

# 0.6/1kV Fire Alarm Cable with Heat Resistant tape

(0.6/1kV TFR-3)

## SCOPE

This cable is used in signaling or telecommunication under D.C 100V fire fighting equipments.

## APPLICATION STANDARDS

IEC 60502-1 Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1,2 kV) up to 30 kV (Um = 36 kV) - Part 1: Cables for rated voltages of 1 kV (Um = 1,2 kV) and 3 kV (Um = 3.6 kV)

IEC 60332-3-24 Tests on electric cables under fire conditions - Part 3-24 : Test for vertical flame spread of vertically-mounted bunched wires or cables - Category C

## MATERIALS & CONSTRUCTION

Conductor	Annealed copper wires Class 1 (Solid type) or Class 2 (Circular stranded type)
Insulation	XLPE (Max. operating conductor temperature, 90°C)
Heat Resistant Layer	Heat resistant tape
Oversheath	Flame retardant black PVC (FR-PVC/ST2)

## CORE IDENTIFICATION

2cores	Brown and Black
3cores	Brown, Black and Gray
3cores + N	Brown, Black, Gray + Blue
3cores + PE	Brown, Black, Gray + Green/Yellow
5cores and above	Numbering on black colored insulation

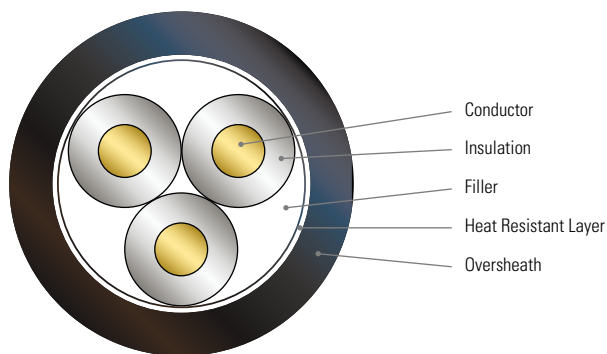
## OPTION

Different color of core identification and oversheath

Material of oversheath : Halogen free flame retardant polyolefin (ST8)

Flame Retardant : Cat. A or Cat. B in accordance with IEC 60332-3-22, -23

Oil Resistance, Anti-termite, Anti-rodent, Ozone resistance



**0.6/1kV CU/XLPE/HT/PVC  
(0.6/1kV TFR-3)**

Nos. of Core	Conductor			Thick. of Insulation (nom.)	Thick. of Oversheath (nom.)	Overall Diameter (approx.)	Max. DC Conductor Resistance at 20°C	A.C Voltage Test	Net weight (approx.)
	Size	CLASSES	Outer Dia.(approx.)						
	mm <sup>2</sup>	-	mm						
2	1.5	CLASS 1	1.38	0.7	1.8	11	12.1	3500	125
	2.5	CLASS 1	1.78	0.7	1.8	12	7.41	3500	157
	4	CLASS 1	2.25	0.7	1.8	13	4.61	3500	200
	1.5	CLASS 2	1.59	0.7	1.8	12	12.1	3500	136
	2.5	CLASS 2	2.01	0.7	1.8	13	7.41	3500	164
	4	CLASS 2	2.55	0.7	1.8	14	4.61	3500	213
3	1.5	CLASS 1	1.38	0.7	1.8	12	12.1	3500	147
	2.5	CLASS 1	1.78	0.7	1.8	13	7.41	3500	187
	4	CLASS 1	2.25	0.7	1.8	14	4.61	3500	247
	1.5	CLASS 2	1.59	0.7	1.8	12	12.1	3500	156
	2.5	CLASS 2	2.01	0.7	1.8	13	7.41	3500	200
	4	CLASS 2	2.55	0.7	1.8	15	4.61	3500	260
4	1.5	CLASS 1	1.38	0.7	1.8	13	12.1	3500	177
	2.5	CLASS 1	1.78	0.7	1.8	14	7.41	3500	228
	4	CLASS 1	2.25	0.7	1.8	15	4.61	3500	299
	1.5	CLASS 2	1.59	0.7	1.8	13	12.1	3500	188
	2.5	CLASS 2	2.01	0.7	1.8	14	7.41	3500	238
	4	CLASS 2	2.55	0.7	1.8	16	4.61	3500	322
5	1.5	CLASS 1	1.38	0.7	1.8	14	12.1	3500	206
	2.5	CLASS 1	1.78	0.7	1.8	15	7.41	3500	268
	4	CLASS 1	2.25	0.7	1.8	16	4.61	3500	358
	1.5	CLASS 2	1.59	0.7	1.8	14	12.1	3500	219
	2.5	CLASS 2	2.01	0.7	1.8	16	7.41	3500	282
	4	CLASS 2	2.55	0.7	1.8	17	4.61	3500	377
6	1.5	CLASS 1	1.38	0.7	1.8	15	12.1	3500	236
	2.5	CLASS 1	1.78	0.7	1.8	16	7.41	3500	312
	4	CLASS 1	2.25	0.7	1.8	18	4.61	3500	418
	1.5	CLASS 2	1.59	0.7	1.8	15	12.1	3500	251
	2.5	CLASS 2	2.01	0.7	1.8	17	7.41	3500	326
	4	CLASS 2	2.55	0.7	1.8	19	4.61	3500	441
7	1.5	CLASS 1	1.38	0.7	1.8	15	12.1	3500	252
	2.5	CLASS 1	1.78	0.7	1.8	16	7.41	3500	336
	4	CLASS 1	2.25	0.7	1.8	18	4.61	3500	456
	1.5	CLASS 2	1.59	0.7	1.8	15	12.1	3500	269
	2.5	CLASS 2	2.01	0.7	1.8	17	7.41	3500	352
	4	CLASS 2	2.55	0.7	1.8	19	4.61	3500	480
8	1.5	CLASS 1	1.38	0.7	1.8	16	12.1	3500	281
	2.5	CLASS 1	1.78	0.7	1.8	17	7.41	3500	380
	4	CLASS 1	2.25	0.7	1.8	19	4.61	3500	518
	1.5	CLASS 2	1.59	0.7	1.8	16	12.1	3500	286
	2.5	CLASS 2	2.01	0.7	1.8	18	7.41	3500	398
	4	CLASS 2	2.55	0.7	1.8	20	4.61	3500	545

Nos. of Core	Conductor			Thick. of Insulation (nom.)	Thick. of Oversheath (nom.)	Overall Diameter (approx.)	Max. DC Conductor Resistance at 20°C	A.C Voltage Test	Net weight (approx.)
	Size	CLASSES	Outer Dia.(approx.)						
	mm <sup>2</sup>	-	mm						
10	1.5	CLASS 1	1.38	0.7	1.8	18	12.1	3500	338
	2.5	CLASS 1	1.78	0.7	1.8	19	7.41	3500	459
	4	CLASS 1	2.25	0.7	1.8	21	4.61	3500	630
	1.5	CLASS 2	1.59	0.7	1.8	18	12.1	3500	361
	2.5	CLASS 2	2.01	0.7	1.8	20	7.41	3500	481
	4	CLASS 2	2.55	0.7	1.8	23	4.61	3500	666
12	1.5	CLASS 1	1.38	0.7	1.8	18	12.1	3500	376
	2.5	CLASS 1	1.78	0.7	1.8	19	7.41	3500	518
	4	CLASS 1	2.25	0.7	1.8	22	4.61	3500	721
	1.5	CLASS 2	1.59	0.7	1.8	19	12.1	3500	403
	2.5	CLASS 2	2.01	0.7	1.8	21	7.41	3500	540
	4	CLASS 2	2.55	0.7	1.8	24	4.61	3500	759
15	1.5	CLASS 1	1.38	0.7	1.8	20	12.1	3500	448
	2.5	CLASS 1	1.78	0.7	1.8	22	7.41	3500	617
	4	CLASS 1	2.25	0.7	1.8	24	4.61	3500	865
	1.5	CLASS 2	1.59	0.7	1.8	21	12.1	3500	480
	2.5	CLASS 2	2.01	0.7	1.8	23	7.41	3500	649
	4	CLASS 2	2.55	0.7	1.8	25	4.61	3500	908
20	1.5	CLASS 1	1.38	0.7	1.8	22	12.1	3500	564
	2.5	CLASS 1	1.78	0.7	1.8	24	7.41	3500	792
	4	CLASS 1	2.25	0.7	1.8	27	4.61	3500	1120
	1.5	CLASS 2	1.59	0.7	1.8	23	12.1	3500	608
	2.5	CLASS 2	2.01	0.7	1.8	26	7.41	3500	830
	4	CLASS 2	2.55	0.7	1.8	29	4.61	3500	1180
30	1.5	CLASS 1	1.38	0.7	1.8	25	12.1	3500	786
	2.5	CLASS 1	1.78	0.7	1.8	28	7.41	3500	1119
	4	CLASS 1	2.25	0.7	1.8	32	4.61	3500	1601
	1.5	CLASS 2	1.59	0.7	1.8	27	12.1	3500	845
	2.5	CLASS 2	2.01	0.7	1.8	30	7.41	3500	1172
	4	CLASS 2	2.55	0.7	1.8	34	4.61	3500	1684