



UDEY PYROCABLES PVT. LTD.

FIRE RESISTANT CABLE – BS7846



APPLICATION

Fire Resistant Armoured Cable is suitable for use in Fixed installations for Power Circuits, Emergency Lighting Systems, Sprinkler Pumps, Fire Detection & Alarm systems, Hospitals, Airports, Offices, Theatres, Railway Stations etc.

CABLE STANDARDS

Basic Design : BS 7846
Fire Resistant : BS 7846(Cat. F2) / BS6387 (Cat. C-W-Z)
Cat C : Cables are subjected to fire at 950°C for 3 hours
Cat W : Cables are subjected to fire at 650°C for 15 minutes then at 650°C with water spray for further 15 minutes
Cat Z : Cables are subjected to fire at 950°C, with mechanical shock for 15 minutes
During the test, the flame & test voltage shall be applied continuously for a period of 3 hours and no fuse shall be ruptured nor any lamp extinguished.

CONSTRUCTION

Conductor

Class 2 stranded copper conductor to BS EN 60228

Fire Barrier Tape

Mica/Glass tape

Insulation

XLPE (Cross-Linked Polyethylene)

Bedding

LSZH (Low Smoke Zero Halogen)

Armour

SWA (Steel Wire Armour)

Sheath

LSZH (Low Smoke Zero Halogen)

CHARACTERISTICS

Voltage Rating (Uo/U)

600/1000V

Operating Temperature

-10°C to +90°C

Minimum Bending Radius

Up to 25mm² : 6 X Overall Diameter
Above 25mm² : 8 X Overall Diameter

Core Identification

2 Core: ● Brown, ● Blue

3 Core: ● Brown, ● Black, ● Grey

4 Core: ● Blue, ● Brown, ● Black, ● Grey

5 Core: ● Green/Yellow, ● Blue, ● Brown, ● Black, ● Grey

(5 Core also available with White Numbered Cores)

Sheath Color

● Black



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DIMENSIONS

Udey Pyro Part No	No of Cores	Nominal Cross Sectional Area mm	Insulation Radial Thickness mm	Galvanized Steel Armour Wire Diameter mm	Outer Sheath Radial Thickness mm	Approx. Overall Diameter mm	Approx. Weight Kg/Km
UPFS02015	2	1.5	0.6	0.9	1.4	12.4	240
UPFS02025	2	2.5	0.7	0.9	1.4	13.8	300
UPFS02040	2	4	0.7	0.9	1.4	15	360
UPFS02060	2	6	0.7	0.9	1.4	16	440
UPFS0210	2	10	0.7	0.9	1.5	18	580
UPFS0216	2	16	0.7	0.9	1.5	20.5	860
UPFS0225	2	25	0.9	1.25	1.6	24.7	1050
UPFS0235	2	35	0.9	1.6	1.7	27.8	1450
UPFS0250	2	50	1	1.6	1.8	25.4	1700
UPFS0270	2	70	1.1	1.6	1.9	28.2	2250
UPFS0295	2	95	1.1	2	2	31.6	3050
UPFS02120	2	120	1.2	2	2.1	36.4	3650
UPFS02150	2	150	1.4	2	2.2	38.6	4350
UPFS02185	2	185	1.6	2.5	2.4	42.2	5650
UPFS02240	2	240	1.7	2.5	2.5	47	6950
UPFS02300	2	300	1.8	2.5	2.6	52.2	8350
UPFS02400	2	400	2	2.5	2.8	58	11030
UPFS03015	3	1.5	0.6	0.9	1.3	12.9	260
UPFS03025	3	2.5	0.7	0.9	1.4	14.4	320
UPFS03040	3	4	0.7	0.9	1.4	15.7	400
UPFS03060	3	6	0.7	0.9	1.4	16.8	490
UPFS0310	3	10	0.7	1.25	1.5	19.6	760
UPFS0316	3	16	0.7	1.25	1.6	21.8	1020
UPFS0325	3	25	0.9	1.6	1.7	27	1600
UPFS0335	3	35	0.9	1.6	1.8	29.6	1950
UPFS0350	3	50	1	1.6	1.8	30.8	2250
UPFS0370	3	70	1.1	1.6	1.9	33	2000
UPFS0395	3	95	1.1	2	2.1	37.9	4100
UPFS03120	3	120	1.2	2	2.2	41.4	4950
UPFS03150	3	150	1.4	2.5	2.3	46.5	6350
UPFS03185	3	185	1.6	2.5	2.4	51	7600
UPFS03240	3	240	1.7	2.5	2.6	55.6	9550
UPFS03300	3	300	1.8	2.5	2.7	62.1	11550
UPFS03400	3	400	2	2.5	2.9	67.7	14400
UPFS04015	4	1.5	0.6	0.9	1.3	13.8	367
UPFS04025	4	2.5	0.7	0.9	1.4	15.4	454
UPFS04040	4	4	0.7	0.9	1.4	16.9	556
UPFS04060	4	6	0.7	1.25	1.5	19	783
UPFS0410	4	10	0.7	1.25	1.5	21.2	1029
UPFS0416	4	16	0.7	1.25	1.6	23.6	1367
UPFS0425	4	25	0.9	1.6	1.7	29.3	2240
UPFS0435	4	35	0.9	1.6	1.8	32.2	2705
UPFS0450	4	50	1	1.6	1.9	32.6	3375
UPFS0470	4	70	1.1	2	2.1	38	4560
UPFS0495	4	95	1.1	2	2.2	42	5805
UPFS04120	4	120	1.2	2.5	2.3	46.8	7430
UPFS04150	4	150	1.4	2.5	2.4	51.6	8820



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DIMENSIONS

Udey Pyro Part No	No of Cores	Nominal Cross Sectional Area mm	Insulation Radial Thickness mm	Galvanized Steel Armour Wire Diameter mm	Outer Sheath Radial Thickness mm	Approx. Overall Diameter mm	Approx. Weight Kg/Km
UPFS04185	4	185	1.6	2.5	2.6	56.4	10600
UPFS04240	4	240	1.7	2.5	2.7	61.8	13380
UPFS04300	4	300	1.8	2.5	2.9	67.9	16255
UPFS04400	4	400	2	3.15	3.2	78	21145
UPFS05015	5	1.5	0.6	0.9	1.4	14.6	370
UPFS05025	5	2.5	0.7	0.9	1.4	16.1	470
UPFS05040	5	4	0.7	0.9	1.5	18.5	680
UPFS05060	5	6	0.7	1.25	1.5	20	810
UPFS0510	5	10	0.7	1.25	1.6	22.2	1090
UPFS0516	5	16	0.7	1.6	1.7	25.8	1640
UPFS0525	5	25	0.9	1.6	1.8	30.5	2250
UPFS0535	5	35	0.9	1.6	1.9	33.5	2850
UPFS0550	5	50	1	2	2	38.5	3860
UPFS0570	5	70	1.1	2	2.2	44.5	5200
UPFS07015	7	1.5	0.6	0.9	1.4	15.9	405
UPFS07025	7	2.5	0.7	0.9	1.4	17.7	520
UPFS07040	7	4	0.7	1.25	1.5	20.3	750
UPFS12015	12	1.5	0.6	1.25	1.5	20.6	675
UPFS12025	12	2.5	0.7	1.25	1.6	23.3	697
UPFS12040	12	4	0.7	1.6	1.6	26.5	1300
UPFS19015	19	1.5	0.6	1.25	1.6	23.6	890
UPFS19025	19	2.5	0.7	1.6	1.7	27.5	1350
UPFS19040	19	4	0.7	1.6	1.7	30.5	1750
UPFS27015	27	1.5	0.6	1.6	1.7	28.3	1300
UPFS27025	27	2.5	0.7	1.6	1.8	32.2	1700
UPFS27040	27	4	0.7	1.6	1.9	36	2350
UPFS37015	37	1.5	0.6	1.6	1.7	31.1	1650
UPFS37025	37	2.5	0.7	1.6	1.8	35.5	2300
UPFS37040	37	4	0.7	1.6	1.9	40.8	3445
UPFS48015	48	1.5	0.6	1.6	1.8	35.1	1950
UPFS48025	48	2.5	0.7	2	2	41.1	3000
UPFS48040	48	4	0.7	2	2.1	46.2	4240



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CONDUCTORS

Nominal Cross Sectional Area mm ²	Maximum DC Resistance @ 20°C ohms/km
1.5	12.1
2.5	7.41
4	4.61
6	3.08
10	1.83
16	1.15
25	0.727
35	0.524
50	0.387
70	0.268
95	0.193
120	0.153
150	0.124
185	0.0991
240	0.0754
300	0.0601
400	0.047

ELECTRICAL CHARACTERISTIC

Current Carrying Capacity

Nominal Cross Sectional Area	2 Core			3,4 and 5 Core			7,12,19,27,37 and 48 Core					
	Single-Phase			Three-Phase			Single-Phase			Three-Phase		
	Laid Direct Amps	In Ducts Amps	In Air Amps	Laid Direct Amps	In Ducts Amps	In Air Amps	Laid Direct Amps	In Ducts Amps	In Air Amps	Laid Direct Amps	In Ducts Amps	In Air Amps
1.5	38	31	31	32	26	26	38	31	31	32	26	26
2.5	49	41	41	42	34	35	49	41	41	42	34	35
4	65	53	55	55	45	47	65	53	55	55	45	47
6	81	67	70	69	56	59	-	-	-	-	-	-
10	109	89	95	92	75	82	-	-	-	-	-	-
16	141	115	126	119	96	107	-	-	-	-	-	-
25	183	148	164	152	124	140	-	-	-	-	-	-
35	219	178	202	182	149	172	-	-	-	-	-	-
50	259	211	244	217	177	209	-	-	-	-	-	-
70	317	260	306	266	218	263	-	-	-	-	-	-
95	381	313	378	319	263	324	-	-	-	-	-	-
120	433	357	437	363	300	376	-	-	-	-	-	-
150	485	401	499	406	338	430	-	-	-	-	-	-
185	547	455	576	458	382	495	-	-	-	-	-	-
240	632	527	680	529	442	584	-	-	-	-	-	-
300	708	592	775	592	496	672	-	-	-	-	-	-
400	799	669	892	667	570	766	-	-	-	-	-	-



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VOLTAGE DROP

Nominal Cross Sectional Area mm ²	DC mV/A/M	Single Phase AC mV/A/M	Three Phase AC mV/A/M
1.5	31	31	27
2.5	19	19	16
4	12	12	10
6	7.9	7.9	6.8
10	4.7	4.7	4
16	2.9	2.9	2.5
25	1.85	1.9	1.65
35	1.35	1.35	1.15
50	0.98	1	0.87
70	0.67	0.69	0.6
95	0.49	0.52	0.45
120	0.39	0.42	0.37
150	0.31	0.35	0.3
185	0.25	0.29	0.26
240	0.195	0.24	0.21
300	0.155	0.21	0.185
400	0.12	0.19	0.165



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All specifications are subject to change without prior notice



UDEY PYROCABLES PVT. LTD.

FIRE RESISTANT CABLE – BS7629 - 1



APPLICATION

Fire Resistant Standard Cable is suitable for Fire Detection & Alarm Systems, Emergency Lighting, Sprinkler Pumps, Traffic Control Systems, Hospitals, Airports, Underground Tunnels etc.

CONSTRUCTION

Conductor

1.5mm² - 2.5mm² :

Class 1 solid conductor according to BS EN 60228

4mm² :

Class 2 stranded conductor according to BS EN 60228

Insulation

Fire Resistant Silicone Rubber

Protective Conductor

Tinned annealed copper, full size CPC

Screen

AL/PET (Aluminum/Polyester Tape)

Sheath

LSZH (Low Smoke Zero Halogen)

CABLE STANDARDS

Basic Design : BS7629-1

Fire Resistant : BS6387 (Cat. C-W-Z)

Cat C : Cables are subjected to fire at 950°C for 3 hours

Cat W : Cables are subjected to fire at 650°C for

15 minutes, then at 650°C with water spray for further 15 minutes

Cat Z : Cables are subjected to fire at 950°C, with mechanical shock for 15 minutes

During the test, the flame & test voltage shall be applied continuously for a period of 3 hours and no fuse shall be ruptured nor any lamp extinguished.

CHARACTERISTICS

Voltage Rating (U_o/U)

300/500V

Operating Temperature

-10°C to +90°C

Minimum Bending Radius

6 X Overall Diameter

Core Identification

2 Core + Earth : ● Brown, ● Blue

3 Core + Earth : ● Brown, ● Black, ● Grey

4 Core + Earth : ● Brown, ● Black, ● Grey, ● Blue

Sheath Color

● Red, ○ White

Other Colors available on request



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DIMENSIONS

Udey Pyro Part No	No of Cores	Nominal cross Sectional Area mm ²	Approx. Overall Diameter mm	Approx. Weight Kg/km
UPFS02015	2	1.5	7.7	87
UPFS02025	2	2.5	9.1	129
UPFS02040	2	4	10.8	192
UPFS03015	3	1.5	8.2	110
UPFS03025	3	2.5	9.7	163
UPFS03040	3	4	11.5	244
UPFS04015	4	1.5	9.2	139
UPFS04025	4	2.5	10.9	210
UPFS04040	4	4	12.7	306

CONDUCTORS

Nominal Cross Sectional Area mm ²	Maximum DC Resistance @ 20°C ohms/km
1.5	12.1
2.5	7.41
4	4.61

ELECTRICAL CHARACTERISTIC Current Carrying Capacity

Nominal Cross Sectional Area mm ²	Current Rating	
	2 Core Single Phase AC or DC Amps	3 & 4 Core Single Phase AC or DC Amps
1.5	19.5	17.5
2.5	27	24
4	36	32

VOLTAGE DROP

Nominal Cross Sectional Area mm ²	DC mV/A/M	Single Phase AC mV/A/M	Three Phase AC mV/A/M
1.5	29	29	25
2.5	18	18	15
4	11	11	9.5



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