



BS 6346 PVC Insulated Cables, 600/1000V

Application

These power and control cables are used for electricity supply in low voltage installation system. They are well adapted to underground use in industrial applications where chemical and mechanical protections are needed (refinery areas, chemical plant...).

Construction

Conductor	Solid Aluminum or Copper conductor, round stranded or shaped, Class 2 to BS 6460, IEC 60228.
Insulation	PVC(Polyvinyl Chloride) type T11
Colour Code	1 Core : Brown 2 Cores: Brown or Blue 3 Cores: Brown, Black, Grey 4 Cores: Blue, Brown, Black, Grey 5 Cores: Green-yellow, Blue, Brown, Black, Grey Above 5 Cores: White Cores with black numbers
Filler(optional)	PVC or Polypropylene yarn
Binder Tape(optional)	Polyester (Mylar) tape
Inner Sheath/ Bedding	PVC (Polyvinyl Chloride)
Armour	Single Core: AWA (Aluminum Wire Armour) Multi Core: SWA (Steel Wire or Tape Armour)
Outer Sheath	PVC(Polyvinyl Chloride), type TM1

Technical Information

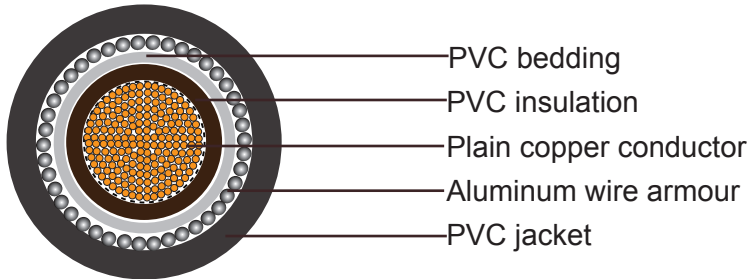
Voltage rating	600/1000V
Temperature rating	-20°C to +60°C
Bending radius	Single core: 10 x overall diameter Multicores: 8 x overall diameter
Flame retardant	IEC60332 part 1, BS4066 part 1





Cable Parameter

Single-core 600/1000V cables with circular stranded copper conductor

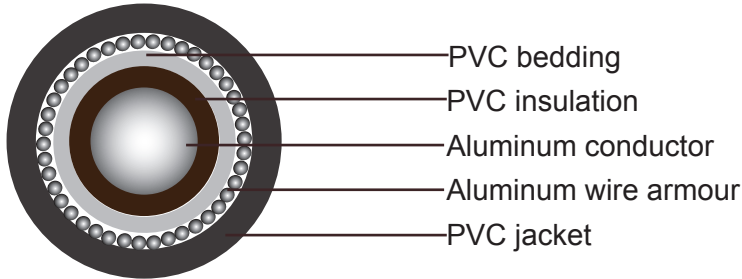


Nominal cross-sectional area	Number/wire	Nominal insulation thickness	Nominal bedding thickness	Nominal alum wire armor dia.	Nominal sheath thickness	Approx. overall diameter	Approx. cable weight
mm ²	No./mm	mm	mm	mm	mm	mm	kg/km
1x50	19/1.78	1.4	0.8	1.25	1.5	19.1	820
1x70	19/2.14	1.4	0.8	1.25	1.6	21.1	1070
1x95	19/2.52	1.6	0.8	1.25	1.6	23.4	1390
1x120	37/2.03	1.6	1.0	1.6	1.7	26.3	1600
1x150	37/2.25	1.8	1.0	1.6	1.7	28.3	1900
1x185	37/2.52	2.0	1.0	1.6	1.8	30.8	2450
1x240	61/2.25	2.2	1.0	1.6	1.9	34.1	3100
1x300	61/2.52	2.4	1.0	1.6	1.9	37.0	3760
1x400	61/2.85	2.6	1.2	2.0	2.1	42.0	4850
1x500	61/3.20	2.8	1.2	2.0	2.1	45.6	5930
1x630	61/3.65	2.8	1.2	2.0	2.2	49.7	7390
1x800	127/2.85	2.8	1.4	2.5	2.4	55.8	9400
1x1000	127/3.20	3.0	1.4	2.5	2.5	61.0	11430





Single-core 600/1000V cables with solid aluminum conductor

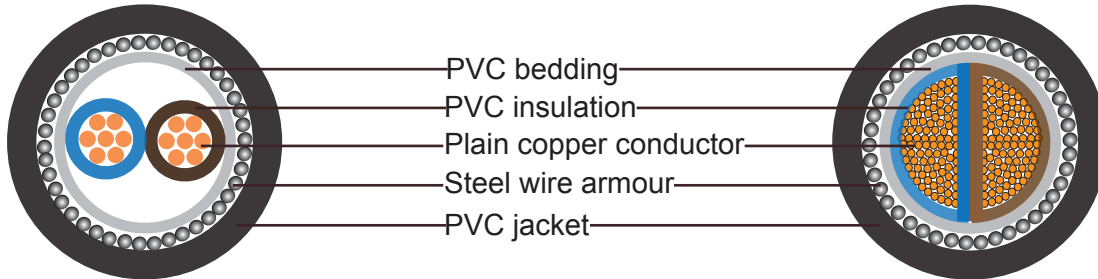


Nominal cross-sectional area	Nominal insulation thickness	Nominal bedding thickness	Nominal alum wire armor dia.	Armour strip		Nominal sheath thickness	Approx. overall diameter		Approx. cable weight
				thick-ness	width		wire armor	strip armor	
mm ²	mm	mm	mm	mm	mm	mm	mm	mm	kg/km
1x50	1.4	0.8	1.25	0.6	2.4	1.5	17.8	16.5	530
1x70	1.4	0.8	1.25	0.6	2.4	1.6	19.6	18.3	650
1x95	1.6	0.8	1.25	0.6	2.4	1.6	21.7	20.4	810
1x120	1.6	1	1.6	0.6	2.4	1.7	24.3	22.3	960
1x150	1.8	1	1.6	0.6	2.4	1.7	26.1	24.1	1115
1x185	2	1	1.6	1	3.6	1.8	28.3	27.1	1315
1x240	2.2	1	1.6	1	3.6	1.9	31.2	30	1610
1x300	2.4	1	1.6	1	3.6	1.9	33.7	32.5	1890





Two-core 600/1000V cables with stranded copper conductors



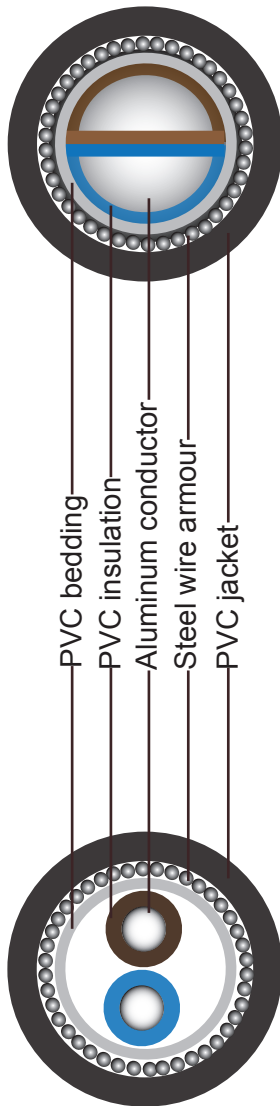
Nominal cross-sectional area mm ²	Number/wire No./mm	Nominal insulation thickness mm	Nominal bedding thickness mm	Nominal wire armor dia. mm	Nominal sheath thickness mm	Approx. overall diameter		Approx. cable weight kg/mm
						extruded bedding mm	taped bedding mm	
2x1.5	7/0.53	0.6	0.8	0.9	1.4	12.3	-	270
2x2.5	7/0.67	0.7	0.8	0.9	1.4	13.6	-	350
2x4	7/0.85	0.8	0.8	0.9	1.4	15.1	-	470
2x6	7/1.04	0.8	0.8	0.9	1.5	16.5	-	580
2x10	7/1.35	1.0	0.8	1.25	1.6	20.1	-	840
2x16	7/1.70	1.0	0.8	1.25	1.6	21.9	21.9	990
2x25	7/2.14	1.2	1.0	1.6	1.7	26.7	26.3	1480
2x25*	7/2.14	1.2	1.0	1.6	1.7	23.0	22.6	1480
2x35	19/1.53	1.2	1.0	1.6	1.8	29.2	28.8	1770
2x35*	19/1.53	1.2	1.0	1.6	1.8	24.8	24.4	1770
2x50*	19/1.78	1.4	1.0	1.6	1.9	27.8	27.4	1900
2x70*	19/2.14	1.4	1.0	1.6	1.9	30.4	30.0	2430
2x95*	19/2.52	1.6	1.2	2.0	2.1	35.5	34.7	2970
2x120*	37/2.03	1.6	1.2	2.0	2.2	38.0	37.2	3970
2x150*	37/2.25	1.8	1.2	2.0	2.3	41.3	40.5	4700
2x185*	37/2.52	2.0	1.4	2.5	2.4	46.4	45.2	5990
2x240*	61/2.25	2.2	1.4	2.5	2.5	51.2	50.0	7420
2x300*	61/2.52	2.4	1.6	2.5	2.7	56.4	54.8	8950
2x400*	61/2.85	2.6	1.6	2.5	2.9	61.9	60.3	11030

*Shaped stranded conductor (class 2)





Two-core 600/1000V cables with solid aluminum conductors



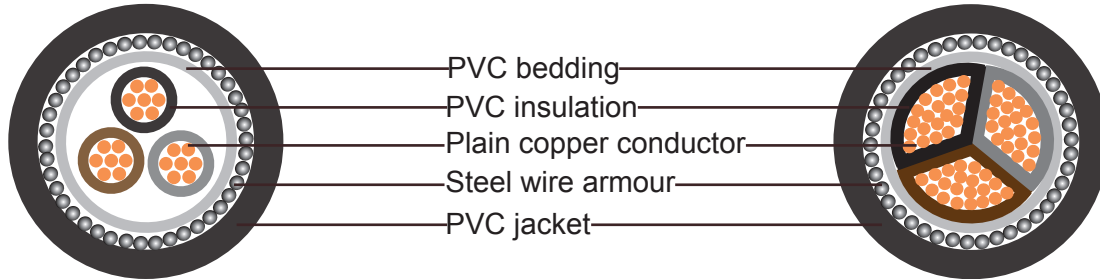
Nominal cross-sectional area mm ²	Nominal insulation thickness mm	Nominal bedding thickness mm	Nominal wire armor dia. mm	Armour strip		Nominal sheath thickness mm	Approx. overall diameter			Approx. cable weight kg/km
				thickness mm	width mm		wire armor extruded bedding mm	taped bedding mm	strip armor mm	
2x16	1	0.8	1.25	0.6	2.4	1.6	20.6	20.6	19.3	795
2x25	1.2	1	1.6	0.6	2.4	1.7	25	24.6	22.6	1170
2x25*	1.2	1	1.6	0.6	2.4	1.7	21.3	20.9	18.9	1170
2x35	1.2	1	1.6	0.6	2.4	1.8	27.2	26.8	24.8	1340
2x35*	1.2	1	1.6	0.6	2.4	1.8	22.9	22.5	20.5	1340
2x50*	1.4	1	1.6	0.6	2.4	1.9	25.5	25.1	23.1	1450
2x70*	1.4	1	1.6	1	3.6	1.9	27.7	27.3	26.1	1560
2x95*	1.6	1.2	2.0	1	3.6	2.1	32.4	31.6	29.6	2200

*Solid shaped conductor (class 1)





Three-core 600/1000V cables with stranded copper conductors



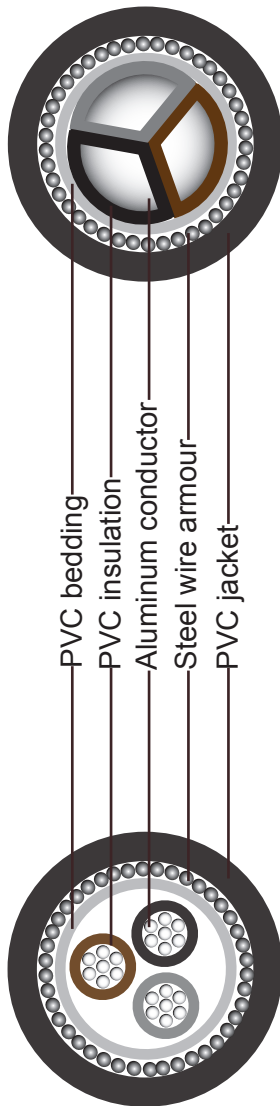
Nominal cross-sectional area mm ²	Number/wire No./mm	Nominal insulation thickness mm	Nominal bedding thickness mm	Nominal wire armor dia. mm	Nominal sheath thickness mm	Approx. overall diameter		Approx. cable weight kg/mm
						extruded bedding mm	taped bedding mm	
3x1.5	7/0.53	0.6	0.8	0.9	1.4	12.8	-	307
3x2.5	7/0.67	0.7	0.8	0.9	1.4	14.1	-	387
3x4	7/0.85	0.8	0.8	0.9	1.4	15.8	-	493
3x6	7/1.04	0.8	0.8	1.25	1.5	18.0	-	701
3x10	7/1.35	1.0	0.8	1.25	1.6	21.2	-	967
3x16	7/1.70	1.0	0.8	1.25	1.6	23.1	23.1	1219
3x25	7/2.14	1.2	1.0	1.6	1.7	28.2	27.8	1612
3x25*	7/2.14	1.2	1.0	1.6	1.7	25.0	24.6	1612
3x35	19/1.53	1.2	1.0	1.6	1.8	30.8	30.4	1992
3x35*	19/1.53	1.2	1.0	1.6	1.8	27.1	26.7	1992
3x50*	19/1.78	1.4	1.0	1.6	1.9	30.5	30.1	2534
3x70*	19/2.14	1.4	1.2	2.0	2.0	35.0	34.2	3518
3x95*	19/2.52	1.6	1.2	2.0	2.1	39.3	38.5	4510
3x120*	37/2.03	1.6	1.2	2.0	2.2	42.2	41.4	5375
3x150*	37/2.25	1.8	1.4	2.5	2.4	47.5	46.3	6810
3x185*	37/2.52	2.0	1.4	2.5	2.5	51.9	50.7	8190
3x240*	61/2.25	2.2	1.6	2.5	2.6	57.8	56.2	10280
3x300*	61/2.52	2.4	1.6	2.5	2.8	63.2	61.6	12430
3x400*	61/2.85	2.6	1.6	2.5	3.0	69.6	68.0	15400

*Shaped stranded conductor (class 2)





Three-core 600/1000V cables with solid aluminum conductors



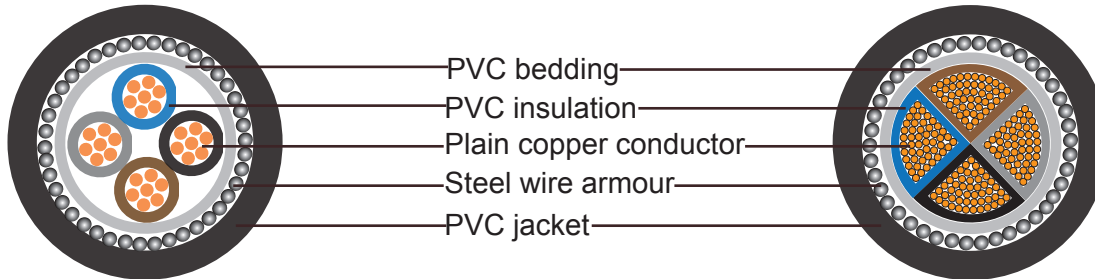
Nominal cross-sectional area mm ²	Nominal insulation thickness mm	Nominal bedding thickness mm	Nominal wire armor dia. mm	Armour strip		Nominal sheath thickness mm	Approx. overall diameter			Approx. cable weight kg/km
				thickness mm	width mm		wire armor extruded bedding mm	armor taped bedding mm	strip armor mm	
3x16	1	0.8	1.25	0.6	2.4	1.6	21.7	21.7	20.4	925
3x25	1.2	1	1.6	0.6	2.4	1.7	23.9	23.5	21.5	1150
3x25*	1.2	1	1.6	0.6	2.4	1.7	25.8	25.4	23.4	1150
3x35	1.2	1	1.6	0.6	2.4	1.8	26.4	26.0	24.1	1345
3x35*	1.2	1	1.6	0.6	2.4	1.8	28.7	28.3	27.3	1345
3x50*	1.4	1	1.6	1	3.6	1.9	28.9	28.5	26.4	1610
3x70*	1.4	1.2	2	1	3.6	2	33	32.2	30.2	2220
3x95*	1.6	1.2	2	1.4	4.8	2.1	37.1	36.3	35.1	2745
3x120*	1.6	1.2	2	1.4	4.8	2.2	39.7	38.9	37.7	3145
3x150*	1.8	1.4	2.5	1.4	4.8	2.4	44.7	43.5	41.3	4020
3x185*	2	1.4	2.5	1.4	4.8	2.5	48.7	47.5	45.3	4730
3x240*	2.2	1.6	2.5	1.8	6.4	2.6	54.2	52.6	51.2	5820
3x300*	2.4	1.6	2.5	1.8	6.4	2.8	59.2	57.6	56.2	6850

*Solid shaped conductor (class 1)





Four-core 600/1000V cables with stranded copper conductors



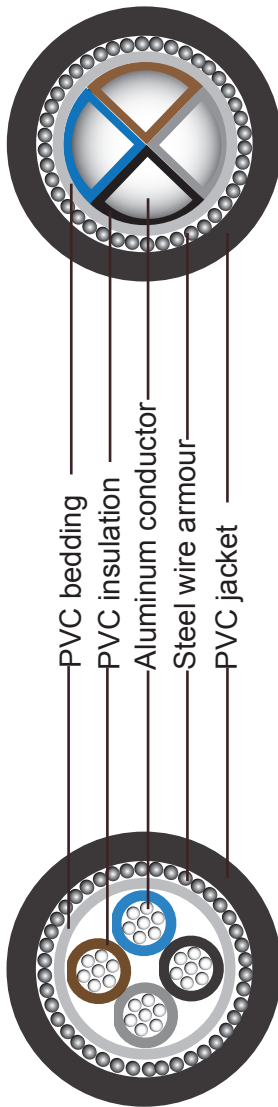
Nominal cross-sectional area	Number/wire	Nominal insulation thickness	Nominal bedding thickness	Nominal wire armor dia.	Nominal sheath thickness	Approx. overall diameter		Approx. cable weight
						extruded bedding	taped bedding	
mm ²	No./mm	mm	mm	mm	mm	mm	mm	kg/mm
4x1.5	7/0.53	0.6	0.8	0.9	1.4	13.5	-	330
4x2.5	7/0.67	0.7	0.8	0.9	1.4	15.0	-	430
4x4	7/0.85	0.8	0.8	1.25	1.5	17.8	-	640
4x6	7/1.04	0.8	0.8	1.25	1.5	19.2	-	770
4x10	7/1.35	1.0	0.8	1.25	1.6	22.8	-	1070
4x16	7/1.70	1.0	1.0	1.6	1.7	26.3	25.9	1550
4x25	7/2.14	1.2	1.0	1.6	1.8	30.7	30.3	2005
4x25*	7/2.14	1.2	1.0	1.6	1.8	27.8	27.4	2005
4x35	19/1.53	1.2	1.0	1.6	1.9	33.7	33.3	2490
4x35*	19/1.53	1.2	1.0	1.6	1.9	30.3	29.9	2490
4x50*	19/1.78	1.4	1.2	2.0	2.0	35.4	34.6	3475
4x70*	19/2.14	1.4	1.2	2.0	2.1	39.2	38.4	4480
4x95*	19/2.52	1.6	1.2	2.0	2.2	43.3	43.5	5710
4x120*	37/2.03	1.6	1.4	2.5	2.4	49.3	48.1	7350
4x150*	37/2.25	1.8	1.4	2.5	2.5	53.6	52.4	8720
4x185*	37/2.52	2.0	1.6	2.5	2.6	59.0	57.4	10540
4x240*	61/2.25	2.2	1.6	2.5	2.8	65.7	64.1	13290
4x300*	61/2.52	2.4	1.6	2.5	3.0	72.0	70.4	16050
4x400*	61/2.85	2.6	1.8	3.15	3.3	81.3	79.3	20950

*Shaped stranded conductor (class 2)





Four-core 600/1000V cables with solid aluminum conductors



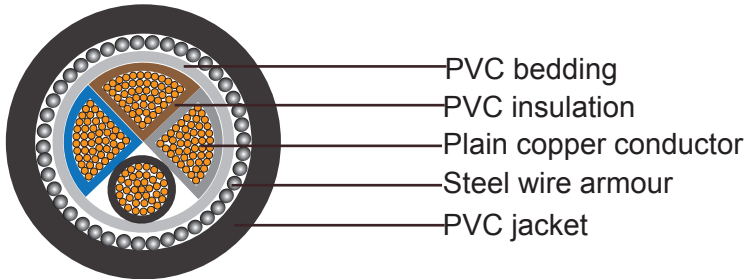
Nominal cross-sectional area mm ²	Nominal insulation thickness mm	Nominal bedding thickness mm	Nominal alum wire armor dia. mm	Armour strip		Nominal sheath thickness mm	Approx. overall diameter			Approx. cable weight kg/km
				thickness mm	width mm		wire armor extruded bedding mm	taped bedding mm	strip armor mm	
4x16	1	1	1.6	0.6	2.4	1.7	24.7	24.3	22.3	1125
4x25	1.2	1	1.6	0.6	2.4	1.8	28.7	28.3	26.3	1390
4x25*	1.2	1	1.6	0.6	2.4	1.8	26.3	25.9	23.9	1390
4x35	1.2	1	1.6	0.6	2.4	1.9	31.3	30.9	28.9	1625
4x35*	1.2	1	1.6	0.6	2.4	1.9	28.6	28.2	26.2	1625
4x50*	1.4	1.2	2	1	3.6	2	33.3	32.5	30.5	2240
4x70*	1.4	1.2	2	1	3.6	2.1	36.8	36.0	34	2750
4x95*	1.6	1.2	2	1.4	4.8	2.2	41.5	40.7	39.5	3360
4x120*	1.6	1.4	2.5	1.4	4.8	2.4	46.1	44.9	42.7	4380
4x150*	1.8	1.4	2.5	1.4	4.8	2.5	50.1	48.9	46.7	5000
4x185*	2	1.6	2.5	1.8	6.4	2.6	55.1	53.5	52.1	5960
4x240*	2.2	1.6	2.5	1.8	6.4	2.8	61.2	59.6	58.2	7340
4x300*	2.4	1.6	2.5	1.8	6.4	3	67	65.4	64	8610

*Solid shaped conductor (class 1)





3+1 Core (4 Core with reduced neutral) 600/1000V cables with stranded copper conductors



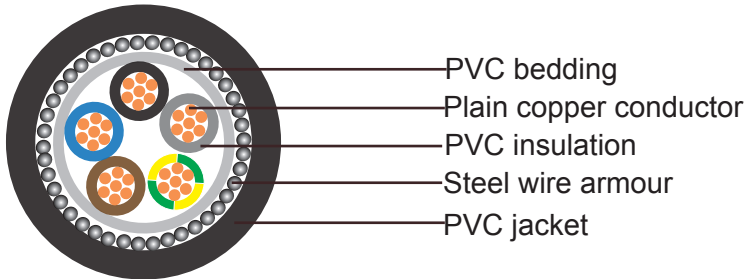
Nominal cross-sectional area		Nominal insulation thickness		Nominal bedding thickness	Nominal wire armor dia.	Nominal sheath thickness	Approx. Overall Diameter	Approx. cable weight
Phase	Neutral	Phase	Neutral					
mm ²	mm ²	mm	mm	mm	mm	mm	mm	kg/mm
3x10	3x6	1.0	0.8	1.0	1.25	1.8	23.4	1370
3x16	3x10	1.0	1.0	1.0	1.25	1.8	25.0	1620
3x25*	3x16	1.2	1.0	1.0	1.6	1.8	27.8	1900
3x35*	3x16	1.2	1.0	1.0	1.6	1.8	29.5	2300
3x50*	3x25	1.4	1.2	1.0	1.6	1.9	33.1	3050
3x70*	3x35	1.4	1.2	1.2	2.0	2.0	38.0	4130
3x95*	3x50	1.6	1.4	1.2	2.0	2.2	43.7	5370
3x120*	3x70	1.6	1.4	1.4	2.5	2.3	49.0	6840
3x150*	3x70	1.8	1.4	1.4	2.5	2.4	52.0	8040
3x185*	3x95	2.0	1.6	1.4	2.5	2.5	57.2	9760
3x240*	3x120	2.2	1.6	1.6	2.5	2.7	63.7	12210
3x300*	3x150	2.4	1.8	1.6	2.5	2.9	69.8	14840
3x300*	3x185	2.4	2.0	1.6	2.5	2.9	71.8	17730
3x400*	3x185	2.6	2.0	1.8	3.15	3.1	78.6	19090

*Shaped stranded conductor (class 2)





Five-core 600/1000V cables with stranded copper conductors

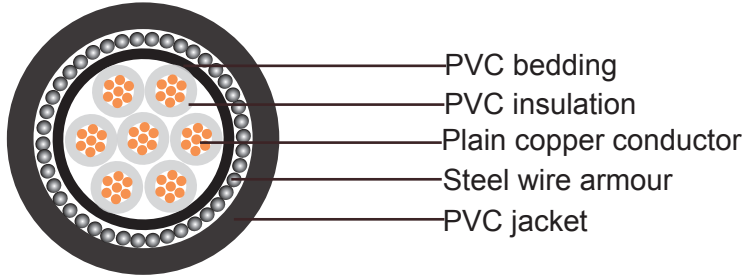


Nominal cross-sectional area	Number/wire	Nominal insulation thickness	Nominal bedding thickness	Nominal wire armor dia.	Nominal sheath thickness	Approx. overall diameter		Approx. cable weight
						extruded bedding	taped bedding	
mm ²	No./mm	mm	mm	mm	mm	mm	mm	kg/mm
5x1.5	7/0.53	0.6	0.8	0.9	1.4	14.3	-	430
5x2.5	7/0.67	0.7	0.8	0.9	1.5	16.3	-	545
5x4	7/0.85	0.8	0.8	1.25	1.5	19.0	-	790
5x6	7/1.04	0.8	0.8	1.25	1.6	20.9	-	880
5x10	7/1.35	1.0	1.0	1.6	1.7	25.8	-	1150
5x16	7/1.70	1.0	1.0	1.6	1.7	28.4	28.0	1670
5x25	7/2.14	1.2	1.0	1.6	1.9	33.5	33.1	2250
5x35	19/1.53	1.2	1.0	1.6	1.9	36.6	36.2	2670
5x50	19/1.78	1.4	1.2	2.0	2.1	43.0	42.2	3590
5x70	19/2.14	1.4	1.2	2.0	2.2	48.1	47.3	4610





Multi-core 600/1000V cables with stranded copper conductors



No. of Cores	Nominal cross-sectional area	Number/wire	Nominal insulation thickness	Nominal bedding thickness	Nominal alum wire armor dia.	Nominal sheath thickness	Approx. overall diameter	Approx. cable weight
	mm ²							
7	1.5	7/0.53	0.6	0.8	0.9	1.4	15.2	500
10	1.5	7/0.53	0.6	0.8	1.25	1.5	18.6	780
12	1.5	7/0.53	0.6	0.8	1.25	1.5	19.4	830
19	1.5	7/0.53	0.6	0.8	1.25	1.6	22.2	1090
27	1.5	7/0.53	0.6	1.0	1.6	1.7	26.7	1600
37	1.5	7/0.53	0.6	1.0	1.6	1.8	29.2	1940
48	1.5	7/0.53	0.6	1.0	1.6	1.9	32.9	2360
7	2.5	7/0.67	0.7	0.8	1.25	1.5	18.0	750
10	2.5	7/0.67	0.7	0.8	1.25	1.6	21.8	1000
12	2.5	7/0.67	0.7	0.8	1.25	1.6	22.4	1080
19	2.5	7/0.67	0.7	1.0	1.6	1.7	26.6	1640
27	2.5	7/0.67	0.7	1.0	1.6	1.8	30.7	2110
37	2.5	7/0.67	0.7	1.0	1.6	1.9	34.0	2600
48	2.5	7/0.67	0.7	1.2	2.0	2.1	39.5	3520
7	4	7/0.85	0.8	0.8	1.25	1.6	20.5	970
10	4	7/0.85	0.8	1.0	1.6	1.7	26.1	1500
12	4	7/0.85	0.8	1.0	1.6	1.7	26.8	1630
19	4	7/0.85	0.8	1.0	1.6	1.8	30.5	2170
27	4	7/0.85	0.8	1.2	2.0	2.0	37.1	3170
37	4	7/0.85	0.8	1.2	2.0	2.1	40.8	3910
48	4	7/0.85	0.8	1.2	2.0	2.2	46.0	4790

