VFD Cable

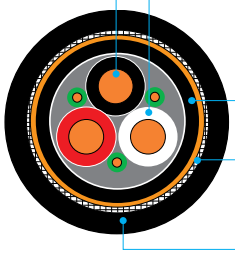
Cable Designation

0.6/1KV(1.8/3KV) RFOU(VFD), FX-RFOU(VFD)
1.8/3KV RFOU(VFD), FX-RFOU(VFD)

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℃/-35℃)
- Mud / Oil resistant : NEK 606 (Category a,b,c,d)
- 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
	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
	Inner covering	**F**	- Flame retardant halogen free thermoset compound
	Armor (Screen)	**(VFD)**	- CU/PS tape providing 100% Coverage
		O	- Braid of tinned annealed copper wire - A suitable seperator tape(s) may be applied under/over the armor
	Sheath	**U**	- SHF2 as per IEC 60092-360 - **Option** : NEK 606 Category a,b,c,d Mud or oil resistant - Outer sheath color : Black
	Core identification		- 3C+3E : Off-white, Black, Red + G/Y

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

O-Route®

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

0.6/1KV(1.8/3KV) RFOU(VFD), 1.8/3KV RFOU(VFD)

No. of Cores	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
	Nominal Area	Min. Number of wires	Max. Dia.						Nominal	Toler-ance				
No.	mm^2	ea.	mm	mm	mm	mm	mm	mm	mm	±mm	Ω/km	MΩ-km	V/5min.	kg/km
3C	25	7	6.6	2.2	1.0	25.7	0.3	1.9	31.7	1.6	0.734	830	6,500	1,970
+3E	6	7	3.3	1.0							3.110	790	3,500	
3C	35	7	7.9	2.2	1.2	28.7	0.3	2.0	34.9	1.7	0.529	730	6,500	2,420
+3E	6	7	3.3	1.0							3.110	790	3,500	
3C	50	19	9.1	2.2	1.2	31.5	0.4	2.2	38.5	1.8	0.391	640	6,500	3,160
+3E	10	7	4.2	1.0							1.840	640	3,500	
3C	70	19	11.0	2.2	1.2	35.4	0.4	2.3	42.6	2.0	0.270	550	6,500	4,150
+3E	16	7	5.3	1.0							1.160	530	3,500	
3C	95	19	12.9	2.4	1.4	40.7	0.4	2.5	48.3	2.2	0.195	510	6,500	5,330
+3E	16	7	5.3	1.0							1.160	530	3,500	
3C	120	37	14.5	2.4	1.4	44.2	0.4	2.7	52.2	2.4	0.154	460	6,500	6,540
+3E	25	7	6.6	1.2							0.734	510	3,500	
3C	150	37	16.2	2.4	1.4	47.6	0.4	2.8	55.8	2.5	0.126	420	6,500	7,590
+3E	25	7	6.6	1.2							0.734	510	3,500	
3C	185	37	18.0	2.4	1.6	51.9	0.4	3.0	60.5	2.7	0.1000	380	6,500	9,230
+3E	35	7	7.9	1.2							0.5290	440	3,500	
3C	240	61	20.6	2.4	1.6	57.7	0.4	3.2	66.7	3.0	0.0762	340	6,500	11,690
+3E	50	19	9.1	1.4							0.3910	440	3,500	

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No. of Cores	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
	Nominal Area	Max. dia. of wires	Max. overall dia.						Nominal	Toler-ance				
No.	mm^2	mm	mm	mm	mm	mm	mm	mm	mm	±mm	Ω/km	MΩ-km	V/5min.	kg/km
3C	25	0.41	7.8	2.2	1.2	28.3	0.3	2.0	34.5	1.7	0.795	750	6,500	2,140
+3E	6	0.31	3.9	1.0							3.390	790	3,500	
3C	35	0.41	9.2	2.2	1.2	31.3	0.4	2.1	38.1	1.8	0.565	650	6,500	2,710
+3E	6	0.31	3.9	1.0							3.390	790	3,500	
3C	50	0.41	11.0	2.2	1.2	34.7	0.4	2.3	41.9	2.0	0.393	570	6,500	3,520
+3E	10	0.41	5.1	1.0							1.950	630	3,500	
3C	70	0.51	13.1	2.2	1.4	39.2	0.4	2.5	46.8	2.2	0.277	490	6,500	4,550
+3E	16	0.41	6.3	1.0							1.240	470	3,500	
3C	95	0.51	15.1	2.4	1.4	44.0	0.4	2.7	52.0	2.4	0.210	470	6,500	5,640
+3E	16	0.41	6.3	1.0							1.240	470	3,500	
3C	120	0.51	17.0	2.4	1.4	47.8	0.4	2.8	56.0	2.5	0.164	420	6,500	6,880
+3E	25	0.41	7.8	1.2							0.795	450	3,500	
3C	150	0.51	19.0	2.4	1.6	52.1	0.4	3.0	60.7	2.7	0.132	380	6,500	8,120
+3E	25	0.41	7.8	1.2							0.795	450	3,500	
3C	185	0.51	21.0	2.4	1.6	56.2	0.4	3.1	65.0	2.9	0.108	350	6,500	9,620
+3E	35	0.41	9.2	1.2							0.565	390	3,500	
3C	240	0.51	24.0	2.4	1.6	63.1	0.4	3.4	72.5	3.2	0.0817	310	6,500	12,390
+3E	50	0.41	11.0	1.4							0.393	380	3,500	