

FEATURES

- ✓ 2HR Fire Rated - WS52W
- ✓ PVC Free - Low Smoke Zero Halogen (LSZH)
- certified by Bureau Veritas & GECA
- ✓ ActivFire certified
- ✓ RCM / Global Mark certified
- ✓ Green Building Code of Australia / Green Star compliant
- ✓ 110°C continuous operation
- ✓ 0.6 / 1kV voltage rating
- ✓ Class 6 Flexible conductors (≥10mm), easy to strip, install & terminate
- ✓ Fire & Mechanical Protection - AS/NZS 3013, AS/NZS 4507 (RHE-3)
- ✓ Cable Construction - AS/NZS 5000.1
- ✓ ACMA Compliance - AS/CA S008



PRODUCT DESCRIPTION

FireSense 2HR Fire Rated cables have been specifically designed for use within the Fire Alarm and Mechanical/Electrical industries. FireSense 4C+E cables are ideal for powering mechanical/electrical lift applications.

FireSense Power cables are manufactured using 100% pure annealed copper conductors, providing ease of termination while achieving the highest possible electrical performance. They are designed for continuous operation at 110°C and utilise Class 6 flexible conductors (≥10mm range).

Independently tested and approved to the requirements of AS/NZS 3013 for both fire and mechanical cable properties, these cables are certified 2 hour fire rated, meet the stringent impact and cutting test requirements of AS/NZS 3013, and are flexible, easy to strip, install and terminate, saving valuable time on site.

Environmentally friendly meeting the Green Building Code of Australia / Green Star requirements, all FireSense 2HR Fire Rated cables are made from LSZH materials & have third party PVC Free Certification from Bureau Veritas and Good Environmental Choices Australia (GECA).

FireSense cables are the only FULL range of ActivFire certified cable in Australia.

It is recommended that FireSense stainless steel cable ties be used for fixing cable to tray every 1.0 metre when mounted horizontally and every 0.6 metres when mounted vertically. When fixing to catenary wire, recommendation is as follows:

If cable bunch is ≥ 25mm diameter cables should be supported with stainless steel ties every 300mm.

If cable bunch is < 25mm diameter cables should be supported with stainless steel ties every 600mm.

ORDERING INFORMATION

Part Number	No. of Cores	Cross Section (mm ²) (Conductors)	Cross Section (mm ²) (Earth Conductors)	Conductor Class	Approx Overall Dia (mm)	Operating Temp (°C)	AS/NZS 3013 Rating
FR-1.50-4C+E	4 + E	1.5	1.5	Class 2	14	-25 to +110	WS52W
FR-2.50-4C+E	4 + E	2.5	2.5	Class 2	15.8	-25 to +110	WS52W
FR-4.00-4C+E	4 + E	4	2.5	Class 2	17.2	-25 to +110	WS52W
FR-6.00-4C+E	4 + E	6	2.5	Class 2	20	-25 to +110	WS52W
FR-10-4C+E	4 + E	10	4	Class 6	23	-25 to +110	WS52W
FR-16-4C+E	4 + E	16	6	Class 6	27	-25 to +110	WS52W
FR-25-4C+E	4 + E	25	6	Class 6	31	-25 to +110	WS52W
FR-35-4C+E	4 + E	35	10	Class 6	36	-25 to +110	WS52W
FR-50-4C+E	4 + E	50	16	Class 6	42	-25 to +110	WS52W

ELECTRICAL CHARACTERISTICS

Part Number	DC Resistance (Ω / km) As per AS3008 Table 4.11B	AC Resistance @ 50Hz (Ω / Km at °C) As per AS3008 Table 4.10B				Current Carrying Capacity Unenclosed (Amps) As per AS3008 Table 3.20			3 Phase Voltage Drop @ 50Hz (mV/A.m at °C) As per AS3008 Table 4.17 (A&B)			
	25°C	45°C	75°C	90°C	110°C	Spaced	Touching	Exposed	45°C	75°C	90°C	110°C
FR-1.50-4C+E	13.6	14.6	16.2	17	18	24	22	20	25.9	28.6	30.0	31.9
FR-2.50-4C+E	7.41	8.76	9.70	10.2	10.8	34	31	29	14.1	15.6	16.4	17.4
FR-4.00-4C+E	4.61	5.44	6.02	6.31	6.70	45	42	38	8.77	9.71	10.2	10.8
FR-6.00-4C+E	3.08	3.62	4.01	4.21	4.47	57	53	48	5.86	6.49	6.80	7.22
FR-10-4C+E	1.91	2.10	2.32	2.44	2.59	78	73	67	3.48	3.86	4.04	4.29
FR-16-4C+E	1.21	1.33	1.47	1.54	1.64	105	98	89	2.19	2.43	2.54	2.70
FR-25-4C+E	0.780	0.857	0.949	0.995	1.06	141	132	119	1.39	1.54	1.61	1.71
FR-35-4C+E	0.554	0.609	0.674	0.707	0.750	174	163	146	1.01	1.11	1.17	1.24
FR-50-4C+E	0.386	0.425	0.470	0.493	0.523	213	199	178	0.749	0.827	0.866	0.918

TECHNICAL SPECIFICATIONS

Conductors	Stranded Annealed Copper
Flame Barrier	Mica Tape
Insulation	Flame Retardant, Low Smoke, Zero Halogen (X-HF-110)
Sheath	Flame Retardant, Low Smoke, Zero Halogen (HFS-110-TP)*
Voltage Rating	0.6/1kV
Operating Temperature	-25°C to +110°C
Insulation Colour	Red, Blue, White, Black, Green/Yellow
Sheath Colour	Red
Min Bending Radius	10 x Cable Diameter

* Please note: LSZH HFS-110-TP sheath material is UV stabilised but red colour may be subject to fading over time if exposed to direct sunlight.

WEIGHT PER METRE

Please note: the below measurements are approximate only and do not account for the weight of the drum.

Cable	Approx weight per metre (kg)
FR-1.50-4C+E	0.299
FR-2.50-4C+E	0.332
FR-4.00-4C+E	0.420
FR-6.00-4C+E	0.571
FR-10-4C+E	0.807
FR-16-4C+E	1.240
FR-25-4C+E	1.672
FR-35-4C+E	2.289

STANDARDS COMPLIANCE

Fire & Mechanical	AS/NZS 3013
Cable Construction	AS/NZS 5000.1
ACMA Compliance	AS/CA S008
Conductors	AS/NZS 1125
Insulation	AS/NZS 3808
Sheath	AS/NZS 3808
Cable	AS/CA S008
Cable Performance	AS/NZS 4507 (RHE-3)
Vertical Flame Spread	AS/NZS 1660.5.1 (Section 6 - Category C - AS/NZS IEC 60332-3-24)
Smoke Density	AS/NZS 1660.5.2, AS/NZS IEC 61034
Halogen Gas	AS/NZS 1660.5.3, AS/NZS IEC 60754-1
Acidity of Gases	AS/NZS 1660.5.4, AS/NZS IEC 60754-2
Vertical Flame Propagation	AS/NZS 1660.5.6, AS/NZS IEC 60332-1

APPROVALS & CERTIFICATION

Part Number	AS/NZS 3013			AS/NZS 5000.1	
	Rating	Certificate No.	Issuer	Certificate No.	Issuer
FR-1.50-4C+E	WS52W	FAS 240027 R1.6	Warrington Fire	GMA-511153	Global Mark Pty Ltd
FR-2.50-4C+E	WS52W	FAS 240027 R1.6	Warrington Fire	GMA-511153	Global Mark Pty Ltd
FR-4.00-4C+E	WS52W	FAS 240027 R1.6	Warrington Fire	GMA-511153	Global Mark Pty Ltd
FR-6.00-4C+E	WS52W	FAS 240027 R1.6	Warrington Fire	GMA-511153	Global Mark Pty Ltd
FR-10-4C+E	WS52W	FAS 240027 R1.6	Warrington Fire	GMA-511153	Global Mark Pty Ltd
FR-16-4C+E	WS52W	FAS 240027 R1.6	Warrington Fire	GMA-511153	Global Mark Pty Ltd
FR-25-4C+E	WS52W	FAS 240027 R1.6	Warrington Fire	GMA-511153	Global Mark Pty Ltd
FR-35-4C+E	WS52W	FAS 240027 R1.6	Warrington Fire	GMA-511153	Global Mark Pty Ltd
FR-50-4C+E	WS52W	FAS 240027 R1.6	Warrington Fire	GMA-511153	Global Mark Pty Ltd

ActivFire Listing Number	afp-2417		
RCM Responsible Supplier	E6560	Level 3	GMA-511153
Bureau Veritas GECA Certificate Number	3407		
Bureau Veritas PVC Free Certificate Number	2835		

CLASSIFICATION

AS/NZS 3013 is a classification system which defines the performance of a Wiring System (WS). The classification system prefix is 'WS' followed by two numerals and a supplementary letter W. ie

AS/NZS 3013 Fire Rated Cable Technical Information

Classification of the fire and mechanical performance of wiring system elements:

AS/NZS 3013 is a classification system which defines the performance of a Wiring System (WS). The classification system prefix is 'WS' followed by two numerals and a supplementary letter W. ie.

