



Features:

- 2 Hr Fire Rated
- 0.6/1kV Insulation Rating
- 110°C Conductor temp
- AS/NZS 3013 – WS52W
- AS/NZS 5000.1
- AS/ACIF S008
- Low Smoke Zero Halogen
- Flame Retardant
- ActivFire Certified

Conductor Sizes Available:

2.50 mm²
4.00mm²
6.00mm²

Description:

FireSense Fire Rated Cables have been specifically designed for use with Australian Fire Alarm and EWIS systems and AS1668 fan control systems. FireSense Fire Rated Cables are constructed from the highest quality cross linked polymers available and are designed to be easy to install, strip and terminate.

FireSense Fire Rated cables have been independently tested and approved by EXOVA / Warringtonfire to the exacting requirements of AS/NZS 3013 for both fire and mechanical cable properties. All FireSense cables are certified 2 hour fire rated. FireSense Fire Rated Cables have also been tested and approved to electrical standards AS/NZS 5000.1 and communication/wiring standard AS/ACIF S008 by respective industry testing authorities.

It is a mandatory requirement of AS/NZS 1670.1, 1670.4, 1668.1 & 4214 that cables be approved to AS/NZ 3013 and AS/ACIF S008 and carry a 2hr Fire Rating.

FireSense cable's are manufactured using 100% pure, annealed, 7 strand copper conductors for ease of termination while achieving the highest possible electrical performance. FireSense's highly specialised insulation and outer sheath materials meet the stringent Impact and Cutting test requirements of AS/NZS 3013 yet allow for ease of stripping and cable placement on trays saving valuable time on site.

FireSense 2C+E cables have 2.5mm², 4.0mm² and 6.0mm² conductors and are ideal for powering FIP and EWIS panels, diesel pump control panels, centralised emergency lighting system or any other 240VAC essential service equipment & devices.

It is recommended that FireSense stainless steel cable ties be used for fixing cable to tray every 1.0 metre when mounted horizontal and every 0.6 metres when mounted vertically. When fixing FireSense fire rated cables to catenary wire our manufacturer's recommendation is as follows:

If Cable bunch is \geq 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

Cable Data:

Part Number	No. of Cores	Cross Section of Conductors	Cross Section of Earth Conductor	Core Conductor Strands x Dia.	Overall Cable Diameter	Operating temperature °C	AS/NZS 3013 Rating
FR-2.50-2C+E	2 + E	2.50mm ²	2.50mm ²	7 x 0.67mm	13.4 mm	- 25 to + 110	WS52W
FR-4.00-2C+E	2 + E	4.00mm ²	2.50mm ²	7 x 0.85mm	14.9 mm	- 25 to + 110	WS52W
FR-6.00-2C+E	2 + E	6.00mm ²	2.50mm ²	7 x 1.04mm	17.5 mm	- 25 to + 110	WS52W

Electrical Characteristics:

Part Number	DC Resistance (Ω / Km)	AC Resistance @ 50Hz (Ω / Km at °C) As per AS3008 Table 35					Current Carrying Capacity Unenclosed (Amps) As per AS3008 Table 15		
	20°C	45°	75°	90°	110°	Spaced	Touching	Exposed	
FR-2.50-2C+E	7.05	8.14	9.01	9.45	10	35	33	30	
FR-4.00-2C+E	4.60	5.06	5.61	5.88	6.24	47	44	40	
FR-6.00-2C+E	2.98	3.38	3.75	3.93	4.17	59	56	50	

Construction:

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)
Operating Temperature:	-25° to +110°C
Insulation Color:	Red Black Green/Yellow
Sheath Color:	Red
Min Bending Radius:	10 x Cable Diameter.

Standards Compliance:

Fire & Mechanical:	AS/NZS 3013 - Appendix A,B,D,E
Conductors:	AS/NZS 1125 - Class 2
Cable Construction:	AS/NZS 5000.1
Vertical Flame Spread:	AS/NZS 1660.5.1
Smoke Density:	AS/NZS 1660.5.2
Halogen Gas:	AS/NZS 1660.5.3
Acidity of Gases:	AS/NZS 1660.5.4
Vertical Flame Propagation:	AS/NZS 1660.5.6
ACMA Compliance:	AS/ACIF S008
ACMA Supplier Code:	N24281

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

AS3013 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

WS 5 2 W

The First numeral indicates the wiring system's ability to maintain circuit integrity during a fire condition.

1	15 minutes
2	30 minutes
3	60 minutes
4	90 minutes
5	120 minutes



The Second numeral indicates the wiring system's degree of mechanical protection due to cutting and impact load.

	Impact Test (J)	Cutting Test (kN)	Level of Protection
1	2.5	0.3	Light
2	15	1.0	Moderate
3	50	5.0	Heavy
4	500	5.0	Very Heavy
5	5000	5.0	Extremely Heavy



The 'W' suffix denotes the wiring system's capability to maintaining circuit integrity when subjected to water spray immediately following a fire condition.

Cables are subjected to fire at 1050°C for 120 minutes, then water sprayed for a further 3 minutes.



Approval Certificates:

Part Number	AS/NZS 3013			AS/NZS 5000.2	
	Rating	Certificate No.	Issuer	Certificate No.	Issuer
FR-2.50-2C+E	WS52W	SFC26123D-03	EXOVA / Warrington Fire	CT11-2299-2	CNAS
FR-4.00-2C+E	WS52W	SFC26123D-03	EXOVA / Warrington Fire	CT11-2299-2	CNAS
FR-6.00-2C+E	WS52W	SFC26123D-03	EXOVA / Warrington Fire	CT11-2299-2	CNAS

ActivFire Certified afp-2417

