	22.5	24.5	257	600	500
	1.00	0.76	1.52	25.0	18.1	228	780	500
	1.50	0.76	2.03	32.5	12.1	252	1260	500
	2.50	1.14	2.03	36.0	7.41	209	1710	500
	4.00	1.14	2.03	39.5	4.61	177	2300	500
	6.00	1.14	2.03	43.5	3.08	153	3020	500
	10.00	1.52	2.79	56.5	1.83	154	5110	500
30	0.75	0.76	1.52	24.0	24.5	257	670	500
	1.00	0.76	1.52	25.5	18.1	228	800	500
	1.50	0.76	2.03	33.0	12.1	252	1300	500
	2.50	1.14	2.03	36.5	7.41	209	1760	500
	4.00	1.14	2.03	40.5	4.61	177	2370	500
	6.00	1.14	2.03	44.5	3.08	153	3120	500
	10.00	1.52	2.79	58.0	1.83	154	5260	500

600 V CVV-S

2-30 CORES - POLYVINYL CHLORIDE FLEXIBLE CONTROL CABLE WITH SHIELD

VENINE
สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunched stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) , Black colour with marking number on the surface of insulation
3. Filler : Optional Polypropylene (Non-hygroscopic material).
4. Binding tape : Polyester tape and/or Spunbond tape
5. Innner sheath : Polyvinyl chloride (PVC),Black colour
6. Shield : Annealed copper tape
7. Binding tape : Polyester tape and/or Spunbond tape
8. Outer sheath : Polyvinyl chloride (PVC), Black colour

CLASSIFICATION	Maximum conductor temperature 70˚C	Maximum circuit voltage 600 V	AC test voltage 2,000 V
APPLICATION	For supervisory electrical equipment, station control circuits. Out door, suitable installation in the wet or dry cable trenches.		
REFERENCE STANDARD	TIS 838-2531 TABLE10 (TYPE D)		

Number of core	Conductor: Cross Sectional area mm²	Thickness of Insulation mm (Nominal)	Thickness of innner Sheath mm (Approx.)	Thickness of outer Sheath mm (Nominal)	Overall diameter mm (Approx.)	Conductor resistance at 20˚C Ω/km (Max.)	Insulation resistance at 15.6˚C MΩ.km (Min.)	Cable weight kg/km (Approx.)	Standard length m/drum
2	0.75	0.76	1.14	1.14	11.5	24.5	257	170	500
	1.00	0.76	1.14	1.14	12.5	18.1	228	180	500
	1.50	1.14	1.14	1.52	15.5	12.1	252	280	500
	2.50	1.14	1.14	1.52	16.5	7.41	209	340	500
	4.00	1.14	1.14	1.52	17.5	4.61	177	406	500
	6.00	1.14	1.14	1.52	19.0	3.08	153	480	500
	10.00	1.52	1.14	1.52	22.5	1.83	154	700	500
3	0.75	0.76	1.14	1.14	12.5	24.5	257	190	500
	1.00	0.76	1.14	1.14	12.5	18.1	228	210	500
	1.50	1.14	1.14	1.52	16.0	12.1	252	320	500
	2.50	1.14	1.14	1.52	17.0	7.41	209	390	500
	4.00	1.14	1.14	1.52	18.5	4.61	177	470	500
	6.00	1.14	1.14	1.52	20.0	3.08	153	570	500
	10.00	1.52	1.14	2.03	25.0	1.83	154	890	500
4	0.75	0.76	1.14	1.14	13.0	24.5	257	210	500
	1.00	0.76	1.14	1.14	13.5	18.1	228	240	500
	1.50	1.14	1.14	1.52	17.0	12.1	252	370	500
	2.50	1.14	1.14	1.52	18.5	7.41	209	450	500
	4.00	1.14	1.14	1.52	20.0	4.61	177	560	500
	6.00	1.14	1.14	1.52	21.5	3.08	153	680	500
	10.00	1.52	1.14	2.03	27.0	1.83	154	1080	500

600 V CVV-S

2-30 CORES - POLYVINYL CHLORIDE FLEXIBLE CONTROL CABLE WITH SHIELD

VENINE
สายไฟฟ้าวีนายน์

Number of core	Conductor	Thickness of Insulation	Thickness of innner Sheath	Thickness of outer Sheath	Overall diameter	Conductor resistance at 20°C	Insulation resistance at 15.6°C	Cable weight	Standard length
	Cross Sectional area mm²	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	kg/km (Approx.)	m/drum
5	0.75	0.76	1.14	1.14	14.0	24.5	257	240	500
	1.00	0.76	1.14	1.52	15.5	18.1	228	290	500
	1.50	1.14	1.14	1.52	18.5	12.1	252	420	500
	2.50	1.14	1.14	1.52	20.0	7.41	209	520	500
	4.00	1.14	1.14	1.52	21.5	4.61	177	640	500
	6.00	1.14	1.14	2.03	24.5	3.08	153	840	500
	10.00	1.52	1.14	2.03	29.5	1.83	154	1250	500
6	0.75	0.76	1.14	1.52	15.5	24.5	257	300	500
	1.00	0.76	1.14	1.52	16.5	18.1	228	330	500
	1.50	1.14	1.14	1.52	20.0	12.1	252	460	500
	2.50	1.14	1.14	1.52	21.5	7.41	209	600	500
	4.00	1.14	1.14	2.03	24.5	4.61	177	800	500
	6.00	1.14	1.14	2.03	26.5	3.08	153	890	500
	10.00	1.52	1.14	2.03	32.0	1.83	154	1480	500
7	0.75	0.76	1.14	1.52	15.5	24.5	257	300	500
	1.00	0.76	1.14	1.52	16.5	18.1	228	340	500
	1.50	1.14	1.14	1.52	20.0	12.1	252	490	500
	2.50	1.14	1.14	1.52	21.5	7.41	209	620	500
	4.00	1.14	1.14	2.03	24.5	4.61	177	830	500
	6.00	1.14	1.14	2.03	26.5	3.08	153	1030	500
	10.00	1.52	1.14	2.03	32.0	1.83	154	1560	500
8	0.75	0.76	1.14	1.52	16.5	24.5	257	340	500
	1.00	0.76	1.14	1.52	17.5	18.1	228	380	500
	1.50	1.14	1.14	1.52	21.5	12.1	252	560	500
	2.50	1.14	1.14	2.03	24.0	7.41	209	750	500
	4.00	1.14	1.14	2.03	26.0	4.61	177	940	500
	6.00	1.14	1.14	2.03	28.0	3.08	153	1170	500
	10.00	1.52	1.14	2.03	34.5	1.83	154	1780	500
9	0.75	0.76	1.14	1.52	17.5	24.5	257	370	500
	1.00	0.76	1.14	1.52	18.5	18.1	228	420	500
	1.50	1.14	1.14	2.03	22.5	12.1	252	620	500
	2.50	1.14	1.14	2.03	25.5	7.41	209	840	500
	4.00	1.14	1.14	2.03	28.0	4.61	177	1050	500
	6.00	1.14	1.14	2.03	30.0	3.08	153	1310	500
	10.00	1.52	1.14	2.03	37.0	1.83	154	2000	500
10	0.75	0.76	1.14	1.52	18.5	24.5	257	410	500
	1.00	0.76	1.14	1.52	19.5	18.1	228	470	500
	1.50	1.14	1.14	2.03	25.5	12.1	252	750	500
	2.50	1.14	1.14	2.03	27.5	7.41	209	940	500
	4.00	1.14	1.14	2.03	30.0	4.61	177	1180	500
	6.00	1.14	1.14	2.03	32.5	3.08	153	1470	500
	10.00	1.52	1.14	2.03	40.0	1.83	154	2260	500

600 V CVV-S

2-30 CORES - POLYVINYL CHLORIDE FLEXIBLE CONTROL CABLE WITH SHIELD

VENINE
สายไฟฟ้าวีนายน์

Number of core	Conductor	Thickness of Insulation	Thickness of innner Sheath	Thickness of outer Sheath	Overall diameter	Conductor resistance at 20°C	Insulation resistance at 15.6°C	Cable weight	Standard length
	Cross Sectional area mm²	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	kg/km (Approx.)	m/drum
11	0.75	0.76	1.14	1.52	18.5	24.5	257	420	500
	1.00	0.76	1.14	1.52	19.5	18.1	228	480	500
	1.50	1.14	1.14	2.03	25.5	12.1	252	770	500
	2.50	1.14	1.14	2.03	27.5	7.41	209	980	500
	4.00	1.14	1.14	2.03	30.0	4.61	177	1240	500
	6.00	1.14	1.14	2.03	32.5	3.08	153	1550	500
	10.00	1.52	1.14	2.03	39.5	1.83	154	2380	500
12	0.75	0.76	1.14	1.52	19.0	24.5	257	440	500
	1.00	0.76	1.14	1.52	20.0	18.1	228	510	500
	1.50	1.14	1.14	2.03	26.0	12.1	252	820	500
	2.50	1.14	1.14	2.03	28.5	7.41	209	1040	500
	4.00	1.14	1.14	2.03	31.0	4.61	177	1310	500
	6.00	1.14	1.14	2.03	33.5	3.08	153	1650	500
	10.00	1.52	1.14	2.03	41.0	1.83	154	2550	500
13	0.75	0.76	1.14	1.52	19.5	24.5	257	460	500
	1.00	0.76	1.14	1.52	20.5	18.1	228	530	500
	1.50	1.14	1.14	2.03	26.5	12.1	252	850	500
	2.50	1.14	1.14	2.03	29.0	7.41	209	1090	500
	4.00	1.14	1.14	2.03	31.5	4.61	177	1380	500
	6.00	1.14	1.14	2.03	34.0	3.08	153	1740	500
	10.00	1.52	1.14	2.03	42.0	1.83	154	2700	500
14	0.75	0.76	1.14	1.52	20.0	24.5	257	460	500
	1.00	0.76	1.14	1.52	21.0	18.1	228	560	500
	1.50	1.14	1.14	2.03	27.0	12.1	252	900	500
	2.50	1.14	1.14	2.03	30.0	7.41	209	1160	500
	4.00	1.14	1.14	2.03	32.5	4.61	177	1470	500
	6.00	1.14	1.14	2.03	35.0	3.08	153	1860	500
	10.00	1.52	1.14	2.03	43.5	1.83	154	2890	500
15	0.75	0.76	1.14	1.52	20.5	24.5	257	510	500
	1.00	0.76	1.14	1.52	21.5	18.1	228	590	500
	1.50	1.14	1.14	2.03	28.0	12.1	252	950	500
	2.50	1.14	1.14	2.03	30.5	7.41	209	1210	500
	4.00	1.14	1.14	2.03	33.0	4.61	177	1550	500
	6.00	1.14	1.14	2.03	36.0	3.08	153	1960	500
	10.00	1.52	1.14	2.03	44.5	1.83	154	3060	500
16	0.75	0.76	1.14	1.52	21.0	24.5	257	530	500
	1.00	0.76	1.14	1.52	22.0	18.1	228	610	500
	1.50	1.14	1.14	2.03	28.5	12.1	252	990	500
	2.50	1.14	1.14	2.03	31.0	7.41	209	1270	500
	4.00	1.14	1.14	2.03	34.0	4.61	177	1630	500
	6.00	1.14	1.14	2.03	37.0	3.08	153	2060	500
	10.00	1.52	1.14	2.03	45.5	1.83	154	3210	500

600 V CVV-S

2-30 CORES - POLYVINYL CHLORIDE FLEXIBLE CONTROL CABLE WITH SHIELD

VENINE
สายไฟฟ้าวีนายน์

Number of core	Conductor	Thickness of Insulation	Thickness of innner Sheath	Thickness of outer Sheath	Overall diameter	Conductor resistance at 20°C	Insulation resistance at 15.6°C	Cable weight	Standard length
	Cross Sectional area mm^2	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	kg/km (Approx.)	m/drum
17	0.75	0.76	1.14	1.52	21.5	24.5	257	550	500
	1.00	0.76	1.14	1.52	22.5	18.1	228	640	500
	1.50	1.14	1.14	2.03	29.5	12.1	252	1040	500
	2.50	1.14	1.14	2.03	32.0	7.41	209	1330	500
	4.00	1.14	1.14	2.03	35.0	4.61	177	1710	500
	6.00	1.14	1.14	2.03	38.0	3.08	153	2170	500
	10.00	1.52	1.14	2.79	48.5	1.83	154	3550	500
18	0.75	0.76	1.14	1.52	22.0	24.5	257	580	500
	1.00	0.76	1.14	1.52	23.0	18.1	228	670	500
	1.50	1.14	1.14	2.03	30.0	12.1	252	1090	500
	2.50	1.14	1.14	2.03	32.5	7.41	209	1410	500
	4.00	1.14	1.14	2.03	35.5	4.61	177	1800	500
	6.00	1.14	1.14	2.03	39.0	3.08	153	2290	500
	10.00	1.52	1.14	2.79	50.0	1.83	154	3750	500
19	0.75	0.76	1.14	1.52	22.0	24.5	257	580	500
	1.00	0.76	1.14	1.52	23.0	18.1	228	680	500
	1.50	1.14	1.14	2.03	30.0	12.1	252	1100	500
	2.50	1.14	1.14	2.03	32.5	7.41	209	1430	500
	4.00	1.14	1.14	2.03	35.5	4.61	177	1840	500
	6.00	1.14	1.14	2.03	39.0	3.08	153	2340	500
	10.00	1.52	1.14	2.79	50.0	1.83	154	3830	500
20	0.75	0.76	1.14	1.52	22.5	24.5	257	610	500
	1.00	0.76	1.14	2.03	24.5	18.1	228	760	500
	1.50	1.14	1.14	2.03	30.0	12.1	252	1150	500
	2.50	1.14	1.14	2.03	33.5	7.41	209	1490	500
	4.00	1.14	1.14	2.03	36.5	4.61	177	1920	500
	6.00	1.14	1.14	2.03	39.5	3.08	153	2450	500
	10.00	1.52	1.14	2.79	51.0	1.83	154	4020	500
21	0.75	0.76	1.14	1.52	22.5	24.5	257	630	500
	1.00	0.76	1.14	2.03	25.0	18.1	228	790	500
	1.50	1.14	1.14	2.03	31.0	12.1	252	1190	500
	2.50	1.14	1.14	2.03	34.0	7.41	209	1550	500
	4.00	1.14	1.14	2.03	37.5	4.61	177	2010	500
	6.00	1.14	1.14	2.03	40.5	3.08	153	2560	500
	10.00	1.52	1.14	2.79	52.0	1.83	154	4190	500
22	0.75	0.76	1.14	2.03	24.5	24.5	257	710	500
	1.00	0.76	1.14	2.03	25.5	18.1	228	820	500
	1.50	1.14	1.14	2.03	32.0	12.1	252	1240	500
	2.50	1.14	1.14	2.03	35.0	7.41	209	1620	500
	4.00	1.14	1.14	2.03	38.5	4.61	177	2100	500
	6.00	1.14	1.14	2.03	42.5	3.08	153	2680	500
	10.00	1.52	1.14	2.79	54.0	1.83	154	4390	500

600 V CVV-S

2-30 CORES - POLYVINYL CHLORIDE FLEXIBLE CONTROL CABLE WITH SHIELD

VENINE
สายไฟฟ้าวีนายน์

Number of core	Conductor	Thickness of Insulation	Thickness of innner Sheath	Thickness of outer Sheath	Overall diameter	Conductor resistance at 20°C	Insulation resistance at 15.6°C	Cable weight	Standard length
	Cross Sectional area mm^2	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	kg/km (Approx.)	m/drum
23	0.75	0.76	1.14	2.03	24.5	24.5	257	730	500
	1.00	0.76	1.14	2.03	26.0	18.1	228	850	500
	1.50	1.14	1.14	2.03	32.5	12.1	252	1290	500
	2.50	1.14	1.14	2.03	35.5	7.41	209	1680	500
	4.00	1.14	1.14	2.03	39.0	4.61	177	2170	500
	6.00	1.14	1.14	2.03	42.5	3.08	153	2780	500
	10.00	1.52	1.14	2.79	55.0	1.83	154	4560	500
24	0.75	0.76	1.14	2.03	26.0	24.5	257	780	500
	1.00	0.76	1.14	2.03	27.5	18.1	228	900	500
	1.50	1.14	1.14	2.03	34.5	12.1	252	1380	500
	2.50	1.14	1.14	2.03	37.5	7.41	209	1800	500
	4.00	1.14	1.14	2.03	41.0	4.61	177	2330	500
	6.00	1.14	1.14	2.03	45.0	3.08	153	2980	500
	10.00	1.52	1.14	2.79	58.0	1.83	154	4880	500
25	0.75	0.76	1.14	2.03	26.0	24.5	257	880	500
	1.00	0.76	1.14	2.03	27.5	18.1	228	920	500
	1.50	1.14	1.14	2.03	34.5	12.1	252	1410	500
	2.50	1.14	1.14	2.03	37.5	7.41	209	1840	500
	4.00	1.14	1.14	2.03	41.0	4.61	177	2380	500
	6.00	1.14	1.14	2.03	45.0	3.08	153	3050	500
	10.00	1.52	1.14	2.79	58.0	1.83	154	5010	500
26	0.75	0.76	1.14	2.03	26.0	24.5	257	810	500
	1.00	0.76	1.14	2.03	27.5	18.1	228	930	500
	1.50	1.14	1.14	2.03	34.5	12.1	252	1430	500
	2.50	1.14	1.14	2.03	37.5	7.41	209	1880	500
	4.00	1.14	1.14	2.03	41.0	4.61	177	2440	500
	6.00	1.14	1.14	2.03	45.0	3.08	153	3130	500
	10.00	1.52	1.14	2.79	58.0	1.83	154	5140	500
27	0.75	0.76	1.14	2.03	26.5	24.5	257	830	500
	1.00	0.76	1.14	2.03	28.0	18.1	228	960	500
	1.50	1.14	1.14	2.03	35.0	12.1	252	1480	500
	2.50	1.14	1.14	2.03	38.5	7.41	209	1940	500
	4.00	1.14	1.14	2.03	42.0	4.61	177	2520	500
	6.00	1.14	1.14	2.03	46.0	3.08	153	3230	500
	10.00	1.52	1.14	2.79	59.0	1.83	154	5310	500
28	0.75	0.76	1.14	2.03	28.0	24.5	257	840	500
	1.00	0.76	1.14	2.03	28.0	18.1	228	980	500
	1.50	1.14	1.14	2.03	35.0	12.1	252	1510	500
	2.50	1.14	1.14	2.03	38.5	7.41	209	1980	500
	4.00	1.14	1.14	2.03	42.0	4.61	177	2580	500
	6.00	1.14	1.14	2.79	46.0	3.08	153	3310	500
	10.00	1.52	1.14	2.79	59.0	1.83	154	5440	500

600 V CVV-S

2-30 CORES - POLYVINYL CHLORIDE FLEXIBLE CONTROL CABLE WITH SHIELD

VENINE
สายไฟฟ้าวีนายน์

Number of core	Conductor	Thickness of Insulation	Thickness of innner Sheath	Thickness of outer Sheath	Overall diameter	Conductor resistance at 20°C	Insulation resistance at 15.6°C	Cable weight	Standard length
	Cross Sectional area mm²	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	kg/km (Approx.)	m/drum
29	0.75	0.76	1.14	2.03	26.5	24.5	257	860	500
	1.00	0.76	1.14	2.03	28.0	18.1	228	1000	500
	1.50	1.14	1.14	2.03	35.5	12.1	252	1540	500
	2.50	1.14	1.14	2.03	39.0	7.41	209	2030	500
	4.00	1.14	1.14	2.03	42.5	4.61	177	2650	500
	6.00	1.14	1.14	2.79	48.0	3.08	153	3560	500
	10.00	1.52	1.14	2.79	59.5	1.83	154	5600	500
30	0.75	0.76	1.14	2.03	27.0	24.5	257	890	500
	1.00	0.76	1.14	2.03	28.5	18.1	228	1030	500
	1.50	1.14	1.14	2.03	36.0	12.1	252	1590	500
	2.50	1.14	1.14	2.03	40.0	7.41	209	2094	500
	4.00	1.14	1.14	2.03	43.5	4.61	177	2730	500
	6.00	1.14	1.14	2.79	49.5	3.08	153	3670	500
	10.00	1.52	1.14	2.79	61.0	1.83	154	5770	500

600 V CVV-SWA

2-30 CORES - POLYVINYL CHLORIDE FLEXIBLE CONTROL CABLE WITH ARMOUR

VENINE สายไฟฟ้าวีนายน์

CONSTRUCTION

1. Conductor : Bunched stranded annealed copper
2. Insulation : Polyvinyl chloride (PVC) , Black colour with marking number on the surface of insulation
3. Filler : Polypropylene (Non-hygroscopic material)
4. Binding tape : Polyester tape and/or Spunbond tape
5. Innner sheath : Polyvinyl chloride (PVC), (Black colour)
6. Armour : Galvanized steel wires
7. Binding tape : Polyester tape and/or Spunbond tape
8. Outer sheath : Polyvinyl chloride (PVC), (Black colour)

CLASSIFICATION	Maximum conductor temperature 70˚C	Maximum circuit voltage 600 V	AC test voltage 2,000 V
APPLICATION	For supervisory electrical equipment, station control circuits. Outdoor, suitable installation in dry or wet cable trenches.		
REFERENCE STANDARD	IEC 60502-1		

Number of core	Conductor: Cross Sectional area mm²	Thickness of Insulation mm (Nominal)	Thickness of innner Sheath mm (Approx.)	Thickness of outer Sheath mm (Nominal)	Overall diameter mm (Approx.)	Conductor resistance at 20˚C Ω/km (Max.)	Insulation resistance at 20˚C MΩ.km (Min.)	Cable weight kg/km (Approx.)	Standard length m/drum
2	0.5	0.6	1.0	0.9	10.5	39.0	50	210	500
	0.75	0.6	1.0	1.2	11.5	26.0	50	240	500
	1	0.6	1.0	1.2	12.0	19.5	50	260	500
	1.5	0.6	1.0	1.2	12.5	13.3	50	280	500
	2.5	0.7	1.0	1.2	14.0	7.98	50	350	500
	4	0.8	1.0	1.2	15.5	4.95	50	440	500
	6	0.8	1.0	1.4	19.0	3.30	50	700	500
3	0.5	0.6	1.0	1.2	11.5	39.0	50	240	500
	0.75	0.6	1.0	1.2	12.0	26.0	50	260	500
	1	0.6	1.0	1.2	12.5	19.5	50	280	500
	1.5	0.6	1.0	1.2	13.0	13.3	50	320	500
	2.5	0.7	1.0	1.2	14.5	7.98	50	400	500
	4	0.8	1.0	1.2	17.0	4.95	50	620	500
	6	0.8	1.0	1.4	20.0	3.30	50	810	500
4	0.5	0.6	1.0	1.2	12.0	39.0	50	270	500
	0.75	0.6	1.0	1.2	12.5	26.0	50	290	500
	1	0.6	1.0	1.2	13.0	19.5	50	320	500
	1.5	0.6	1.0	1.2	14.0	13.3	50	360	500
	2.5	0.7	1.0	1.2	15.5	7.98	50	460	500
	4	0.8	1.0	1.4	19.0	4.95	50	740	500
	6	0.8	1.0	1.4	21.0	3.30	50	930	500

600 V CVV-SWA

2-30 CORES - POLYVINYL CHLORIDE FLEXIBLE CONTROL CABLE WITH ARMOUR

VENINE
สายไฟฟ้าวีนายน์

Number of core	Conductor	Thickness of Insulation	Thickness of innner Sheath	Thickness of outer Sheath	Overall diameter	Conductor resistance at 20°C	Insulation resistance at 20°C	Cable weight	Standard length
	Cross Sectional area mm²	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	kg/km (Approx.)	m/drum
5	0.5	0.6	1.0	1.2	13.0	39.0	50	290	500
	0.75	0.6	1.0	1.2	13.5	26.0	50	330	500
	1	0.6	1.0	1.2	14.0	19.5	50	360	500
	1.5	0.6	1.0	1.2	14.5	13.3	50	410	500
	2.5	0.7	1.0	1.4	18.0	7.98	50	670	500
	4	0.8	1.0	1.4	20.0	4.95	50	850	500
	6	0.8	1.0	1.4	22.5	3.30	50	1,080	500
6	0.5	0.6	1.0	1.2	13.5	39.0	50	320	500
	0.75	0.6	1.0	1.2	14.0	26.0	50	360	500
	1	0.6	1.0	1.2	15.0	19.5	50	390	500
	1.5	0.6	1.0	1.2	15.5	13.3	50	440	500
	2.5	0.7	1.0	1.4	19.0	7.98	50	720	500
	4	0.8	1.0	1.4	21.5	4.95	50	920	500
	6	0.8	1.0	1.4	25.0	3.30	50	1,320	500
7	0.5	0.6	1.0	1.2	13.5	39.0	50	320	500
	0.75	0.6	1.0	1.2	14.0	26.0	50	360	500
	1	0.6	1.0	1.2	15.0	19.5	50	400	500
	1.5	0.6	1.0	1.2	15.5	13.3	50	460	500
	2.5	0.7	1.0	1.4	19.0	7.98	50	740	500
	4	0.8	1.0	1.4	21.5	4.95	50	960	500
	6	0.8	1.0	1.4	25.0	3.30	50	1,380	500
8	0.5	0.6	1.0	1.2	14.5	39.0	50	350	500
	0.75	0.6	1.0	1.2	15.0	26.0	50	400	500
	1	0.6	1.0	1.2	16.5	19.5	50	540	500
	1.5	0.6	1.0	1.4	18.0	13.3	50	640	500
	2.5	0.7	1.0	1.4	20.0	7.98	50	820	500
	4	0.8	1.0	1.4	23.5	4.95	50	1,180	500
	6	0.8	1.0	1.4	26.5	3.30	50	1,520	500
9	0.5	0.6	1.0	1.2	15.0	39.0	50	380	500
	0.75	0.6	1.0	1.2	16.5	26.0	50	540	500
	1	0.6	1.0	1.4	17.5	19.5	50	600	500
	1.5	0.6	1.0	1.4	18.5	13.3	50	690	500
	2.5	0.7	1.0	1.4	21.0	7.98	50	900	500
	4	0.8	1.0	1.4	24.5	4.95	50	1,310	500
	6	0.8	1.0	1.4	28.5	3.30	50	1,680	500
10	0.5	0.6	1.0	1.2	16.0	39.0	50	410	500
	0.75	0.6	1.0	1.4	18.0	26.0	50	600	500
	1	0.6	1.0	1.4	18.5	19.5	50	660	500
	1.5	0.6	1.0	1.4	20.0	13.3	50	750	500
	2.5	0.7	1.0	1.4	22.5	7.98	50	970	500
	4	0.8	1.0	1.4	26.5	4.95	50	1,420	500
	6	0.8	1.0	1.8	31.0	3.30	50	1,890	500

Number of core	Conductor	Thickness of Insulation	Thickness of innner Sheath	Thickness of outer Sheath	Overall diameter	Conductor resistance at 20°C	Insulation resistance at 20°C	Cable weight	Standard length
	Cross Sectional area mm²	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	kg/km (Approx.)	m/drum
11	0.5	0.6	1.0	1.2	16.0	39.0	50	430	500
	0.75	0.6	1.0	1.4	18.5	26.0	50	630	500
	1	0.6	1.0	1.4	19.0	19.5	50	690	500
	1.5	0.6	1.0	1.4	20.5	13.3	50	800	500
	2.5	0.7	1.0	1.4	23.0	7.98	50	1,040	500
	4	0.8	1.0	1.4	27.0	4.95	50	1,530	500
	6	0.8	1.0	1.8	32.0	3.30	50	2,030	500
12	0.5	0.6	1.0	1.2	17.0	39.0	50	560	500
	0.75	0.6	1.0	1.4	18.5	26.0	50	640	500
	1	0.6	1.0	1.4	19.0	19.5	50	700	500
	1.5	0.6	1.0	1.4	20.5	13.3	50	810	500
	2.5	0.7	1.0	1.4	24.0	7.98	50	1,190	500
	4	0.8	1.0	1.4	27.0	4.95	50	1,560	500
	6	0.8	1.0	1.8	32.0	3.30	50	2,080	500
13	0.5	0.6	1.0	1.4	18.0	39.0	50	600	500
	0.75	0.6	1.0	1.4	19.0	26.0	50	680	500
	1	0.6	1.0	1.4	20.0	19.5	50	750	500
	1.5	0.6	1.0	1.4	21.0	13.3	50	870	500
	2.5	0.7	1.0	1.4	25.0	7.98	50	1,280	500
	4	0.8	1.0	1.4	28.0	4.95	50	1,680	500
	6	0.8	1.0	1.8	33.5	3.30	50	2,250	500
14	0.5	0.6	1.0	1.4	18.0	39.0	50	610	500
	0.75	0.6	1.0	1.4	19.0	26.0	50	690	500
	1	0.6	1.0	1.4	20.0	19.5	50	760	500
	1.5	0.6	1.0	1.4	21.0	13.3	50	880	500
	2.5	0.7	1.0	1.4	25.0	7.98	50	1,300	500
	4	0.8	1.0	1.4	28.0	4.95	50	1,710	500
	6	0.8	1.0	1.8	33.5	3.30	50	2,300	500
15	0.5	0.6	1.0	1.4	19.0	39.0	50	650	500
	0.75	0.6	1.0	1.4	19.5	26.0	50	730	500
	1	0.6	1.0	1.4	20.5	19.5	50	810	500
	1.5	0.6	1.0	1.4	22.0	13.3	50	940	500
	2.5	0.7	1.0	1.4	26.0	7.98	50	1,390	500
	4	0.8	1.0	1.8	30.5	4.95	50	1,890	500
	6	0.8	1.0	1.8	35.0	3.30	50	2,480	500
16	0.5	0.6	1.0	1.4	19.0	39.0	50	660	500
	0.75	0.6	1.0	1.4	20.0	26.0	50	740	500
	1	0.6	1.0	1.4	20.5	19.5	50	810	500
	1.5	0.6	1.0	1.4	22.0	13.3	50	960	500
	2.5	0.7	1.0	1.4	26.0	7.98	50	1,410	500
	4	0.8	1.0	1.8	29.5	4.95	50	1,870	500
	6	0.8	1.0	1.8	35.0	3.30	50	2,530	500

600 V CVV-SWA

2-30 CORES - POLYVINYL CHLORIDE FLEXIBLE CONTROL CABLE WITH ARMOUR

VENINE
สายไฟฟ้าวีนายน์

Number of core	Conductor	Thickness of Insulation	Thickness of innner Sheath	Thickness of outer Sheath	Overall diameter	Conductor resistance at 20°C	Insulation resistance at 20°C	Cable weight	Standard length
	Cross Sectional area mm²	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	kg/km (Approx.)	m/drum
17	0.5	0.6	1.0	1.4	19.5	39.0	50	700	500
	0.75	0.6	1.0	1.4	20.5	26.0	50	790	500
	1	0.6	1.0	1.4	21.5	19.5	50	870	500
	1.5	0.6	1.0	1.4	22.5	13.3	50	1,020	500
	2.5	0.7	1.0	1.4	27.0	7.98	50	1,510	500
	4	0.8	1.0	1.8	31.5	4.95	50	2,070	500
	6	0.8	1.0	1.8	36.5	3.30	50	2,710	500
18	0.5	0.6	1.0	1.4	19.5	39.0	50	700	500
	0.75	0.6	1.0	1.4	20.5	26.0	50	790	500
	1	0.6	1.0	1.4	21.5	19.5	50	880	500
	1.5	0.6	1.0	1.4	22.5	13.3	50	1,030	500
	2.5	0.7	1.0	1.4	27.0	7.98	50	1,530	500
	4	0.8	1.0	1.8	31.5	4.95	50	2,110	500
	6	0.8	1.0	1.8	36.5	3.30	50	2,760	500
19	0.5	0.6	1.0	1.4	19.5	39.0	50	710	500
	0.75	0.6	1.0	1.4	20.5	26.0	50	800	500
	1	0.6	1.0	1.4	21.5	19.5	50	890	500
	1.5	0.6	1.0	1.4	22.5	13.3	50	1,040	500
	2.5	0.7	1.0	1.4	27.0	7.98	50	1,550	500
	4	0.8	1.0	1.8	31.5	4.95	50	2,140	500
	6	0.8	1.0	1.8	36.5	3.30	50	2,810	500
20	0.5	0.6	1.0	1.4	20.0	39.0	50	750	500
	0.75	0.6	1.0	1.4	21.0	26.0	50	850	500
	1	0.6	1.0	1.4	22.0	19.5	50	940	500
	1.5	0.6	1.0	1.4	24.5	13.3	50	1,240	500
	2.5	0.7	1.0	1.4	28.0	7.98	50	1,670	500
	4	0.8	1.0	1.8	33.0	4.95	50	2,290	500
	6	0.8	1.0	1.8	39.0	3.30	50	3,260	500
21	0.5	0.6	1.0	1.4	20.0	39.0	50	750	500
	0.75	0.6	1.0	1.4	21.0	26.0	50	850	500
	1	0.6	1.0	1.4	22.0	19.5	50	950	500
	1.5	0.6	1.0	1.4	24.5	13.3	50	1,250	500
	2.5	0.7	1.0	1.4	28.0	7.98	50	1,680	500
	4	0.8	1.0	1.8	33.0	4.95	50	2,310	500
	6	0.8	1.0	1.8	39.0	3.30	50	3,300	500
22	0.5	0.6	1.0	1.4	21.0	39.0	50	800	500
	0.75	0.6	1.0	1.4	22.0	26.0	50	910	500
	1	0.6	1.0	1.4	23.5	19.5	50	1,140	500
	1.5	0.6	1.0	1.4	25.0	13.3	50	1,330	500
	2.5	0.7	1.0	1.8	30.0	7.98	50	1,850	500
	4	0.8	1.0	1.8	34.5	4.95	50	2,460	500
	6	0.8	1.0	1.8	40.5	3.30	50	3,540	400

600 V CVV-SWA

2-30 CORES - POLYVINYL CHLORIDE FLEXIBLE CONTROL CABLE WITH ARMOUR

VENINE
สายไฟฟ้าวีนายน์

Number of core	Conductor	Thickness of Insulation	Thickness of innner Sheath	Thickness of outer Sheath	Overall diameter	Conductor resistance at 20°C	Insulation resistance at 20°C	Cable weight	Standard length
	Cross Sectional area mm²	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	kg/km (Approx.)	m/drum
23	0.5	0.6	1.0	1.4	21.0	39.0	50	800	500
	0.75	0.6	1.0	1.4	22.0	26.0	50	910	500
	1	0.6	1.0	1.4	23.5	19.5	50	1,140	500
	1.5	0.6	1.0	1.4	25.0	13.3	50	1,330	500
	2.5	0.7	1.0	1.8	30.0	7.98	50	1,860	500
	4	0.8	1.0	1.8	34.5	4.95	50	2,470	500
	6	0.8	1.0	1.8	40.5	3.30	50	3,560	400
24	0.5	0.6	1.0	1.4	21.5	39.0	50	830	500
	0.75	0.6	1.0	1.4	23.5	26.0	50	1,080	500
	1	0.6	1.0	1.4	24.5	19.5	50	1,200	500
	1.5	0.6	1.0	1.4	26.5	13.3	50	1,400	500
	2.5	0.7	1.0	1.8	31.5	7.98	50	1,930	500
	4	0.8	1.0	1.8	36.5	4.95	50	2,830	500
	6	0.8	1.2	2.2	44.0	3.30	50	3,850	400
25	0.5	0.6	1.0	1.4	22.0	39.0	50	870	500
	0.75	0.6	1.0	1.4	24.0	26.0	50	1,130	500
	1	0.6	1.0	1.4	25.0	19.5	50	1,250	500
	1.5	0.6	1.0	1.4	27.0	13.3	50	1,460	500
	2.5	0.7	1.0	1.8	32.0	7.98	50	2,030	500
	4	0.8	1.0	1.8	37.5	4.95	50	2,960	500
	6	0.8	1.2	2.2	45.0	3.30	50	4,030	400
26	0.5	0.6	1.0	1.4	22.0	39.0	50	870	500
	0.75	0.6	1.0	1.4	24.0	26.0	50	1,140	500
	1	0.6	1.0	1.4	25.0	19.5	50	1,260	500
	1.5	0.6	1.0	1.4	27.0	13.3	50	1,470	500
	2.5	0.7	1.0	1.8	32.0	7.98	50	2,050	500
	4	0.8	1.0	1.8	37.5	4.95	50	2,990	500
	6	0.8	1.2	2.2	45.0	3.30	50	4,080	400
27	0.5	0.6	1.0	1.4	22.0	39.0	50	870	500
	0.75	0.6	1.0	1.4	24.0	26.0	50	1,140	500
	1	0.6	1.0	1.4	25.0	19.5	50	1,270	500
	1.5	0.6	1.0	1.4	27.0	13.3	50	1,480	500
	2.5	0.7	1.0	1.8	32.0	7.98	50	2,070	500
	4	0.8	1.0	1.8	37.5	4.95	50	3,020	500
	6	0.8	1.2	2.2	45.0	3.30	50	4,140	400
28	0.5	0.6	1.0	1.4	22.5	39.0	50	920	500
	0.75	0.6	1.0	1.4	24.5	26.0	50	1,190	500
	1	0.6	1.0	1.4	26.0	19.5	50	1,320	500
	1.5	0.6	1.0	1.4	27.5	13.3	50	1,560	500
	2.5	0.7	1.0	1.8	33.0	7.98	50	2,160	500
	4	0.8	1.0	1.8	38.5	4.95	50	3,180	500
	6	0.8	1.2	2.2	46.5	3.30	50	4,330	400

600 V CVV-SWA

2-30 CORES - POLYVINYL CHLORIDE FLEXIBLE CONTROL CABLE WITH ARMOUR

VENINE
สายไฟฟ้าวีนายน์

Number of core	Conductor	Thickness of Insulation	Thickness of innner Sheath	Thickness of outer Sheath	Overall diameter	Conductor resistance at 20°C	Insulation resistance at 20°C	Cable weight	Standard length
	Cross Sectional area mm^2	mm (Nominal)	mm (Approx.)	mm (Nominal)	mm (Approx.)	Ω/km (Max.)	MΩ.km (Min.)	kg/km (Approx.)	m/drum
29	0.5	0.6	1.0	1.4	22.5	39.0	50	930	500
	0.75	0.6	1.0	1.4	24.5	26.0	50	1,200	500
	1	0.6	1.0	1.4	26.0	19.5	50	1,330	500
	1.5	0.6	1.0	1.4	27.5	13.3	50	1,570	500
	2.5	0.7	1.0	1.8	33.0	7.98	50	2,180	500
	4	0.8	1.0	1.8	38.5	4.95	50	3,210	500
	6	0.8	1.2	2.2	46.5	3.30	50	4,380	400
30	0.5	0.6	1.0	1.4	22.5	39.0	50	930	500
	0.75	0.6	1.0	1.4	24.5	26.0	50	1,200	500
	1	0.6	1.0	1.4	26.0	19.5	50	1,340	500
	1.5	0.6	1.0	1.4	27.5	13.3	50	1,580	500
	2.5	0.7	1.0	1.8	33.0	7.98	50	2,200	500
	4	0.8	1.0	1.8	38.5	4.95	50	3,240	500
	6	0.8	1.2	2.2	46.5	3.30	50	4,430	400

GENERAL INFORMATION & TECHNICAL DATA

Thai Industrial Standard Institute (TIS) has change the old TIS 11-2531 standard into TIS 11-2553 standard. This new standard was promulgated in 2 November 2555 and become effective in 31 July 2556.

The TIS 11-2553 has a lot of difference from the previous standard, so designer, engineer, contractor, owner and related people about electrical cable must study and try to understand this TIS 11-2553 new standard for safety and accuracy in operation, and for easier, the Engineering Institute of Thailand (EIT) has summarize the main point of this new standard as following.

New rated voltage

In new standard define voltage rating at not exceed 450/750 V

New maximum conductor temperature

In old standard the maximum conductor temperature is only at 70°C, but the new TIS 11-2553 standard has two value at 70°C and 90°C

Type of polyvinyl chloride (PVC) insulation

The insulation in TIS 11-2553 standard is polyvinyl chloride (PVC) with maximum conductor temperature at 70°C and 90°C and also separate the PVC insulation for 3 type

- PVC/C for permanent installation.
- PVC/D for flexible cable.
- PVC/E for heat-resistant for indoor use.

Cable color indicated type

In TIS 11-2553 standard is a lot of difference indicate color from old standard. Ground cable into green with yellow stripe, neutron line into blue, phase line into brown black and grey by ordering

- Single core cables : Not specified
- 2 core : Blue, Brown (N,L)
- 3 core : Green with yellow stripe, Blue, Brown (PE,N,L1,L2,L3) or Blue, Brown, Black, Grey (L1,L2,L3)
- 4 core : Green with yellow stripe, Brown, Black, Grey (PE,L1,L2,L3) or Blue, Brown, Black, Grey (N,L1,L2,L3)
- 5 core : Green with yellow stripe, Blue, Brown, Black, Grey (PE,N,L1,L2,L3)

Cable color comparison table on TIS 11-2551(Old) and TIS 11-2553(New)

<table>
<tr><td>สัญลักษณ์</td><td colspan="2">มอก. 11-2531</td><td colspan="2">มอก. 11-2553</td></tr>
<tr><td>N</td><td>เทาอ่อน</td><td>ขาว</td><td colspan="2">ฟ้า</td></tr>
<tr><td>L1/เฟส A</td><td colspan="2">ดำ</td><td colspan="2">น้ำตาล</td></tr>
<tr><td>L2/เฟส B</td><td colspan="2">แดง</td><td colspan="2">ดำ</td></tr>
<tr><td>L3/เฟส C</td><td colspan="2">น้ำเงิน</td><td colspan="2">เทา</td></tr>
<tr><td rowspan="2">PE</td><td>เขียว
เหลือง</td><td>เขียว</td><td>เขียว</td><td>เขียว
เหลือง</td></tr>
</table>

Notes :

1. The cables color changing is the very important thing. If necessary to use the new standard cable with the old standard existing cable, must do cable marking to notice or marking the PE,N,L1,L2,L3 symbols at the connection for safety.
2. For using in color of ballast inside switch or sub-circuit also use this new color code too.
3. For pilot lamp in switch panel might use clear color with marking L1,L2,L3 on the cable.

Cable type and voltage code

TIS 11-2553 define cable type comply with IEC standard with type code by 2 position numbers. The first position specifies base cable categories and the second position specify to specifically cable type.

First position number is 0 - non-sheathed cables for permanent installation includes

• 01 : Single core non-sheathed cable with rigid conductor for general purpose maximum temperature 70oC. Define with 60227 IEC 01 code, sizes 1.5 sq.mm. up to 400 sq.mm., rated voltage 450/750 V.

• 02 : Single core non-sheathed cable with flexible conductor for general purpose maximum temperature 70oC. Define with 60227 IEC 02 code, sizes 1.5 sq.mm. up to 240 sq.mm., rated voltage 450/750 V.

• 05 : Single core non-sheathed cable with solid conductor for indoor use maximum temperature 70oC. Define with 60227 IEC 05 code, only have 3 sizes ; 0.5, 0.75 and 1 sq.mm., rated voltage 300/500 V.

• 06 : Single core non-sheathed cable with flexible conductor for indoor use maximum temperature 70oC. Define with 60227 IEC 06 code, only have 3 sizes; 0.5, 0.75 and 1 sq.mm., rated voltage 300/500 V.

• 07 : Single core non-sheathed cable with solid conductor for indoor use maximum temperature 90oC. Define with 60227 IEC 07 code, including sizes 0.5, 0.75, 1.0, 1.5 and 2.5 sq.mm., rated voltage 300/500 V.

• 08 : Single core non-sheathed cable with flexible conductor for indoor use maximum temperature 90oC. Define with 60227 IEC 08 code, including sizes 0.5, 0.75, 1.0, 1.5 and 2.5 sq.mm., rated voltage 300/500 V.

First position number is 1 - sheathed cables for permanent installation

10 : 2 to 5 multicores light polyvinyl chloride sheathed cable maximum conductor temperature 70oC. Define with 60227 IEC 10, sizes 1.5-3.5 sq.mm., rated voltage 300/500 V.

First position number is 4 – non-sheathed cord for light duty purpose.

41 : 2 cores light tinsel flat type cord, maximum conductor temperature 70oC. Define with 60227 IEC 41 code, only 0.8 sq.mm. size, rated voltage 300/300 V.
43 : Single core cord for indoor decorative lighting use, maximum conductor temperature 70oC. Define with 60227 IEC 43 code, 0.5 and 0.75 sq.mm. sizes, rated voltage 300/300 V

First position number is 5 – sheathed cord for general purpose.
52 : 2&3 multicores light polyvinyl chloride sheathed cord, maximum conductor temperature 70oC. Define with 60227 IEC 52 code, 0.5 and 0.75 sq.mm. sizes with rated voltage 300/300 V.
53 : 2 to 5 multicores ordinary polyvinyl chloride sheathed cord, maximum conductor temperature 70oC. Define with 60227 IEC 53 code, including sizes 0.75, 1.0, 1.5 and 2.5 sq.mm. with rated voltage 300/500 V.
56 : 2&3 multicores heat-resistant light polyvinyl chloride sheathed cord, maximum conductor temperature 90oC define with 60227 IEC 56 code, 0.5 and 0.75 sq.mm. sizes with rated voltage 300/300 V.
57 : 2 to 5 multicores heat-resistant ordinary polyvinyl chloride sheathed cord, maximum conductor temperature 90oC. Define with 60227 IEC 57 code, 0.75, 1.0, 1.5 and 2.5 sq.mm. with rated voltage 300/500 V.

Some of cable in old TIS 11-2531 still available in this new standard by reduce size range and change color to comply with TIS 11-2553 new standard, as follows.

• **NYY**

Round type insulated and sheathed cables with maximum conductor temperature 70oC. Define with NYY code, rated voltage 450/750 V includes
Single core, sizes 1.0 sq.mm. up to 500 sq.mm.
Multicores, sizes 50 sq.mm. up to 300 sq.mm.
Multicores with ground, sizes 25 sq.mm. up to 300 sq.mm.

• **VCT**

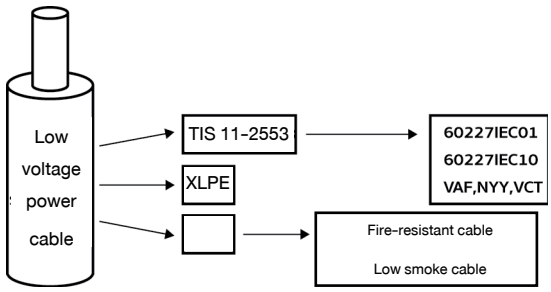
Insulated and sheathed cables with maximum conductor temperature 70oC. Define with VCT code, including single core, multicore and multicore with ground, 4 sq.mm. up to 35 sq.mm. sizes, rated voltage 450/750 V.

• **VAF**

Flat type insulated and sheathed cables with maximum conductor temperature 70oC. Define with VAF code, including multicore and multicore with ground, 1.0 sq.mm. up to 16 sq.mm., rated voltage 300/500 V.

Alternative cable for the missing cable from old standard

Small size NYY multicore cable and NYY multicore with ground cable can use 60227 IEC 10 in new standard (TIS 11-2553) as an alternative choice.



Electric current calculation step

Start with select type and size of cables that suitable with purpose, condition and installation method (7 Group) then calculate with correction factor that concern with, such as number of circuits(Cg), temperature(Ca)

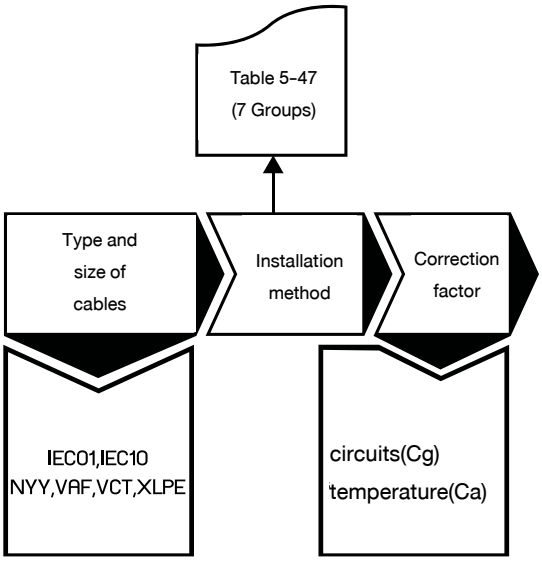
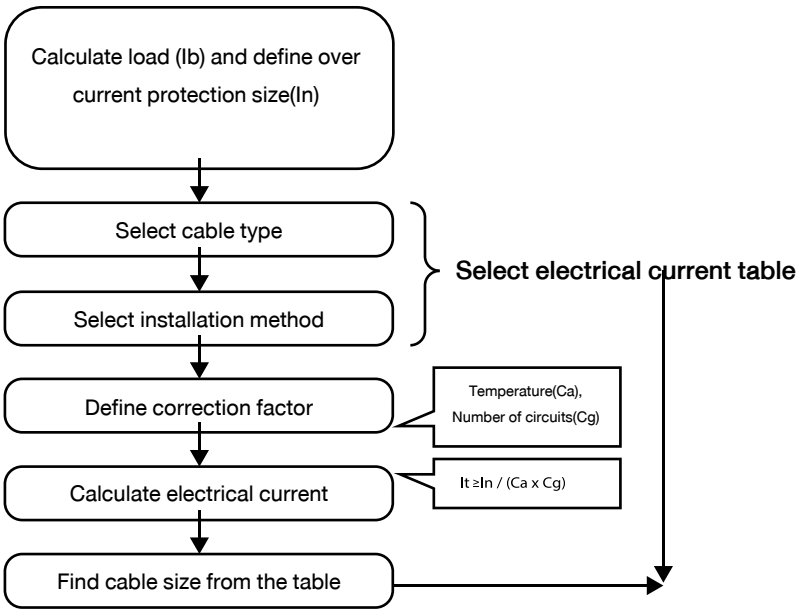


Table : Summary of installation method

Installation	TIS 11-2553	XLPE Cables	Note
Group 1&2	Table 5-20	Table 5-27	Conduit
Group 3	Table 5-21	Table 5-21	Wall wiring
Group 4	Table 5-22	Table 5-28	Aerial
Group 5&6	Table 5-23	Table 5-29	Direct buried
Group 7	Table 5-30 & 31	Table 5-32 & 33	Cable tray

Electrical current calculation from general load diagram



Author : Techatat Buranaaudsawakul

- Secretary of Electrical Engineering,EIT

- Subcommittee of Electrical Installation Standard, EIT

References

1. Thailand 2013 electrical installation standard, EIT

2. TIS 11-2553, TIS

3. Electrical design and installation, Luechai Thongnil

Table 5-45

Correction factor for single core or multicore cable rated voltage not exceed 0.6/1 kW, direct buried when group of circuit more than 1 circuit, lay on flat horizontal

Number of circuit	Spacing between cable surface each circuit (mm)				
	Touching	1 time of cable diameter	125	250	500
2	0.75	0.80	0.85	0.90	0.90
3	0.65	0.70	0.75	0.80	0.85
4	0.60	0.60	0.70	0.75	0.80
5	0.55	0.55	0.65	0.70	0.80
6	0.50	0.55	0.60	0.70	0.80

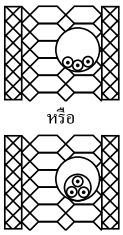
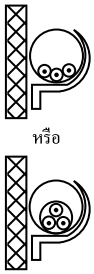
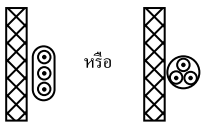
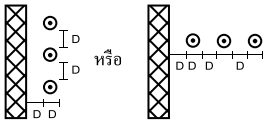
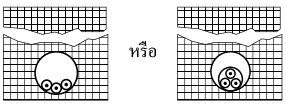
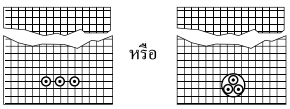
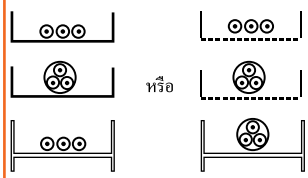
Table 5-46

Correction factor for single core or multicore cable rated voltage not exceed 0.6/1 kW, install in conduit burial when group of circuit more than 1 circuit, lay on flat horizontal

Number of circuit	Spacing between cable surface each circuit (mm)			
	Touching	250	500	1,000
2	0.85	0.90	0.95	0.95
3	0.75	0.85	0.90	0.95
4	0.70	0.80	0.85	0.90
5	0.65	0.80	0.85	0.90
6	0.60	0.80	0.80	0.90

Table 5-47

Installation references

Instruction	Installation	Installation Type	Note
insulated single core or multicore with sheathed/ non-sheathed cable, install in metallic/non-metallic raceway inside insulation ceiling or fire-resistant wall		Group 1	Insulator of ceiling or fire-resistant wall must have thermal conductance at least 10 W/m ^{2}K*
insulated single core or multicore with sheathed/ non-sheathed cable, install by surface wall/ceiling wiring or in-wall wiring		Group 2	In case that install by in-wall wiring the thermal resistivity does not exceed 2 K•m/W
insulated single core or multicore with sheathed cable, install by surface wall/ceiling wiring or in-wall wiring		Group 3	-
insulated single core with sheathed/non-sheathed cable, install by placing with spacing on insulator		Group 4	Spacing between cables not less than the cable diameter.
insulated single core or multicore with sheathed, install in metallic/non-metallic conduit pipe		Group 5	-
insulated single core or multicore with sheathed, install directly buried underground		Group 6	-
insulated single core or multicore with sheathed, install in raceway, perforated cable tray, cable tray or cable ladder		Group 7	The perforated tray must have ventilated area not less than 30% of the surface tray area.

*2013 Electrical and power cable installation standard, The Engineering Institute of Thailand Under H.M. The King's Patronage

Table 5-48

Application requirements of copper conductor cable with PVC insulated rely on TIS 11-2553

Cable code/Cable name	Size (sq. mm.)	Conductor	No. of Core	Conductor temperature	Sheathed	Voltage Uo/U (Volt)	Application
60227 IEC 01	1.5-400	Solid Stranded	Single core	70 ˚C	No	450/750	• For general purpose • Install in protected water raceway • Do not install in duct underground or direct burial
60227 IEC 02	1.5-240	Flexible	Single core	70 ˚C	No	450/750	• For general purpose • Install in protected water raceway • Do not install in duct underground or direct burial
60227 IEC 05	0.5-1.0	Solid	Single core	70 ˚C	No	300/500	• For general purpose • Install in protected water raceway • Do not install in duct underground or direct burial
60227 IEC 06	0.5-1.0	Flexible	Single core	70 ˚C	No	300/500	• For general purpose • Install in protected water raceway • Do not install in duct underground or direct burial
60227 IEC 07	0.5-2.5	Solid	Single core	90 ˚C	No	300/500	• For general purpose • Install in protected water raceway • Do not install in duct underground or direct burial
60227 IEC 08	0.5-2.5	Flexible	Single core	90 ˚C	No	300/500	• For general purpose • Install in protected water raceway • Do not install in duct underground or direct burial
60227 IEC 10	1.5-35	Stranded	Multicore (with/ without ground)	70 ˚C	Yes	300/500	• For general purpose • Install in protected water raceway • Do not install in duct underground or direct burial
60227 IEC 41	0.8	Stranded	2 cores	70 ˚C	No	300/500	• Using for connection inside electrical appliances

*2013 Electrical and power cable installation standard, The Engineering Institute of Thailand Under H.M. The King's Patronage

Table 5-48

Application requirements of copper conductor cable with PVC insulated rely on TIS 11-2553

Cable code/Cable name	Size (sq. mm.)	Conductor	No. of Core	Conductor temperature	Sheathed	Voltage Uo/U (Volt)	Application
60227 IEC 43	0.5-0.75	Flexible	Single core	70 ˚C	Yes	300/300	• Connections with Indoor decorative lights
60227 IEC 52	0.5-0.75	Flexible	Multicore (with/ without ground)	70 ˚C	Yes	300/300	• Using for small electrical home appliances • Using for connection inside electrical appliances
60227 IEC 53	0.75-2.5	Flexible	Multicore (with/ without ground)	70 ˚C	Yes	300/500	•Using for small electrical appliances (Heavy duty) • Connect to lamp fixtures
60227 IEC 56	0.5-0.75	Flexible	Multicore (with/ without ground)	90 ˚C	Yes	300/300	• Using for small electrical appliances (Heavy duty)
60227 IEC 57	0.75-2.5	Flexible	Multicore (with/ without ground)	90 ˚C	Yes	300/500	•Using for small electrical appliances (Heavy duty) • Connection inside lamp fixtures that w/wo ballast • Using with electrical billboard
NYY	1-500	Stranded	Single core	70 ˚C	Yes	450/750	• For general purpose • Install in raceway • Install in duct in ground or direct burial
	50-300		Multicore				
NYY-G	0.5-2.5		Multi-core with ground				
VAF VAF-G	1-16	Solid Stranded	2 แกน 2 แกน สายดิน	70 ˚C	Yes	300/500	• Install by surface wiring • เดินในช่องเดินสาย ห้ามร้อยท่อ • Do not install in conduit or direct burial
VCT VCT-G	4-35	Flexible	Single core / Multicore with ground	70 ˚C	Yes	450/750	• For general purpose • Using for electrical appliances • Install in raceway • Install in duct in ground or direct burial

*2013 Electrical and power cable installation standard, The Engineering Institute of Thailand Under H.M. The King's Patronage

Number of Wire Gauge	Diameter			Sectional area			Weight	
	Mil	Inch	mm.	Cir. mil	Inch	$mm.^2$	lb/100 ft	kg/km
4/0	460	0.4600	11.684	211.600	0.1662	107.2	640.5	953.18
3/0	409.6	0.4096	10.4038	167.772	0.1318	85.0	507.9	755.75
2/0	364.8	0.3648	9.26592	133.079	0.1045	67.43	402.8	599.47
1/0	324.9	0.3249	8.25246	105.560	0.082907	53.49	319.5	475.51
1	289.3	0.2893	7.34822	83.694	0.065734	42.41	253.5	377.01
2	257.6	0.2576	6.54304	66.358	0.052117	33.62	200.9	298.92
3	229.4	0.2294	5.82676	52.624	0.041331	26.67	159.3	237.05
4	204.3	0.2043	5.18922	41.738	0.032781	21.15	126.4	188.02
5	181.9	0.1819	4.62026	33.088	0.025987	16.77	100.2	149.05
6	162.0	0.1620	4.1148	26.244	0.020612	13.30	79.46	118.22
7	144.3	0.1443	3.66522	20.822	0.016354	10.55	63.02	93.798
8	128.50	0.1285	3.2639	16.512	0.012969	8.367	49.97	74.382
9	114.4	0.1144	2.90576	13.087	0.010279	6.631	39.63	58.954
10	101.9	0.1019	2.58826	10.384	0.008155	5.261	31.43	46.774
11	90.74	0.09074	2.3048	8.234	0.006467	4.172	24.92	37.090
12	80.81	0.08081	2.05257	6.530	0.005129	3.309	19.77	29.416
13	71.96	0.07196	1.82778	5.178	0.004067	2.624	15.68	23.326
14	64.08	0.06408	1.62763	4.106	0.003225	2.081	12.43	18.497
15	57.07	0.05707	1.44958	3.257	0.002558	1.650	9.858	14.672
16	50.82	0.05082	1.29083	2.583	0.002028	1.309	7.818	11.63
17	45.26	0.04526	1.1496	2.048	0.001609	1.038	6.200	9.228
18	40.3	0.04030	1.02362	1.624	0.001276	0.8229	4.917	7.316
19	35.89	0.03589	0.91161	1.288	0.001012	0.6527	3.899	5.802
20	31.96	0.03196	0.81178	1.021	0.000802	0.5176	3.092	4.601
21	28.46	0.02846	0.72288	810.0	0.000636	0.4104	2.452	3.649
22	25.35	0.02535	0.64389	642.6	0.000505	0.3256	1.945	2.895
23	22.57	0.02257	0.57328	509.4	0.000400	0.2581	1.542	2.295
24	20.10	0.02010	0.51054	404.0	0.000317	0.2047	1.233	1.820
25	17.90	0.01790	0.45466	320.4	0.000252	0.1624	0.9699	1.443
26	15.94	0.01594	0.40488	254.1	0.000200	0.1287	0.7692	1.14
27	14.20	0.01420	0.36068	201.6	0.000158	0.10217	0.6100	0.9083
28	12.64	0.01264	0.32106	159.8	0.000125	0.08096	0.4837	0.7197
29	11.26	0.01126	0.286	126.8	0.000100	0.06424	0.3836	0.5711
30	10.03	0.01003	0.25476	100.6	0.000079	0.05098	0.3042	0.4532
31	8.928	0.008928	0.22677	79.71	0.0000626	0.04039	0.2413	0.3591
32	7.950	0.007950	0.20193	63.20	0.0000496	0.03203	0.1913	0.2847
33	7.080	0.007080	0.17983	50.13	0.0000394	0.02540	0.1517	0.2258
34	6.305	0.006305	0.16015	39.75	0.0000312	0.02014	0.1203	0.1791
35	5.615	0.005615	0.14262	31.53	0.0000248	0.01598	0.09542	0.1420
36	5.000	0.005000	0.127	25.00	0.0000196	0.01267	0.07567	0.1126
37	4.453	0.004453	0.11311	19.83	0.0000156	0.010048	0.06001	0.0893
38	3.965	0.003965	0.10071	15.72	0.0000123	0.007966	0.04759	0.0708
39	3.531	0.003531	0.08969	12.47	0.0000098	0.006318	0.03774	0.0562
40	3.145	0.003145	0.07988	9.89	0.0000078	0.005012	0.02993	0.0446
41	2.800	0.002800	0.07112	7.84	0.0000062	0.003973	0.02374	0.0353
42	2.494	0.002494	0.06335	6.22	0.0000049	0.003152	0.01882	0.0280
43	2.221	0.002221	0.05641	4.93	0.0000039	0.002500	0.01493	0.0222
44	1.978	0.001978	0.05024	3.91	0.0000031	0.001982	0.01184	0.0176

Length	mils x 0.0254 = mm (millimeters)
	inches x 25.4 = mm
	feet x 0.3048 = m (meters)
	miles x 1.609344 = km (kilometers)
Area	circular mils x 0.0005067 = mm^2 (square millimeters)
	sq. in. x 645.16 = mm^2
	sq. ft. x 0.092903 = m^2 (square meters)
	sq. yd. x 0.836127 = m^2
	sq. mi. x 2.58999 = km^2 (square kilimeters)
Volume	cu. in. x 16.387 = cm^3 (cubic centimeters)
	cu. ft. x 0.028317 = m^2 (cubic meters)
	gallons x 4.54609 = l (liters)
Mass	pounds x 0.45359 = kg (kilograms)
	tons (2000) lbs. x 0.907185 = t (metric tons)
Mass per unit length	lb/1000 ft x 1.48816 = kg/km (kilograms per kilometer)
	lb/mi x 0.28185 = kg/km
	mm^2 x 8.89 = kg/km (for copper)
	mm^2 x 2.70 = kg/km (for aluminum)
	mm^2 x 7.83 = kg/km (for steel)
Force or Tension	pounds (force) x 4.448 = N (newtons)
	mass (kg) x 9.8066 = N (weight at or near sea level)
Force per unit area (Strees, pressure, tensile strength, etc.)	lbf/in^2 = (psi) x 6.895 = kPa (kiopascals)
	lbf/in^2 x 0.006895 = MPa (megapascals)
	N/mm^2 = MPa
Temperature	°F to °C : °C = (°F - 32) x 5 / 9
	°C to °F : °F = (°C x 9 / 5) + 32

SI Prefixes

Multiplying factor			Prefix	Symbol
1 000 000 000 000	=	10^{12}	tera	T
1 000 000 000	=	10^{9}	giga	G
1 000 000	=	10^{6}	mega	M
1 000	=	10^{3}	kilo	k
100	=	10^{2}	hecto	h
10	=	10^{1}	deca	da
0.1	=	10^{-1}	deci	d
0.01	=	10^{-2}	centi	c
0.001	=	10^{-3}	milli	m
0.000 001	=	10^{-6}	micro	µ
0.000 000 001	=	10^{-9}	nano	n
0.000 000 000 001	=	10^{-12}	pica	p
0.000 000 000 000 001	=	10^{-15}	femto	f
0.000 000 000 000 000 001	=	10^{-18}	atto	a

Conductor :

The conductor shall consist of plain annealed copper or aluminium wires, circular solid or stranded compacted or non-compacted or flexible.

Insulation :

The insulation layer shall be extruded with PVC or XLPE.

The cores are identified by colored insulation ;

Standard	Number of cores					
	1	2	3	4	5	above
TIS	Not specify	Blue and Brown	Brown, Black and Gray	Blue, Brown, Black and Gray	Blue, Brown, Black, Gray and Black	Black with white numbering
Others*	Natural	Red and Black	Red, Yellow and Blue	Red, Yellow, Blue and Black	Black with white numbering	
* Option : Other colors can be provided if specially requested.						

ARMOUR :

The armour shall be a layer of aluminium wires armour (for single core) or galvanized steel wires (for multi cores).

Options : 1. Aluminium tape armour (for single core) can be provided if specially requseted.
2. Steel tape armour (for multi cores) can be provided if specially requested.

SHEATH :

The Sheath layer shall be extruded with PVC or PE.

Options : 1. Low smoke halogen free (LSHF) sheath can be provided if specially requested.
2. Flame retardant to IEC 60332-3 is also available upon request.
3. Anti-termite and/or Anti-vermin property can be added to all sheath if specially requested.
4. Colors of sheath can be provided if specially requested.

Note : Special design & construction to customers specification can be provided upon request.

DIRECT CURRENT	ALTERNATING CURRENT	
	SINGLE PHASE	THREE PHASE
$A = \frac{kW \times 1000}{V}$	$A = \frac{kW \times 1000}{V \times P.F.}$	$A = \frac{kW \times 1000}{1.73 \times V \times P.F.}$
$A = \frac{kWA \times 1000}{V}$	$A = \frac{kVA \times 1000}{V}$	$A = \frac{kVA \times 1000}{1.73 \times V}$
$A = \frac{HP \times 746}{V \times (\%Eff.)}$	$A = \frac{HP \times 746}{V \times (\%Eff.) \times P.F.}$	$A = \frac{HP \times 746}{1.73 \times V \times (\%Eff.) \times P.F.}$
$kW = \frac{A \times V}{1000}$	$kW = \frac{A \times V \times P.F.}{1000}$	$kW = \frac{A \times V \times 1.73 \times P.F.}{1000}$
$kAV = \frac{A \times V}{1000}$	$kAV = \frac{A \times V}{1000}$	$kAV = \frac{A \times V \times 1.73}{1000}$
$HP = \frac{A \times V \times (\%Eff.)}{746}$	$HP = \frac{A \times V \times (\%Eff.) \times P.F.}{746}$	$HP = \frac{A \times V \times 1.73 \times (\%Eff.) \times P.F.}{746}$

APPROXIMATE MOTER AMPERES PER TERMINAL :

	220 V a - c = 4	amperes per H.P.
3 phase	220 V a - c = 2.5	amperes per H.P.
3 phase	380 V a - c = 1.41	amperes per H.P.
3 phase	440 V a - c = 1.25	amperes per H.P.
3 phase	550 V a - c = 1	amperes per H.P.

Temperature (t) ˚C	Copper	Aluminum
0	1.085	1.088
1	1.081	1.083
2	1.076	1.087
3	1.072	1.074
4	1.067	1.069
5	1.063	1.064
6	1.058	1.060
7	1.054	1.055
8	1.049	1.051
9	1.045	1.046
10	1.041	1.042
11	1.037	1.038
12	1.032	1.033
13	1.028	1.029
14	1.024	1.025
15	1.020	1.021
16	1.016	1.016
17	1.012	1.012
18	1.008	1.008

Temperature (t) ˚C	Copper	Aluminum
19	1.004	1.004
20	1.000	1.000
21	0.996	0.996
22	0.992	0.992
23	0.988	0.988
24	0.985	0.984
25	0.981	0.980
26	0.977	0.976
27	0.973	0.973
28	0.970	0.969
29	0.966	0.965
30	0.962	0.961
31	0.959	0.958
32	0.955	0.954
33	0.951	0.950
34	0.948	0.947
35	0.944	0.943
36	0.941	0.939
37	0.937	0.936

The correction factor formula :

1 Plain annealed copper conductors

$$\text{factor} = \frac{1}{1 + 0.00393\,(t - 20)}$$

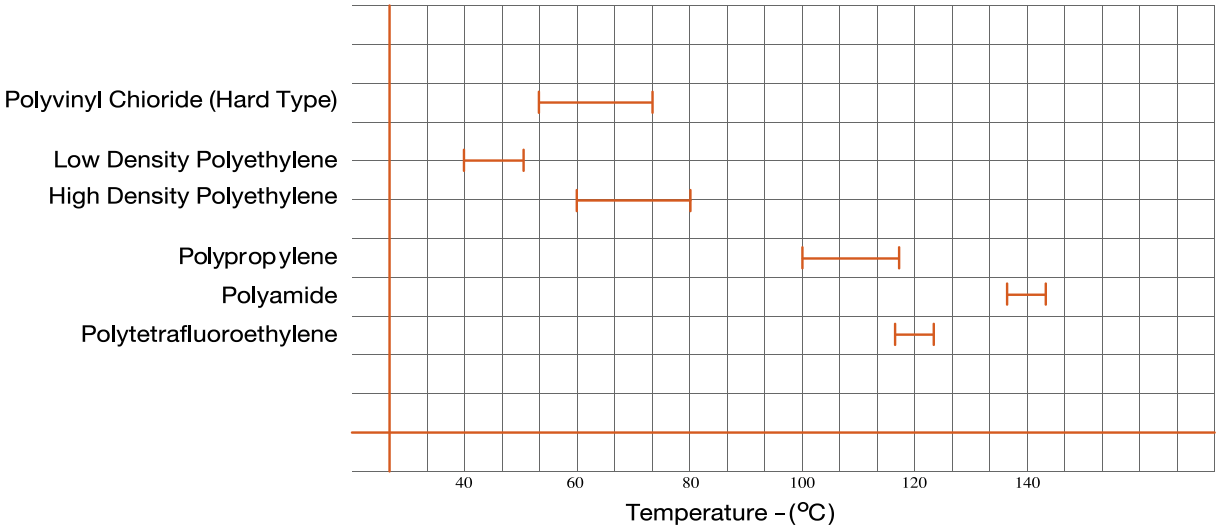
2 Plain annealed conductors

$$\text{factor} = \frac{1}{1 + 0.00403\,(t - 20)}$$

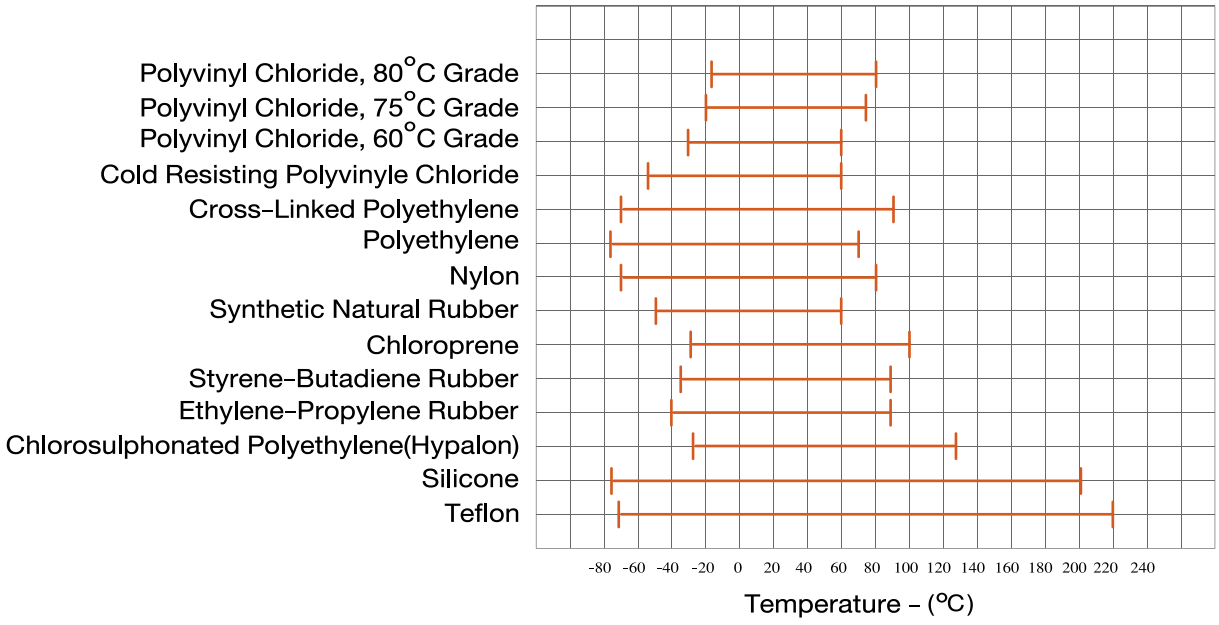
where: t : temperature of the conductor at the time of measuremnt in C

Temperature (t) °C	Natural Rubber	Iscbulytone Isopxene rubber	SBR	Silicone Rubber	Chloroprene Rubber	EPR	Vinyl
0	0.37	0.34	0.34	0.26	0.14	0.42	0.42
1	0.39	0.35	0.36	0.28	0.15	0.43	0.43
2	0.41	0.38	0.38	0.30	0.17	0.45	0.44
3	0.43	0.40	0.40	0.32	0.19	0.48	0.45
4	0.45	0.42	0.42	0.34	0.21	0.50	0.46
5	0.48	0.44	0.44	0.37	0.23	0.52	0.48
6	0.50	0.46	0.47	0.40	0.25	0.54	0.49
7	0.53	0.49	0.50	0.43	0.28	0.56	0.50
8	0.55	0.52	0.53	0.46	0.31	0.59	0.52
9	0.58	0.54	0.56	0.49	0.34	0.62	0.53
10	0.61	0.58	0.59	0.52	0.37	0.65	0.55
11	0.64	0.61	0.62	0.56	0.41	0.68	0.57
12	0.67	0.64	0.65	0.60	0.45	0.70	0.60
13	0.71	0.68	0.69	0.64	0.49	0.74	0.63
14	0.74	0.72	0.73	0.69	0.54	0.77	0.66
15	0.78	0.76	0.77	0.72	0.60	0.80	0.70
16	0.82	0.81	0.81	0.78	0.66	0.84	0.74
17	0.86	0.85	0.85	0.83	0.73	0.86	0.79
18	0.91	0.90	0.90	0.87	0.81	0.91	0.85
19	0.95	0.96	0.95	0.93	0.90	0.95	0.92
20	1.00	1.00	1.00	1.00	1.00	1.00	1.00
21	1.05	1.07	1.09	1.07	1.10	1.05	1.11
22	1.10	1.14	1.18	1.14	1.20	1.10	1.24
23	1.16	1.22	1.27	1.23	1.30	1.15	1.39
24	1.22	1.30	1.36	1.31	1.45	1.20	1.55
25	1.28	1.38	1.45	1.40	1.60	1.25	1.74
26	1.35	1.45	1.55	1.50	1.75	1.30	1.96
27	1.42	1.55	1.70	1.61	1.95	1.35	2.22
28	1.49	1.65	1.85	1.73	2.15	1.42	2.52
29	1.56	1.77	2.00	1.87	2.35	1.48	2.87
30	1.64	1.89	2.15	2.01	2.60	1.55	3.25
31	1.72	2.00	2.30	2.16	2.90	1.62	3.75
32	1.81	2.15	2.50	2.32	3.20	1.70	4.25
33	1.90	2.32	2.70	2.49	3.50	1.78	4.90
34	2.00	2.50	2.90	2.68	3.80	1.84	5.60
35	2.10	2.69	3.20	2.88	4.20	1.90	6.45

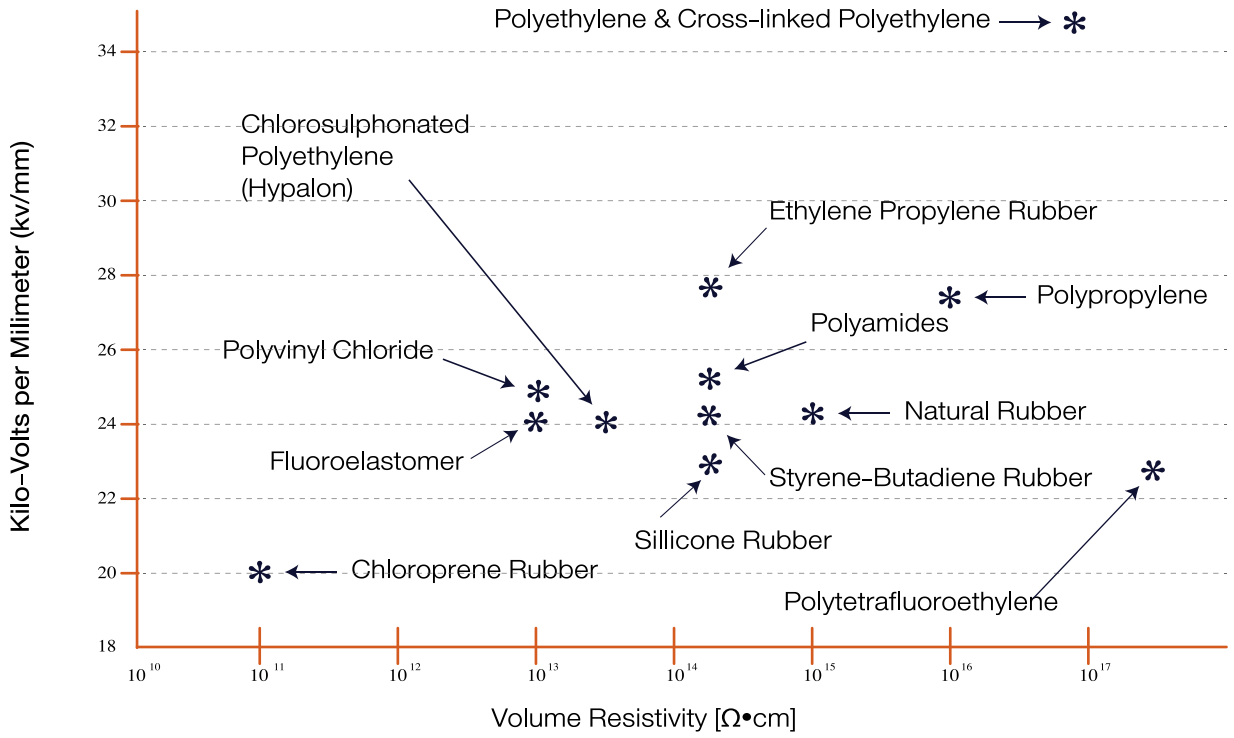
Remark : High insulation resistance materials as polyethylene, shall comply with the detail specification. For insulation without a specification, Factor = 1

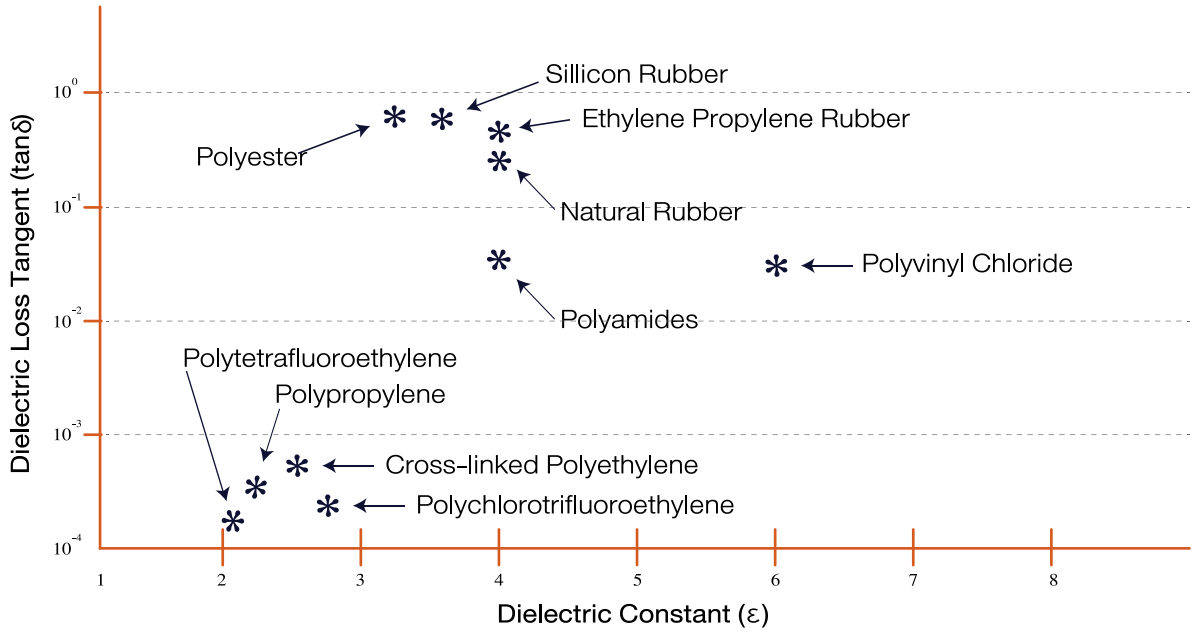


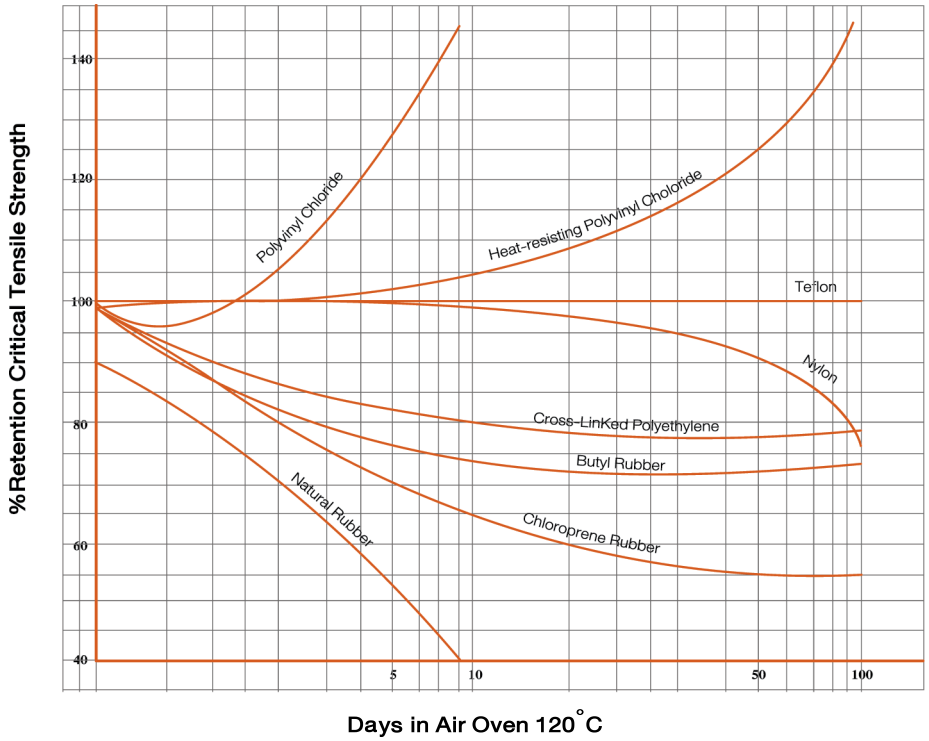
Operating Temperature

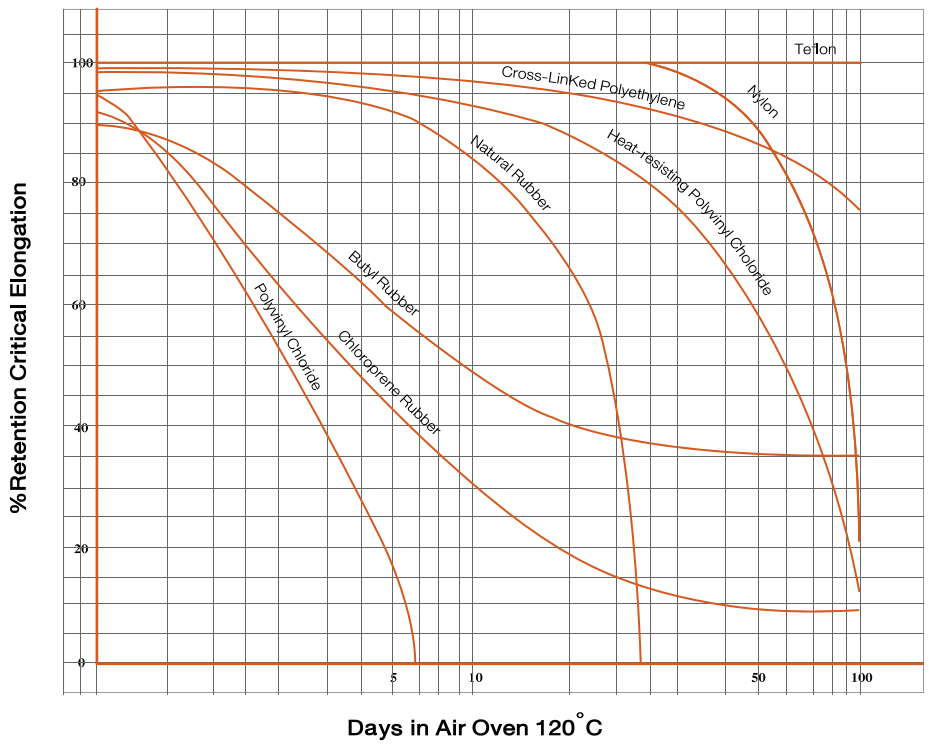


[Max. point : Max. Continuous Operating Temperature
Min. point : Brittleness Temperature]


Polyethylene & Cross-linked Polyethylene
Chlorosulphonated Polyethylene (Hypalon)
Ethylene Propylene Rubber
Polypropylene
Polyamides
Polyvinyl Chloride
Natural Rubber
Fluoroelastomer
Styrene-Butadiene Rubber
Sillicone Rubber
Chloroprene Rubber
Polytetrafluoroethylene
Kilo-Volts per Milimeter (kv/mm)
34
32
30
28
26
24
22
20
18
10 10
10 11
10 12
10 13
10 14
10 15
10 16
10 17
Volume Resistivity [Ω•cm]


Sillicon Rubber
Ethylene Propylene Rubber
Polyester
Natural Rubber
Polyvinyl Chloride
Polyamides
Polytetrafluoroethylene
Polypropylene
Cross-linked Polyethylene
Polychlorotrifluoroethylene
Dielectric Loss Tangent (tanδ)
10 0
10 -1
10 -2
10 -3
10 -4
1
2
3
4
5
6
7
8
Dielectric Constant (ε)


% Retention Critical Tensile Strength
140
120
100
80
60
40
5
10
50
100
Polyvinyl Chloride
Heat-resisting Polyvinyl Choloride
Teflon
Nylon
Cross-LinKed Polyethylene
Butyl Rubber
Natural Rubber
Chloroprene Rubber
Days in Air Oven 120°C


% Retention Critical Elongation
100
80
60
40
20
0
5
10
50
100
Teflon
Cross-LinKed Polyethylene
Nylon
Natural Rubber
Heat-resisting Polyvinyl Choloride
Butyl Rubber
Polyvinyl Chloride
Chloroprene Rubber
Days in Air Oven 120°C

The continuous current ratings ratings given in this catalog have been calculated in accordance with the IEC 60287 (Electric Cables-Calculations of the current rating) based on the following standard operating conditions :

Ambient air temperature	40°C
Ambient ground temperature	30°C
Thermal resistivity of soil	1.0 K.m/W or °C.m/W
Depth of laying (For MV&HV cable laid direct in The ground)	1m
Depth of laying (For LV cable laid direct in the ground)	0.6 m

The ratings are also based on the following standard installation conditions :

- In air, protected from solar radiation
- Single core cables laid in flat formation with S = 2d, where S=distance between cable axes, d=cable diameter
- Metallic screen bonded at a single point (for MV&Hv cables)

Rating Factors

Where it is desired to depart from the standard condition, the rating correction factors given in the following tables should be applied.

Correction factors for ambient air & ground temperatures

Temperature (oC)	In air (Ambient temperature 40oC)		In air ground (Ambient temperature 30°C)	
	Insulation		Insulation	
	PVC	XLPE	PVC	XLPE
11-15	1.34	1.23	1.18	1.12
16-20	1.29	1.19	1.12	1.08
21-25	1.22	1.14	1.07	1.03
26-30	1.15	1.10	1.00	1.00
31-35	1.08	1.05	0.94	0.96
36-40	1.00	1.00	0.87	0.91
41-45	0.91	0.96	0.80	0.86
46-50	0.82	0.90	0.71	0.82
51-55	0.70	0.84	0.62	0.76
56-60	0.57	0.78	0.51	0.70
61-65	-	0.71	-	0.65
66-70	-	0.64	-	0.57
71-75	-	0.55	-	0.49
76-80	-	0.45	-	0.41

Correction factors for depths of laying for direct buried MV&HV cables

Depth of laying m	Single-core cables Nominal conductor size		Three-core cables
	≤185 mm²	>185 mm²	
0.5	1.06	1.09	1.06
0.6	1.04	1.07	1.05
0.8	1.02	1.03	1.02
1	1.00	1.00	1.00
1.25	0.98	0.98	0.98
1.5	0.97	0.96	0.97
1.75	0.96	0.94	0.96
2	0.95	0.93	0.95
2.5	0.93	0.91	0.93
3	0.92	0.89	0.92

Correction factors for depths of laying for direct buried LV cables

Depth of laying m	Single-core cables Nominal conductor size		Three-core cables
	≤185 mm²	>185 mm²	
0.5	1.02	1.02	1.01
0.6	1.00	1.00	1.00
0.8	0.98	0.96	0.97
1	0.96	0.93	0.95
1.25	0.94	0.92	0.93
1.5	0.93	0.90	0.92
1.75	0.92	0.88	0.91
2	0.91	0.87	0.90
2.5	0.89	0.85	0.89
3	0.88	0.83	0.88

Correction factors for soil themal resistivities for direct buried singie-core cables

Nominal area of conductor mm²	Values of soil thermal resistivity K.m/W or °C.m/W							
	0.7	0.8	0.9	1.0	1.5	2.0	2.5	3.0
16	1.12	1.08	1.03	1.00	0.87	0.77	0.71	0.65
25	1.12	1.08	1.03	1.00	0.86	0.77	0.70	0.65
35	1.12	1.08	1.04	1.00	0.86	0.77	0.70	0.65
50	1.14	1.09	1.04	1.00	0.86	0.77	0.70	0.64
70	1.14	1.09	1.04	1.00	0.85	0.76	0.69	0.63
95	1.14	1.08	1.03	1.00	0.85	0.75	0.68	0.63
120	1.14	1.08	1.03	1.00	0.85	0.75	0.68	0.63
150	1.14	1.08	1.04	1.00	0.85	0.75	0.68	0.63
185	1.14	1.09	1.04	1.00	0.85	0.75	0.68	0.63
240	1.15	1.09	1.04	1.00	0.85	0.75	0.68	0.62
300	1.14	1.09	1.04	1.00	0.84	0.74	0.67	0.61
400	1.15	1.09	1.04	1.00	0.84	0.74	0.66	0.61
500	1.15	1.09	1.05	1.00	0.85	0.75	0.68	0.63
630	1.15	1.09	1.05	1.00	0.85	0.75	0.68	0.63
800	1.15	1.09	1.05	1.00	0.85	0.75	0.68	0.62

Correction factors for soil themal resistivities for direct buried three-core cables

Nominal area of conductor mm²	Values of soil thermal resistivity K.m/W or °C.m/W							
	0.7	0.8	0.9	1.0	1.5	2.0	2.5	3.0
16	1.09	1.05	1.03	1.00	0.88	0.81	0.74	0.69
25	1.10	1.06	1.03	1.00	0.88	0.81	0.74	0.69
35	1.11	1.07	1.04	1.00	0.88	0.81	0.73	0.69
50	1.10	1.06	1.03	1.00	0.87	0.80	0.73	0.68
70	1.11	1.06	1.04	1.00	0.87	0.79	0.73	0.68
95	1.11	1.07	1.04	1.00	0.87	0.79	0.73	0.68
120	1.11	1.07	1.04	1.00	0.87	0.79	0.73	0.68
150	1.10	1.06	1.03	1.00	0.86	0.78	0.72	0.67
185	1.10	1.07	1.03	1.00	0.86	0.78	0.72	0.67
240	1.11	1.07	1.03	1.00	0.86	0.78	0.72	0.67
300	1.11	1.07	1.03	1.00	0.86	0.78	0.71	0.67
400	1.11	1.07	1.03	1.00	0.86	0.78	0.71	0.66

In a single conduit where the conductors are installed, the allowable ampacity of each conductor shall be reduced as shown in the following table.

Number of cores	Multiplier
4-6	0.82
7-9	0.72
10-20	0.56
21-30	0.48
31-40	0.44
over-40	0.38

Note : For multicore cables, the number of core is equal to the number of wire excluding the ground

1. Minimum bending radius and permissible maximum pulling tension

For safety installation without damaging electrical and physical properties, the following minimum bending radius and permissible maximum pulling tension must be observed:

MINIMUM BENDING RADIUS

D : Overall dia. of cable

Number of core / Type of cable	Single core		Multi core
	Round conductor	Four segmental stranded conducto	
600V cable	8D	12D	6D
3,300V cable and higher	10D	12D	8D
Triplex type cable	-	-	8D
Corrugated metal armored cable	10D	12D	8D
Flat tape armored cable	10D	12D	8D
Wire armored cable	10D	12D	8D
Lead jacketed cable	10D	12D	10D

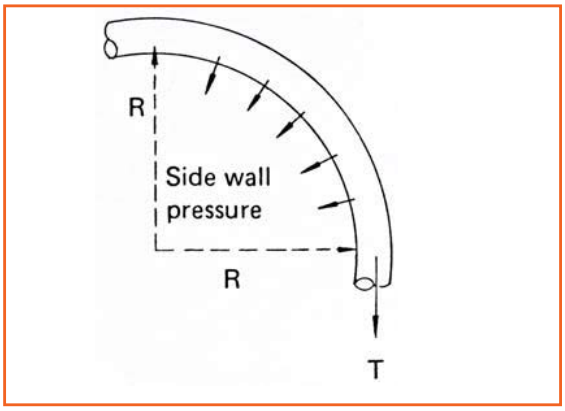
PERMISSIBLE MAXIMUM PULLING TENSION

Pulling tool	Material of conductor	Permissible maximum pulling tension (kgf)
Pulling eye	Copper	7 x (Number of core) x (Cross-sectional area of conductor)
	Aluminium	4 x (Number of core) x (Cross-sectional area of conductor)
Cable grip	Copper & Aluminium	The same as using the pulling eye, but the maximum tension should be less than two tons.

NOTE : When cable grip is used it should cover more than 500 mm. in length of the cable end and be bound to the cable sheath.

$$\text{NOTE : Side wall pressure to cable} = \frac{\text{pulling tension (kgf)}}{\text{bending radius (m)}} = \frac{T}{R}$$

T : Pulling tension (kgf)
R : Bending radius (m)



2. Side wall pressure to cable

Permissible maximum side wall pressure to the cable at bending point during installation is 500 kg/m.

3. Removal of sheath or tape

Special care must be taken not to harm the insualtion when removing the sheath or tapes with a knife, other-wise it may result in a dielectric breakdown.

4. Cleaning the surface of insulation

The surface of insulation should be cleaned to avoid a flashover at the cable termination or joint.

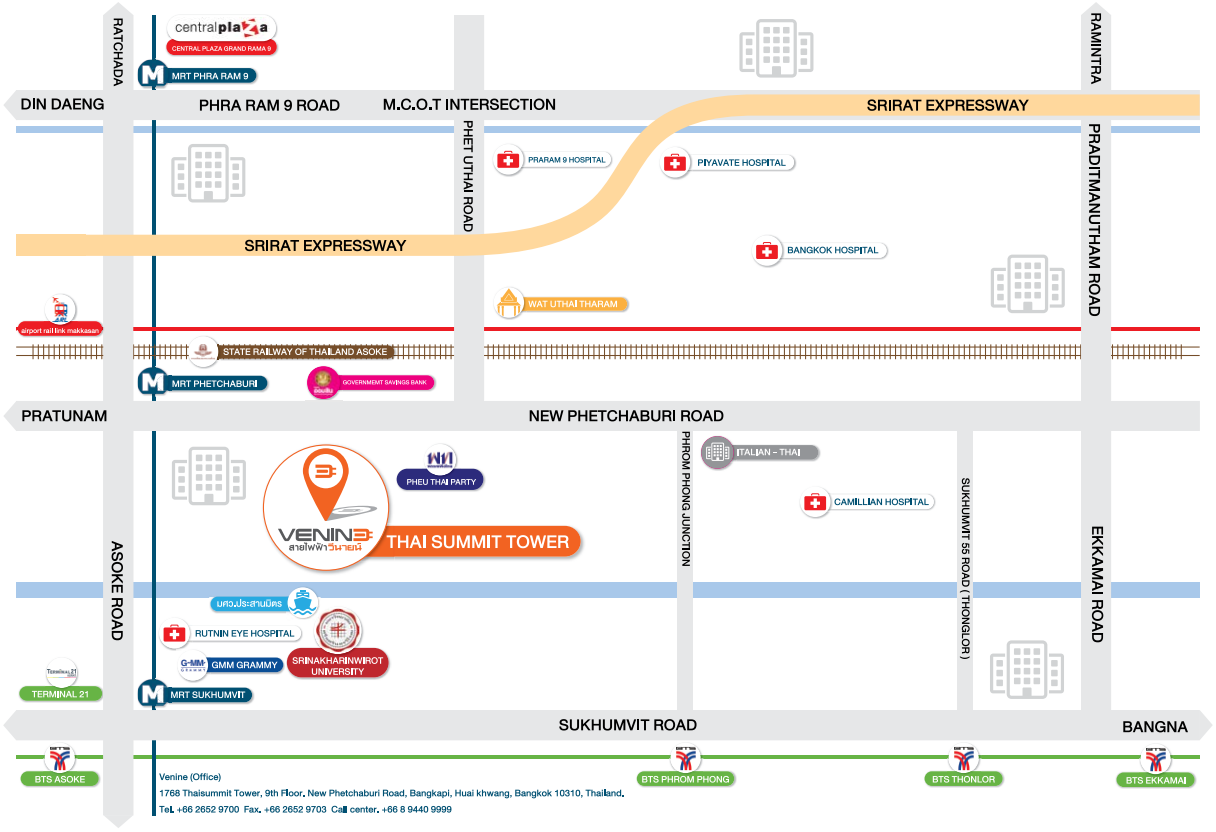
5. Applying of self-adhesive tape

When applying a self-adhesive tape after jointing or terminating of XLPE cable, stretch it properly about 1.2 times as long as the original one. If it is over-stretched, crack may occur on the tape in the long run and if not stretched properly, tape will not be adhered between each layer.

5. Applying of self-adhesive tape

For outdoor termination, waterproof treatment is necessary to avoid the water penetrating into the cable end and special care must be taken to apply tapes and terminals. It is desirable to use a compression or solder type terminal.

LOCATION



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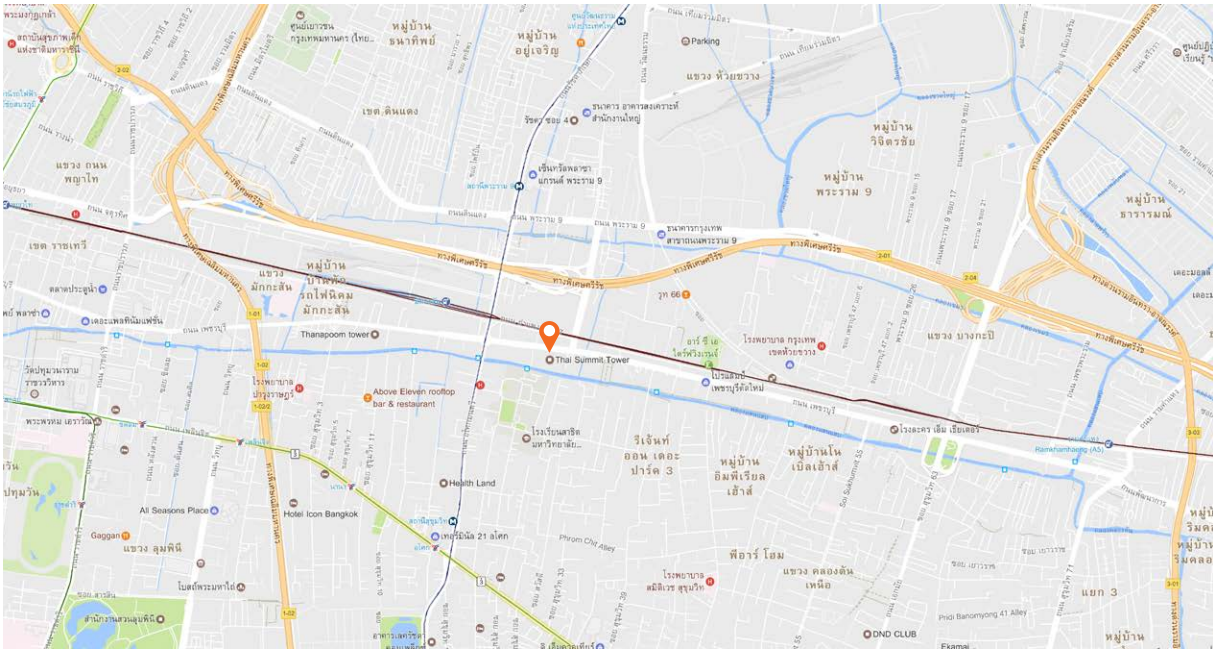

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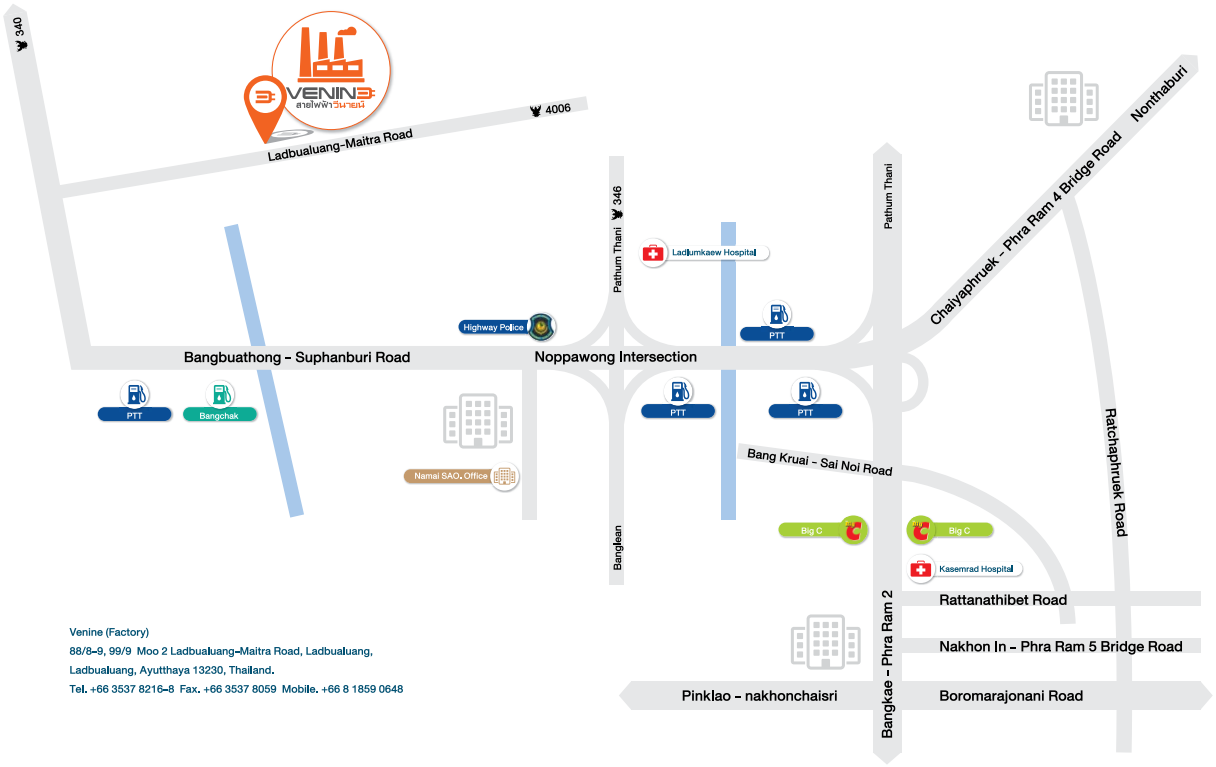

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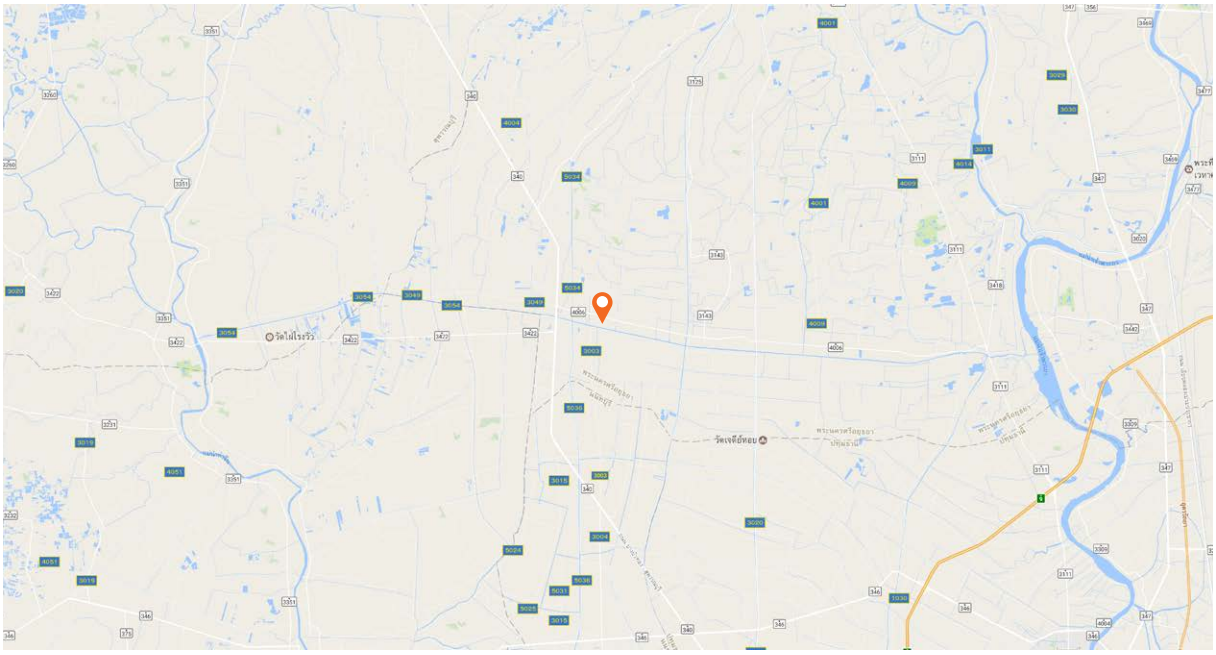

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