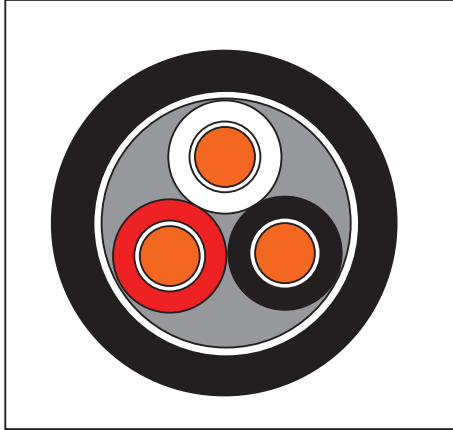


Attached Table 13. Fire resistant Power & Control Cable

◆ CABLE DESIGNATION



◆ CABLE DESIGNATION

0.6/1kV BU

◆ APPLICATION STANDARD

- Design guide : IEC 60092-350 & IEC 60092-353
- Insulation material : IEC 60092-351, HF EPR
- Sheath material : IEC 60092-359, SHF2
- Flame retardant : IEC 60332-1 & IEC 60332-3 Category A
- Fire resistance : IEC 600331-21 or -31
- Halogen content : IEC 60754-1, 0.5%↓
- Smoke emission : IEC 61034, 60%↑
- Fluorine content : IEC 60684-2, 0.1%↓
- pH and conductivity : IEC 60754-2, pH 4.3↑ & conductivity 10μS/mm↓
- Cold bend/impact : CSA 22.2 NO. 0.3(-40℃/-35℃)
- Mud resistant : NEK 606 (Mud type only)
- Sunlight(UV) resistant : UL 1581
- Max. rated conductor temperature : 90℃

◆ CONSTRUCTION

Classification	Code	Construction Detail
1. Conductor		- Stranded tinned annealed copper wires as per IEC 60228, Class 2
2. Fire resisting layer	B	- Mica/glass tape
3. Insulation		- HF EPR as per IEC 60092-351
4. Cabling		- Insulated cores shall be cabled. - Flame retardant & non-hygrosopic fillers may be used . - Suitable tape(s) may be applied on the cabled core.
5. Sheath	U	- SHF2 or SHF MUD as per IEC 60092-359 - Outer sheath color : Black - Any other color scheme may be applicable when purchaser required.

Table 13-1

CABLE TYPE : 0.6/1kV BU

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
2	1.5	7	1.7	1.0	1.1	10.6	0.6	12.2	1,320	3,500	170
2	2.5	7	2.2	1.0	1.2	11.6	0.6	7.56	1,110	3,500	210
2	4	7	2.7	1.0	1.2	12.6	0.7	4.70	940	3,500	260
2	6	7	3.3	1.0	1.2	13.8	0.7	3.110	800	3,500	330
2	10	7	4.2	1.0	1.3	15.8	0.8	1.840	650	3,500	430
2	16	7	5.3	1.0	1.4	18.0	0.8	1.160	540	3,500	590
2	25	7	6.6	1.2	1.5	21.6	0.9	0.734	520	3,500	870
2	35	7	7.9	1.2	1.6	24.0	1.0	0.529	450	3,500	1,120
2	50	19	9.1	1.4	1.8	28.0	1.1	0.391	440	3,500	1,510
2	70	19	11.0	1.4	1.9	31.8	1.3	0.270	380	3,500	2,050
2	95	19	12.9	1.6	2.1	36.8	1.4	0.195	370	3,500	2,770
2	120	37	14.5	1.6	2.2	40.2	1.5	0.154	330	3,500	3,370
2	150	37	16.2	1.8	2.4	44.2	1.6	0.126	330	3,500	4,090
2	185	37	18.0	2.0	2.5	49.0	1.8	0.100	330	3,500	5,070
2	240	61	20.6	2.2	2.8	55.6	2.0	0.0762	320	3,500	6,580
2	300	61	23.1	2.4	3.0	61.6	2.1	0.0607	310	3,500	8,130
2C+E	1.5	7	1.7	1.0	1.2	11.4	0.6	12.2	1,320	3,500	200
2C+E	2.5	7	2.2	1.0	1.2	12.3	0.7	7.56	1,110	3,500	250
2C+E	4	7	2.7	1.0	1.2	13.4	0.7	4.70	940	3,500	310
2C+E	6	7	3.3	1.0	1.3	14.9	0.7	3.110	800	3,500	410
2C+E	10	7	4.2	1.0	1.4	17.0	0.8	1.840	650	3,500	560
2C+E	16	7	5.3	1.0	1.4	19.2	0.9	1.160	540	3,500	770
2C	25	7	6.6	1.2	1.6	22.6	1.0	0.734	520	3,500	1,060
Earth	16	7	5.3	1.0				1.160	540	3,500	
2C	35	7	7.9	1.2	1.7	25.4	1.1	0.529	450	3,500	1,420
Earth	25	7	6.6	1.2				0.734	520	3,500	
2C	50	19	9.1	1.4	1.8	29.0	1.2	0.391	440	3,500	1,800
Earth	25	7	6.6	1.2				0.734	520	3,500	
2C	70	19	11.0	1.4	1.9	32.6	1.3	0.270	380	3,500	2,400
Earth	35	7	7.9	1.2				0.529	450	3,500	
2C	95	19	12.9	1.6	2.1	37.8	1.4	0.195	370	3,500	3,250
Earth	50	19	9.1	1.4				0.391	440	3,500	
2C	120	37	14.5	1.6	2.3	41.7	1.6	0.154	330	3,500	4,080
Earth	70	19	11.0	1.4				0.270	380	3,500	
2C	150	37	16.2	1.8	2.4	46.0	1.7	0.126	330	3,500	5,040
Earth	95	19	12.9	1.6				0.195	370	3,500	
2C	185	37	18.0	2.0	2.6	50.4	1.8	0.100	330	3,500	6,020
Earth	95	19	12.9	1.6				0.195	370	3,500	
2C	240	61	20.6	2.2	2.8	56.8	2.0	0.0762	320	3,500	7,720
Earth	120	37	14.5	1.6				0.154	330	3,500	

Table 13-2

CABLE TYPE : 0.6/1kV BU

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
3	1.5	7	1.7	1.0	1.2	11.4	0.6	12.2	1,320	3,500	200
3	2.5	7	2.2	1.0	1.2	12.3	0.7	7.56	1,110	3,500	250
3	4	7	2.7	1.0	1.2	13.4	0.7	4.70	940	3,500	310
3	6	7	3.3	1.0	1.3	14.9	0.7	3.110	800	3,500	410
3	10	7	4.2	1.0	1.4	17.0	0.8	1.840	650	3,500	560
3	16	7	5.3	1.0	1.4	19.2	0.9	1.160	540	3,500	770
3	25	7	6.6	1.2	1.6	23.2	1.0	0.734	520	3,500	1,160
3	35	7	7.9	1.2	1.7	25.8	1.1	0.529	450	3,500	1,510
3	50	19	9.1	1.4	1.8	30.1	1.2	0.391	440	3,500	2,040
3	70	19	11.0	1.4	2.0	34.1	1.3	0.270	380	3,500	2,770
3	95	19	12.9	1.6	2.2	39.5	1.5	0.195	370	3,500	3,760
3	120	37	14.5	1.6	2.3	43.1	1.6	0.154	330	3,500	4,600
3	150	37	16.2	1.8	2.5	47.4	1.7	0.126	330	3,500	5,580
3	185	37	18.0	2.0	2.7	52.8	1.9	0.100	330	3,500	6,970
3	240	61	20.6	2.2	2.9	59.6	2.1	0.0762	320	3,500	9,010
3	300	61	23.1	2.4	3.2	66.3	2.3	0.0607	310	3,500	11,190
3C+E	1.5	7	1.7	1.0	1.2	12.5	0.7	12.2	1,320	3,500	240
3C+E	2.5	7	2.2	1.0	1.2	13.5	0.7	7.56	1,110	3,500	300
3C+E	4	7	2.7	1.0	1.3	14.9	0.7	4.70	940	3,500	390
3C+E	6	7	3.3	1.0	1.3	16.3	0.8	3.110	800	3,500	500
3C+E	10	7	4.2	1.0	1.4	18.7	0.9	1.840	650	3,500	710
3C+E	16	7	5.3	1.0	1.5	21.3	0.9	1.160	540	3,500	990
3C	25	7	6.6	1.2	1.7	25.3	1.1	0.734	520	3,500	1,400
Earth	16	7	5.3	1.0				1.160	540	3,500	
3C	35	7	7.9	1.2	1.8	28.3	1.1	0.529	450	3,500	1,850
Earth	25	7	6.6	1.2				0.734	520	3,500	
3C	50	19	9.1	1.4	1.9	32.4	1.3	0.391	440	3,500	2,390
Earth	25	7	6.6	1.2				0.734	520	3,500	
3C	70	19	11.0	1.4	2.1	36.7	1.4	0.270	380	3,500	3,230
Earth	35	7	7.9	1.2				0.529	450	3,500	
3C	95	19	12.9	1.6	2.3	42.5	1.6	0.195	370	3,500	4,370
Earth	50	19	9.1	1.4				0.391	440	3,500	
3C	120	37	14.5	1.6	2.5	46.8	1.7	0.154	330	3,500	5,460
Earth	70	19	11.0	1.4				0.270	380	3,500	
3C	150	37	16.2	1.8	2.6	51.5	1.8	0.126	330	3,500	6,710
Earth	95	19	12.9	1.6				0.195	370	3,500	
3C	185	37	18.0	2.0	2.8	56.7	2.0	0.100	330	3,500	8,110
Earth	95	19	12.9	1.6				0.195	370	3,500	
3C	240	61	20.6	2.2	3.1	64.0	2.2	0.0762	320	3,500	10,460
Earth	120	37	14.5	1.6				0.154	330	3,500	

Table 13-3

CABLE TYPE : 0.6/1kV BU

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
4	1.5	7	1.7	1.0	1.2	12.5	0.7	12.2	1,320	3,500	240
4	2.5	7	2.2	1.0	1.2	13.5	0.7	7.56	1,110	3,500	300
4	4	7	2.7	1.0	1.3	14.9	0.7	4.70	940	3,500	390
4	6	7	3.3	1.0	1.3	16.3	0.8	3.110	800	3,500	500
4	10	7	4.2	1.0	1.4	18.7	0.9	1.840	650	3,500	710
4	16	7	5.3	1.0	1.5	21.3	0.9	1.160	540	3,500	990
4	25	7	6.6	1.2	1.7	25.8	1.1	0.734	520	3,500	1,500
4	35	7	7.9	1.2	1.8	28.7	1.2	0.529	450	3,500	1,950
4	50	19	9.1	1.4	2.0	33.6	1.3	0.391	440	3,500	2,650
4	70	19	11.0	1.4	2.1	37.9	1.4	0.270	380	3,500	3,580
4	95	19	12.9	1.6	2.4	44.1	1.6	0.195	370	3,500	4,890
4	120	37	14.5	1.6	2.5	48.1	1.7	0.154	330	3,500	5,980
4	150	37	16.2	1.8	2.7	52.9	1.9	0.126	330	3,500	7,260
4	185	37	18.0	2.0	2.9	58.8	2.1	0.100	330	3,500	9,060
4	240	61	20.6	2.2	3.2	66.7	2.3	0.0762	320	3,500	11,770
4	300	61	23.1	2.4	3.5	74.0	2.5	0.0607	310	3,500	14,600
4C+E	1.5	7	1.7	1.0	1.2	13.7	0.7	12.2	1,320	3,500	290
4C+E	2.5	7	2.2	1.0	1.3	15.0	0.8	7.56	1,110	3,500	370
4C+E	4	7	2.7	1.0	1.3	16.3	0.8	4.70	940	3,500	470
4C+E	6	7	3.3	1.0	1.4	18.1	0.8	3.110	800	3,500	620
4C+E	10	7	4.2	1.0	1.5	20.8	0.9	1.840	650	3,500	870
4C+E	16	7	5.3	1.0	1.6	23.7	1.0	1.160	540	3,500	1,230
4C	25	7	6.6	1.2	1.8	28.1	1.1	0.734	520	3,500	1,750
Earth	16	7	5.3	1.0				1.160	540	3,500	
4C	35	7	7.9	1.2	1.9	31.7	1.3	0.529	450	3,500	2,340
Earth	25	7	6.6	1.2				0.734	520	3,500	
4C	50	19	9.1	1.4	2.1	36.3	1.4	0.391	440	3,500	3,030
Earth	25	7	6.6	1.2				0.734	520	3,500	
4C	70	19	11.0	1.4	2.2	40.9	1.5	0.270	380	3,500	4,070
Earth	35	7	7.9	1.2				0.529	450	3,500	
4C	95	19	12.9	1.6	2.5	47.6	1.7	0.195	370	3,500	5,560
Earth	50	19	9.1	1.4				0.391	440	3,500	
4C	120	37	14.5	1.6	2.7	52.3	1.9	0.154	330	3,500	6,910
Earth	70	19	11.0	1.4				0.270	380	3,500	
4C	150	37	16.2	1.8	2.9	57.8	2.0	0.126	330	3,500	8,500
Earth	95	19	12.9	1.6				0.195	370	3,500	
4C	185	37	18.0	2.0	3.1	63.6	2.2	0.100	330	3,500	10,330
Earth	95	19	12.9	1.6				0.195	370	3,500	
4C	240	61	20.6	2.2	3.4	71.8	2.5	0.0762	320	3,500	13,340
Earth	120	37	14.5	1.6				0.154	330	3,500	

Table 13-4

CABLE TYPE : 0.6/1kV BU

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
5	1.0	7	1.4	1.0	1.2	12.9	0.7	18.2	1,490	3,500	230
7	1.0	7	1.4	1.0	1.3	14.2	0.7	18.2	1,490	3,500	300
9	1.0	7	1.4	1.0	1.3	16.5	0.8	18.2	1,490	3,500	370
12	1.0	7	1.4	1.0	1.4	18.8	0.9	18.2	1,490	3,500	480
14	1.0	7	1.4	1.0	1.5	20.0	0.9	18.2	1,490	3,500	550
16	1.0	7	1.4	1.0	1.5	21.1	0.9	18.2	1,490	3,500	610
19	1.0	7	1.4	1.0	1.6	22.4	1.0	18.2	1,490	3,500	710
24	1.0	7	1.4	1.0	1.7	26.4	1.1	18.2	1,490	3,500	900
27	1.0	7	1.4	1.0	1.7	27.0	1.1	18.2	1,490	3,500	980
30	1.0	7	1.4	1.0	1.8	28.2	1.1	18.2	1,490	3,500	1,090
37	1.0	7	1.4	1.0	1.9	30.8	1.2	18.2	1,490	3,500	1,330
44	1.0	7	1.4	1.0	2.0	34.8	1.3	18.2	1,490	3,500	1,580
5	1.5	7	1.7	1.0	1.2	13.7	0.7	12.2	1,320	3,500	270
7	1.5	7	1.7	1.0	1.3	15.1	0.8	12.2	1,320	3,500	350
9	1.5	7	1.7	1.0	1.4	17.8	0.8	12.2	1,320	3,500	450
12	1.5	7	1.7	1.0	1.5	20.2	0.9	12.2	1,320	3,500	580
14	1.5	7	1.7	1.0	1.5	21.3	0.9	12.2	1,320	3,500	650
16	1.5	7	1.7	1.0	1.6	22.7	1.0	12.2	1,320	3,500	740
19	1.5	7	1.7	1.0	1.6	23.9	1.0	12.2	1,320	3,500	850
24	1.5	7	1.7	1.0	1.8	28.4	1.2	12.2	1,320	3,500	1,090
27	1.5	7	1.7	1.0	1.8	29.2	1.2	12.2	1,320	3,500	1,210
30	1.5	7	1.7	1.0	1.9	30.5	1.2	12.2	1,320	3,500	1,340
37	1.5	7	1.7	1.0	1.9	32.9	1.3	12.2	1,320	3,500	1,600
44	1.5	7	1.7	1.0	2.1	37.4	1.4	12.2	1,320	3,500	1,920
5	2.5	7	2.2	1.0	1.3	15.0	0.8	7.56	1,110	3,500	340
7	2.5	7	2.2	1.0	1.3	16.3	0.8	7.56	1,110	3,500	440
9	2.5	7	2.2	1.0	1.5	19.5	0.9	7.56	1,110	3,500	580
12	2.5	7	2.2	1.0	1.5	21.9	1.0	7.56	1,110	3,500	730
14	2.5	7	2.2	1.0	1.6	23.3	1.0	7.56	1,110	3,500	840
16	2.5	7	2.2	1.0	1.6	24.6	1.0	7.56	1,110	3,500	940
19	2.5	7	2.2	1.0	1.7	26.1	1.1	7.56	1,110	3,500	1,100
24	2.5	7	2.2	1.0	1.9	31.2	1.2	7.56	1,110	3,500	1,430
27	2.5	7	2.2	1.0	1.9	31.9	1.3	7.56	1,110	3,500	1,570
30	2.5	7	2.2	1.0	2.0	33.3	1.3	7.56	1,110	3,500	1,730
37	2.5	7	2.2	1.0	2.1	36.1	1.4	7.56	1,110	3,500	2,090
44	2.5	7	2.2	1.0	2.2	40.8	1.5	7.56	1,110	3,500	2,480
5	4	7	2.7	1.0	1.3	16.3	0.8	4.70	940	3,500	440
7	4	7	2.7	1.0	1.4	18.0	0.8	4.70	940	3,500	580
9	4	7	2.7	1.0	1.5	21.3	0.9	4.70	940	3,500	740
12	4	7	2.7	1.0	1.6	24.2	1.0	4.70	940	3,500	960
14	4	7	2.7	1.0	1.7	25.7	1.1	4.70	940	3,500	1,110
16	4	7	2.7	1.0	1.7	27.1	1.1	4.70	940	3,500	1,250
19	4	7	2.7	1.0	1.8	29.0	1.2	4.70	940	3,500	1,480
24	4	7	2.7	1.0	2.0	34.4	1.3	4.70	940	3,500	1,880
27	4	7	2.7	1.0	2.0	35.2	1.4	4.70	940	3,500	2,070
30	4	7	2.7	1.0	2.1	36.7	1.4	4.70	940	3,500	2,290
37	4	7	2.7	1.0	2.2	39.8	1.5	4.70	940	3,500	2,770
44	4	7	2.7	1.0	2.4	45.2	1.7	4.70	940	3,500	3,320