MYOUNG IN SHIPBOARD CABLES

JIS C 3410

Cables and flexible cords for
electrical equipment of ships

MYOUNGIN ELECTRIC WIRE Co., Ltd.

The world connected with wire!

선박을 움직이는 힘, 케이블에서 시작됩니다 – JIS C 3410"

The world connected with wire!

MYOUNG IN CABLES

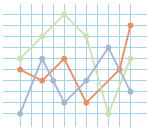
Delivery

명인전선은 끊임없는 기술개발과 성능개선의 목표 아래 환경을 고려한 숙련된 기술과 열정을 가지고 높은 품질의 서비스와 정확한 납품 수행으로 신뢰도를 높이고 초일류 기업이 되도록 노력하겠다"고 말했다

Vision

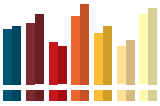
고무전선 점유 1위의 기술력과 생산능력을 바탕으로 활발한 해외시장 개척, 풍력 등 고무전선 부문 세계적인 기업

Quality



친환경 자동화 공정은 물론, 과감한 R&D 투자로 신기술 보유로 품질을 인정받는 명인전선

Manufacture



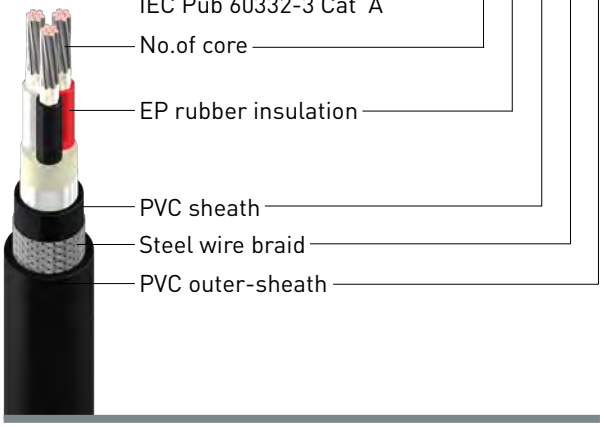
생산의 자동화 공정, 안전한 시설관리와, 친환경 사업장! 누구나 다니고 싶은 기업 1위를 향한 끊임없는 노력을 하겠습니다.

Value

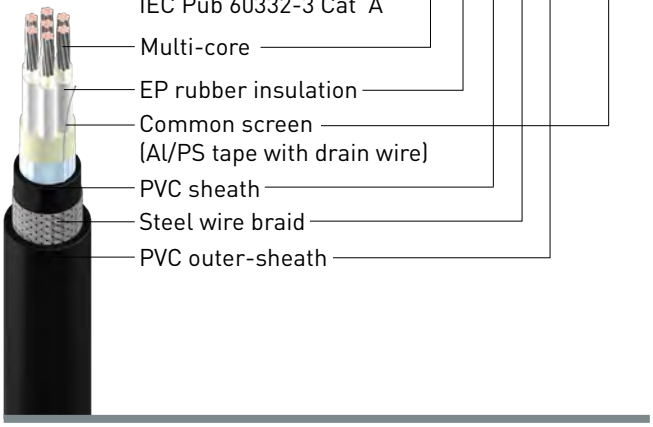
국내보다 외국에서 더 알려진 명인전선의 위엄, 아시아는 물론, 중동 등 서계에서 인정받는 케이블 기술력

Standard of Cables | Cable construction detail

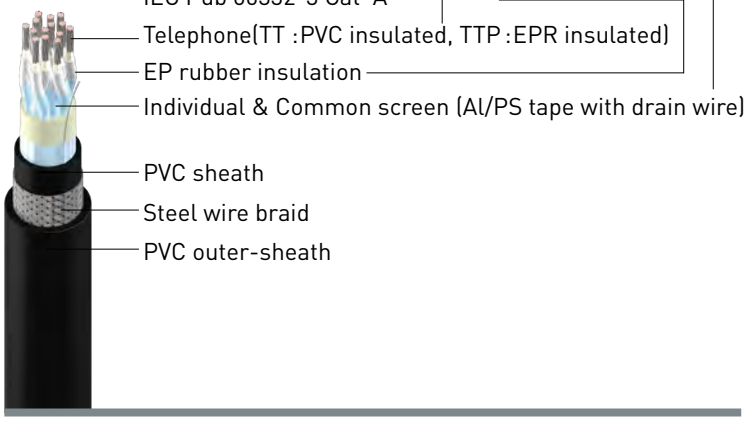
0.6/1kV FR-FA-TPYCY



250V FR-FA-MPYCYSLA



250V FR-FA-TT(P)-SSLA



FA-TPYCYS

S	: Common shield(copper wire braid)
-S	: Individual shield(copper wire braid)
SLA	: Common screen(Al/PS tape with drain wire)
-SLA	: Individual screen(Al/PS tape with drain wire)
-SSLA	: Individual & Common screen(Al/PS tape with drain wire)
Y	: PVC outer-sheath
C	: Steel wire braid
CB	: Copper alloy wire braid
Y	: PVC sheath
N	: PCP sheath
P	: EP rubber
SR	: Silicon rubber
S	: Single core
D	: Double core
T	: Three core
F	: Four core
5	: Five core
6	: Six core, 10 : Ten core
M	: Multi-core
TT	: Telephone(TT : PVC insulated, TTP : EPR insulated)
FA	: Flame retardant IEC Pub 60332-3 Cat 'A'
FR	: Fire resisting IEC 60331

Note) In case of cable with earth wire, add a letter "E" to cable symbol.
For fire resistance cable, "-F" symbol is able to replace "FR-" by customer's request.
In this case cable symbol will be designated as below example;
*) Example) FA-TPYCYF = FR-FA-TPYCY

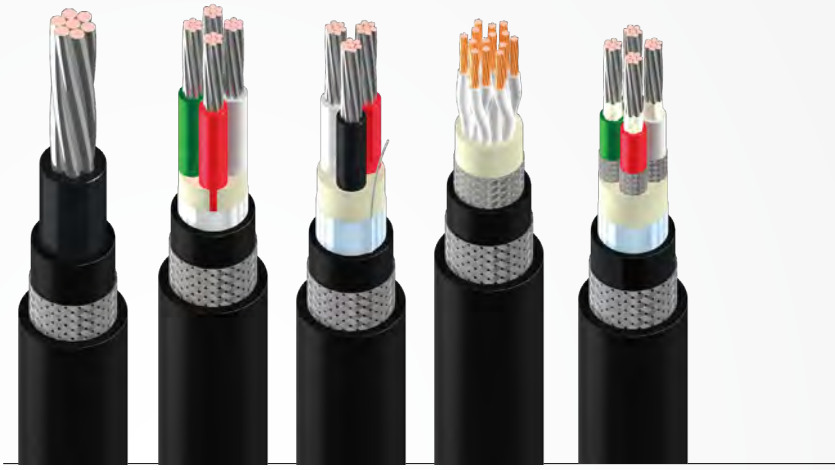
Standard of Cables | Flame Retardant Cable

Voltage grade	Method of shield	Classification of cable usage	Symbols of shipboard cable			No. of page
			Non-armoured cable	Armoured cable		
				Armoured	Armoured with protective covering	
0.6/1kV	N/A	Power & lighting				
		Single	(FA-)SPY	(FA-)SPYC(CB)	(FA-)SPYC(CB)Y	12
		Double	(FA-)DPY	(FA-)DPYC	(FA-)DPYCY	13
		Three	(FA-)TPY	(FA-)TPYC	(FA-)TPYCY	14
		Four	(FA-)FPY	(FA-)FPYC	(FA-)FPYCY	15
		Five	(FA-)5PY	(FA-)5PYC	(FA-)5PYCY	15
		Six	(FA-)6PY	(FA-)6PYC	(FA-)6PYCY	16
		Ten	(FA-)10PY	(FA-)10PYC	(FA-)10PYCY	16
250V		Control & signal (1.0㎟)	(FA-)MPY	(FA-)MPYC	(FA-)MPYCY	17
		Telephone cable (0.75㎟)	(FA-)TTY	(FA-)TTYC	(FA-)TTYCY	18
			(FA-)TTPY	(FA-)TTPYC	(FA-)TTPYCY	19
0.6/1kV	Common shield	Power & lighting				
		Single	(FA-)SPYS	(FA-)SPYC(CB)S	(FA-)SPYC(CB)YS	20
		Double	(FA-)DPYS	(FA-)DPYCS	(FA-)DPYCYS	21
		Three	(FA-)TPYS	(FA-)TPYCS	(FA-)TPYCYS	22
		Four	(FA-)FPYS	(FA-)FPYCS	(FA-)FPYCYS	22
		Double	-	(FA-)DPYCSLA	(FA-)DPYCYSLA	23
		Three	-	(FA-)TPYCSLA	(FA-)TPYCYSLA	23
250V		Control & signal (1.0㎟)	-	(FA-)MPYCS	(FA-)MPYCYS	24
			-	(FA-)MPYCSLA	(FA-)MPYCYSLA	25
		Telephone cable (0.75㎟)	-	(FA-)TTYCS	(FA-)TTYCYS	26
			-	(FA-)TTYCSLA	(FA-)TTYCYSLA	27
		Telephone cable (0.75㎟)	-	(FA-)TTPYCS	(FA-)TTPYCYS	28

Voltage grade	Method of shield	Classification of cable usage	Symbols of shipboard cable			No. of page
			Non-armoured cable	Armoured cable		
				Armoured	Armoured with protective covering	
250V	Individual shield	Control & signal (1.0㎟)	-	(FA-)MPYC-S	(FA-)MPYCY-S	29
		Telephone cable (0.75㎟)	(FA-)TTPYC-SLA	(FA-)TTYC-S	(FA-)TTYCY-S	30
			(FA-)TTYC-SSLA	(FA-)TTPYC-SLA	(FA-)TTPYCY-SLA	31
				(FA-)TTYC-SSLA	(FA-)TTYCY-SSLA	31
				(FA-)TTPYC-S	(FA-)TTPYCY-S	32
0.6/1kV	N/A	Flexible cord				33
		Double	(FA-)DNDP	-	-	
		Three	(FA-)TNDP	-	-	
		Four	(FA-)FPNP	-	-	
		Double	-	(FA-)DSRC	-	34
			-			34
		Three	-	(FA-)TSRC	-	34
			-			34
		Single	SCP	-	-	35
		Single	SYP	-	-	36

Standard of Cables | Flame Retardant & Fire Resistance Cable

Voltage grade	Method of shield	Classification of cable usage	Symbols of shipboard cable			No. of page
			Non-armoured cable	Armoured cable		
				Armoured	Armoured with protective covering	
0.6/1kV	N/A	Power & lighting				
		Single	-	FR-(FA-SPYC(CB)	FR-(FA-SPYC(CBY	37
		Double	FR-(FA-)DPY	FR-(FA-)DPYC	FR-(FA-)DPYCY	38
		Three	FR-(FA-)TPY	FR-(FA-)TPYC	FR-(FA-)TPYCY	39
		Four	FR-(FA-)FPY	FR-(FA-)FPYC	FR-(FA-)FPYCY	40
		Five	FR-(FA-)5PY	FR-(FA-)5PYC	FR-(FA-)5PYCY	41
		Six	FR-(FA-)6PY	FR-(FA-)6PYC	FR-(FA-)6PYCY	42
250V		Control & signal (1.0㎟)	FR-(FA-)MPY	FR-(FA-)MPYC	FR-(FA-)MPYCY	43
		Telephone cable (0.75㎟)	FR-(FA-)TTPY	FR-(FA-)TTPYC	FR-(FA-)TTPYCY	44
0.6/1kV	Common shield	Flexible cord				
		Double	-	FR-(FA-)DPYCSLA	FR-(FA-)DPYCYSLA	45
		Three	-	FR-(FA-)TPYCSLA	FR-(FA-)TPYCYSLA	46
		Four	-	FR-(FA-)FPYCSLA	FR-(FA-)FPYCYSLA	47
250V		Control & signal (1.0㎟)	-	FR-(FA-)MPYCSLA	FR-(FA-)MPYCYSLA	48
		Telephone cable (0.75㎟)	-	FR-(FA-)TTPYCS	FR-(FA-)TTPYCYS	49
			FR-(FA-)TTPYSLA	FR-(FA-)TTPYCSLA	FR-(FA-)TTPYCYSLA	50
0.6/1kV	Individual shield	Flexible cord				
		Double	-	FR-(FA-)DPYC-S	FR-(FA-)DPYCY-S	51
		Three	-	FR-(FA-)TPYC-S	FR-(FA-)TPYCY-S	52
		Four	-	FR-(FA-)FPYC-S	FR-(FA-)FPYCY-S	53
250V		Control & signal (1.0㎟)	-	FR-(FA-)MPYC-S	FR-(FA-)MPYCY-S	54
		Telephone cable (0.75㎟)	FR-(FA-)TTPY-SLA	FR-(FA-)TTPYC-SLA	FR-(FA-)TTPYCY-SLA	55
			FR-(FA-)TTPY-SSLA	FR-(FA-)TTPYC-SSLA	FR-(FA-)TTPYCY-SSLA	56
			-	FR-(FA-)TTPYC-S	FR-(FA-)TTPYCY-S	56



JIS C 3410

Cables and flexible cords for electrical equipment of ships Tables

0.6/1kV SPY, SPYC(CB), SPYC(CB)Y | Normal Type
0.6/1kV FA-SPY, FA-SPYC(CB), FA-SPYC(CB)Y | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. EPR insulation (identified)
3. PVC sheath : * End of "-Y" type
4. Metal wire braid armour : * End of "-CB"① or "-C"② type
5. PVC outer sheath : * End of "-CBY"① or "-CY"② type

Note | ① For single core cable, the armour should be used ofcopper-alloy wire as non-magnetic material in order to avoid current loops according to clause 3.26 of IEC Pub.60092-352
② Single core cable "-C" & "-CY" is used in below

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores
- 1 core : Black

No. of Cores	Conductor			Thickness of insulation	(FA)-SPY		(FA)-SPYC(CB)		(FA)-SPYC(CB)Y		Cable weight (approx.)		
					Unarmor		Armor		Armor with protective sheath				
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
1	1.5	7/0.52	1.56	1.0	1.0	5.9±0.4	0.3	7.2±1.3	0.8	9.0±0.4	55	100	135
	2.5	7/0.67	2.01	1.0	1.0	6.3±0.4	0.3	7.6±0.4	0.8	9.4±0.4	65	120	150
	4	7/0.85	2.55	1.0	1.0	6.9±0.4	0.3	8.2±0.4	0.8	10.0±0.4	85	140	175
	6	7/1.04	3.12	1.0	1.0	7.4±0.4	0.3	8.7±0.4	0.8	10.5±0.4	110	170	205
	10	7/1.35	4.05	1.0	1.1	8.6±0.4	0.3	9.9±0.4	0.8	11.7±0.5	140	225	270
	16	7/1.70	5.10	1.0	1.1	9.6±0.4	0.3	10.9±0.4	0.9	12.9±0.5	215	300	350
	25	7/2.14	6.42	1.2	1.2	11.5±0.5	0.3	12.8±0.5	0.9	14.8±0.6	300	425	485
	35	7/2.52	7.56	1.2	1.2	12.7±0.5	0.3	14.0±0.6	1.0	16.2±0.6	390	535	610
	50	19/1.78	8.90	1.4	1.3	14.6±0.6	0.3	15.9±0.6	1.0	18.1±0.7	500	700	780
	70	19/2.14	10.7	1.4	1.4	16.6±0.7	0.3	17.9±0.7	1.0	20.1±0.8	625	940	1030
	95	19/2.52	12.6	1.6	1.5	19.3±0.8	0.3	20.6±0.8	1.1	23.0±0.9	750	1260	1370
	120	37/2.03	14.2	1.6	1.5	20.9±0.8	0.3	22.2±0.9	1.2	24.8±1.0	900	1520	1650
	150	37/2.25	15.8	1.8	1.6	23.1±0.9	0.3	24.4±1.0	1.2	27.0±1.1	1125	1840	1980
	185	37/2.52	17.6	2.0	1.7	25.5±1.0	0.3	26.8±1.1	1.3	29.6±1.2	1370	2260	2430
	240	61/2.25	20.3	2.2	1.8	28.8±1.2	0.3	30.1±1.2	1.4	33.1±1.3	1780	2920	3130
	300	61/2.52	22.7	2.4	1.9	31.8±1.3	0.4	33.6±1.3	1.4	36.6±1.5	2240	3700	3930

0.6/1kV DPY, DPYC, DPYCY | Normal Type
0.6/1kV FA-DPY, FA-DPYC, FA-DPYCY, FA-DPYE | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. EPR insulation (identified)
3. Cabling (with filler)
4. Tape
5. PVC sheath : * End of "-Y/-YE" type
6. Metal wire braid armour (GSW)
7. Paint : * End of "-YC/-YCE" type
8. PVC outer sheath : * End of "-YCY/-YCYE" type

Standard Applied

·Design guideline : JIS C 3410 (2010)

·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC

·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores

- 2 core : Black, White

No. of Cores	Conductor			Thickness of insulation	(FA)-DPY Unarmor		(FA)-DPYC Armor		(FA)-DPYCY Armor with protective sheath		Cable weight (approx.)		
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
2	1.5	7/0.52	1.56	1.0	1.1	10.4±0.5	0.3	11.7±0.5	0.9	13.7±0.5	120	205	260
	2.5	7/0.67	2.01	1.0	1.2	11.5±0.5	0.3	12.8±0.5	0.9	14.8±0.6	155	250	305
	4	7/0.85	2.55	1.0	1.2	12.6±0.6	0.3	13.9±0.6	0.9	15.9±0.6	200	300	365
	6	7/1.04	3.12	1.0	1.3	13.9±0.6	0.3	15.2±0.6	1.0	17.4±0.7	255	370	445
	10	7/1.35	4.05	1.0	1.3	15.8±0.7	0.3	17.1±0.7	1.0	19.3±0.8	360	490	575
	16	7/1.70	5.10	1.0	1.4	18.1±0.8	0.3	19.4±0.8	1.1	21.8±0.9	515	660	765
	25	7/2.14	6.42	1.2	1.5	21.7±0.9	0.3	23.0±0.9	1.2	25.6±1.0	770	945	1080
	35	7/2.52	7.56	1.2	1.6	24.2±1.0	0.3	25.5±1.0	1.2	28.1±1.1	1010	1200	1350
	50	19/1.78	8.90	1.4	1.8	28.1±1.2	0.3	29.4±1.2	1.3	32.2±1.3	1360	1580	1770
	70	19/2.14	10.7	1.4	1.9	31.9±1.3	0.4	33.7±1.3	1.4	36.7±1.5	1860	2210	2440
	95	19/2.52	12.6	1.6	2.1	37.3±1.6	0.4	39.1±1.6	1.6	42.7±1.6	2550	2960	3280
	120	37/2.03	14.2	1.6	2.3	40.9±1.6	0.4	42.7±1.6	1.7	46.5±1.7	3150	3600	3970
	150	37/2.25	15.8	1.8	2.4	45.1±1.7	0.4	46.9±1.7	1.8	50.9±1.8	3840	4340	4760
	185	37/2.52	17.6	2.0	2.6	49.9±1.9	0.4	51.7±1.9	1.9	55.9±1.9	4780	5320	5810

0.6/1kV TPY, TPYC, TPYCY, TPYE, TPYCE, TPYCYE | Normal Type
0.6/1kV FA-TPY, FA-TPYC, FA-TPYCY, FA-TPYE. FA-TPYCE, FA-TPYCYE | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. EPR insulation (identified)
3. Cabling (with filler)
4. Tape
5. PVC sheath : End of "-Y/-YE" type
6. Metal wire braid armour (GSW)
7. Paint : End of "-YC/-YCE" type
8. PVC outer sheath : End of "-YCY/-YCYE" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores
- 3 core : Black, White, Red.

No. of Cores	Conductor			Thickness of insulation	(FA)-TPY Unarmor		(FA)-TPYC Armor		(FA)-TPYCY Armor with protective sheath		Cable weight (approx.)		
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
3	1.5	7/0.52	1.56	1.0	1.2	11.2±0.5	0.3	12.5±0.5	0.9	14.5±0.6	150	245	300
	2.5	7/0.67	2.01	1.0	1.2	12.2±0.5	0.3	13.5±0.5	0.9	15.5±0.6	195	295	355
	4	7/0.85	2.55	1.0	1.2	13.4±0.6	0.3	14.7±0.6	1.0	16.9±0.7	255	365	440
	6	7/1.04	3.12	1.0	1.3	14.8±0.6	0.3	16.1±0.6	1.0	18.3±0.7	335	455	535
	10	7/1.35	4.05	1.0	1.4	17.0±0.7	0.3	18.3±0.7	1.1	20.7±0.8	485	625	725
	16	7/1.70	5.10	1.0	1.5	19.5±0.8	0.3	20.8±0.8	1.1	23.2±0.9	700	855	970
	25	7/2.14	6.42	1.2	1.6	23.4±1.0	0.3	24.7±1.0	1.2	27.3±1.1	1060	1240	1390
	35	7/2.52	7.56	1.2	1.7	26.1±1.1	0.3	27.4±1.1	1.3	30.2±1.2	1390	1600	1770
	50	19/1.78	8.90	1.4	1.9	30.2±1.3	0.4	32.0±1.3	1.4	35.0±1.4	1870	2200	2420
	70	19/2.14	10.7	1.4	2.0	34.3±1.4	0.4	36.1±1.4	1.5	39.5±1.6	2570	2950	3220
	95	19/2.52	12.6	1.6	2.2	40.1±1.6	0.4	41.9±1.6	1.6	45.5±1.7	3530	3980	4310
	120	37/2.03	14.2	1.6	2.4	44.0±1.7	0.4	45.8±1.7	1.7	49.6±1.8	4370	4860	5250
	150	37/2.25	15.8	1.8	2.5	48.5±1.8	0.4	50.3±1.8	1.9	54.5±1.9	5340	5870	6350
	185	37/2.52	17.6	2.0	2.7	53.6±1.9	0.4	55.4±1.9	2.0	59.8±2.0	6640	7230	7770
	240	61/2.25	20.3	2.2	3.2	60.5±2.4	0.4	62.3±2.4	3.3	69.1±2.7	9130	9725	10320

0.6/1kV FPY, FPYC, FPYCY, 5PY, 5PYC, 5PYCY | Normal Type
0.6/1kV FA-FPY, FA-FPYC, FA-FPYCY, FA-5PY, FA-5PYC, FA-5PYCY | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. EPR insulation (identified)
3. Cabling (with filler)
4. Tape
5. PVC sheath : End of "-Y" type
6. Metal wire braid armour (GSW)
7. Paint : End of "-YC" type
8. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores
- 4 core : Black, White, Red, Green
- 5 core : Numbering on white insulated core

No. of Cores	Conductor			Thickness of insulation	(FA)-FPY		(FA)-FPYC		(FA)-FPYCY		Cable weight(approx.)		
					Unarmor		Armor		Armor with protective sheath				
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
4	1.5	7/0.52	1.56	1.0	1.2	12.0±0.5	0.3	13.6±0.5	0.9	15.4±0.6	210	300	360
	2.5	7/0.67	2.01	1.0	1.2	12.9±0.5	0.3	14.5±0.6	1.0	16.5±0.7	260	360	430
	4	7/0.85	2.55	1.0	1.3	14.6±0.6	0.3	16.2±0.6	1.0	18.2±0.7	350	460	540
	6	7/1.04	3.12	1.0	1.3	15.8±0.6	0.3	17.4±0.7	1.0	19.4±0.8	450	570	650
5	10	7/1.35	4.05	1.0	1.2	13.1±0.5	0.3	14.7±0.6	1.0	16.7±0.7	240	340	410
	16	7/1.70	5.10	1.0	1.3	14.3±0.6	0.3	15.9±0.6	1.0	17.9±0.7	310	420	500
	25	7/2.14	6.42	1.0	1.3	16.0±0.6	0.3	17.6±0.7	1.0	19.6±0.8	420	540	620
	35	7/2.52	7.56	1.0	1.4	17.5±0.7	0.3	19.1±0.8	1.1	21.3±0.9	540	670	780

0.6/1kV 6PY, 6PYC, 6PYCY, 10PY, 10PYC, 10PYCY | Normal Type
0.6/1kV FA-6PY, FA-6PYC, FA-6PYCY, FA-10PY, FA-10PYC, FA-10PYCY | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. EPR insulation (identified)
3. Cabling (with filler)
4. Tape
5. PVC sheath : End of "-Y" type
6. Metal wire braid armour (GSW)
7. Paint : End of "-YC" type
8. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores
- 2 core above : Numbering on white insulated core

No. of Cores	Conductor			Thickness of insulation	(FA)-6PY		(FA)-6PYC		(FA)-6PYCY		Cable weight (approx.)		
					Unarmor		Armor		Armor with protective sheath				
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
6	1.5	7/0.52	1.56	1.0	1.3	14.4±0.6	0.3	16.0±0.6	1.0	18.0±0.7	290	400	470
	2.5	7/0.67	2.01	1.0	1.3	15.6±0.6	0.3	17.2±0.7	1.0	19.2±0.8	370	480	570
	4	7/0.85	2.55	1.0	1.4	17.6±0.7	0.3	19.2±0.8	1.1	21.4±0.9	500	630	730
	6	7/1.04	3.12	1.0	1.4	19.1±0.8	0.3	20.7±0.8	1.1	22.9±0.9	640	780	890
10	2.5	7/0.67	2.01	1.0	1.5	20.2±0.8	0.3	21.6±0.9	1.1	24.0±1.0	550	710	850
	4	7/0.85	2.55	1.0	1.6	22.8±0.9	0.3	24.2±1.0	1.2	26.8±1.1	760	945	1115

250V MPY, MPYC, MPYCY | Normal Type
250V FA-MPY, FA-MPYC, FA-MPYCY | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. EPR insulation (identified)
3. Cabling (with filler)
4. Tape
5. PVC sheath : End of "-Y" type
6. Metal wire braid armour (GSW)
7. Paint : End of "-YC" type
8. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)

·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC

·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores

- 2 core and above : Numbering on white insulated core

No. of Cores	Conductor			Thickness of insulation	(FA)-MPY		(FA)-MPYC		(FA)-MPYCY		Cable weight (approx.)		
					Unarmor		Armor		Armor with protective sheath				
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
2	1.0	7/0.43	1.29	0.6	1.1	8.7±0.4	0.3	10.0±0.4	0.9	12.0±0.5	85	155	205
3	1.0	7/0.43	1.29	0.6	1.1	9.1±0.4	0.3	10.5±0.4	0.9	12.5±0.5	100	185	230
4	1.0	7/0.43	1.29	0.6	1.1	9.9±0.4	0.3	11.2±0.4	0.9	13.2±0.5	125	205	260
5	1.0	7/0.43	1.29	0.6	1.1	10.7±0.4	0.3	12.1±0.5	0.9	14.1±0.6	155	280	300
7	1.0	7/0.43	1.29	0.6	1.2	11.9±0.4	0.3	13.2±0.5	0.9	15.2±0.6	190	290	350
9	1.0	7/0.43	1.29	0.6	1.2	13.7±0.5	0.3	15.1±0.6	1.0	17.3±0.7	240	410	430
12	1.0	7/0.43	1.29	0.6	1.3	15.5±0.7	0.3	16.8±0.7	1.0	19.0±0.8	315	440	525
16	1.0	7/0.43	1.29	0.6	1.4	17.3±0.7	0.3	18.7±0.7	1.1	21.1±0.8	410	640	645
19	1.0	7/0.43	1.29	0.6	1.4	18.3±0.8	0.3	19.6±0.8	1.1	22.0±0.9	465	615	720
23	1.0	7/0.43	1.29	0.6	1.5	20.5±0.8	0.3	21.9±0.9	1.1	24.3±1.0	585	865	865
27	1.0	7/0.43	1.29	0.6	1.6	22.1±0.9	0.3	23.4±0.9	1.2	26.0±1.0	665	840	980
33	1.0	7/0.43	1.29	0.6	1.6	23.8±1.0	0.3	25.2±1.0	1.2	27.8±1.1	790	1130	1115
37	1.0	7/0.43	1.29	0.6	1.7	24.8±1.0	0.3	26.1±1.0	1.3	28.9±1.2	870	1070	1240
44	1.0	7/0.43	1.29	0.6	1.8	28.0±1.2	0.3	29.3±1.2	1.3	32.1±1.3	1060	1290	1470
77	1.0	7/0.43	1.29	0.6	2.1	35.9±1.5	0.4	37.7±1.5	1.5	41.1±1.6	1790	2190	2480

250V TTY, TTYC, TTYCY | Normal Type
250V FA-TTY, FA-TTYC, FA-TTYCY | Flame Retardant Type

Construction Details

1. Conductor (Annealed copper wire, standard)
2. PVC insulation (identified)
3. Twist (Pair, Triad, Quad)
4. Cabling (with filler)
5. Tape
6. PVC sheath : End of "-Y" type
7. Metal wire braid armour (GSW)
8. Paint : End of "-YC" type
9. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores
- A Core : Black Numbering(1A, 2A,...) B Core : Red Numbering(1B,2B,...)
- C Core : Black Numbering(1C) D Core : Black Numbering(1D)

No. of Cores	Conductor			Thickness of insulation	(FA)-TTY		(FA)-TTYC		(FA)-TTYCY		Cable weight (approx.)		
					Unarmor		Armor		Armor with protective sheath				
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
Pr	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
1	0.75	7/0.37	1.11	0.6	1.0	7.9±0.4	0.3	9.2±0.4	0.8	11.0±0.4	65	130	170
1Tr	0.75	7/0.37	1.11	0.6	1.1	8.6±0.4	0.3	9.9±0.4	0.9	11.7±0.5	85	160	200
1Qd	0.75	7/0.37	1.11	0.6	1.1	9.3±0.4	0.3	10.6±0.4	0.9	12.6±0.5	105	180	230
2	0.75	7/0.37	1.11	0.6	1.2	12.1±0.5	0.3	13.5±0.5	0.9	15.5±0.6	145	235	295
3	0.75	7/0.37	1.11	0.6	1.2	12.8±0.5	0.3	14.2±0.6	1.0	16.4±0.7	180	270	345
4	0.75	7/0.37	1.11	0.6	1.3	14.2±0.6	0.3	15.5±0.6	1.0	17.7±0.7	205	320	400
7	0.75	7/0.37	1.11	0.6	1.4	16.9±0.7	0.3	18.2±0.7	1.1	20.6±0.8	310	445	545
10	0.75	7/0.37	1.11	0.6	1.5	21.7±0.9	0.3	23.0±0.9	1.2	25.6±1.0	465	640	775
14	0.75	7/0.37	1.11	0.6	1.6	23.5±1.0	0.3	24.8±1.0	1.2	27.4±1.1	585	775	920
15	0.75	7/0.37	1.11	0.6	1.6	24.1±1.0	0.3	25.5±1.0	1.2	28.1±1.1	670	840	1000
19	0.75	7/0.37	1.11	0.6	1.7	26.4±1.1	0.3	27.7±1.1	1.3	30.5±1.2	755	965	1140
24	0.75	7/0.37	1.11	0.6	1.9	31.9±1.3	0.4	33.7±1.3	1.4	36.7±1.5	1030	1380	1610
30	0.75	7/0.37	1.11	0.6	2.0	34.0±1.4	0.4	35.8±1.4	1.5	39.2±1.6	1220	1590	1870
37	0.75	7/0.37	1.11	0.6	2.1	36.9±1.5	0.4	38.7±1.5	1.6	42.3±1.6	1450	1860	2180
48	0.75	7/0.37	1.11	0.6	2.3	42.8±1.7	0.4	44.6±1.7	1.7	48.4±1.8	1910	2380	2760

250V TTPY, TTPYC, TTPYCY | Normal Type
250V FA-TTPY, FA-TTPYC, FA-TTPYCY | Flame Retardant Type

Construction Details

1. Conductor (Annealed copper wire, standard)
2. EPR insulation (identified))
3. Twist (Pair, Triad, Quad)
4. Cabling (with filler)
5. Tape
6. PVC sheath : End of "-Y" type
7. Metal wire braid armour (GSW)
8. Paint : End of "-YC" type
9. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)

·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC

·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores

- A Core : Black Numbering(1A, 2A,...) B Core : Red Numbering(1B,2B,...)
- C Core : Black Numbering(1C) D Core : Black Numbering(1D)

No. of Cores	Conductor			Thickness of insulation	(FA)-TTPY		(FA)-TTPYC		(FA)-TTPYCY		Cable weight (approx.)		
					Unarmor		Armor		Armor with protective sheath				
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
Pr	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
1	0.75	7/0.37	1.11	0.6	1.0	7.9±0.4	0.3	9.2±0.4	0.8	11.0±0.4	70	130	170
1Tr	0.75	7/0.37	1.11	0.6	1.1	8.6±0.4	0.3	9.9±0.4	0.9	11.7±0.5	85	155	205
1Qd	0.75	7/0.37	1.11	0.6	1.1	9.3±0.4	0.3	10.6±0.4	0.9	12.6±0.5	105	180	230
2	0.75	7/0.37	1.11	0.6	1.2	12.1±0.5	0.3	13.5±0.5	0.9	15.5±0.6	145	235	295
3	0.75	7/0.37	1.11	0.6	1.2	12.8±0.5	0.3	14.2±0.6	1.0	16.4±0.7	180	270	345
4	0.75	7/0.37	1.11	0.6	1.3	14.2±0.6	0.3	15.5±0.6	1.0	17.7±0.7	205	320	400
7	0.75	7/0.37	1.11	0.6	1.4	16.9±0.7	0.3	18.2±0.7	1.1	20.6±0.8	310	440	545
10	0.75	7/0.37	1.11	0.6	1.5	21.7±0.9	0.3	23.0±0.9	1.2	25.6±1.0	465	640	775
14	0.75	7/0.37	1.11	0.6	1.6	23.5±1.0	0.3	24.8±1.0	1.2	27.4±1.1	585	770	920
15	0.75	7/0.37	1.11	0.6	1.6	24.1±1.0	0.3	25.5±1.0	1.2	28.1±1.1	670	840	1000
19	0.75	7/0.37	1.11	0.6	1.7	26.4±1.1	0.3	27.7±1.1	1.3	30.5±1.2	755	965	1140
24	0.75	7/0.37	1.11	0.6	1.9	31.9±1.3	0.4	33.7±1.3	1.4	36.7±1.5	1030	1380	1610
30	0.75	7/0.37	1.11	0.6	2.0	34.0±1.4	0.4	35.8±1.4	1.5	39.2±1.6	1220	1590	1860
37	0.75	7/0.37	1.11	0.6	2.1	36.9±1.5	0.4	38.7±1.5	1.6	42.3±1.6	1450	1860	2170
48	0.75	7/0.37	1.11	0.6	2.3	42.8±1.7	0.4	44.6±1.7	1.7	48.4±1.8	1910	2380	2760

0.6/1kV SPYS, SPYCS, SPYCYS, SPYCBS, SPYCBYS | Normal Type
0.6/1kV FA-SPYS, FA-SPYCS, FA-SPYCYS, FA-SPYCBS, FA-SPYCBYS | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. EPR insulation (identified)
3. Common shield braid (copper wire)
4. Tape
5. PVC sheath
6. Metal wire braid armour : End of "-CBS"① or "-CS"②type
7. Paint : * End of "-YC" type
8. PVC outer sheath : -CBYS"① or "-CYS"② type

Note | ① For single core cable, the armour should be used of copper-alloy wire as non-magnetic material in order to avoid current loops according to clause 3.26 of IEC Pub.60092-352
② Single core cable "-CS" & "-CYS" is used in below case.
- When do not exceed 20 amps
- D.C wiring
- Not necessary for the cable having the length less than 30 meter

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores
- 1 core : Black

No. of Cores	Conductor			Thickness of insulation	(FA)-SPYS Unarmor		(FA)-SPYCS Armor		(FA)-SPYCYS Armor with protective sheath		Cable weight(approx.)		
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
1	1.5	7/0.52	1.56	1.0	1.0	6.5±0.3	0.3	7.9±0.3	0.8	9.7±0.4	80	145	180
	2.5	7/0.67	2.01	1.0	1.0	6.9±0.3	0.3	8.3±0.3	0.8	10.1±0.4	95	160	200
	4	7/0.85	2.55	1.0	1.0	7.5±0.3	0.3	8.9±0.4	0.8	10.7±0.4	120	190	230
	6	7/1.04	3.12	1.0	1.0	8.1±0.3	0.3	9.5±0.4	0.8	11.3±0.5	150	225	270
	10	7/1.35	4.05	1.0	1.1	9.3±0.4	0.3	10.7±0.4	0.9	12.7±0.5	205	295	350
	16	7/1.70	5.10	1.0	1.1	10.3±0.4	0.3	11.7±0.5	0.9	13.7±0.5	275	375	435
	25	7/2.14	6.42	1.2	1.2	12.3±0.5	0.3	13.7±0.5	0.9	15.7±0.6	410	520	590
	35	7/2.52	7.56	1.2	1.2	13.6±0.5	0.3	15.0±0.6	1.0	17.2±0.7	530	655	735
	50	19/1.78	8.90	1.4	1.3	15.5±0.6	0.3	16.9±0.7	1.0	19.1±0.8	685	825	925
	70	19/2.14	10.7	1.6	1.4	17.6±0.7	0.3	19.0±0.8	1.1	21.4±0.9	925	1085	1195
	95	19/2.52	12.6	1.6	1.5	20.1±0.8	0.3	21.5±0.9	1.1	23.9±1.0	1230	1410	1540
	120	37/2.03	14.2	1.6	1.5	21.8±0.9	0.3	23.2±0.9	1.2	25.8±1.0	1505	1700	1850
	150	37/2.25	15.8	1.8	1.6	24.0±1.0	0.3	25.4±1.0	1.2	28.0±1.1	1825	2040	2200
	185	37/2.52	17.6	2.0	1.7	26.4±1.1	0.3	27.8±1.1	1.3	30.6±1.2	2240	2475	2670
	240	61/2.25	20.3	2.2	1.8	29.8±1.2	0.3	31.2±1.2	1.4	34.2±1.4	2900	3165	3395
	300	61/2.52	22.7	2.4	2.0	33.0±1.3	0.4	34.8±1.4	1.5	38.0±1.5	3585	3965	4235

0.6/1kV DPYS, DPYCS, DPYCYS, TPYS, TPYCS, TPYCYS, FPYS, FPYCS, FPYCYS | Normal Type
0.6/1kV FA-DPYS, FA-DPYCS, FA-DPYCYS, FA-TPYS, FA-TPYCS, FA-TPYCYS, FA-FPYS, FA-FPYCS, FA-FPYCYS | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. EPR insulation (identified))
3. Cabling (with filler))
4. Common shield braid (copper wire)
5. Tape
6. PVC sheath : End of "-YS/-YSE" type
7. Metal wire braid armour (GSW)
8. Paint : End of "-CS/-CSE" type
9. PVC outer sheath : End of "-CYS/-CYSE" type

Standard Applied

·Design guideline : JIS C 3410 (2010)

·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC

·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores
- 2 core : Black, White
- 3 core : Black, White, Red

No. of Cores	Conductor			Thickness of insulation	Dia.of copper wire for shield braid	(FA)-DPYS Unarmor		(FA)-DPYCS Armor		(FA)-DPYCYS Armor with protective sheath		Cable weight(approx.)		
	Nominal Sectional Area	No.& dia of Wire	Dia.			Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
2	1.5	7/0.52	1.56	1.0	0.14	1.2	11.3±0.5	0.3	12.6±0.5	0.9	14.6±0.6	200	265	325
	2.5	7/0.67	2.01	1.0	0.14	1.2	12.2±0.5	0.3	13.5±0.5	0.9	15.5±0.6	230	310	375
	4	7/0.85	2.55	1.0	0.16	1.2	13.4±0.5	0.3	14.7±0.6	1.0	16.9±0.7	290	380	455
3	1.5	7/0.52	1.56	1.0	0.14	1.2	11.9±0.5	0.3	13.2±0.5	0.9	15.2±0.6	230	305	365
	2.5	7/0.67	2.01	1.0	0.14	1.2	12.9±0.5	0.3	14.2±0.6	1.0	16.4±0.7	270	360	430
	4	7/0.85	2.55	1.0	0.16	1.3	14.4±0.6	0.3	15.7±0.6	1.0	17.9±0.7	350	455	535

0.6/1kV DPYS, DPYCS, DPYCYS, TPYS, TPYCS, TPYCYS, FPYS, FPYCS, FPYCYS | Normal Type
0.6/1kV FA-DPYS, FA-DPYCS, FA-DPYCYS, FA-TPYS, FA-TPYCS, FA-TPYCYS, FA-FPYS, FA-FPYCS, FA-FPYCYS | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. EPR insulation (identified)
3. Cabling (with filler)
4. Common shield braid (copper wire)
5. Tape
6. PVC sheath : End of "-YS" type
7. Metal wire braid armour (GSW)
8. Paint : End of "-CS" type
9. PVC outer sheath : End of "-CYS" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores
-2 Core : Black, Whire -3 Core : Black, White, Red

No. of Cores	Conductor			Thickness of insulation	(FA)-DPYS Unarmor		(FA)-DPYCS Armor		(FA)-DPYCYS Armor with protective sheath		Cable weight (approx.)		
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
2	6	7/1.04	3.12	1.0	1.3	15.0±0.6	0.3	16.4±0.7	1.0	18.6±0.7	395	515	605
	10	7/1.35	4.05	1.0	1.4	17.2±0.7	0.3	18.6±0.7	1.1	21.0±0.8	530	670	780
	16	7/1.70	5.10	1.0	1.4	19.2±0.8	0.3	20.6±0.8	1.1	23.0±0.9	700	855	980
	25	7/2.14	6.42	1.2	1.6	23.0±0.9	0.3	24.4±1.0	1.2	27.0±1.1	1010	1195	1350
	35	7/2.52	7.56	1.2	1.7	25.6±1.0	0.3	27.0±1.1	1.3	29.8±1.2	1285	1490	1675
	50	19/1.78	8.90	1.4	1.8	29.2±1.2	0.3	30.6±1.2	1.4	33.6±1.3	1645	1880	2105
	70	19/2.14	10.7	1.6	2.0	34.0±1.4	0.4	35.8±1.4	1.5	39.0±1.6	2250	2600	2880
	95	19/2.52	12.6	1.6	2.2	38.6±1.5	0.4	40.4±1.6	1.6	43.8±1.8	3025	3420	3755
	120	37/2.03	14.2	1.6	2.3	42.0±1.7	0.4	43.8±1.8	1.7	47.4±1.9	3640	4070	4455
	150	37/2.25	15.8	1.8	2.4	46.2±1.8	0.4	48.0±1.9	1.8	51.8±2.1	4390	4860	5305
	185	37/2.52	17.6	2.0	2.6	51.0±2.0	0.4	52.8±2.1	1.9	56.8±2.3	5380	5900	6410
3	6	7/1.04	3.12	1.0	1.3	15.8±0.6	0.3	17.2±0.7	1.0	19.4±0.8	480	605	700
	10	7/1.35	4.05	1.0	1.4	18.2±0.7	0.3	19.6±0.8	1.1	22.0±0.9	665	810	935
	16	7/1.70	5.10	1.0	1.5	20.5±0.8	0.3	21.9±0.9	1.1	24.3±1.0	900	1070	1200
	25	7/2.14	6.42	1.2	1.6	24.4±1.0	0.3	25.8±1.0	1.2	28.4±1.1	1305	1500	1665
	35	7/2.52	7.56	1.2	1.7	27.2±1.1	0.3	28.6±1.1	1.3	31.4±1.3	1685	1900	2100
	50	19/1.78	8.90	1.4	1.9	31.2±1.2	0.4	33.0±1.3	1.4	36.0±1.4	2185	2510	2750
	70	19/2.14	10.7	1.6	2.1	36.8±1.5	0.4	38.6±1.5	1.6	42.0±1.7	3105	3480	3800
	95	19/2.52	12.6	1.6	2.3	41.3±1.7	0.4	43.1±1.7	1.7	46.7±1.9	4060	4485	4860
	120	37/2.03	14.2	1.6	2.4	44.9±1.8	0.4	46.7±1.9	1.8	50.5±2.0	4920	5375	5810
	150	37/2.25	15.8	1.8	2.6	49.6±2.0	0.4	51.4±2.1	1.9	55.4±2.2	5980	6485	6985
	185	37/2.52	17.6	2.0	2.8	54.8±2.2	0.4	56.6±2.3	2.0	60.8±2.4	7350	7910	8485
4	1.5	7/0.52	1.56	1.0	1.2	12.9±0.5	0.3	14.3±0.6	1.0	16.5±0.7	265	380	455
	2.5	7/0.67	2.01	1.0	1.3	14.5±0.6	0.3	15.9±0.6	1.0	18.1±0.7	375	490	580
	4	7/0.85	2.55	1.0	1.3	16.0±0.6	0.3	17.4±0.7	1.0	19.6±0.8	475	605	700
	6	7/1.04	3.12	1.0	1.4	17.4±0.7	0.3	18.8±0.8	1.1	21.2±0.8	590	730	845
	10	7/1.35	4.05	1.0	1.5	20.0±0.8	0.3	21.4±0.9	1.1	23.8±1.0	830	995	1120
	16	7/1.70	5.10	1.0	1.6	22.6±0.9	0.3	24.0±1.0	1.2	26.6±1.1	1140	1320	1475

0.6/1kV DPYCSLA, DPYCYSLA, TPYCSLA, TPYCYSLA | Normal Type
0.6/1kV FA-DPYCSLA, FA-DPYCYSLA, FA-TPYCSLA, FA-TPYCYSLA | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. EPR insulation (identified)
3. Cabling (with filler)
4. Aluminum mylar common shield with drain wire (at least 0.5mm^2)
5. Tape
6. PVC sheath : End of "-Y" type
7. Metal wire braid armour (GSW)
8. Paint : End of "-YC" type
9. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)

·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC

·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores

-3 Core : Black, White, Red

No. of Cores	Conductor			Thickness of insulation	(FA)-DPYCSLA Armor		(FA)-DPYCYSLA Armor with protective sheath		Cable weight (approx.)	
	Nominal Sectional Area	No.& dia of Wire	Dia.		Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
EA	mm^2	EA/mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
2	1.5	7/0.52	1.56	1.0	0.3	11.9±0.5	0.9	13.9±0.6	270	360
	2.5	7/0.67	2.01	1.0	0.3	13.0±0.5	0.9	15.0±0.6	320	430
	4	7/0.85	2.55	1.0	0.3	14.1±0.6	1.0	16.3±0.7	385	540
3	1.5	7/0.52	1.56	1.0	0.3	12.7±0.5	0.9	14.7±0.6	315	410
	2.5	7/0.67	2.01	1.0	0.3	13.7±0.5	0.9	15.7±0.6	365	500
	4	7/0.85	2.55	1.0	0.3	14.9±0.6	1.0	17.1±0.7	450	620

250V MPYCS, MPYCYS | Normal Type
250V FA-MPYCS, FA-MPYCYS | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. EPR insulation (identified)
3. Cabling (with filler)
4. Common shield braid (copper wire)
5. Tape
6. PVC sheath
7. Metal wire braid armour (GSW)
8. Paint : End of "-CS" type
9. PVC outer sheath : End of "-CYS" type

Standard Applied

·Design guideline : JIS C 3410 (2010)

·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC

·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores

- 2 core and above : Numbering on white insulated core

No. of Cores	Conductor			Thickness of insulation	Dia.of copper wire for shield braid	Thickness of sheath	Nominal dia. over sheath	(FA)-MPYCS Armor		(FA)-MPYCYS Armor with protective sheath		Cable weight (approx.)	
	Nominal Sectional Area	No.& dia of Wire	Dia.					Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
2	1.0	7/0.43	1.29	0.6	0.14	1.1	9.4	0.3	10.7±0.4	0.9	12.7±0.5	205	255
4	1.0	7/0.43	1.29	0.6	0.14	1.1	10.6	0.3	11.9±0.5	0.9	13.9±0.6	260	315
5	1.0	7/0.43	1.29	0.6	0.14	1.2	11.5	0.3	12.9±0.5	0.9	14.9±0.6	280	340
7	1.0	7/0.43	1.29	0.6	0.14	1.2	12.6	0.3	13.9±0.6	0.9	15.9±0.6	355	420
9	1.0	7/0.43	1.29	0.6	0.14	1.3	14.4	0.3	15.8±0.6	1.0	18.0±0.7	400	485
12	1.0	7/0.43	1.29	0.6	0.16	1.3	16.3	0.3	17.6±0.7	1.0	19.8±0.8	540	625
16	1.0	7/0.43	1.29	0.6	0.16	1.4	17.8	0.3	19.2±0.8	1.1	21.6±0.9	595	705
19	1.0	7/0.43	1.29	0.6	0.16	1.5	19.3	0.3	20.6±0.8	1.1	23.0±0.9	735	850
23	1.0	7/0.43	1.29	0.6	0.18	1.5	21.2	0.3	22.6±0.9	1.2	25.2±1.0	830	965
27	1.0	7/0.43	1.29	0.6	0.18	1.6	23.0	0.3	24.3±1.0	1.2	26.9±1.1	995	1140
33	1.0	7/0.43	1.29	0.6	0.18	1.6	24.1	0.3	25.5±1.0	1.2	28.1±1.1	1065	1220
37	1.0	7/0.43	1.29	0.6	0.18	1.7	25.7	0.3	27.0±1.1	1.3	29.8±1.2	1240	1410
44	1.0	7/0.43	1.29	0.6	0.18	1.8	28.9	0.3	30.2±1.2	1.4	33.2±1.3	1480	1680
77	1.0	7/0.43	1.29	0.6	0.26	2.1	36.8	0.4	38.6±1.5	1.6	42.0±1.7	2390	2680

250V MPYCSLA, MPYCYSLA | Normal Type
250V FA-MPYCSLA, FA-MPYCYSLA | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. EPR insulation (identified)
3. Cabling (with filler)
4. Aluminum mylar common shield with drain wire (at least 0.5mm^2)
5. Tape
6. PVC sheath : End of "-Y" type
7. Metal wire braid armour (GSW)
8. Paint : End of "-CS" type
9. PVC outer sheath : End of "-CYS" type

Standard Applied

·Design guideline : JIS C 3410 (2010)

·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC

·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores

- 2 core and above : Numbering on white insulated core

No. of Cores	Conductor			Thickness of insulation	Thickness of sheath	Nominal dia. over sheath	(FA)-MPYCSLA		(FA)-MPYCYSLA		Cable weight (approx.)	
							Armor		Armor with protective sheath			
	Nominal Sectional Area	No.& dia of Wire	Dia.				Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
EA	mm^2	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
2	1.0	7/0.43	1.29	0.6	1.1	8.9	0.3	10.2±0.4	0.9	12.0±0.5	160	200
4	1.0	7/0.43	1.29	0.6	1.1	10.1	0.3	11.4±0.5	0.9	13.4±0.5	210	260
7	1.0	7/0.43	1.29	0.6	1.2	12.1	0.3	13.4±0.5	0.9	15.4±0.6	290	355
12	1.0	7/0.43	1.29	0.6	1.3	15.7	0.3	17.0±0.7	1.0	19.2±0.8	445	530
19	1.0	7/0.43	1.29	0.6	1.4	18.5	0.3	19.8±0.8	1.1	22.2±0.9	615	725
27	1.0	7/0.43	1.29	0.6	1.6	22.3	0.3	23.6±0.9	1.2	26.2±1.0	845	985
37	1.0	7/0.43	1.29	0.6	1.7	25.0	0.3	26.3±1.1	1.3	29.1±1.2	1070	1240
44	1.0	7/0.43	1.29	0.6	1.8	28.2	0.3	29.5±1.2	1.3	32.5±1.3	1290	1490

250V TTYCS, TTYCYS | Normal Type
250V FA-TTYCS, FA-TTYCYS | Flame Retardant Type

Construction Details

1. Conductor (Annealed copper wire, standard)
2. PVC insulation (identified)
3. Twist (Pair, Triad, Quad)
4. Cabling (with filler)
5. Common shield braid
6. Tape
7. PVC sheath
8. Metal wire braid armour (GSW)
9. Paint : End of "-YCS" type
10. PVC outer sheath : End of "-YCYS" type

Standard Applied

·Design guideline : JIS C 3410 (2010)

·Material properties : JIS C 3410 Insulation, PVC
JIS C 3410 Sheath, PVC

·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Insulation color : White

- A Core : Black Numbering(1A, 2A,...) B Core : Red Numbering(1B,2B,...)
- C Core : Black Numbering(1C) D Core : Black Numbering(1D)

No. of Cores	Conductor			Thickness of insulation	Dia.of copper wire for shield braid	Thickness of sheath	Nominal dia. over sheath	(FA)-TTYCS Armor		(FA)-TTYCYS Armor with protective sheath		Cable weight (approx.)	
	Nominal Sectional Area	No.& dia of Wire	Dia.					Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
Pr	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
1	0.75	7/0.37	1.11	0.6	0.14	1.1	8.8	0.3	10.1±0.4	0.9	12.1±0.5	180	230
1Tr	0.75	7/0.37	1.11	0.6	0.14	1.1	9.3	0.3	10.6±0.4	0.9	12.6±0.5	205	255
1Qd	0.75	7/0.37	1.11	0.6	0.14	1.1	10.0	0.3	11.3±0.5	0.9	13.3±0.5	230	285
2	0.75	7/0.37	1.11	0.6	0.14	1.2	12.7	0.3	14.1±0.6	1.0	16.3±0.7	255	330
3	0.75	7/0.37	1.11	0.6	0.16	1.2	13.5	0.3	14.9±0.6	1.0	17.1±0.7	295	375
4	0.75	7/0.37	1.11	0.6	0.16	1.3	15.0	0.3	16.3±0.7	1.0	18.5±0.7	405	490
7	0.75	7/0.37	1.11	0.6	0.16	1.4	17.7	0.3	19.0±0.8	1.1	21.4±0.9	545	650
10	0.75	7/0.37	1.11	0.6	0.18	1.6	22.8	0.3	24.1±1.0	1.2	26.7±1.1	800	945
14	0.75	7/0.37	1.11	0.6	0.18	1.6	24.4	0.3	25.7±1.0	1.2	28.3±1.1	935	1090
15	0.75	7/0.37	1.11	0.6	0.18	1.7	25.2	0.3	26.6±1.1	1.3	29.4±1.2	970	1145
19	0.75	7/0.37	1.11	0.6	0.18	1.8	27.5	0.3	28.8±1.2	1.3	31.6±1.3	1160	1340
24	0.75	7/0.37	1.11	0.6	0.20	2.0	33.1	0.4	34.9±1.4	1.5	38.3±1.5	1600	1860
30	0.75	7/0.37	1.11	0.6	0.26	2.1	35.5	0.4	37.3±1.5	1.5	40.7±1.6	1950	2230
37	0.75	7/0.37	1.11	0.6	0.26	2.2	38.4	0.4	40.2±1.6	1.6	43.8±1.7	2250	2570
48	0.75	7/0.37	1.11	0.6	0.26	2.4	44.3	0.4	46.1±1.7	1.8	50.1±1.8	2830	3240

250V TTYCSLA, TTYCYSLA | Normal Type
250V FA-TTYCSLA, FA-TTYCYSLA | Flame Retardant Type

Construction Details

1. Conductor (Annealed copper wire, standard)
2. PVC insulation (identified)
3. Twist (Pair, Triad, Quad)
4. Cabling (with filler)
5. Aluminum mylar common shield with drain wire (at least 0.5mm^2)
6. Tape
7. PVC sheath
8. Metal wire braid armour (GSW)
9. Paint : End of "-YCS" type
10. PVC outer sheath : End of "-YCYS" type

Standard Applied

·Design guideline : JIS C 3410 (2010)

·Material properties : JIS C 3410 Insulation, PVC
JIS C 3410 Sheath, PVC

·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores

- A Core : Black Numbering(1A, 2A,...) B Core : Red Numbering(1B,2B,...)
- C Core : Black Numbering(1C) D Core : Black Numbering(1D)

No. of Cores	Conductor			Thickness of insulation	Thickness of sheath	Nominal dia. over sheath	(FA)-TTYCSLA		(FA)-TTYCYSLA		Cable weight (approx.)	
							Armor		Armor with protective sheath			
	Nominal Sectional Area	No.& dia of Wire	Dia.				Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
Pr	mm^2	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
1	0.75	7/0.37	1.11	0.6	1.0	8.1	0.3	9.4±0.4	0.8	11.2±0.4	140	180
1Tr	0.75	7/0.37	1.11	0.6	1.1	8.8	0.3	10.1±0.4	0.9	12.1±0.5	170	215
1Qd	0.75	7/0.37	1.11	0.6	1.1	9.5	0.3	10.8±0.4	0.9	12.8±0.5	190	240
4	0.75	7/0.37	1.11	0.6	1.3	14.4	0.3	15.7±0.6	1.0	17.9±0.7	335	410
7	0.75	7/0.37	1.11	0.6	1.4	17.1	0.3	18.4±0.7	1.1	20.8±0.8	460	560
10	0.75	7/0.37	1.11	0.6	1.6	22.1	0.3	23.4±0.9	1.2	26.0±1.0	665	805
14	0.75	7/0.37	1.11	0.6	1.6	23.7	0.3	25.0±1.0	1.2	27.6±1.1	790	935
19	0.75	7/0.37	1.11	0.6	1.7	26.6	0.3	27.9±1.1	1.3	30.7±1.2	985	1160
24	0.75	7/0.37	1.11	0.6	1.9	32.1	0.4	33.9±1.4	1.4	36.9±1.5	1400	1630
30	0.75	7/0.37	1.11	0.6	2.0	34.2	0.4	36.0±1.4	1.5	39.4±1.6	1610	1890
37	0.75	7/0.37	1.11	0.6	2.1	37.1	0.4	38.9±1.6	1.6	42.5±1.6	1880	2200
48	0.75	7/0.37	1.11	0.6	2.3	43.0	0.4	44.8±1.7	1.7	48.6±1.8	2410	2790

250V TTPYCS, TTPYCYS | Normal Type
250V FA-TTPYCS, FA-TTPYCYS | Flame Retardant Type

Construction Details

1. Conductor (Annealed copper wire, standard)
2. EPR insulation (identified)
3. Twist (Pair, Triad, Quad)
4. Cabling (with filler)
5. Common shield braid
6. Tape
7. PVC sheath
8. Metal wire braid armour (GSW)
9. Paint : End of "-YCS" type
10. PVC outer sheath : End of "-YCYS" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Insulation color : White
- A Core : Black Numbering(1A, 2A,...) B Core : Red Numbering(1B,2B,...)
- C Core : Black Numbering(1C) D Core : Black Numbering(1D)

No. of Cores	Conductor			Thickness of insulation	Dia.of copper wire for shield braid	Thickness of sheath	Nominal dia. over sheath	(FA)-TTPYCS Armor		(FA)-TTPYCYS Armor with protective sheath		Cable weight (approx.)	
	Nominal Sectional Area	No.& dia of Wire	Dia.					Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
Pr	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
1	0.75	7/0.37	1.11	0.6	0.14	1.1	8.8	0.3	10.1±0.4	0.9	12.1±0.5	180	230
1Tr	0.75	7/0.37	1.11	0.6	0.14	1.1	9.3	0.3	10.6±0.4	0.9	12.6±0.5	205	255
1Qd	0.75	7/0.37	1.11	0.6	0.14	1.1	10.0	0.3	11.3±0.5	0.9	13.3±0.5	230	285
2	0.75	7/0.37	1.11	0.6	0.14	1.2	12.7	0.3	14.1±0.6	1.0	16.3±0.7	255	330
3	0.75	7/0.37	1.11	0.6	0.16	1.2	13.5	0.3	14.9±0.6	1.0	17.1±0.7	295	375
4	0.75	7/0.37	1.11	0.6	0.16	1.3	15.0	0.3	16.3±0.7	1.0	18.5±0.7	405	490
7	0.75	7/0.37	1.11	0.6	0.16	1.4	17.7	0.3	19.0±0.8	1.1	21.4±0.9	545	650
10	0.75	7/0.37	1.11	0.6	0.18	1.6	22.8	0.3	24.1±1.0	1.2	26.7±1.1	800	945
14	0.75	7/0.37	1.11	0.6	0.18	1.6	24.4	0.3	25.7±1.0	1.2	28.3±1.1	935	1090
15	0.75	7/0.37	1.11	0.6	0.18	1.7	25.2	0.3	26.6±1.1	1.3	29.4±1.2	970	1145
19	0.75	7/0.37	1.11	0.6	0.18	1.8	27.5	0.3	28.8±1.2	1.3	31.6±1.3	1160	1340
24	0.75	7/0.37	1.11	0.6	0.20	2.0	33.1	0.4	34.9±1.4	1.5	38.3±1.5	1600	1860
30	0.75	7/0.37	1.11	0.6	0.26	2.1	35.5	0.4	37.3±1.5	1.5	40.7±1.6	1950	2230
37	0.75	7/0.37	1.11	0.6	0.26	2.2	38.4	0.4	40.2±1.6	1.6	43.8±1.7	2250	2570
48	0.75	7/0.37	1.11	0.6	0.26	2.4	44.3	0.4	46.1±1.7	1.8	50.1±1.8	2830	3240

250V MPYC-S, MPYCY-S | Normal Type
250V FA-MPYC-S, FA-MPYCY-S | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard))
2. EPR insulation (identified)
3. Individual shield braid (Copper wire)
4. Cabling (with filler)
5. Tape
6. PVC sheath
7. Metal wire braid armour (GSW)
8. Paint : End of "-C-S" type
9. PVC outer sheath : End of "-CY-S" type

Standard Applied

·Design guideline : JIS C 3410 (2010)

·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC

·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Identification of insulated cores

- 2 core and above : Numbering on white insulated core

No. of Cores	Conductor			Thickness of insulation	Dia.of copper wire for shield braid	Thickness of sheath	Nominal dia. over sheath	(FA)-MPYC-S		(FA)-MPYCY-S		Cable weight (approx.)	
								Armor		Armor with protective sheath			
	Nominal Sectional Area	No.& dia of Wire	Dia.					Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
2	1.0	7/0.43	1.29	0.6	0.12	1.1	10.1	0.3	11.4±0.5	0.9	13.4±0.5	180	235
4	1.0	7/0.43	1.29	0.6	0.12	1.2	11.8	0.3	13.1±0.5	0.9	15.1±0.6	305	365
5	1.0	7/0.43	1.29	0.6	0.12	1.2	12.6	0.3	14.0±0.6	1.0	16.2±0.6	320	395
7	1.0	7/0.43	1.29	0.6	0.12	1.3	14.2	0.3	15.5±0.6	1.0	17.7±0.7	445	525
9	1.0	7/0.43	1.29	0.6	0.12	1.3	15.9	0.3	17.3±0.7	1.0	19.5±0.8	485	575
12	1.0	7/0.43	1.29	0.6	0.12	1.4	18.7	0.3	20.0±0.8	1.1	22.4±0.9	705	815
16	1.0	7/0.43	1.29	0.6	0.12	1.5	20.2	0.3	21.6±0.9	1.1	24.0±1.0	760	880
19	1.0	7/0.43	1.29	0.6	0.12	1.6	22.2	0.3	23.5±0.9	1.2	26.1±1.0	1020	1160
23	1.0	7/0.43	1.29	0.6	0.12	1.6	23.8	0.3	25.2±1.0	1.2	27.8±1.1	1055	1210
27	1.0	7/0.43	1.29	0.6	0.12	1.7	26.6	0.3	27.9±1.1	1.3	30.7±1.2	1400	1570
33	1.0	7/0.43	1.29	0.6	0.12	1.8	27.8	0.3	29.2±1.2	1.3	32.0±1.3	1390	1580
37	1.0	7/0.43	1.29	0.6	0.12	1.9	30.1	0.3	31.4±1.3	1.4	34.4±1.4	1820	2030
44	1.0	7/0.43	1.29	0.6	0.12	2.0	34.0	0.4	35.8±1.4	1.5	39.0±1.6	2290	2550

250V TTYC-S, TTYCY-S | Normal Type
250V FA-TTYC-S, FA-TTYCY-S | Flame Retardant Type

Construction Details

1. Conductor (Annealed copper wire, standard)
2. PVC insulation (identified)
3. Twist (Pair, Triad, Quad)
4. Individual shield braid
5. Cabling (with filler)
6. Tape
7. PVC sheath
8. Metal wire braid armour (GSW)
9. Paint : End of "-YC-S" type
10. PVC outer sheath : End of "-YCY-S" type

Standard Applied

·Design guideline : JIS C 3410 (2010)

·Material properties : JIS C 3410 Insulation, PVC
JIS C 3410 Sheath, PVC

·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Insulation color : White

- A core : Black Numbering (1A,2A,...)
- B core : Red Numbering (1B,2B,...)
- C core : Black Numbering (1C)
- D core : Black Numbering (1D)

No. of Cores	Conductor			Thickness of insulation	Dia.of copper wire for shield braid	Thickness of sheath	Nominal dia. over sheath	(FA)-TTYC-S		(FA)-TTYCY-S		Cable weight (approx.)	
								Armor		Armor with protective sheath			
	Nominal Sectional Area	No.& dia of Wire	Dia.					Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
Pr	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
2	0.75	7/0.37	1.11	0.6	0.14	1.3	15.1	0.3	16.5±0.7	1.0	18.7±0.7	345	430
3	0.75	7/0.37	1.11	0.6	0.14	1.3	15.9	0.3	17.3±0.7	1.0	19.5±0.8	410	500
4	0.75	7/0.37	1.11	0.6	0.14	1.4	17.4	0.3	18.7±0.7	1.1	21.1±0.8	490	595
7	0.75	7/0.37	1.11	0.6	0.14	1.5	20.9	0.3	22.2±0.9	1.2	24.8±1.0	690	825
10	0.75	7/0.37	1.11	0.6	0.14	1.8	27.4	0.3	28.7±1.1	1.3	31.5±1.3	1070	1250
14	0.75	7/0.37	1.11	0.6	0.14	1.8	29.8	0.3	31.1±1.2	1.4	34.1±1.4	1400	1610
15	0.75	7/0.37	1.11	0.6	0.14	1.9	30.7	0.4	32.5±1.3	1.4	35.5±1.4	1495	1725
19	0.75	7/0.37	1.11	0.6	0.14	2.0	33.6	0.4	35.4±1.4	1.5	38.8±1.6	1780	2050
24	0.75	7/0.37	1.11	0.6	0.14	2.2	39.8	0.4	41.6±1.6	1.6	45.2±1.7	2300	2640
30	0.75	7/0.37	1.11	0.6	0.14	2.3	42.4	0.4	44.2±1.7	1.7	48.0±1.8	2680	3060
37	0.75	7/0.37	1.11	0.6	0.14	2.4	46.0	0.4	47.8±1.8	1.8	51.8±1.9	3170	3600
48	0.75	7/0.37	1.11	0.6	0.14	2.7	53.3	0.4	55.1±1.9	2.0	59.5±2.0	4090	4630

250V TTY-SLA, TTYC-SLA, TTYCY-SLA / TTY-SSLA, TTYC-SSLA, TTYCY-SSLA | Normal Type
250V FA-TTY-SLA, FA-TTYC-SLA, FA-TTYCY-SLA, / FA-TTY-SSLA, FA-TTYC-SSLA, FA-TTYCY-SSLA | Flame Retardant Type

Construction Details

1. Conductor (Annealed copper wire, standard)
2. PVC insulation (identified)
3. Aluminum mylar individual shield with drain wire (at least 0.5mm^2)
4. (option for"-SSLA")Aluminum mylar common shield with drain wire (at least 0.5mm^2)
5. Tape
6. PVC sheath : End of "-Y" type
7. Metal wire braid armour (GSW)
8. Paint : End of "-YC" type
9. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, PVC
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Insulation color : White
- A core : Black Numbering (1A,2A,...)
- B core : Red Numbering (1B,2B,...)
- C core : Black Numbering (1C)
- D core : Black Numbering (1D)

No. of Cores	Conductor			Thickness of insulation	(FA)-TTY-SLA		(FA)-TTYC-SLA		(FA)-TTYCY-SLA		Cable weight (approx.)	
					Unarmor		Armor		Armor with protective sheath			
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
EA	mm^2	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
4	0.75	7/0.37	1.11	0.6	1.3	16.0±0.6	0.3	17.3±0.7	1.0	19.5±0.8	380	465
7	0.75	7/0.37	1.11	0.6	1.5	19.5±0.7	0.3	20.8±0.8	1.1	23.2±0.9	545	660
10	0.75	7/0.37	1.11	0.6	1.7	25.2±0.9	0.3	26.5±1.1	1.3	29.3±1.2	805	970
14	0.75	7/0.37	1.11	0.6	1.8	27.6±1.0	0.3	28.9±1.2	1.3	31.7±1.3	980	1160
19	0.75	7/0.37	1.11	0.6	1.9	30.9±1.1	0.4	32.7±1.3	1.4	35.7±1.4	1320	1540
24	0.75	7/0.37	1.11	0.6	2.1	36.6±1.3	0.4	38.4±1.5	1.6	42.0±1.6	1710	2020
30	0.75	7/0.37	1.11	0.6	2.2	39.1±1.4	0.4	40.9±1.6	1.6	44.5±1.7	1970	2300
37	0.75	7/0.37	1.11	0.6	2.3	42.3±1.5	0.4	44.1±1.7	1.7	47.9±1.8	2300	2670
48	0.75	7/0.37	1.11	0.6	2.6	49.1±1.7	0.4	50.9±1.9	1.9	55.1±1.9	2960	3440

250V TTPYC-S, TTPYCY-S | Normal Type
250V FA-TTPYC-S, FA-TTPYCY-S | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. EPR insulation (identified)
3. Twist (Pair, Triad, Quad)
4. Individual shield braid
5. Cabling (with filler)
6. Tape
7. PVC sheath
8. Metal wire braid armour (GSW)
9. Paint : End of "-YC-S" type
10. PVC outer sheath : End of "-YCY-S" type

Standard Applied

·Design guideline : JIS C 3410 (2010)

·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC

·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Insulation color : White

- A core : Black Numbering (1A,2A,...)
- B core : Red Numbering (1B,2B,...)
- C core : Black Numbering (1C)
- D core : Black Numbering (1D)

No. of Cores	Conductor			Thickness of insulation	Dia.of copper wire for shield braid	Thickness of sheath	Nominal dia. over sheath	(FA)-TTPYC-S		(FA)-TTPYCY-S		Cable weight (approx.)	
								Armor		Armor with protective sheath			
	Nominal Sectional Area	No.& dia of Wire	Dia.					Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
Pr	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
2	0.75	7/0.37	1.11	0.6	0.14	1.3	15.1	0.3	16.5±0.7	1.0	18.7±0.7	345	430
3	0.75	7/0.37	1.11	0.6	0.14	1.3	15.9	0.3	17.3±0.7	1.0	19.5±0.8	410	500
4	0.75	7/0.37	1.11	0.6	0.14	1.4	17.4	0.3	18.7±0.7	1.1	21.1±0.8	490	595
7	0.75	7/0.37	1.11	0.6	0.14	1.5	20.9	0.3	22.2±0.9	1.2	24.8±1.0	690	825
10	0.75	7/0.37	1.11	0.6	0.14	1.8	27.4	0.3	28.7±1.1	1.3	31.5±1.3	1070	1250
14	0.75	7/0.37	1.11	0.6	0.14	1.8	29.7	0.4	31.5±1.3	1.4	34.5±1.4	1400	1610
15	0.75	7/0.37	1.11	0.6	0.14	1.9	30.7	0.4	32.5±1.3	1.4	35.5±1.4	1495	1725
19	0.75	7/0.37	1.11	0.6	0.14	2.0	33.6	0.4	35.4±1.4	1.5	38.8±1.6	1780	2050
24	0.75	7/0.37	1.11	0.6	0.14	2.2	39.8	0.4	41.6±1.6	1.6	45.2±1.7	2300	2640
30	0.75	7/0.37	1.11	0.6	0.14	2.3	42.4	0.4	44.2±1.7	1.7	48.0±1.8	2680	3060
37	0.75	7/0.37	1.11	0.6	0.14	2.4	46.0	0.4	47.8±1.8	1.8	51.8±1.9	3170	3600
48	0.75	7/0.37	1.11	0.6	0.14	2.7	53.5	0.4	55.1±1.9	2.0	59.9±2.0	4090	4630

0.6/1kV DPNP, TPNP, FPNP | Normal Type
0.6/1kV FA-DPNP, FA-TPNP, FA-FPNP | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. EPR insulation
3. Cabling (With filler)
4. PCP outer sheath

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PCP
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

· Identification of insulated cores
-2 Core : Black, White
-3 Core : Black, White, Red
-4 Core : Black, White, Red, Green

No. of Cores	Conductor			Thickness of insulation	Unarmor		Cable weight(approx.)
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal overall dia.	(FA-)DPNP (FA-)TPNP (FA-)FPNP
EA	mm^2	EA/mm	mm	mm	mm	mm	kg/km
2	0.75	24/0.20	1.13	1.0	1.4	9.7±0.4	130
	1.0	32/0.20	1.27	1.0	1.4	9.9±0.4	135
	1.5	30/0.25	1.58	1.0	1.5	10.8±0.4	165
	2.5	49/0.25	2.02	1.0	1.6	11.8±0.5	205
	4.0	55/0.30	2.57	1.0	1.7	13.1±0.5	265
	6.0	82/0.30	3.14	1.0	1.8	14.5±0.6	340
3	0.75	24/0.20	1.13	1.0	1.4	10.2±0.4	145
	1.0	32/0.20	1.27	1.0	1.5	10.7±0.4	160
	1.5	30/0.25	1.58	1.0	1.5	11.4±0.5	190
	2.5	49/0.25	2.02	1.0	1.6	12.5±0.5	240
	4.0	55/0.30	2.57	1.0	1.8	14.1±0.6	325
	6.0	82/0.30	3.14	1.0	1.9	15.6±0.6	420
	10	80/0.40	4.13	1.0	3.0	20.0±0.8	700
	16	7/18/0.40	5.88	1.0	3.2	23.9±1.0	1020
	25	7/28/0.40	7.32	1.2	3.5	28.3±1.1	1485
	35	7/39/0.40	8.67	1.2	3.7	31.5±1.3	1935
	50	19/21/0.40	10.3	1.4	4.0	36.6±1.5	2675
	70	19/19/0.50	12.2	1.4	4.3	41.2±1.6	3550
	95	19/25/0.5	14.5	1.6	4.7	46.9±1.8	4570
	120	19/32/0.5	16.2	1.6	5.0	53.1±2.1	5700
4	0.75	24/0.20	1.13	1.0	1.5	11.3±0.5	180
	1.0	32/0.20	1.27	1.0	1.6	11.8±0.5	200
	1.5	30/0.25	1.58	1.0	1.6	12.6±0.5	235
	2.5	49/0.25	2.02	1.0	1.8	14.1±0.6	310
	4.0	55/0.30	2.57	1.0	1.9	15.6±0.6	410
	6.0	82/0.30	3.14	1.0	2.0	17.2±0.7	525

0.6/1kV DSRC, TSRC | Normal Type
0.6/1kV FA-DSRC, FA-TSRC | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. Silicone rubber insulation
3. Glass yarn braid (identified)
4. Compound for glass yarn braid
5. Cabling (with glass)
6. Tape
7. Metal wire braid armour (GSW)
8. Paint

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, Silicone
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

· Identification of insulated cores
-2 Core : Black, White colored glass yarn braid
-3 Core : Black, White, Red colored glass yarn braid

No. of Cores	Conductor			Thickness of insulation	Approx. radial thickness of braid (single layer)	Approx. radial thickness of braid (double layer)	Armor		Cable weight (approx.)
	Nominal Sectional Area	No.& dia of Wire	Dia.				Dia.of metal wire for bread	Nominal dia. over braid	Armor
EA	mm^2	EA/mm	mm	mm	mm	mm	mm	mm	kg/km
2	1.5	7/0.52	1.56	1.0	0.3	0.55	0.3	11.3±0.5	195
	2.5	7/0.67	2.01	1.0	0.3	0.55	0.3	12.2±0.5	235
	4	7/0.85	2.55	1.0	0.3	0.55	0.3	13.3±0.5	285
3	1.5	7/0.52	1.56	1.0	0.3	0.55	0.3	12.0±0.5	235
	2.5	7/0.67	2.01	1.0	0.3	0.55	0.3	13.0±0.5	285
	4	7/0.85	2.55	1.0	0.3	0.55	0.3	14.2±0.6	355

0.6/1kV SCP | Normal Type

Construction Details

❶ Conductor (Tinned annealed copper wire or Annealed copper wire, stranded)
❷ FR-XLPE insulation

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, FR-XLPE

Identification of color

·Identification of insulated cores
- 1 Core : Black

No. of Cores	Conductor			Thickness of insulation	Nominal overall dia.	Cable weight (approx.)
	Nominal sectional area	Max. dia. of wire	Max. dia. of conductor			
EA	mm^2	No/mm^2	mm	mm	mm	kg/km
1	1.5	0.26	1.8	0.9	3.7±0.4	25
	2.5	0.26	2.4	1.0	4.3±0.4	38
	4	0.31	3.0	1.0	4.9±0.4	55
	6	0.31	3.9	1.0	5.4±0.4	75
	10	0.41	5.1	1.1	6.6±0.4	120
	16	0.41	6.3	1.1	8.4±0.4	185
	25	0.41	7.8	1.2	10.0±0.4	275
	35	0.41	9.2	1.4	11.8±0.5	380
	50	0.41	11.0	1.4	13.4±0.5	535
	70	0.51	13.1	1.6	15.9±0.6	755
	95	0.51	15.1	1.7	17.9±0.7	980

0.6/1kV SYP | Normal Type

Construction Details

❶ Conductor (Tinned annealed copper wire or Annealed copper wire, stranded)
❷ PVC insulation

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, PVC

Identification of color

·Identification of insulated cores
- 1 Core : Black

No. of Cores	Conductor			Thickness of insulation	Nominal overall dia.	Cable weight (approx.)
	Nominal sectional area	Max. dia. of wire	Max. dia. of conductor			
EA	mm^2	mm	mm	mm	mm	kg/km
1	0.75	0.21	1.3	1.2	3.7±0.4	20
	1.0	0.21	1.5	1.2	3.9±0.4	23
	1.5	0.26	1.8	1.2	4.2±0.4	29
	2.5	0.26	2.4	1.2	4.6±0.4	40
	4	0.31	3.0	1.2	5.2±0.4	60
	6	0.31	3.9	1.2	5.7±0.4	80
	10	0.41	5.1	1.2	6.7±0.4	125
	16	0.41	6.3	1.3	8.7±0.4	190

0.6/1kV FR-SPYC(CB), FR-SPYC(CB)Y | Normal Type
0.6/1kV FR-FA-SPYC(CB), FR-FA-SPYC(CB)Y | Flame Retardant Type

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. MGT/EPR insulation (identified)
3. PVC sheath
4. Metal wire braid armour (copper alloy) : End of "-YCB" type or "-YC" type
5. PVC sheath : End of "-YCBY" type or "-YCY" type

Note | For single core cable, the armour should be used of copper-alloy wire as non-magnetic material in order avoid current loops according to clause 3.26 of IEC Pub. 60092-352

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1,2

Identification of color

· Identification of insulated cores
- 1 Core : Black

No. of Cores	Conductor			Thickness of insulation	Thickness of sheath	Nominal dia. over sheath	(FR)-(FA)-SPYC(CB) Armor		(FR)-(FA)-SPYC(CB)Y Armor with protective sheath		Cable weight (approx.)	
	Nominal Sectional Area	No.& dia of Wire	Dia.				Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
1	1.5	7/0.52	1.56	1.0	1.0	7.2	0.3	8.6±0.4	0.8	10.4±0.4	145	185
	2.5	7/0.67	2.01	1.0	1.0	7.6	0.3	9.0±0.4	0.8	10.8±0.4	165	205
	4	7/0.85	2.55	1.0	1.0	8.2	0.3	9.6±0.4	0.8	11.4±0.5	190	235
	6	7/1.04	3.12	1.0	1.1	8.9	0.3	10.3±0.4	0.9	12.3±0.5	225	275
	10	7/1.35	4.05	1.0	1.1	9.9	0.3	11.3±0.5	0.9	13.3±0.5	285	345
	16	7/1.70	5.10	1.0	1.1	10.9	0.3	12.3±0.5	0.9	14.3±0.6	365	425
	25	7/2.14	6.42	1.2	1.2	12.8	0.3	14.2±0.6	1.0	16.4±0.7	505	580
	35	7/2.52	7.56	1.2	1.3	14.4	0.3	15.8±0.6	1.0	18.0±0.7	635	720
	50	19/1.78	8.90	1.4	1.3	16.0	0.3	17.4±0.7	1.0	19.6±0.8	800	890
	70	19/2.14	10.7	1.4	1.4	18.0	0.3	19.4±0.8	1.1	21.8±0.9	1050	1160
	95	19/2.52	12.6	1.6	1.5	20.5	0.3	21.9±0.9	1.1	24.3±1.0	1375	1500
	120	37/2.03	14.2	1.6	1.6	22.3	0.3	23.7±0.9	1.2	26.3±1.1	1660	1805
	150	37/2.25	15.8	1.8	1.6	24.3	0.3	25.7±1.0	1.2	28.3±1.1	1980	2135
	185	37/2.52	17.6	2.0	1.7	26.7	0.3	28.1±1.1	1.3	30.9±1.2	2410	2590
	240	61/2.25	20.3	2.2	1.8	30.0	0.3	31.4±1.3	1.4	34.4±1.4	3065	3285
	300	61/2.52	22.7	2.4	2.0	33.2	0.4	35.0±1.4	1.5	38.2±1.5	3855	4115

0.6/1kV FR-DPY, FR-DPYC, FR-DPYCY | Normal Type
0.6/1kV FR-FA-DPY, FR-FA-DPYC, FR-FA-DPYCY | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. Cabling (with filler)
4. Tape
5. PVC sheath : End of "-Y" type
6. Metal wire braid armour (GSW)
7. Paint : End of "-YC" type
8. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1,2

Identification of color

· Identification of insulated cores
- 2 Core : Black, White

No. of Cores	Conductor			Thickness of insulation	(FR)-(FA)-DPY Unarmor		(FR)-(FA)-DPYC Armor		(FR)-(FA)-DPYCY Armor with protective sheath		Cable weight(approx.)		
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
2	1.5	7/0.52	1.56	1.0	1.2	12.8±0.6	0.3	14.1±0.6	1.0	16.3±0.7	165	270	340
	2.5	7/0.67	2.01	1.0	1.3	13.9±0.6	0.3	15.2±0.6	1.0	17.4±0.7	205	320	395
	4	7/0.85	2.55	1.0	1.3	15.0±0.7	0.3	16.3±0.7	1.0	18.5±0.7	255	375	455
	6	7/1.04	3.12	1.0	1.3	16.1±0.7	0.3	17.4±0.7	1.0	19.6±0.8	310	440	530
	10	7/1.35	4.05	1.0	1.4	18.2±0.8	0.3	19.5±0.8	1.1	21.9±0.9	430	575	685
	16	7/1.70	5.10	1.0	1.5	20.5±0.9	0.3	21.8±0.9	1.1	24.4±1.0	590	755	875
	25	7/2.14	6.42	1.2	1.6	24.1±1.0	0.3	25.4±1.0	1.2	28.0±1.1	860	1060	1210
	35	7/2.52	7.56	1.2	1.7	26.6±1.1	0.3	27.9±1.1	1.3	30.7±1.2	1110	1320	1500
	50	19/1.78	8.90	1.4	1.9	30.5±1.3	0.4	32.3±1.3	1.4	35.3±1.4	1480	1820	2030
	70	19/2.14	10.7	1.4	2.0	34.3±1.4	0.4	36.1±1.4	1.5	39.5±1.6	1990	2370	2640
	95	19/2.52	12.6	1.6	2.2	39.7±1.6	0.4	41.5±1.6	1.6	45.1±1.7	2700	3140	3480
	120	37/2.03	14.2	1.6	2.3	43.1±1.7	0.4	44.9±1.7	1.7	48.7±1.8	3300	3770	4160
	150	37/2.25	15.8	1.8	2.5	47.5±1.8	0.4	49.3±1.8	1.8	53.3±1.9	4030	4550	4990
	185	37/2.52	17.6	2.0	2.7	52.3±1.9	0.4	54.1±1.9	2.0	58.5±2.0	4980	5550	6080

250V FR-TPY, FR-TPYC, FR-TPYC-S | Normal Type
250V FR-FA-TPY, FR-FA-TPYC, FR-FA-TPYC | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. Cabling (with filler)
4. Tape
5. PVC sheath : End of "-Y" type
6. Metal wire braid armour (GSW)
7. Paint : End of "-YC" type
8. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1,2

Identification of color

· Identification of insulated cores
- 3 Core : Black, White, Red

No. of Cores	Conductor			Thickness of insulation	(FR)-(FA)-TPY Unarmor		(FR)-(FA)-TPYC Armor		(FR)-(FA)-TPYC Armor with protective sheath		Cable weight(approx.)		
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
3	1.5	7/0.52	1.56	1.0	1.2	13.6±0.6	0.3	14.9±0.6	1.0	17.1±0.7	205	315	390
	2.5	7/0.67	2.01	1.0	1.3	14.8±0.6	0.3	16.1±0.6	1.0	18.3±0.7	255	375	460
	4	7/0.85	2.55	1.0	1.3	16.0±0.7	0.3	17.3±0.7	1.0	19.5±0.8	320	450	540
	6	7/1.04	3.12	1.0	1.4	17.4±0.7	0.3	18.7±0.7	1.1	21.1±0.8	410	550	650
	10	7/1.35	4.05	1.0	1.5	19.6±0.8	0.3	20.9±0.8	1.1	23.2±0.9	570	730	845
	16	7/1.70	5.10	1.0	1.6	22.1±0.9	0.3	23.4±0.9	1.2	26.0±1.0	795	975	1110
	25	7/2.14	6.42	1.2	1.7	26.0±1.1	0.3	27.3±1.1	1.3	30.1±1.2	1170	1380	1550
	35	7/2.52	7.56	1.2	1.8	28.6±1.2	0.3	29.9±1.2	1.3	32.7±1.3	1520	1740	1930
	50	19/1.78	8.90	1.4	2.0	32.8±1.4	0.4	34.6±1.4	1.5	38.0±1.5	2010	2380	2640
	70	19/2.14	10.7	1.4	2.1	36.9±1.5	0.4	38.7±1.5	1.6	42.3±1.6	2730	3140	3450
	95	19/2.52	12.6	1.6	2.3	42.7±1.7	0.4	44.5±1.7	1.7	48.3±1.8	3730	4200	4580
	120	37/2.03	14.2	1.6	2.5	46.5±1.8	0.4	48.3±1.8	1.8	52.3±1.9	4580	5090	5520
	150	37/2.25	15.8	1.8	2.6	51.1±1.9	0.4	52.9±1.9	1.9	57.1±2.0	5570	6130	6630
	185	37/2.52	17.6	2.0	2.8	56.2±2.0	0.4	58.0±2.0	2.1	62.6±2.1	6890	7510	8110

0.6/1kV FR-FPY, FR-FPYC, FR-FPYCY | Normal Type
0.6/1kV FR-FA-FPY, FR-FA-FPYC, FR-FA-FPYCY | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. Cabling (with filler)
4. Tape
5. PVC sheath : End of "-Y" type
6. Metal wire braid armour (GSW)
7. Paint : End of "-YC" type
8. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1,2

Identification of color

· Identification of insulated cores
- 4 Core : Black, White, Red, Green

No. of Cores	Conductor			Thickness of insulation	(FR)-(FA)-FPY		(FR)-(FA)-FPYC		(FR)-(FA)-FPYCY		Cable weight(approx.)		
					Unarmor		Armor		Armor with protective sheath				
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
4	1.5	7/0.52	1.56	1.0	1.3	15.1±0.6	0.3	16.5±0.7	1.0	18.7±0.7	285	415	500
	2.5	7/0.67	2.01	1.0	1.3	16.0±0.6	0.3	17.4±0.7	1.0	19.6±0.8	350	480	570
	4	7/0.85	2.55	1.0	1.4	17.7±0.7	0.3	19.1±0.8	1.1	21.5±0.9	450	595	705
	6	7/1.04	3.12	1.0	1.4	18.9±0.8	0.3	20.3±0.8	1.1	22.7±0.9	555	705	825
	10	7/1.35	4.05	1.0	1.5	21.5±0.9	0.3	22.9±0.9	1.2	25.5±1.0	780	960	1100
	16	7/1.70	5.10	1.0	1.6	24.1±1.0	0.3	25.5±1.0	1.2	28.1±1.1	1080	1275	1430
	25	7/2.14	6.42	1.2	1.8	28.6±1.1	0.3	30.0±1.2	1.4	33.0±1.3	1600	1830	2040
	35	7/2.52	7.56	1.2	1.9	32.2±1.3	0.4	34.0±1.4	1.5	37.2±1.5	2105	2435	2690
	50	19/1.78	8.90	1.4	2.1	36.5±1.5	0.4	38.3±1.5	1.6	41.7±1.7	2770	3145	3450
	70	19/2.14	10.7	1.4	2.3	41.2±1.6	0.4	43.0±1.7	1.7	46.6±1.9	3760	4185	4545
	95	19/2.52	12.6	1.6	2.5	47.2±1.9	0.4	49.0±2.0	1.8	52.8±2.1	5060	5545	5975
	120	37/2.03	14.2	1.6	2.6	51.2±2.0	0.4	53.0±2.1	1.9	57.0±2.3	6195	6715	7205
	150	37/2.25	15.8	1.8	2.8	56.5±2.3	0.4	58.3±2.3	2.1	62.7±2.5	7550	8125	8720
	185	37/2.52	17.6	2.0	3.0	62.2±2.5	0.4	64.0±2.6	2.2	68.6±2.7	9320	9950	10630

0.6/1kV FR-5PY, FR-5PYC, FR-5PYCY | Normal Type
0.6/1kV FR-FA-5PY, FR-FA-5PYC, FR-FA-5PYCY | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. Cabling (with filler)
4. Tape
5. PVC sheath : End of "-Y" type
6. Metal wire braid armour (GSW)
7. Paint : End of "-YC" type
8. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1,2

Identification of color

· Identification of insulated cores
- 5 Core : Numbering on white insulated core

No. of Cores	Conductor			Thickness of insulation	(FR)-(FA)-5PY		(FR)-(FA)-5PYC		(FR)-(FA)-5PYCY		Cable weight(approx.)		
					Unarmor		Armor		Armor with protective sheath				
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
5	1.5	7/0.52	1.56	1.0	1.3	16.5±0.7	0.3	17.9±0.7	1.0	20.1±0.8	350	485	575
	2.5	7/0.67	2.01	1.0	1.4	17.8±0.7	0.3	19.2±0.8	1.1	21.6±0.9	430	575	680
	4	7/0.85	2.55	1.0	1.5	19.6±0.8	0.3	21.0±0.8	1.1	23.4±0.9	555	710	830
	6	7/1.04	3.12	1.0	1.5	21.0±0.8	0.3	22.4±0.9	1.2	25.0±1.0	685	850	995

0.6/1kV FR-6PY, FR-6PYC, FR-6PYCY | Normal Type
0.6/1kV FR-FA-6PY, FR-FA-6PYC, FR-FA-6PYCY | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. Cabling (with filler)
4. Tape
5. PVC sheath : End of "-Y" type
6. Metal wire braid armour (GSW)
7. Paint : End of "-YC" type
8. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1,2

Identification of color

· Identification of insulated cores
- 6 Core : Numbering on white insulated core

No. of Cores	Conductor			Thickness of insulation	(FR)-(FA)-6PY Unarmor		(FR)-(FA)-6PYC Armor		(FR)-(FA)-6PYCY Armor with protective sheath		Cable weight(approx.)		
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
6	1.5	7/0.52	1.56	1.0	1.4	18.2±0.7	0.3	19.6±0.8	1.1	22.0±0.9	415	565	675
	2.5	7/0.67	2.01	1.0	1.5	19.6±0.8	0.3	21.0±0.8	1.1	23.4±0.9	515	670	790
	4	7/0.85	2.55	1.0	1.5	21.4±0.9	0.3	22.8±0.9	1.2	25.4±1.0	655	825	970
	6	7/1.04	3.12	1.0	1.6	23.1±0.9	0.3	24.5±1.0	1.2	27.1±1.1	820	1010	1160

250V FR-MPY, FR-MPYC, FR-MPYCY | Normal Type
250V FR-FA-MPY, FR-FA-MPYC, FR-FA-MPYCY | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. EPR insulation (identified)
4. Cabling (with filler)
5. Tape
6. PVC sheath : End of "-Y" type
7. Metal wire braid armour (GSW)
8. Paint : End of "-YC" type
9. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1, 2

Identification of color

· Identification of insulated cores
- 2 Core and above : Numbering on white insulated core

No. of Cores	Conductor			Thickness of insulation	(FR)-(FA)-MPY Unarmor		(FR)-(FA)-MPYC Armor		(FR)-(FA)-MPYCY Armor with protective sheath		Cable weight (approx.)		
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
2	1.0	7/0.43	1.29	0.6	1.1	10.9±0.5	0.3	12.2±0.5	0.9	14.2±0.6	120	210	265
4	1.0	7/0.43	1.29	0.6	1.2	12.8±0.6	0.3	14.1±0.6	1.0	16.3±0.7	185	290	360
7	1.0	7/0.43	1.29	0.6	1.3	15.4±0.7	0.3	16.7±0.7	1.0	18.9±0.8	285	410	490
12	1.0	7/0.43	1.29	0.6	1.5	20.5±0.9	0.3	21.8±0.9	1.1	24.2±1.0	485	650	765
19	1.0	7/0.43	1.29	0.6	1.6	24.2±1.0	0.3	25.5±1.0	1.2	28.1±1.1	705	900	1050
27	1.0	7/0.43	1.29	0.6	1.8	29.3±1.2	0.3	30.6±1.2	1.4	33.6±1.3	1010	1250	1450
37	1.0	7/0.43	1.29	0.6	2.0	33.1±1.4	0.4	34.9±1.4	1.5	38.3±1.5	1330	1700	1970
44	1.0	7/0.43	1.29	0.6	2.1	37.4±1.6	0.4	39.2±1.6	1.6	42.8±1.7	1630	2040	2360

250V FR-TTPY, FR-TTPYC, FR-TTPYCY | Normal Type
250V FR-FA-TTPY, FR-FA-TTPYC, FR-FA-TTPYCY | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. Twist (Pair, Triiad, Quad)
4. Cabling (with filler)
5. Tape
6. PVC sheath : End of "-Y" type
7. Metal wire braid armour (GSW)
8. Paint : End of "-YC" type
9. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1, 2

Identification of color

·Insulation color : White
- A core : Black Numbering (1A,2A,...)
- B core : Red Numbering (1B,2B,...)
- C core : Black Numbering (1C)
- D core : Black Numbering (1D)

No. of Cores	Conductor			Thickness of insulation	(FR)-(FA)-TTPY		(FR)-(FA)-TTPYC		(FR)-(FA)-TTPYCY		Cable weight (approx.)		
					Unarmor		Armor		Armor with protective sheath				
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
Pr	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
1	0.75	7/0.37	1.11	0.6	1.1	8.4±0.4	0.3	10.0±0.4	0.9	11.8±0.5	85	145	190
1Tr	0.75	7/0.37	1.11	0.6	1.1	9.1±0.4	0.3	10.7±0.4	0.9	12.5±0.5	110	175	220
1Qd	0.75	7/0.37	1.11	0.6	1.1	9.9±0.4	0.3	11.5±0.5	0.9	13.3±0.5	135	205	255
2	0.75	7/0.37	1.11	0.6	1.3	13.1±0.5	0.3	14.7±0.6	1.0	16.7±0.7	175	265	335
4	0.75	7/0.37	1.11	0.6	1.3	15.5±0.6	0.3	17.1±0.7	1.0	19.1±0.8	270	380	460
7	0.75	7/0.37	1.11	0.6	1.4	18.8±0.8	0.3	20.4±0.8	1.1	22.6±0.9	420	550	655
10	0.75	7/0.37	1.11	0.6	1.6	23.2±0.9	0.3	24.8±1.0	1.2	27.2±1.1	605	770	905
14	0.75	7/0.37	1.11	0.6	1.7	26.2±1.0	0.3	27.8±1.1	1.3	30.4±1.2	800	985	1150
19	0.75	7/0.37	1.11	0.6	1.9	30.4±1.2	0.4	32.4±1.3	1.4	35.2±1.4	1070	1355	1565
24	0.75	7/0.37	1.11	0.6	2.0	33.8±1.4	0.4	35.8±1.4	1.5	38.8±1.6	1325	1640	1890
30	0.75	7/0.37	1.11	0.6	2.1	37.5±1.5	0.4	39.5±1.6	1.6	42.7±1.7	1630	1980	2275
37	0.75	7/0.37	1.11	0.6	2.3	41.6±1.7	0.4	43.6±1.7	1.7	47.0±1.9	2000	2390	2735
48	0.75	7/0.37	1.11	0.6	2.5	47.1±1.9	0.4	49.1±2.0	1.8	52.7±2.1	2565	3005	3415

0.6/1kV FR-DPYCSLA, FR-DPYCYSLA | Normal Type
0.6/1kV FR-FA-DPYCSLA, FR-FA-DPYCYSLA | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. Cabling (with filler)
4. Aluminum mylar common shield with drain wire (at least 0.5mm^2)
5. Tape
6. PVC sheath
7. Metal wire braid armour (GSW)
8. Paint : End of "-YC" type
9. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1, 2

Identification of color

·Insulation color : White
- 2 Core : Black, White ·Outer sheath : Black

No. of Cores	Conductor			Thickness of insulation	Thickness of sheath	Nominal dia. over sheath	(FR)-(FA)-DPYCSLA Armor		(FR)-(FA)-DPYCYSLA Armor with protective sheath		Cable weight (approx.)	
	Nominal Sectional Area	No.& dia of Wire	Dia.				Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
EA	mm^2	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
2	1.5	7/0.52	1.56	1.0	1.2	12.9	0.3	14.3±0.6	1.0	16.5±0.7	305	385
	2.5	7/0.67	2.01	1.0	1.2	13.7	0.3	15.1±0.6	1.0	17.3±0.7	350	430
	4	7/0.85	2.55	1.0	1.3	15.1	0.3	16.5±0.7	1.0	18.7±0.7	425	510
	6	7/1.04	3.12	1.0	1.3	16.1	0.3	17.5±0.7	1.0	19.7±0.8	490	580

0.6/1kV FR-TPYCSLA, FR-TPYCYSLA | Normal Type
0.6/1kV FR-FA-TPYCSLA, FR-FA-TPYCYSLA | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. Cabling (with filler)
4. Aluminum mylar common shield with drain wire (at least 0.5mm^2)
5. Tape
6. PVC sheath
7. Metal wire braid armour (GSW)
8. Paint : End of "-YC" type
9. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1, 2

Identification of color

·Insulation color : White
- 3 Core : Black, White, Red

No. of Cores	Conductor			Thickness of insulation	Thickness of sheath	Nominal dia. over sheath	(FR)-(FA)-TPYCSLA Armor		(FR)-(FA)-TPYCYSLA Armor with protective sheath		Cable weight (approx.)	
	Nominal Sectional Area	No.& dia of Wire	Dia.				Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
EA	mm^2	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
3	1.5	7/0.52	1.56	1.0	1.2	13.7	0.3	15.1±0.6	1.0	17.3±0.7	360	440
	2.5	7/0.67	2.01	1.0	1.2	14.7	0.3	16.1±0.6	1.0	18.3±0.7	420	505
	4	7/0.85	2.55	1.0	1.3	16.0	0.3	17.4±0.7	1.0	19.6±0.8	505	595
	6	7/1.04	3.12	1.0	1.4	17.3	0.3	18.7±0.7	1.1	21.1±0.8	600	710

0.6/1kV FR-FPYCSLA, FR-FPYCYSLA | Normal Type
0.6/1kV FR-FA-FPYCSLA, FR-FA-FPYCYSLA | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. Cabling (with filler)
4. Aluminum mylar common shield with drain wire (at least 0.5mm^2)
5. Tape
6. PVC sheath
7. Metal wire braid armour (GSW)
8. Paint : End of "-YC" type
9. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1, 2

Identification of color

·Insulation color : White
- 4 Core : Black, White, Red, Green

No. of Cores	Conductor			Thickness of insulation	Thickness of sheath	Nominal dia. over sheath	(FR)-(FA)-FPYCSLA Armor		(FR)-(FA)-FPYCYSLA Armor with protective sheath		Cable weight (approx.)	
	Nominal Sectional Area	No.& dia of Wire	Dia.				Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
EA	mm^2	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
4	1.5	7/0.52	1.56	1.0	1.3	15.2	0.3	16.6±0.7	1.0	18.8±0.8	430	515
	2.5	7/0.67	2.01	1.0	1.3	16.1	0.3	17.5±0.7	1.0	19.7±0.8	500	590
	4	7/0.85	2.55	1.0	1.4	17.8	0.3	19.2±0.8	1.1	21.6±0.9	615	725
	6	7/1.04	3.12	1.0	1.4	19.0	0.3	20.4±0.8	1.1	22.8±0.9	725	840

250V FR-MPYCSLA, FR-MPYCYSLA | Normal Type
250V FR-FA-MPYCSLA, FR-FA-MPYCYSLA | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. Cabling (with filler)
4. Aluminum mylar common shield with drain wire (at least 0.5mm^2)
5. Tape
6. PVC sheath
7. Metal wire braid armour (GSW)
8. Paint : End of "-YCS" type
9. PVC outer sheath : End of "-YCYS" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1, 2

Identification of color

·Insulation color : White
- 2 Core and above : Numbering on white insulated core

No. of Cores	Conductor			Thickness of insulation	Thickness of sheath	Nominal dia. over sheath	(FR)-(FA)-MPYCSLA		(FR)-(FA)-MPYCYSLA		Cable weight (approx.)	
							Armor		Armor with protective sheath			
	Nominal Sectional Area	No.& dia of Wire	Dia.				Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
EA	mm^2	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
2	1.0	7/0.43	1.29	0.6	1.1	10.9	0.3	12.3±0.5	0.9	14.3±0.6	240	295
4	1.0	7/0.43	1.29	0.6	1.2	12.8	0.3	14.2±0.6	1.0	16.4±0.7	330	405
5	1.0	7/0.43	1.29	0.6	1.3	14.2	0.3	15.6±0.6	1.0	17.8±0.7	390	470
7	1.0	7/0.43	1.29	0.6	1.3	15.4	0.3	16.8±0.7	1.0	19.0±0.8	460	545
9	1.0	7/0.43	1.29	0.6	1.4	18.1	0.3	19.5±0.8	1.1	21.9±0.9	580	690
12	1.0	7/0.43	1.29	0.6	1.5	20.5	0.3	21.9±0.9	1.1	24.3±1.0	695	815
16	1.0	7/0.43	1.29	0.6	1.6	23.0	0.3	24.4±1.0	1.2	27.0±1.1	865	1015
19	1.0	7/0.43	1.29	0.6	1.6	24.2	0.3	25.6±1.0	1.2	28.2±1.1	955	1110
27	1.0	7/0.43	1.29	0.6	1.8	29.3	0.3	30.7±1.2	1.4	33.7±1.3	1305	1520
33	1.0	7/0.43	1.29	0.6	1.9	31.8	0.4	33.6±1.3	1.4	36.6±1.5	1610	1845
37	1.0	7/0.43	1.29	0.6	2.0	33.2	0.4	35.0±1.4	1.5	38.3±1.5	1750	2010
44	1.0	7/0.43	1.29	0.6	2.1	37.5	0.4	39.3±1.6	1.6	42.8±1.7	2070	2380

250V FR-TTPYCS, FR-TTPYCYS | Normal Type
250V FR-FA-TTPYCS, FR-FA-TTPYCYS | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. MGT/EPR insulation (identified)
3. Twist (Pair, Triad, Quad)
4. Cabling (with filler)
5. Common shield braid (Copper wire)
6. Tape
7. PVC sheath
8. Metal wire braid armour (GSW)
9. Paint : End of "-YCS" type
10. PVC outer sheath : End of "-YCYS" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'

Identification of color

·Insulation color : White
- A core : Black Numbering (1A,2A,...)
- B core : Red Numbering (1B,2B,...)
- C core : Black Numbering (1C)
- D core : Black Numbering (1D)

No. of Cores	Conductor			Thickness of insulation	Dia.of copper wire for shield braid	Thickness of sheath	Nominal dia. over sheath	(FR)-(FA)-TTPYCS Armor		(FR)-(FA)-TTPYCYSY Armor with protective sheath		Cable weight (approx.)	
	Nominal Sectional Area	No.& dia of Wire	Dia.					Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
Pr	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
1	0.75	7/0.37	1.11	0.6	0.14	1.1	9.4	0.3	11.0±0.4	0.8	12.8±0.5	185	235
1Tr	0.75	7/0.37	1.11	0.6	0.14	1.1	9.9	0.3	11.5±0.5	0.8	13.3±0.5	205	520
1Qd	0.75	7/0.37	1.11	0.6	0.14	1.1	10.6	0.3	12.2±0.5	0.9	14.2±0.6	235	295
2	0.75	7/0.37	1.11	0.6	0.16	1.3	14.1	0.3	15.7±0.6	0.9	17.7±0.7	310	390
4	0.75	7/0.37	1.11	0.6	0.16	1.3	16.2	0.3	17.8±0.7	1.0	20.0±0.8	425	525
7	0.75	7/0.37	1.11	0.6	0.16	1.5	19.6	0.3	21.2±0.8	1.1	23.6±0.9	590	715
10	0.75	7/0.37	1.11	0.6	0.18	1.6	23.8	0.3	25.4±1.0	1.2	28.0±1.1	810	975
14	0.75	7/0.37	1.11	0.6	0.18	1.7	26.7	0.3	28.3±1.1	1.3	31.1±1.2	985	1185
19	0.75	7/0.37	1.11	0.6	0.20	1.9	30.8	0.4	32.8±1.3	1.4	35.8±1.4	1350	1595
24	0.75	7/0.37	1.11	0.6	0.20	2.0	34.2	0.4	36.2±1.4	1.5	39.4±1.6	1615	1900
30	0.75	7/0.37	1.11	0.6	0.26	2.1	38.0	0.4	40.0±1.6	1.6	43.4±1.7	1985	2315
37	0.75	7/0.37	1.11	0.6	0.26	2.3	42.0	0.4	44.0±1.8	1.7	47.6±1.9	2355	2745
48	0.75	7/0.37	1.11	0.6	0.26	2.5	47.3	0.4	49.3±2.0	1.8	53.1±2.1	2910	3370

250V FR-TTPYSLA, FR-TTPYCSLA, FR-TTPYCYSLA | Normal Type
250V FR-FA-TTPYSLA, FR-FA-TTPYCSLA, FR-FA-TTPYCYSLA | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. MGT/EPR insulation (identified)
3. Twist (Pair, Triad, Quad)
4. Cabling (with filler)
5. Aluminum mylar common shield with drain wire
6. Tape
7. PVC sheath : End of "-YSLA" type
8. Metal wire braid armour (GSW)
9. Paint : End of "-YCSLA" type
10. PVC outer sheath : End of "-YCYSLA" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1,2

Identification of color

·Insulation color : White
- A core : Black Numbering (1A,2A,...)
- B core : Red Numbering (1B,2B,...)
- C core : Black Numbering (1C)
- D core : Black Numbering (1D)

No. of Cores	Conductor			Thickness of insulation	(FR)-(FA)-TTPYSLA		(FR)-(FA)-TTPYCSLA		(FR)-(FA)-TTPYCYSLA		Cable weight (approx.)		
					Unarmor		Armor		Armor with protective sheath				
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
Pr	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
1	0.75	7/0.37	1.11	0.6	1.1	8.9±0.4	0.3	10.5±0.4	0.9	12.3±0.5	100	165	210
1Tr	0.75	7/0.37	1.11	0.6	1.1	9.4±0.4	0.3	11.0±0.4	0.9	12.8±0.5	120	190	235
1Qd	0.75	7/0.37	1.11	0.6	1.1	10.2±0.4	0.3	11.8±0.5	0.9	13.6±0.5	145	220	270
2	0.75	7/0.37	1.11	0.6	1.3	13.4±0.5	0.3	15.0±0.6	1.0	17.0±0.7	185	285	355
4	0.75	7/0.37	1.11	0.6	1.3	15.8±0.6	0.3	17.4±0.7	1.0	19.4±0.8	285	400	480
7	0.75	7/0.37	1.11	0.6	1.4	19.1±0.8	0.3	20.7±0.8	1.1	22.9±0.9	435	570	675
10	0.75	7/0.37	1.11	0.6	1.6	23.5±0.9	0.3	25.1±1.0	1.2	27.5±1.1	625	790	930
14	0.75	7/0.37	1.11	0.6	1.7	26.5±1.1	0.3	28.1±1.1	1.3	30.7±1.2	820	1010	1180
19	0.75	7/0.37	1.11	0.6	1.9	30.7±1.2	0.4	32.7±1.3	1.4	35.5±1.4	1095	1380	1595
24	0.75	7/0.37	1.11	0.6	2.0	34.1±1.4	0.4	36.1±1.4	1.5	39.1±1.6	1350	1670	1920
30	0.75	7/0.37	1.11	0.6	2.1	37.8±1.5	0.4	39.8±1.6	1.6	43.0±1.7	1655	2010	2305
37	0.75	7/0.37	1.11	0.6	2.3	41.9±1.7	0.4	43.9±1.8	1.7	47.3±1.9	2030	2420	2770
48	0.75	7/0.37	1.11	0.6	2.5	47.4±1.9	0.4	49.4±2.0	1.8	53.0±2.1	2600	3040	3455

0.6/1kV FR-DPYC-S, FR-DPYCY-S | Normal Type
0.6/1kV FR-FA-DPYC-S, FR-FA-DPYCY-S | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. Individual shield braid (Copper wire)
4. Cabling (with filler)
5. Tape
6. PVC sheath
7. Metal wire braid armour (GSW)
8. Paint : End of "-YC" type
9. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1, 2

Identification of color

·Insulation color : White
- 2 Core : Black, Whire

No. of Cores	Conductor			Thickness of insulation	Dia.of copper wire for shield braid	Thickness of sheath	Nominal dia. over sheath	(FR)-(FA)-DPYC-S Armor		(FR)-(FA)-DPYCY-S Armor with protective sheath		Cable weight (approx.)	
	Nominal Sectional Area	No.& dia of Wire	Dia.					Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
2	1.5	7/0.52	1.56	1.0	0.14	1.3	14.4	0.3	14.0±0.6	1.0	18.0±0.7	380	460
	2.5	7/0.67	2.01	1.0	0.14	1.3	15.2	0.3	14.8±0.6	1.0	18.8±0.8	420	510
	4	7/0.85	2.55	1.0	0.14	1.3	16.4	0.3	16.4±0.7	1.0	20.2±0.8	490	585
	6	7/1.04	3.12	1.0	0.14	1.4	17.6	0.3	17.4±0.7	1.1	21.4±0.9	570	680

0.6/1kV FR-TPYC-S, FR-TPYCY-S | Normal Type
0.6/1kV FR-FA-TPYC-S, FR-FA-TPYCY-S | Flame Retardant Type

lame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. Individual shield braid (Copper wire)
4. Cabling (with filler)
5. Tape
6. PVC sheath
7. Metal wire braid armour (GSW)
8. Paint : End of "-YC" type
9. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1, 2

Identification of color

·Insulation color : White
- 3 Core : Black, Whire, Red

No. of Cores	Conductor			Thickness of insulation	Dia.of copper wire for shield braid	Thickness of sheath	Nominal dia. over sheath	(FR)-(FA)-TPYC-S		(FR)-(FA)-TPYCY-S		Cable weight (approx.)	
								Armor		Armor with protective sheath			
	Nominal Sectional Area	No.& dia of Wire	Dia.					Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
3	1.5	7/0.52	1.56	1.0	0.14	1.3	15.3	0.3	16.7±0.7	1.0	18.9±0.8	455	540
	2.5	7/0.67	2.01	1.0	0.14	1.3	16.1	0.3	17.5±0.7	1.0	19.7±0.8	510	600
	4	7/0.85	2.55	1.0	0.14	1.4	17.6	0.3	19.0±0.8	1.1	21.4±0.9	610	720
	6	7/1.04	3.12	1.0	0.14	1.4	18.7	0.3	20.1±0.8	1.1	22.5±0.9	710	820

0.6/1kV FR-FPYC-S, FR-FPYCY-S | Normal Type
0.6/1kV FR-FA-FPYC-S, FR-FA-FPYCY-S | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. Individual shield braid (Copper wire)
4. Cabling (with filler)
5. Tape
6. PVC sheath
7. Metal wire braid armour (GSW)
8. Paint : End of "-YC" type
9. PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1, 2

Identification of color

·Insulation color : White
- 4 Core : Black, Whire, Red, Green

No. of Cores	Conductor			Thickness of insulation	Dia.of copper wire for shield braid	Thickness of sheath	Nominal dia. over sheath	(FR)-(FA)-FPYC-S		(FR)-(FA)-FPYCY-S		Cable weight (approx.)	
								Armor		Armor with protective sheath			
	Nominal Sectional Area	No.& dia of Wire	Dia.					Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
4	1.5	7/0.52	1.56	1.0	0.14	1.4	17.0	0.3	18.4±0.7	1.1	20.8±0.8	580	665
	2.5	7/0.67	2.01	1.0	0.14	1.4	17.9	0.3	19.3±0.8	1.1	21.7±0.9	630	740
	4	7/0.85	2.55	1.0	0.14	1.5	19.6	0.3	21.0±0.8	1.1	23.4±0.9	760	880
	6	7/1.04	3.12	1.0	0.14	1.5	20.8	0.3	22.2±0.9	1.2	24.8±1.0	885	1025

250V FR-MPYC-S, FR-MPYCY-S | Normal Type
250V FR-FA-MPYC-S, FR-FA-MPYCY-S | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, stranded)
2. MGT/EPR insulation (identified)
3. Individual shield braid (Copper wire)
4. Cabling (with filler)
5. Tape
6. PVC sheath
7. Metal wire braid armour (GSW)
8. Paint : End of "-YC-S" type
9. PVC outer sheath : End of "-YCY-S" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1, 2

Identification of color

·Insulation color : White
- 2 Core and above : Numbering on white insulated core

No. of Cores	Conductor			Thickness of insulation	Dia.of copper wire for shield braid	Thickness of sheath	Nominal dia. over sheath	(FR)-(FA)-MPYC-S		(FR)-(FA)-MPYCY-S		Cable weight (approx.)	
								Armor		Armor with protective sheath			
	Nominal Sectional Area	No.& dia of Wire	Dia.					Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
EA	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
2	1.0	7/0.43	1.29	0.6	0.12	1.2	12.2	0.3	13.6±0.5	0.9	15.6±0.6	285	355
4	1.0	7/0.43	1.29	0.6	0.12	1.3	14.4	0.3	15.8±0.6	1.0	18.0±0.7	425	505
5	1.0	7/0.43	1.29	0.6	0.12	1.3	15.7	0.3	17.1±0.7	1.0	19.3±0.8	500	585
7	1.0	7/0.43	1.29	0.6	0.12	1.4	17.3	0.3	18.7±0.7	1.1	21.1±0.8	630	735
9	1.0	7/0.43	1.29	0.6	0.12	1.5	20.4	0.3	21.8±0.9	1.1	24.2±1.0	820	950
12	1.0	7/0.43	1.29	0.6	0.12	1.6	23.1	0.3	24.5±1.0	1.2	27.1±1.1	1035	1185
16	1.0	7/0.43	1.29	0.6	0.12	1.7	25.9	0.3	27.3±1.1	1.3	30.1±1.2	1370	1545
19	1.0	7/0.43	1.29	0.6	0.12	1.7	27.3	0.3	28.7±1.1	1.3	31.5±1.3	1585	1775
27	1.0	7/0.43	1.29	0.6	0.12	2.0	33.3	0.4	35.1±1.4	1.5	38.3±1.5	2485	2745
33	1.0	7/0.43	1.29	0.6	0.12	2.1	36.1	0.4	37.9±1.5	1.5	41.1±1.6	3135	3420
37	1.0	7/0.43	1.29	0.6	0.12	2.1	37.5	0.4	39.3±1.6	1.6	42.7±1.7	3555	3865
44	1.0	7/0.43	1.29	0.6	0.12	2.3	42.6	0.4	44.4±1.8	1.7	48.0±1.9	4510	4880

250V FR-TTPY-SLA, FR-TTPYC-SLA, FR-TTPYCY-SLA, 250V FR-TTPY-SSLA, FR-TTPYC-SSLA, FR-TTPYCY-SSLA | Normal Type
250V FR-FA-TTPY-SLA, FR-FA-TTPYC-SLA, FR-FA-TTPYCY-SLA, 250V FR-FA-TTPY-SSLA, FR-FA-TTPYC-SSLA, FR-FA-TTPYCY-SSLA | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

❶ Conductor (Tinned annealed copper wire, standard)
❷ MGT/EPR insulation (identified)
❸ Twist (Pair, Triad, Quad)
❹ Aluminum mylar individual shield with drain wire (at least 0.5mm^2)
❺ Cabling (with filler)
❻ (option for"-SSLA")Aluminum mylar common shield with drain wire (at least 0.5mm^2)
❼ Tape
❽ PVC sheath : End of "-Y" type
❾ Metal wire braid armour (GSW)
❿ Paint : End of "-YC" type
⓫ PVC outer sheath : End of "-YCY" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1, 2

Identification of color

·Insulation color : White
- A core : Black Numbering (1A,2A,...) - B core : Red Numbering (1B,2B,...)
- C core : Black Numbering (1C) - D core : Black Numbering (1D)

No. of Cores	Conductor			Thickness of insulation	(FR)-(FA)-TTPY-SLA		(FR)-(FA)-TTPYC-SLA		(FR)-(FA)-TTPYCY-SLA		Cable weight (approx.)		
					Unarmor		Armor		Armor with protective sheath				
	Nominal Sectional Area	No.& dia of Wire	Dia.		Thickness of sheath	Nominal dia. over sheath	Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Unarmor	Armor	Armor with sheath
Pr	mm^2	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km
2	0.75	7/0.37	1.11	0.6	1.3	14.2±0.6	0.3	15.8±0.6	1.0	17.8±0.7	225	325	400
4	0.75	7/0.37	1.11	0.6	1.4	16.6±0.7	0.3	18.2±0.7	1.1	20.4±0.8	350	465	560
7	0.75	7/0.37	1.11	0.6	1.5	20.1±0.8	0.3	21.7±0.9	1.1	23.9±1.0	540	680	790
10	0.75	7/0.37	1.11	0.6	1.7	24.7±1.0	0.3	26.3±1.1	1.3	28.9±1.2	770	945	1105
14	0.75	7/0.37	1.11	0.6	1.8	27.8±1.1	0.3	29.4±1.2	1.3	32.0±1.3	1015	1210	1390
19	0.75	7/0.37	1.11	0.6	1.9	31.9±1.3	0.4	33.9±1.4	1.4	36.7±1.5	1335	1635	1855
24	0.75	7/0.37	1.11	0.6	2.1	35.7±1.4	0.4	37.7±1.5	1.5	40.7±1.6	1675	2005	2270
30	0.75	7/0.37	1.11	0.6	2.2	39.6±1.6	0.4	41.6±1.7	1.6	44.8±1.8	2060	2425	2740
37	0.75	7/0.37	1.11	0.6	2.4	43.8±1.8	0.4	45.8±1.8	1.7	49.2±2.0	2520	2930	3290
48	0.75	7/0.37	1.11	0.6	2.6	49.6±2.0	0.4	51.6±2.1	1.9	55.4±2.2	3230	3690	4150

250V FR-TTPYC-S, FR-TTPYCY-S | Normal Type
250V FR-FA-TTPYC-S, FR-FA-TTPYCY-S | Flame Retardant Type

Flame retardant, Fire resistance

Construction Details

1. Conductor (Tinned annealed copper wire, standard)
2. MGT/EPR insulation (identified)
3. Twist (Pair, Triad, Quad)
4. Individual shield braid (Copper wire)
5. Cabling (with filler)
6. Tape
7. PVC sheath
8. Metal wire braid armour (GSW)
9. Paint : End of "-YC-S" type
10. PVC outer sheath : End of "-YCY-S" type

Standard Applied

·Design guideline : JIS C 3410 (2010)
·Material properties : JIS C 3410 Insulation, EPR
JIS C 3410 Sheath, PVC
·Flame retardant(FA- type only) : IEC 60332-3, Cat.'A'
·Fire resistant : IEC 60331-1, 2

Identification of color

·Insulation color : White
- A core : Black Numbering (1A,2A,...)
- B core : Red Numbering (1B,2B,...)
- C core : Black Numbering (1C)
- D core : Black Numbering (1D)

No. of Cores	Conductor			Thickness of insulation	Dia.of copper wire for shield braid	Thickness of sheath	Nominal dia. over sheath	(FR)-(FA)-TTPYC-S		(FR)-(FA)-TTPYCY-S		Cable weight (approx.)	
								Armor		Armor with protective sheath			
	Nominal Sectional Area	No.& dia of Wire	Dia.					Dia.of metal wire for braid	Nominal dia. over braid	Thickness of outer sheath	Nominal overall dia.	Armor	Armor with sheath
Pr	mm²	EA/mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km
2	0.75	7/0.37	1.11	0.6	0.14	1.3	16.5	0.3	18.1±0.7	1.0	20.3±0.8	425	525
4	0.75	7/0.37	1.11	0.6	0.14	1.4	19.0	0.3	20.6±0.8	1.1	23.0±0.9	570	690
5	0.75	7/0.37	1.11	0.6	0.14	1.6	23.2	0.3	24.8±1.0	1.2	27.4±1.1	765	925
7	0.75	7/0.37	1.11	0.6	0.14	1.9	30.3	0.4	32.3±1.3	1.4	35.3±1.4	1350	1590
9	0.75	7/0.37	1.11	0.6	0.14	2.0	33.1	0.4	35.1±1.4	1.4	38.1±1.5	1625	1885
12	0.75	7/0.37	1.11	0.6	0.14	2.1	37.2	0.4	39.2±1.6	1.5	42.4±1.7	1855	2160
16	0.75	7/0.37	1.11	0.6	0.14	2.4	44.0	0.4	46.0±1.8	1.7	49.6±2.0	2340	2745
19	0.75	7/0.37	1.11	0.6	0.14	2.5	47.1	0.4	49.1±2.0	1.8	52.9±2.1	2785	3240
27	0.75	7/0.37	1.11	0.6	0.14	2.6	51.1	0.4	53.1±2.1	1.9	57.1±2.3	3305	3825
33	0.75	7/0.37	1.11	0.6	0.14	2.9	59.1	0.4	61.1±2.4	2.1	65.5±2.6	4215	4870

Standard of Cables | Cable Electrical Data

1) Electrical data for 0.6/1kV cables

Conductor			Conductor resistance (at 20℃)		Test voltage	Insulation resistance (at 20℃)		
Nominal sectional area	No. & dia. of wire	Dia.	Tinned annealed copper			EPR		SR
			Single core	Multi core		Single core	Multi core	Multi core
mm^2	EA/mm^2	mm	Ω/km	Ω/km	mm	MΩ/km	kg/km	kg/km
1.0	7/0.43	1.29	-	18.2	3500	1450	1450	-
1.5	7/0.52	1.56	12.1	12.2	3500	1300	1300	600
2.5	7/0.67	2.01	7.41	7.56	3500	1100	1100	500
4	7/0.85	2.55	4.61	4.70	3500	900	900	400
6	7/1.04	3.12	3.08	3.11	3500	800	800	-
10	7/1.35	4.05	1.83	1.84	3500	700	700	-
16	7/1.70	5.10	1.15	1.16	3500	600	600	-
25	7/2.14	6.42	0.727	0.734	3500	500	500	-
35	7/2.52	7.56	0.524	0.529	3500	450	450	-
50	19/1.78	8.90	0.387	0.391	3500	450	450	-
70	19/2.14	10.7	0.268	0.270	3500	450	450	-
95	19/2.52	12.6	0.193	0.195	3500	400	400	-
120	37/2.03	14.2	0.153	0.154	3500	350	350	-
150	37/2.25	15.8	0.124	0.126	3500	350	350	-
185	37/2.52	17.6	0.0991	0.100	3500	350	350	-
240	61/2.25	20.3	0.0754	0.0762	3500	350	-	-
300	61/2.52	22.7	0.0601	0.0607	3500	350	-	-

Conductor			Conductor resistance (at 20℃)		Test voltage	Insulation resistance (at 20℃)		
Nominal sectional area	No. & dia. of wire	Dia.	Annealed copper	Tinned annealed copper		EPR insulation	FR-XLPE insulation	PVC insulation
mm^2	EA/mm^2	mm	Ω/km	Ω/km	mm	MΩ/km	MΩ/km	MΩ/km
0.75	24/0.20	1.13	26.0	26.7	3500	1600	-	400
1.0	32/0.20	1.27	19.5	20.0	3500	1500	-	370
1.5	30/0.25	1.58	13.3	13.7	3500	1300	70	320
2.5	49/0.25	2.02	7.98	8.21	3500	1100	70	280
4	55/0.30	2.57	4.95	5.09	3500	1000	60	230
6	82/0.30	3.14	3.30	3.39	3500	800	50	200
10	80/0.40	4.13	1.91	1.95	3500	700	40	170
16	7/18/0.40	5.88	1.21	1.24	3500	600	30	130
25	7/28/0.40	7.32	0.780	0.795	3500	500	30	-
35	7/39/0.40	8.67	0.554	0.565	3500	450	30	-
50	19/21/0.40	10.3	0.386	0.393	3500	450	30	-
70	19/19/0.50	12.2	0.272	0.277	3500	450	30	-
95	19/25/0.50	14.0	0.206	0.210	3500	400	30	-
120	19/32/0.50	16.2	0.161	0.164	3500	350	-	-
100	19/34/0.45	15.1	0.179	0.189	3500	-	-	-
150	27/34/0.45	18.6	0.126	0.133	3500	-	-	-
200	37/34/0.45	21.2	0.0921	0.0972	3500	-	-	-

Standard of Cables | Cable Electrical Data

2) Electrical data for 250V cables

Conductor			Conductor resistance (at 20℃)		Test voltage	Insulation resistance (at 20℃)	
Nominal sectional area	No. & dia. of wire	Dia.	Annealed copper	Tinned annealed copper		EPR insulation	PVC insulation
mm²	EA/mm²	mm	Ω/km	Ω/km	mm	MΩ/km	MΩ/km
0.75	7/0.37	1.11	26.0	26.3	1500	-	20
1.0	7/0.43	1.29	19.2	19.3	1500	1000	-

3) Electrical data for Current rating

3.1) 0.6/1kV EPR insulated PVC sheathed cable

Nominal sectional area	Single conductor cable (A)			Two conductor cable (A)			Three or Four conductor cable (A)		
	Ambient temp.			Ambient temp.			Ambient temp.		
㎟	40℃	45℃	50℃	40℃	45℃	50℃	40℃	45℃	50℃
1.5	24	23	22	21	20	19	17	16	15
2.5	32	30	28	27	26	24	22	21	20
4	42	40	38	36	34	32	29	28	26
6	55	52	49	46	44	41	38	36	34
10	76	72	68	64	61	57	53	50	47
16	101	96	90	86	82	77	70	67	63
25	133	127	119	113	108	102	93	89	84
35	165	157	148	140	133	125	116	110	103
50	206	196	184	175	167	157	144	137	129
70	254	242	227	216	206	194	177	169	159
95	308	293	275	261	249	234	215	205	193
120	356	339	319	302	288	271	249	237	223
150	408	389	366	348	331	311	286	272	256
185	466	444	417	396	377	354	327	311	292
240	548	522	491						
300	631	601	565						

Note | 1) Maximum permissible service temperature of the conductor is 90℃, When more than 6 cable are bunched or laid close together, the current ratings given above should be multiplied by correction factor 0.85
2) The frequency of the alternating voltages shall be 60Hz
3) For 5 & 6 conductor cables, the current rating should be multiplied correction factor of 0.55 to the single conductor's current rating

3.2) 0.6/1kV SR insulated steel wire braided cable

Nominal sectional area	Single conductor cable (A)			Two conductor cable (A)			Three or Four conductor cable (A)		
	Ambient temp.			Ambient temp.			Ambient temp.		
㎟	40℃	45℃	50℃	40℃	45℃	50℃	40℃	45℃	50℃
1.5	27	26	25	23	22	21	19	18	17
2.5	34	32	30	28	27	26	23	22	21
4	45	43	41	39	37	35	32	30	29
6	58	55	52	49	47	45	41	39	37
10	80	76	72	68	65	62	56	53	50

Note | 1) Maximum permissible service temperature of the conductor is 90℃, When more than 6 cable are bunched or laid close together, the current ratings given above should be multiplied by correction factor 0.85
2) The frequency of the alternating voltages shall be 60Hz

Standard of Cables | Cable Electrical Data

3.3) 0.6/1kV EP insulated PCP sheathed flexible cord

Nominal sectional area	Single conductor cable (A)			Two conductor cable (A)			Three or Four conductor cable (A)		
	Ambient temp.			Ambient temp.			Ambient temp.		
㎟	40℃	45℃	50℃	40℃	45℃	50℃	40℃	45℃	50℃
0.75	13	12	11	11	10	9	11	10	9
1.0	16	15	14	13	12	12	13	12	12
1.5	19	18	17	16	15	14	16	15	14
2.5	26	25	25	22	21	20	22	21	20
4	36	34	33	30	29	28	30	29	28
6	45	44	42	38	36	34	38	36	34

Note | 1) The frequency of the alternating voltages shall be 60Hz

3.4) 0.6/1kV FR-XLPE insulated wire & PVC insulated wire

Nominal sectional area	FR-XLPE insulated wire			PVC insulated wire		
	Ambient temp.			Ambient temp.		
㎟	40℃	45℃	50℃	40℃	45℃	50℃
0.75	-	-	-	12	11	10
1.0	-	-	-	14	13	12
1.5	22	21	20	18	17	15
2.5	32	30	28	26	24	22
4	42	40	38	35	32	29
6	54	51	48	44	41	37
10	75	71	67	62	57	52
16	100	95	91	82	76	69
25	134	127	121	-	-	-
35	162	154	145	-	-	-
50	201	191	181	-	-	-
70	252	239	227	-	-	-
95	308	292	277	-	-	-

Note | 1) When more than 6 cables are bunched or laid close together, the current ratings given above should be multiplied by correction factor 0.85.
2) The frequency of the alternating voltages shall be 60Hz

3.5) 250V EPR Insulated PVC Sheathed control cable

No, of cores.	Nominal sectional area	Ambient temp.		
EA	㎟	40℃	45℃	50℃
2	1.0	16	15	14
4	1.0	13	13	12
7	1.0	10	10	9
12	1.0	9	8	8
19	1.0	8	7	7
27	1.0	6	5	5
37	1.0	5	5	4
44	1.0	4	4	3
77	1.0	4	4	3

Note | 1) When more than 6 cables are bunched or laid close together, the current ratings given above should be multiplied by correction factor 0.85.
2) The frequency of the alternating voltages shall be 60Hz

Standard of Cables | Cable Electrical Data

3.6) Multiplied correction factor

Number of core	2	3 & 4	7	12	19	27	37	44	77
Correction factor	0.85	0.7	0.55	0.45	0.4	0.3	0.25	0.2	0.2

4) Other data for Minimum bending radius

The internal radius of bend for the installation of cables should not less than the values given as follows;

Type of cable		Overall diameter(D)	Minimum bending radius
upto 1.8/3kV	un-amoured cable	≤ 25mm > 25mm	4 × O.D 6 × O.D
	Armoured cable/ braid Shielded cable	Any	6 × O.D
	Aluminium mylar screened multi pair cable	Any	8 × O.D

5) Thermal Properites

Minimum temperature fixed installation : -15℃
Minimum temperature during installation : -15℃
Maximum permissible operation temperature of the conductor : 90℃
Short-circuit temperature of the conductor : 250℃

JIS C 3410

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본사공장
충북 음성군 대소면 대동로 631번길 62
TEL: 043-877-6101~4 FAX : 043-877-8796

부산영업소
부산광역시 사상구 괘법동 578 산업용품유통상가 12동 225호
TEL: 051-319-0177 FAX : 051-319-0179

Head Office & Factory
62, Daedong-ro 631beon-gil, Daeso-myeon, Eumsung-gun, Chungbuk, Korea
TEL : 043-877-6101~4 FAX : 043-877-8796

Busan Business Office
12-225, Industrial Goods Center, 578, Gwaebeop-dong, Sasang-gu,
Busan, Korea
TEL : 051-319-0177 FAX : 051-319-0179

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