

AFUMEX® BRONZE | 0.6/1kV | CLASS 2
FIRESTOP FS90 STRANDED CONDUCTOR MULTICORE

Cable description

Fire rated multicore LSZH cable suitable for installation wiring.

Application

Power supply to essential equipment such as lighting, fans and lifts affording circuit integrity in the event of a fire in confined spaces.

- Classified (WS52W) meaning the scope of testing is designed to confirm performance when installed in a wiring system.
- Circuit integrity up to an extreme temperature of 1050 °C at the end of 2 hours.
- LSZH – Suitable for confined and high people density areas such as underground transport tunnels, airports and public buildings.

Approvals/Qualifications

NATA accredited facility Qualification (third party)
AS/NZS 5000.1.
AS/NZS 3013 WS52W

Behaviour in flame and fire

Fire performance rating:
AS/NZS 3013 WS52W

Flame propagation:
IEC 60332-1

Halogen free/Low smoke emission:
AS/NZS 4507

Temperature range

Maximum operating temperature: +90 °C
Minimum operating temperature: -25 °C

Flexibility

Minimum bending radius:
Installed cables: 10D
During installation: 12D

Resistance to

Fire: 2 hrs
Chemical exposure: Occasional
Mechanical impact: Moderate
Water exposure: Spray
Solar radiation and weather exposure: UV stabilised

Cable design

Conductor: Stranded copper conductor (class 2)
Fire barrier: Mica glass tape
Insulation: X-90 (XLPE)
Colour: 2 cores: Red, black
3 cores: Red, black, blue
4 cores: Red, black, blue, white
5 cores: White with numbered cores
Sheath: Orange, red or black, HFS-90-TP (LSZH)

Installation conditions

In free air
In duct
Internal wiring
External building

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Physical & electrical characteristics

FIRESTOP FS90 STRANDED CONDUCTOR MULTICORE

Product code	Number of cores	Nominal conductor area mm ²	Approx. overall diameter mm	Approx. mass kg/100 m	AS/NZS 3013 WS Rating
1.52CEFS90	2C+E	1.5	11.9	19	WS52W
2.52CEFS90	2C+E	2.5	13.4	25	WS52W
4.2CEFS90	2C+E	4.0	14.2	29	WS52W
6.2CEFS90	2C+E	6.0	15.3	35	WS52W
1.03CFS90	3C	1.0	11.9	17	WS51W
1.53CFS90	3C	1.5	12.5	20	WS52W
2.53CFS90	3C	2.5	13.6	25	WS52W
1.53CEFS90	3C+E	1.5	13.4	23	WS52W
2.53CEFS90	3C+E	2.5	14.6	29	WS52W
4.3CEFS90	3C+E	4.0	15.6	35	WS52W
6.3CEFS90	3C+E	6.0	16.8	43	WS52W
1.54CFS90	4C	1.5	13.6	23	WS52W
2.54CFS90	4C	2.5	14.8	30	WS52W
1.54CEFS90	4C+E	1.5	14.6	26	WS52W
2.54CEFS90	4C+E	2.5	16	34	WS52W
4.4CEFS90	4C+E	4.0	16.8	42	WS52W
6.4CEFS90	4C+E	6.0	18.5	53	WS52W
1.56CFS90	6C	1.5	16.1	28	WS52W
1.56CEFS90	6C+E	1.5	16.1	29	WS52W
2.56CEFS90	6C+E	2.5	17.6	39	WS52W
1.57CF90	7C	1.5	16.1	29	WS52W
1.510CEFS90	10C+E	1.5	20.2	42	WS52W
2.510CEFS90	10C+E	2.5	22.2	57	WS52W
1.520CEFS90	20C+E	1.5	25.7	72	WS52W
2.520CEFS90	20C+E	2.5	28.4	99	WS52W

Physical & electrical characteristics

CLASS 2 | FS90 MULTICORE

Size	Resistance		Reactance at 50Hz (ohm/km)	Voltage drop (mV/A.m)	
	DC @ 20°C	AC @ 90°C		Three phase	Single phase
1.5	13.6	17.3	0.107	30.0	34.6
2.5	7.41	9.45	0.0988	16.4	18.9
4	4.61	5.88	0.0930	10.2	11.8
6	3.08	3.93	0.0887	6.80	7.85
10	1.83	2.33	0.084	4.05	4.68
16	1.15	1.47	0.0805	2.55	2.94
25	0.727	0.927	0.0808	1.61	1.86
35	0.524	0.669	0.0786	1.17	1.35
50	0.387	0.494	0.0751	0.868	1.00
70	0.268	0.343	0.0741	0.609	0.703
95	0.193	0.248	0.0725	0.450	0.520
120	0.153	0.197	0.0713	0.366	0.423
150	0.124	0.16	0.0718	0.307	0.354
185	0.0991	0.129	0.072	0.259	0.299
240	0.0754	0.0998	0.0709	0.216	0.249
300	0.0601	0.0812	0.0704	0.189	0.218

Physical & electrical characteristics

CURRENT CARRYING CAPACITY* CLASS 2 FS90 MULTICORE				
Nominal conductor area mm ²	Unenclosed		Enclosed	
	Spaced A	Touching surface A	Wiring enclosure in air A	Underground duct one duct A
TWO CORE & TWO CORE + EARTH				
1,5	24	22	20	24
2,5	34	31	28	34
4	45	42	37	45
6	57	53	46	56
10	78	73	63	75
16	104	97	82	98
25	140	131	110	128
35	173	162	132	154
50	211	197	162	185
70	268	250	200	228
95	331	309	250	279
120	385	359	285	318
150	441	411	332	365
185	509	473	377	413
240	604	562	448	485
300	694	645	523	558
THREE & FOUR CORE				
1,5	20	19	16	20
2,5	28	26	24	29
4	38	35	30	37
6	48	45	38	46
10	66	62	53	63
16	88	83	68	81
25	119	111	91	107
35	147	137	114	130
50	180	168	136	155
70	229	213	173	193
95	283	263	209	233
120	330	306	246	270
150	377	350	277	304
185	436	404	322	348
240	517	479	386	411
300	594	549	-	463

* Based on 90°C conductor temperature, 40°C ambient air temperature and where applicable, burial depth of 0.5 m, soil temperature of 25°C and soil thermal resistivity of 1.2°C.m/W. Refer to AS/NZS 3008.1.1:2017 for other installation conditions.