

LV Power & Lighting Cable

O-Route®
NEK-606, IEC 60092-350, 353, 354, 376



Cable Designation (P111)

0.6/1kV RU

Application Standard

- Design guide : NEK-606 & IEC 60092-353
- Flame retardant : IEC 60332-1 & IEC 60332-3 Category A
- Halogen content : IEC 60754-1, 0.5%↓
- Cold bend / impact : CSA C22.2 No. 2556 or IEC 60092-350 Annex.E Method 1 (-40°C/-35°C)
- Mud / Oil resistant : NEK 606 (Category a,b,c,d)
- Smoke light transmittance : IEC 61034, 60%↑
- Sunlight (UV) resistant : UL 1581

HV Power Cable

LV Power & Lighting Cable

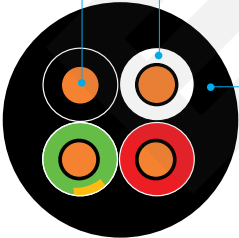
Instrumentation & Communication Cable

Earthing & Bonding wire

VFD Cable

Technical Information

Construction

Sectional view	Classification	Code	Construction detail
	Conductor		- Stranded tinned annealed copper wires as per IEC 60228, Class 2
	Insulation	R	- EPR as per IEC 60092-360
	Cabling		- Insulated cores shall be cabled - Flame retardant & non-hygroscopic fillers may be used - Suitable tape(s) may be applied on the cabled core - A Filler may be applied to obtain a circular Cable
	Sheath	U	- SHF2 as per IEC 60092-360 - Option : NEK 606 Category a,b,c,d Mud or oil resistant - Outer sheath color : Black

No. of cores	Without Earth core	With Earth core
1C	Off-white or Black	-
2C	Off-white, Black	-
3C / 2C + E	Off-white, Black, Red	Off-white, Black, G/Y
4C / 3C + E	Off-white, Black, Red, Blue	Off-white, Black, Red, G/Y
5C / 4C + E	Black No. on white insulation	Off-white, Black, Red, Blue, G/Y
6C and over	Black No. on white insulation	Black No. on white insulation, G/Y

Note. 1. Flexible cable (Class5 Conductor) can be supplied
2. Earth core(G/Y) : Yellow/Green(Green base color with yellow stripe)

LV Power & Lighting Cable

0.6/1kV RU

No. of Cores	Conductor			Thickness of Insulation	Thickness of sheath	Overall diameter		Conductor Resistance (at 20°C) (Max.)	Insulation Resistance (at 20°C) (Min.)	Test Voltage	Cable Weight
	Nominal Area	Min. No. of wires	Max. overall dia.			Nominal	Tolerance				
No.	mm ²	EA	mm	mm	mm	mm	±mm	Ω/km	MΩ-km	V/5min.	kg/km
1	1.5	7	1.7	1.0	1.0	5.8	0.5	12.2	1,320	3,500	60
	2.5	7	2.2	1.0	1.0	6.2	0.5	7.56	1,110	3,500	70
	4	7	2.7	1.0	1.0	6.7	0.6	4.70	940	3,500	90
	6	7	3.3	1.0	1.0	7.3	0.6	3.110	800	3,500	110
	10	7	4.2	1.0	1.0	8.2	0.6	1.840	650	3,500	160
	16	7	5.3	1.0	1.1	9.4	0.7	1.160	540	3,500	230
	25	7	6.6	1.2	1.1	11.1	0.7	0.734	520	3,500	340
	35	7	7.9	1.2	1.2	12.4	0.8	0.529	450	3,500	450
	50	19	9.1	1.4	1.3	14.4	0.9	0.391	440	3,500	600
	70	19	11.0	1.4	1.3	16.1	0.9	0.270	380	3,500	810
	95	19	12.9	1.6	1.4	18.6	1.0	0.195	370	3,500	1,100
	120	37	14.5	1.6	1.5	20.3	1.1	0.154	330	3,500	1,360
	150	37	16.2	1.8	1.6	22.4	1.2	0.126	330	3,500	1,650
	185	37	18.0	2.0	1.7	25.1	1.3	0.100	330	3,500	2,070
	240	61	20.6	2.2	1.8	28.3	1.4	0.0762	320	3,500	2,690
	300	61	23.1	2.4	1.9	31.5	1.6	0.0607	310	3,500	3,340
2	400	61	26.1	2.6	2.1	36.0	1.7	0.0475	290	3,500	4,520
	500	61	29.2	2.8	2.2	39.3	1.9	0.0369	280	3,500	5,450
	630	91	33.2	2.8	2.3	43.7	2.0	0.0286	250	3,500	6,990
	1.5	7	1.7	1.0	1.1	9.6	0.7	12.2	1,320	3,500	140
	2.5	7	2.2	1.0	1.1	10.4	0.7	7.56	1,110	3,500	170
	4	7	2.7	1.0	1.2	11.6	0.8	4.70	940	3,500	230
	6	7	3.3	1.0	1.2	12.8	0.8	3.110	800	3,500	290
	10	7	4.2	1.0	1.3	14.8	0.9	1.840	650	3,500	390
	16	7	5.3	1.0	1.4	17.0	1.0	1.160	540	3,500	550
	25	7	6.6	1.2	1.5	20.6	1.1	0.734	520	3,500	840
	35	7	7.9	1.2	1.6	23.0	1.2	0.529	450	3,500	1,090
	50	19	9.1	1.4	1.7	26.8	1.4	0.391	440	3,500	1,450
	70	19	11.0	1.4	1.9	30.8	1.5	0.270	380	3,500	2,000
	95	19	12.9	1.6	2.0	35.6	1.7	0.195	370	3,500	2,690
	120	37	14.5	1.6	2.2	39.0	1.9	0.154	330	3,500	3,300
	150	37	16.2	1.8	2.3	43.0	2.0	0.126	330	3,500	4,000
2C+E	185	37	18.0	2.0	2.5	48.4	2.2	0.100	330	3,500	5,030
	240	61	20.6	2.2	2.8	55.0	2.5	0.0762	320	3,500	6,550
	300	61	23.1	2.4	3.0	61.0	2.7	0.0607	310	3,500	8,090
	1.5	7	1.7	1.0	1.1	10.2	0.7	12.2	1,320	3,500	160
	2.5	7	2.2	1.0	1.1	11.0	0.7	7.56	1,110	3,500	210
	4	7	2.7	1.0	1.2	12.3	0.8	4.70	940	3,500	270
	6	7	3.3	1.0	1.2	13.6	0.8	3.110	800	3,500	360
	10	7	4.2	1.0	1.3	15.7	0.9	1.840	650	3,500	510
	16	7	5.3	1.0	1.4	18.1	1.0	1.160	540	3,500	730
	25	7	6.6	1.2	1.5	21.3	1.2	0.734	520	3,500	1,000
	35	7	7.9	1.2	1.6	24.1	1.3	0.529	450	3,500	1,360
	50	19	9.1	1.4	1.8	27.7	1.4	0.391	440	3,500	1,730
	70	19	11.0	1.4	1.9	31.6	1.6	0.270	380	3,500	2,350
	95	19	12.9	1.6	2.1	36.7	1.8	0.195	370	3,500	3,190
	120	37	14.5	1.6	2.2	40.2	1.9	0.154	330	3,500	3,970
	150	37	16.2	1.8	2.4	44.9	2.1	0.126	330	3,500	4,970
2C	185	37	18.0	2.0	2.6	49.7	2.3	0.100	330	3,500	5,980
	240	61	20.6	2.2	2.8	56.0	2.5	0.0762	320	3,500	7,660
	300	61	23.1	2.4	3.0	61.0	2.7	0.0607	310	3,500	8,090
	1.5	7	1.7	1.0	1.1	10.2	0.7	12.2	1,320	3,500	160
	2.5	7	2.2	1.0	1.1	11.0	0.7	7.56	1,110	3,500	210
	4	7	2.7	1.0	1.2	12.3	0.8	4.70	940	3,500	270
	6	7	3.3	1.0	1.2	13.6	0.8	3.110	800	3,500	360
	10	7	4.2	1.0	1.3	15.7	0.9	1.840	650	3,500	510
Earth	16	7	5.3	1.0	1.4	18.1	1.0	1.160	540	3,500	730
	25	7	6.6	1.2	1.5	21.3	1.2	0.734	520	3,500	1,000
	35	7	7.9	1.2	1.6	24.1	1.3	0.529	450	3,500	1,360
	50	19	9.1	1.4	1.8	27.7	1.4	0.391	440	3,500	1,730
	70	19	11.0	1.4	1.9	31.6	1.6	0.270	380	3,500	2,350
	95	19	12.9	1.6	2.1	36.7	1.8	0.195	370	3,500	3,190
	120	37	14.5	1.6	2.2	40.2	1.9	0.154	330	3,500	3,970
	150	37	16.2	1.8	2.4	44.9	2.1	0.126	330	3,500	4,970

0.6/1kV RU

No. of Cores	Conductor			Thickness of Insulation	Thickness of sheath	Overall diameter		Conductor Resistance (at 20°C) (Max.)	Insulation Resistance (at 20°C) (Min.)	Test Voltage	Cable Weight
	Nominal Area	Min. No. of wires	Max. overall dia.			Nominal	Tolerance				
No.	mm²	EA	mm	mm	mm	mm	±mm	Ω/km	MΩ-km	V/5min.	kg/km
3	1.5	7	1.7	1.0	1.1	10.2	0.7	12.2	1,320	3,500	160
	2.5	7	2.2	1.0	1.1	11.0	0.7	7.56	1,110	3,500	210
	4	7	2.7	1.0	1.2	12.3	0.8	4.70	940	3,500	270
	6	7	3.3	1.0	1.2	13.6	0.8	3.110	800	3,500	360
	10	7	4.2	1.0	1.3	15.7	0.9	1.840	650	3,500	510
	16	7	5.3	1.0	1.4	18.1	1.0	1.160	540	3,500	730
	25	7	6.6	1.2	1.5	21.9	1.2	0.734	520	3,500	1,110
	35	7	7.9	1.2	1.6	24.5	1.3	0.529	450	3,500	1,450
	50	19	9.1	1.4	1.8	29.0	1.5	0.391	440	3,500	1,990
	70	19	11.0	1.4	1.9	32.9	1.6	0.270	380	3,500	2,700
	95	19	12.9	1.6	2.1	38.2	1.8	0.195	370	3,500	3,670
	120	37	14.5	1.6	2.3	41.9	2.0	0.154	330	3,500	4,520
	150	37	16.2	1.8	2.4	46.1	2.1	0.126	330	3,500	5,480
	185	37	18.0	2.0	2.7	52.1	2.4	0.100	330	3,500	6,930
240	61	20.6	2.2	2.9	59.0	2.7	0.0762	320	3,500	8,970	
300	61	23.1	2.4	3.2	65.6	2.9	0.0607	310	3,500	11,140	
3C+E	1.5	7	1.7	1.0	1.1	11.1	0.7	12.2	1,320	3,500	200
3C+E	2.5	7	2.2	1.0	1.2	12.3	0.8	7.56	1,110	3,500	260
3C+E	4	7	2.7	1.0	1.2	13.5	0.8	4.70	940	3,500	340
3C+E	6	7	3.3	1.0	1.3	15.1	0.9	3.110	800	3,500	450
3C+E	10	7	4.2	1.0	1.4	17.5	1.0	1.840	650	3,500	650
3C+E	16	7	5.3	1.0	1.5	20.1	1.1	1.160	540	3,500	930
3C	25	7	6.6	1.2	1.6	23.8	1.3	0.734	520	3,500	1,330
Earth	16	7	5.3	1.0				1.160			
3C	35	7	7.9	1.2	1.7	26.9	1.4	0.529	450	3,500	1,780
Earth	25	7	6.6	1.2				0.734			
3C	50	19	9.1	1.4	1.9	31.2	1.5	0.391	440	3,500	2,330
Earth	25	7	6.6	1.2				0.734			
3C	70	19	11.0	1.4	2.0	35.3	1.7	0.270	380	3,500	3,140
Earth	35	7	7.9	1.2				0.529			
3C	95	19	12.9	1.6	2.3	41.3	2.0	0.195	370	3,500	4,300
Earth	50	19	9.1	1.4				0.391			
3C	120	37	14.5	1.6	2.4	45.2	2.1	0.154	330	3,500	5,330
Earth	70	19	11.0	1.4				0.270			
3C	150	37	16.2	1.8	2.6	50.3	2.3	0.126	330	3,500	6,620
Earth	95	19	12.9	1.6				0.195			
3C	185	37	18.0	2.0	2.8	55.9	2.5	0.100	330	3,500	8,060
Earth	95	19	12.9	1.6				0.195			
3C	240	61	20.6	2.2	3.1	63.2	2.8	0.0762	320	3,500	10,400
Earth	120	37	14.5	1.6				0.154			
4	1.5	7	1.7	1.0	1.1	11.1	0.7	12.2	1,320	3,500	200
	2.5	7	2.2	1.0	1.2	12.3	0.8	7.56	1,110	3,500	260
	4	7	2.7	1.0	1.2	13.5	0.8	4.70	940	3,500	340
	6	7	3.3	1.0	1.3	15.1	0.9	3.110	800	3,500	450
	10	7	4.2	1.0	1.4	17.5	1.0	1.840	650	3,500	650
	16	7	5.3	1.0	1.5	20.1	1.1	1.160	540	3,500	930
	25	7	6.6	1.2	1.6	24.4	1.3	0.734	520	3,500	1,430
	35	7	7.9	1.2	1.7	27.3	1.4	0.529	450	3,500	1,880
	50	19	9.1	1.4	1.9	32.2	1.6	0.391	440	3,500	2,570
	70	19	11.0	1.4	2.1	36.7	1.8	0.270	380	3,500	3,510
	95	19	12.9	1.6	2.3	42.7	2.0	0.195	370	3,500	4,790
	120	37	14.5	1.6	2.5	46.7	2.2	0.154	330	3,500	5,880
	150	37	16.2	1.8	2.6	51.5	2.4	0.126	330	3,500	7,140
	185	37	18.0	2.0	2.9	58.1	2.6	0.100	330	3,500	9,010
240	61	20.6	2.2	3.2	65.9	2.9	0.0762	320	3,500	11,720	
300	61	23.1	2.4	3.4	73.1	3.2	0.0607	310	3,500	14,500	

HV Power Cable

LV Power & Lighting Cable

Instrumentation & Communication Cable

Earthing & Bonding wire

VFD Cable

Technical Information

LV Power & Lighting Cable

0.6/1kV RU

No. of Cores	Conductor			Thickness of Insulation	Thickness of sheath	Overall diameter		Conductor Resistance (at 20°C) (Max.)	Insulation Resistance (at 20°C) (Min.)	Test Voltage	Cable Weight
	Nominal Area	Min. No. of wires	Max. overall dia.			Nominal	Tolerance				
No.	mm ²	EA	mm	mm	mm	mm	±mm	Ω/km	MΩ·km	V/5min.	kg/km
4C+E	1.5	7	1.7	1.0	1.2	12.3	0.8	12.2	1,320	3,500	240
4C+E	2.5	7	2.2	1.0	1.2	13.4	0.8	7.56	1,110	3,500	310
4C+E	4	7	2.7	1.0	1.3	15.0	0.9	4.70	940	3,500	420
4C+E	6	7	3.3	1.0	1.4	16.8	1.0	3.110	800	3,500	560
4C+E	10	7	4.2	1.0	1.4	19.2	1.1	1.840	650	3,500	790
4C+E	16	7	5.3	1.0	1.6	22.3	1.2	1.160	540	3,500	1,150
4C	25	7	6.6	1.2	1.7	26.6	1.4	0.734	520	3,500	1,670
Earth	16	7	5.3	1.0				1.160			
4C	35	7	7.9	1.2	1.8	30.1	1.5	0.529	450	3,500	2,250
Earth	25	7	6.6	1.2				0.734			
4C	50	19	9.1	1.4	2.0	34.8	1.7	0.391	440	3,500	2,940
Earth	25	7	6.6	1.2				0.734			
4C	70	19	11.0	1.4	2.2	39.6	1.9	0.270	380	3,500	4,000
Earth	35	7	7.9	1.2				0.529			
4C	95	19	12.9	1.6	2.4	46.0	2.1	0.195	370	3,500	5,430
Earth	50	19	9.1	1.4				0.391			
4C	120	37	14.5	1.6	2.6	50.5	2.3	0.154	330	3,500	6,750
Earth	70	19	11.0	1.4				0.270			
4C	150	37	16.2	1.8	2.8	56.2	2.5	0.126	330	3,500	8,350
Earth	95	19	12.9	1.6				0.195			
4C	185	37	18.0	2.0	3.0	62.5	2.8	0.100	330	3,500	10,230
Earth	95	19	12.9	1.6				0.195			
4C	240	61	20.6	2.2	3.3	70.7	3.1	0.0762	320	3,500	13,220
Earth	120	37	14.5	1.6				0.154			
5	1.5	7	1.7	1.0	1.2	12.3	0.8	12.2	1,320	3,500	240
5	2.5	7	2.2	1.0	1.2	13.4	0.8	7.56	1,110	3,500	310
5	4	7	2.7	1.0	1.3	15.0	0.9	4.70	940	3,500	420
5	6	7	3.3	1.0	1.4	16.8	1.0	3.110	800	3,500	560
5	10	7	4.2	1.0	1.4	19.2	1.1	1.840	650	3,500	790
5	16	7	5.3	1.0	1.6	22.3	1.2	1.160	540	3,500	1,150
5	25	7	6.6	1.2	1.7	27.1	1.4	0.734	520	3,500	1,780
5	35	7	7.9	1.2	1.9	30.7	1.5	0.529	450	3,500	2,370
5	50	19	9.1	1.4	2.1	35.9	1.7	0.391	440	3,500	3,200
5	70	19	11.0	1.4	2.2	40.7	1.9	0.270	380	3,500	4,350
5	95	19	12.9	1.6	2.5	47.5	2.2	0.195	370	3,500	5,950
5	120	37	14.5	1.6	2.6	51.8	2.4	0.154	330	3,500	7,270
5	150	37	16.2	1.8	2.9	57.5	2.6	0.126	330	3,500	8,910
5	185	37	18.0	2.0	3.1	64.7	2.9	0.100	330	3,500	11,200
5	240	61	20.6	2.2	3.4	73.4	3.2	0.0762	320	3,500	14,560

0.6/1kV RU

No. of Cores	Conductor			Thickness of Insulation	Thickness of sheath	Overall diameter		Conductor Resistance (at 20°C) (Max.)	Insulation Resistance (at 20°C) (Min.)	Test Voltage	Cable Weight
	Nominal Area	Min. No. of wires	Max. overall dia.			Nominal	Tolerance				
No.	mm²	EA	mm	mm	mm	mm	±mm	Ω/km	MΩ-km	V/5min.	kg/km
2	1.0	7	1.4	1.0	1.1	9.0	0.7	18.2	1,490	3,500	110
5	1.0	7	1.4	1.0	1.2	11.5	0.8	18.2	1,490	3,500	190
7	1.0	7	1.4	1.0	1.2	12.5	0.8	18.2	1,490	3,500	240
8	1.0	7	1.4	1.0	1.2	13.5	0.8	18.2	1,490	3,500	270
9	1.0	7	1.4	1.0	1.3	14.7	0.9	18.2	1,490	3,500	310
10	1.0	7	1.4	1.0	1.3	16.0	0.9	18.2	1,490	3,500	340
12	1.0	7	1.4	1.0	1.3	16.5	1.0	18.2	1,490	3,500	390
14	1.0	7	1.4	1.0	1.4	17.6	1.0	18.2	1,490	3,500	450
16	1.0	7	1.4	1.0	1.4	18.5	1.0	18.2	1,490	3,500	500
19	1.0	7	1.4	1.0	1.5	19.7	1.1	18.2	1,490	3,500	580
24	1.0	7	1.4	1.0	1.6	23.2	1.2	18.2	1,490	3,500	740
27	1.0	7	1.4	1.0	1.6	23.7	1.2	18.2	1,490	3,500	800
30	1.0	7	1.4	1.0	1.6	24.6	1.3	18.2	1,490	3,500	870
37	1.0	7	1.4	1.0	1.7	26.7	1.4	18.2	1,490	3,500	1,060
44	1.0	7	1.4	1.0	1.9	30.6	1.5	18.2	1,490	3,500	1,300
2	1.5	7	1.7	1.0	1.1	9.6	0.7	12.2	1,320	3,500	140
5	1.5	7	1.7	1.0	1.2	12.3	0.8	12.2	1,320	3,500	240
7	1.5	7	1.7	1.0	1.2	13.4	0.8	12.2	1,320	3,500	290
8	1.5	7	1.7	1.0	1.3	14.7	0.9	12.2	1,320	3,500	340
9	1.5	7	1.7	1.0	1.3	15.8	0.9	12.2	1,320	3,500	380
10	1.5	7	1.7	1.0	1.4	17.4	1.0	12.2	1,320	3,500	430
12	1.5	7	1.7	1.0	1.4	18.0	1.0	12.2	1,320	3,500	480
14	1.5	7	1.7	1.0	1.4	18.9	1.1	12.2	1,320	3,500	550
16	1.5	7	1.7	1.0	1.5	20.1	1.1	12.2	1,320	3,500	620
19	1.5	7	1.7	1.0	1.5	21.2	1.1	12.2	1,320	3,500	710
24	1.5	7	1.7	1.0	1.7	25.2	1.3	12.2	1,320	3,500	920
27	1.5	7	1.7	1.0	1.7	25.8	1.3	12.2	1,320	3,500	1,000
30	1.5	7	1.7	1.0	1.7	26.7	1.4	12.2	1,320	3,500	1,090
37	1.5	7	1.7	1.0	1.8	29.2	1.5	12.2	1,320	3,500	1,340
44	1.5	7	1.7	1.0	2.0	33.2	1.6	12.2	1,320	3,500	1,620
2	2.5	7	2.2	1.0	1.1	10.4	0.7	7.56	1,110	3,500	170
5	2.5	7	2.2	1.0	1.2	13.4	0.8	7.56	1,110	3,500	310
7	2.5	7	2.2	1.0	1.3	14.8	0.9	7.56	1,110	3,500	390
8	2.5	7	2.2	1.0	1.3	16.0	0.9	7.56	1,110	3,500	430
9	2.5	7	2.2	1.0	1.4	17.5	1.0	7.56	1,110	3,500	490
10	2.5	7	2.2	1.0	1.4	19.0	1.1	7.56	1,110	3,500	550
12	2.5	7	2.2	1.0	1.5	19.8	1.1	7.56	1,110	3,500	640
14	2.5	7	2.2	1.0	1.5	20.9	1.1	7.56	1,110	3,500	720
16	2.5	7	2.2	1.0	1.6	22.2	1.2	7.56	1,110	3,500	820
19	2.5	7	2.2	1.0	1.6	23.4	1.2	7.56	1,110	3,500	950
24	2.5	7	2.2	1.0	1.8	27.8	1.4	7.56	1,110	3,500	1,210
27	2.5	7	2.2	1.0	1.8	28.4	1.4	7.56	1,110	3,500	1,330
30	2.5	7	2.2	1.0	1.8	29.7	1.5	7.56	1,110	3,500	1,480
37	2.5	7	2.2	1.0	1.9	32.2	1.6	7.56	1,110	3,500	1,780
44	2.5	7	2.2	1.0	2.1	36.6	1.8	7.56	1,110	3,500	2,150
2	4	7	2.7	1.0	1.2	11.6	0.8	4.70	940	3,500	230
5	4	7	2.7	1.0	1.3	15.0	0.9	4.70	940	3,500	420
7	4	7	2.7	1.0	1.3	16.3	1.0	4.70	940	3,500	510
8	4	7	2.7	1.0	1.4	17.9	1.0	4.70	940	3,500	590
9	4	7	2.7	1.0	1.5	19.5	1.1	4.70	940	3,500	660
10	4	7	2.7	1.0	1.5	21.2	1.1	4.70	940	3,500	730
12	4	7	2.7	1.0	1.5	21.9	1.2	4.70	940	3,500	850
14	4	7	2.7	1.0	1.6	23.3	1.2	4.70	940	3,500	980
16	4	7	2.7	1.0	1.6	24.6	1.3	4.70	940	3,500	1,100
19	4	7	2.7	1.0	1.7	26.1	1.3	4.70	940	3,500	1,290
24	4	7	2.7	1.0	1.9	31.2	1.5	4.70	940	3,500	1,660
27	4	7	2.7	1.0	1.9	31.9	1.6	4.70	940	3,500	1,830
30	4	7	2.7	1.0	2.0	33.3	1.6	4.70	940	3,500	2,030
37	4	7	2.7	1.0	2.1	36.1	1.7	4.70	940	3,500	2,450
44	4	7	2.7	1.0	2.2	40.8	1.9	4.70	940	3,500	2,920

HV Power Cable

LV Power & Lighting Cable

Instrumentation & Communication Cable

Earthing & Bonding wire

VFD Cable

Technical Information