O-Route®

NEK-606, IEC 60092-350, 353, 354, 376

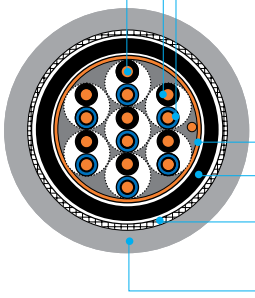
Cable Designation (S4, S4/S8)

250V BFOU(c), BFCU(c), BFBU(c)

Application Standard

- Design guide	: NEK-606 & IEC 60092-376
- Flame retardant	: IEC 60332-1 & IEC 60332-3 Category A
- Fire resistance	: IEC 60331-21(90min) IEC 60331-1,-2(120min)
- Halogen content	: IEC 60754-1, 0.5% ↓
- Cold bend / impact	: CSA 22.2 No.03 (-40℃/-35℃)
- Mud resistant	: NEK-606 (Mud type only)
- Smoke light transmittance	: IEC 61034, 60% ↑
- Sunlight (UV) resistant	: UL 1581

Construction

Sectional view	Classification	Code	Construction detail
	Conductor		- Stranded tinned annealed copper wires as per IEC 60228, Class 2
	Fire resisting layer	B	- Mica/glass tape
	Insulation		- EPR as per IEC 60092-360
	Twisting		- Two/Three Insulated cores shall be twisted together to form a pair/Triad
	Cabling		- Twisted pairs / triads 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
	Collective screen	(c)	- CU/PS or AL/PS tape + Tinned copper drain wire
	Inner covering	F	- Flame retardant halogen free thermoset compound
	Armor	O (B,C)	- Braid of tinned copper wire (O) / bronze wire (B) /galvanized steel wire (C) - A suitable separator tape(s) may be applied under/over the armor
	Sheath	U	- SHF2 or SHF Mud as per IEC 60092-360 - Outer sheath color : Grey (Non-IS Type) or Blue (IS Type)
	Core identification		- Each Pair / Triad : Core color ① Pair : Black, Light blue ② Triad : Black, Light blue, Brown - Multi Pairs / Triads : Number printing on the insulation or numbered tape

Note. Flexible cable (Class5 Conductor) can be supplied

Instrumentation & Communication Cable

250V BFOU(c), 250V BFCU(c), 250V BFBU(c)

No. of Pairs	Conductor			Thickness of Insulation	Thickness of inner covering	Nominal dia. inner covering	Dia. of wire for armour	Thickness of sheath	Overall diameter		Conductor Resistance (at 20℃) (Max.)	Insulation Resistance (at 20℃) (Min.)	Test Voltage	Cable Weight Approx.
	Nominal Area	Max. No. of wires	Max. overall dia.						Nominal	Toler-ance				
No.	mm^2	EA	mm	mm	mm	mm	mm	mm	mm	±mm	Ω/km	MΩ-km	V/5min.	kg/km
1P	0.75	7	1.2	0.6	1.0	8.0	0.3	1.2	11.9	0.7	26.3	1,170	1,500	210
2P	0.75	7	1.2	0.6	1.0	12.1	0.3	1.3	16.2	0.8	26.3	1,170	1,500	340
3P	0.75	7	1.2	0.6	1.0	12.9	0.3	1.4	17.2	0.8	26.3	1,170	1,500	390
4P	0.75	7	1.2	0.6	1.0	13.8	0.3	1.4	18.1	0.8	26.3	1,170	1,500	440
5P	0.75	7	1.2	0.6	1.0	15.5	0.3	1.5	20.0	0.9	26.3	1,170	1,500	510
6P	0.75	7	1.2	0.6	1.0	16.7	0.3	1.5	21.2	0.9	26.3	1,170	1,500	570
7P	0.75	7	1.2	0.6	1.0	16.7	0.3	1.5	21.2	0.9	26.3	1,170	1,500	600
8P	0.75	7	1.2	0.6	1.0	17.9	0.3	1.6	22.6	1.0	26.3	1,170	1,500	650
10P	0.75	7	1.2	0.6	1.0	20.2	0.3	1.7	25.1	1.1	26.3	1,170	1,500	770
12P	0.75	7	1.2	0.6	1.0	21.1	0.3	1.7	26.0	1.1	26.3	1,170	1,500	850
14P	0.75	7	1.2	0.6	1.0	21.9	0.3	1.7	26.8	1.1	26.3	1,170	1,500	920
16P	0.75	7	1.2	0.6	1.0	23.7	0.3	1.8	28.8	1.2	26.3	1,170	1,500	1,030
19P	0.75	7	1.2	0.6	1.0	24.8	0.3	1.8	29.9	1.2	26.3	1,170	1,500	1,150
24P	0.75	7	1.2	0.6	1.2	28.7	0.3	2.0	34.2	1.3	26.3	1,170	1,500	1,390
32P	0.75	7	1.2	0.6	1.2	32.8	0.4	2.2	39.1	1.5	26.3	1,170	1,500	1,840
1P	1.0	7	1.4	0.6	1.0	8.4	0.3	1.2	12.3	0.7	19.3	1,050	1,500	240
2P	1.0	7	1.4	0.6	1.0	12.7	0.3	1.4	17.0	0.8	19.3	1,050	1,500	370
3P	1.0	7	1.4	0.6	1.0	13.7	0.3	1.4	18.0	0.8	19.3	1,050	1,500	430
4P	1.0	7	1.4	0.6	1.0	14.6	0.3	1.4	18.9	0.9	19.3	1,050	1,500	490
5P	1.0	7	1.4	0.6	1.0	16.5	0.3	1.5	21.0	0.9	19.3	1,050	1,500	570
6P	1.0	7	1.4	0.6	1.0	17.7	0.3	1.6	22.4	1.0	19.3	1,050	1,500	630
7P	1.0	7	1.4	0.6	1.0	17.7	0.3	1.6	22.4	1.0	19.3	1,050	1,500	670
8P	1.0	7	1.4	0.6	1.0	18.9	0.3	1.6	23.6	1.0	19.3	1,050	1,500	730
10P	1.0	7	1.4	0.6	1.0	21.4	0.3	1.7	26.3	1.1	19.3	1,050	1,500	870
12P	1.0	7	1.4	0.6	1.0	22.4	0.3	1.7	27.3	1.1	19.3	1,050	1,500	970
14P	1.0	7	1.4	0.6	1.0	23.3	0.3	1.8	28.4	1.2	19.3	1,050	1,500	1,060
16P	1.0	7	1.4	0.6	1.0	25.1	0.3	1.9	30.4	1.2	19.3	1,050	1,500	1,180
19P	1.0	7	1.4	0.6	1.0	26.4	0.3	1.9	31.7	1.3	19.3	1,050	1,500	1,310
24P	1.0	7	1.4	0.6	1.2	30.5	0.4	2.1	36.6	1.4	19.3	1,050	1,500	1,700
32P	1.0	7	1.4	0.6	1.2	34.8	0.4	2.3	41.3	1.5	19.3	1,050	1,500	2,220
1P	1.5	7	1.7	0.7	1.0	9.3	0.3	1.2	13.2	0.7	12.9	1,020	1,500	270
2P	1.5	7	1.7	0.7	1.0	14.3	0.3	1.4	18.6	0.9	12.9	1,020	1,500	450
3P	1.5	7	1.7	0.7	1.0	15.3	0.3	1.5	19.8	0.9	12.9	1,020	1,500	520
4P	1.5	7	1.7	0.7	1.0	16.4	0.3	1.5	20.9	0.9	12.9	1,020	1,500	600
5P	1.5	7	1.7	0.7	1.0	18.5	0.3	1.6	23.2	1.0	12.9	1,020	1,500	700
6P	1.5	7	1.7	0.7	1.0	20.0	0.3	1.7	24.9	1.0	12.9	1,020	1,500	790
7P	1.5	7	1.7	0.7	1.0	20.0	0.3	1.7	24.9	1.0	12.9	1,020	1,500	840
8P	1.5	7	1.7	0.7	1.0	21.4	0.3	1.7	26.3	1.1	12.9	1,020	1,500	930
10P	1.5	7	1.7	0.7	1.0	24.2	0.3	1.8	29.3	1.2	12.9	1,020	1,500	1,110
12P	1.5	7	1.7	0.7	1.0	25.3	0.3	1.9	30.6	1.2	12.9	1,020	1,500	1,230
14P	1.5	7	1.7	0.7	1.0	26.3	0.3	1.9	31.6	1.2	12.9	1,020	1,500	1,350
16P	1.5	7	1.7	0.7	1.2	28.9	0.3	2.0	34.4	1.3	12.9	1,020	1,500	1,510
19P	1.5	7	1.7	0.7	1.2	30.3	0.4	2.1	36.4	1.4	12.9	1,020	1,500	1,800
24P	1.5	7	1.7	0.7	1.2	34.6	0.4	2.3	41.1	1.5	12.9	1,020	1,500	2,290
32P	1.5	7	1.7	0.7	1.4	39.9	0.4	2.5	46.8	1.7	12.9	1,020	1,500	2,870
1P	2.5	7	2.2	0.7	1.0	10.2	0.3	1.3	14.3	0.7	8.02	850	1,500	320
2P	2.5	7	2.2	0.7	1.0	15.8	0.3	1.5	20.3	0.9	8.02	850	1,500	520
3P	2.5	7	2.2	0.7	1.0	17.0	0.3	1.5	21.5	0.9	8.02	850	1,500	630
4P	2.5	7	2.2	0.7	1.0	18.2	0.3	1.6	22.9	1.0	8.02	850	1,500	720
5P	2.5	7	2.2	0.7	1.0	20.6	0.3	1.7	25.5	1.1	8.02	850	1,500	860
6P	2.5	7	2.2	0.7	1.0	22.2	0.3	1.7	27.1	1.1	8.02	850	1,500	970
7P	2.5	7	2.2	0.7	1.0	22.2	0.3	1.7	27.1	1.1	8.02	850	1,500	1,040
8P	2.5	7	2.2	0.7	1.0	23.8	0.3	1.8	28.9	1.2	8.02	850	1,500	1,150
10P	2.5	7	2.2	0.7	1.0	27.0	0.3	1.9	32.3	1.3	8.02	850	1,500	1,390
12P	2.5	7	2.2	0.7	1.2	28.6	0.3	2.0	34.1	1.3	8.02	850	1,500	1,560
14P	2.5	7	2.2	0.7	1.2	29.8	0.3	2.0	35.3	1.4	8.02	850	1,500	1,830
16P	2.5	7	2.2	0.7	1.2	32.2	0.4	2.2	38.5	1.5	8.02	850	1,500	2,130
19P	2.5	7	2.2	0.7	1.2	33.8	0.4	2.2	40.1	1.5	8.02	850	1,500	2,390
24P	2.5	7	2.2	0.7	1.4	39.0	0.4	2.4	45.7	1.7	8.02	850	1,500	2,920
32P	2.5	7	2.2	0.7	1.4	44.6	0.4	2.7	51.9	1.9	8.02	850	1,500	3,750

O-Route®

NEK-606, IEC 60092-350, 353, 354, 376

250V BFOU(c), 250V BFCU(c), 250V BFBU(c)

No. of Triads	Conductor			Thickness of Insulation	Thickness of inner covering	Nominal dia. inner covering	Dia. of wire for armour	Thickness of sheath	Overall diameter		Conductor Resistance (at 20℃) (Max.)	Insulation Resistance (at 20℃) (Min.)	Test Voltage	Cable Weight Approx.
	Nominal Area	Max. No. of wires	Max. overall dia.						Nominal	Toler-ance				
No.	mm^2	EA	mm	mm	mm	mm	mm	mm	mm	±mm	Ω/km	MΩ-km	V/5min.	kg/km
1T	0.75	7	1.2	0.6	1.0	8.4	0.3	1.2	12.3	0.7	26.3	1,170	1,500	240
2T	0.75	7	1.2	0.6	1.0	13.1	0.3	1.4	17.4	0.8	26.3	1,170	1,500	390
3T	0.75	7	1.2	0.6	1.0	14.0	0.3	1.4	18.3	0.8	26.3	1,170	1,500	460
4T	0.75	7	1.2	0.6	1.0	15.4	0.3	1.5	19.9	0.9	26.3	1,170	1,500	540
5T	0.75	7	1.2	0.6	1.0	17.2	0.3	1.5	21.7	1.0	26.3	1,170	1,500	620
6T	0.75	7	1.2	0.6	1.0	19.5	0.3	1.6	24.2	1.0	26.3	1,170	1,500	730
7T	0.75	7	1.2	0.6	1.0	19.5	0.3	1.6	24.2	1.0	26.3	1,170	1,500	770
8T	0.75	7	1.2	0.6	1.0	20.9	0.3	1.7	25.8	1.1	26.3	1,170	1,500	850
10T	0.75	7	1.2	0.6	1.0	23.8	0.3	1.8	28.9	1.2	26.3	1,170	1,500	1,010
12T	0.75	7	1.2	0.6	1.0	25.2	0.3	1.9	30.5	1.2	26.3	1,170	1,500	1,140
14T	0.75	7	1.2	0.6	1.0	26.4	0.3	1.9	31.7	1.3	26.3	1,170	1,500	1,250
16T	0.75	7	1.2	0.6	1.2	28.5	0.3	2.0	34.0	1.3	26.3	1,170	1,500	1,390
19T	0.75	7	1.2	0.6	1.2	30.8	0.4	2.1	36.9	1.4	26.3	1,170	1,500	1,680
24T	0.75	7	1.2	0.6	1.2	34.2	0.4	2.2	40.5	1.5	26.3	1,170	1,500	2,090
32T	0.75	7	1.2	0.6	1.4	39.8	0.4	2.5	46.7	1.7	26.3	1,170	1,500	2,620
1T	1.0	7	1.4	0.6	1.0	8.9	0.3	1.2	12.8	0.7	19.3	1,050	1,500	270
2T	1.0	7	1.4	0.6	1.0	14.0	0.3	1.4	18.3	0.8	19.3	1,050	1,500	440
3T	1.0	7	1.4	0.6	1.0	14.9	0.3	1.4	19.2	0.9	19.3	1,050	1,500	510
4T	1.0	7	1.4	0.6	1.0	16.5	0.3	1.5	21.0	0.9	19.3	1,050	1,500	610
5T	1.0	7	1.4	0.6	1.0	18.4	0.3	1.6	23.1	1.0	19.3	1,050	1,500	700
6T	1.0	7	1.4	0.6	1.0	20.9	0.3	1.7	25.8	1.1	19.3	1,050	1,500	820
7T	1.0	7	1.4	0.6	1.0	20.9	0.3	1.7	25.8	1.1	19.3	1,050	1,500	870
8T	1.0	7	1.4	0.6	1.0	22.4	0.3	1.7	27.3	1.1	19.3	1,050	1,500	970
10T	1.0	7	1.4	0.6	1.0	25.5	0.3	1.9	30.8	1.2	19.3	1,050	1,500	1,160
12T	1.0	7	1.4	0.6	1.2	27.5	0.3	2.0	33.0	1.3	19.3	1,050	1,500	1,300
14T	1.0	7	1.4	0.6	1.2	28.7	0.3	2.0	34.2	1.3	19.3	1,050	1,500	1,450
16T	1.0	7	1.4	0.6	1.2	30.6	0.4	2.1	36.7	1.4	19.3	1,050	1,500	1,710
19T	1.0	7	1.4	0.6	1.2	33.1	0.4	2.2	39.4	1.5	19.3	1,050	1,500	2,030
24T	1.0	7	1.4	0.6	1.2	36.8	0.4	2.3	43.3	1.6	19.3	1,050	1,500	2,420
32T	1.0	7	1.4	0.6	1.4	42.8	0.4	2.6	49.9	1.8	19.3	1,050	1,500	3,130
1T	1.5	7	1.7	0.7	1.0	9.9	0.3	1.2	13.8	0.7	12.9	1,020	1,500	310
2T	1.5	7	1.7	0.7	1.0	15.8	0.3	1.5	20.3	0.9	12.9	1,020	1,500	530
3T	1.5	7	1.7	0.7	1.0	16.8	0.3	1.5	21.3	0.9	12.9	1,020	1,500	640
4T	1.5	7	1.7	0.7	1.0	18.6	0.3	1.6	23.3	1.0	12.9	1,020	1,500	760
5T	1.5	7	1.7	0.7	1.0	20.8	0.3	1.7	25.7	1.1	12.9	1,020	1,500	880
6T	1.5	7	1.7	0.7	1.0	23.6	0.3	1.8	28.7	1.2	12.9	1,020	1,500	1,030
7T	1.5	7	1.7	0.7	1.0	23.6	0.3	1.8	28.7	1.2	12.9	1,020	1,500	1,100
8T	1.5	7	1.7	0.7	1.0	25.4	0.3	1.9	30.7	1.2	12.9	1,020	1,500	1,230
10T	1.5	7	1.7	0.7	1.2	29.4	0.3	2.0	34.9	1.3	12.9	1,020	1,500	1,590
12T	1.5	7	1.7	0.7	1.2	31.2	0.4	2.1	37.3	1.4	12.9	1,020	1,500	1,780
14T	1.5	7	1.7	0.7	1.2	32.6	0.4	2.2	38.9	1.5	12.9	1,020	1,500	2,070
16T	1.5	7	1.7	0.7	1.2	34.8	0.4	2.3	41.3	1.5	12.9	1,020	1,500	2,300
19T	1.5	7	1.7	0.7	1.4	38.1	0.4	2.4	44.8	1.6	12.9	1,020	1,500	2,620
24T	1.5	7	1.7	0.7	1.4	42.3	0.4	2.6	49.4	1.8	12.9	1,020	1,500	3,230
32T	1.5	7	1.7	0.7	1.6	49.1	0.4	2.8	56.6	2.0	12.9	1,020	1,500	4,070
1T	2.5	7	2.2	0.7	1.0	10.8	0.3	1.3	14.9	0.7	8.02	850	1,500	370
2T	2.5	7	2.2	0.7	1.0	17.4	0.3	1.5	21.9	1.0	8.02	850	1,500	640
3T	2.5	7	2.2	0.7	1.0	18.6	0.3	1.6	23.3	1.0	8.02	850	1,500	770
4T	2.5	7	2.2	0.7	1.0	20.6	0.3	1.7	25.5	1.1	8.02	850	1,500	930
5T	2.5	7	2.2	0.7	1.0	23.0	0.3	1.8	28.1	1.1	8.02	850	1,500	1,100
6T	2.5	7	2.2	0.7	1.0	26.1	0.3	1.9	31.4	1.2	8.02	850	1,500	1,290
7T	2.5	7	2.2	0.7	1.0	26.1	0.3	1.9	31.4	1.2	8.02	850	1,500	1,390
8T	2.5	7	2.2	0.7	1.2	28.5	0.3	2.0	34.0	1.3	8.02	850	1,500	1,560
10T	2.5	7	2.2	0.7	1.2	32.5	0.4	2.2	38.8	1.5	8.02	850	1,500	2,080
12T	2.5	7	2.2	0.7	1.2	34.5	0.4	2.2	40.8	1.5	8.02	850	1,500	2,360
14T	2.5	7	2.2	0.7	1.2	36.1	0.4	2.3	42.6	1.6	8.02	850	1,500	2,620
16T	2.5	7	2.2	0.7	1.4	38.9	0.4	2.4	45.6	1.7	8.02	850	1,500	2,920
19T	2.5	7	2.2	0.7	1.4	42.1	0.4	2.6	49.2	1.8	8.02	850	1,500	3,430
24T	2.5	7	2.2	0.7	1.4	46.9	0.4	2.7	54.2	1.9	8.02	850	1,500	4,130
32T	2.5	7	2.2	0.7	1.6	54.5	0.4	3.0	62.4	2.2	8.02	850	1,500	5,400