

FP400®

Fire Resistant Armoured Power Cable. BS 7846-F2. 600/1000 V



Prysmian FP400 is a tough, armoured cable with low fire hazard properties and limited fire resistance

KEY APPLICATIONS

Designed primarily for clipped directly to a surface, on tray, in basket or in free air. These cables can also be laid direct in ground or in ducts in free draining soil, or embedded in concrete

Fire resistant, low fire hazard armoured power and control cable.

Use for fire performance circuits in public buildings.

FEATURES AND BENEFITS

- Fire resistant to BS 7846 F2
- Robust armour provides cable with added mechanical protection
- Reduced flame propagation
- Low smoke and corrosive gas emissions Low Smoke, Zero Halogen (LSOH®)
- Manufactured under ISO 9001 Quality management systems
- Multi core steel wire armour

STANDARDS



BS 7846 - Category F2
BS 6387 Category CWZ
BS EN 61034-2
BS EN 60754-1
BS EN 60332-1-2
BS EN 60332-3-24

Construction Standard
 Fire Resistant Tests
 Smoke emission
 Corrosive and acid gas
 Flame Propagation - Single Cable
 Flame Propagation - Multiple (bunched) Cables - Category C

CONSTRUCTION

Conductor material	Copper
Conductor surface	Bare
Core insulation material	Mica + XLPE
Armouring/reinforcement	Wire
Armouring	Yes
Material inner sheath	Low smoke zero halogen
Material outer sheath	Low smoke zero halogen
Cable shape	Round

APPLICATIONS PROPERTIES

Nominal voltage U ₀ [V]	600
Nominal voltage U [V]	1,000
Flame retardant	In accordance with BS EN 60332-3-24
Halogen free	Yes
Low smoke	Yes
Max. conductor temperature [°C]	90
Min. Operation temperature [°C]	-25
UV resistant	Yes
Outdoor installation	Yes
Min. Installation temperature [°C]	0
Max. Installation temperature [°C]	80
Underground installation	Yes
Bending radius (rule)	8D

COLOURS

Insulation: Two Cores: Brown, Blue;

Three Cores: Brown, Black, Grey;

Four Cores: Blue, Brown, Black, Grey;

Five Cores: Blue, Brown, Black, Grey, Green/Yellow;

7 to 37 Cores: White (with printed numbers);

Sheath:Black

CURRENT RATINGS

Refer to table 4E4 of BS 7671 Requirements for Electrical Installations. IET Wiring Regulations

Note: Where a conductor operates at a temperature exceeding 70°C it shall be ascertained that the equipment connected to the conductor is suitable for the conductor operating temperature

TECHNICAL DATA

Number of cores	Nominal cross section conductor [mm ²]	Shape of conductor	Nominal diameter of armouring wire [mm]	Nominal diameter under armour [mm]	Nominal outer diameter [mm]	Cable weight [kg/km]	Conductor resistance at 20° C [Ohm/km]
2	1.5	Round	0.9	9.1	13.4	345	12.1
2	2.5	Round	0.9	10.2	14.8	415	7.41
2	4	Round	0.9	11.4	15.8	480	4.61
2	6	Round	0.9	12	16.6	550	3.08
2	10	Round	0.9	15.1	19.8	740	1.83
2	16	Round	1.25	16.3	22	1,050	1.15
2	25	Round	1.25	19.6	26	1,400	0.727
2	35	Round	1.6	23	29	1,900	0.524
2	50	Sector-shaped	1.6	23	30	2,100	0.387
2	70	Sector-shaped	1.6	25	33	2,600	0.268
2	95	Sector-shaped	2	26	34	3,200	0.193
2	120	Sector-shaped	2	29	37	3,900	0.153
2	150	Sector-shaped	2	32	40	4,600	0.124
2	185	Sector-shaped	2.5	35	45	5,900	0.0991
2	240	Sector-shaped	2.5	40	50	7,200	0.0754
2	300	Sector-shaped	2.5	44	54	8,600	0.0601
2	400	Sector-shaped	2.5	49	59	10,500	0.047
3	1.5	Round	0.9	9.3	13.9	370	12.1
3	2.5	Round	0.9	10.8	15.4	455	7.41
3	4	Round	0.9	11.6	16.3	525	4.61
3	6	Round	0.9	13.3	17.8	650	3.08
3	10	Round	1.25	16	22	1,000	1.83
3	16	Round	1.25	17.6	24	1,250	1.15
3	25	Round	1.6	22	28	1,800	0.727
3	35	Round	1.6	25	32	2,300	0.524
3	50	Sector-shaped	1.6	25	32	2,600	0.387
3	70	Sector-shaped	1.6	28	35	3,300	0.268
3	95	Sector-shaped	2	30	38	4,400	0.193
3	120	Sector-shaped	2	34	42	5,200	0.153
3	150	Sector-shaped	2.5	37	47	6,600	0.124
3	185	Sector-shaped	2.5	42	51	7,900	0.0991
3	240	Sector-shaped	2.5	47	56	9,900	0.0754
3	300	Sector-shaped	2.5	51	61	11,900	0.0601
3	400	Sector-shaped	2.5	57	67	14,700	0.047
4	1.5	Round	0.9	10.2	14.8	415	12.1

TECHNICAL DATA

Number of cores	Nominal cross section conductor [mm ²]	Shape of conductor	Nominal diameter of armouring wire [mm]	Nominal diameter under armour [mm]	Nominal outer diameter [mm]	Cable weight [kg/km]	Conductor resistance at 20° C [Ohm/km]
4	2.5	Round	0.9	12.1	16.9	530	7.41
4	4	Round	0.9	13	17.6	610	4.61
4	6	Round	1.25	14.7	21	880	3.08
4	10	Round	1.25	17.6	24	1,150	1.83
4	16	Round	1.25	19.3	25	1,450	1.15
4	25	Round	1.6	24	30	2,200	0.727
4	35	Round	1.6	28	34	2,800	0.524
4	50	Sector-shaped	1.6	29	35	3,200	0.387
4	70	Sector-shaped	2	31	39	4,200	0.268
4	95	Sector-shaped	2	34	42	5,300	0.193
4	120	Sector-shaped	2.5	38	48	6,800	0.153
4	150	Sector-shaped	2.5	42	52	8,100	0.124
4	185	Sector-shaped	2.5	47	57	9,900	0.0991
4	240	Sector-shaped	2.5	53	63	12,200	0.0754
4	300	Sector-shaped	2.5	58	68	14,900	0.0601
4	400	Sector-shaped	3.15	65	77	19,400	0.047
5	1.5	Round	0.9	11.2	15.6	445	12.1
5	2.5	Round	0.9	12.9	17.3	550	7.41
5	4	Round	0.9	14.2	18.7	660	4.61
5	6	Round	1.25	16.3	23	990	3.08
5	10	Round	1.25	19.2	25	1,300	1.83
5	16	Round	1.6	22	29	1,900	1.15
5	25	Round	1.6	27	34	2,600	0.727
5	35	Round	1.6	30	37	3,200	0.524
7	1.5	Round	0.9	12.2	16.8	520	12.1
7	2.5	Round	0.9	14.9	19.4	700	7.41
7	4	Round	1.25	15.5	21	920	4.61
12	1.5	Round	1.25	16.2	22	860	12.1
12	2.5	Round	1.25	18.7	25	1,100	7.41
12	4	Round	1.6	21	27	1,500	4.61
19	1.5	Round	1.25	19	25	1,150	12.1
19	2.5	Round	1.6	23	29	1,650	7.41
19	4	Round	1.6	25	31	2,000	4.61
27	1.5	Round	1.6	24	30	1,650	12.1
27	2.5	Round	1.6	27	34	2,100	7.41

TECHNICAL DATA

Number of cores	Nominal cross section conductor [mm ²]	Shape of conductor	Nominal diameter of armouring wire [mm]	Nominal diameter under armour [mm]	Nominal outer diameter [mm]	Cable weight [kg/km]	Conductor resistance at 20° C [Ohm/km]
27	4	Round	1.6	30	37	2,600	4.61
37	1.5	Round	1.6	27	33	1,950	12.1
37	2.5	Round	1.6	31	38	2,600	7.41