

**Exane<sup>®</sup> CircuitSAFE<sup>®</sup>  
Class 2 Conductor  
Low Smoke Zero Halogen  
90°C  
450/750 Volt**

LUL 1-085 A3:2011  
NFPA 130 & 502  
BS 7211-2012

## Scope

Exane<sup>®</sup> CircuitSAFE employs a rugged thermoset low smoke halogen free insulation compound. The thermoset insulation provides superior resistance to fire and moisture. It may be installed in wet or dry locations, indoors and outdoors. The cable maintains Circuit Integrity and operates under fire condition.

Exane<sup>®</sup> CircuitSAFE small, lightweight construction makes it perfect for installation in metal trays, conduits, ducts or in direct burial applications. Exane<sup>®</sup> CircuitSAFE is an ideal cable for power, control and instrumentation circuits in transit systems and tunnels.

## Features

- Circuit Integrity cable
- Superior Flame Retardance
- Excellent wet electrical properties
- Enhanced Mechanical toughness
- Wide temperature range -25°C to 90°C
- Thermoset Insulation
- Oil resistant
- Low Smoke
- Zero Halogen
- Voltage Rating 450/750V

## Performance Standards

- Pass BS 6853 Annex B for toxic fumes
- Satisfies performance requirements of LUL 1-085 A3:2011 for flammability, smoke emission and toxic fumes
- Satisfies performance requirements of BS-7211:2012 for EI5 insulation
- Satisfies flame and smoke requirements of NFPA 130 & 502
- Pass IEC 60331-3 120 min resistance to fire and impact
- Pass EN 50200 120 min resistance to fire and mechanical shock
- Pass EN 61034-2 smoke emission
- Pass IEC 60332-3-25

## Construction

### Conductor:

Bare copper per IEC 60228, Class 2

### Flame Barrier:

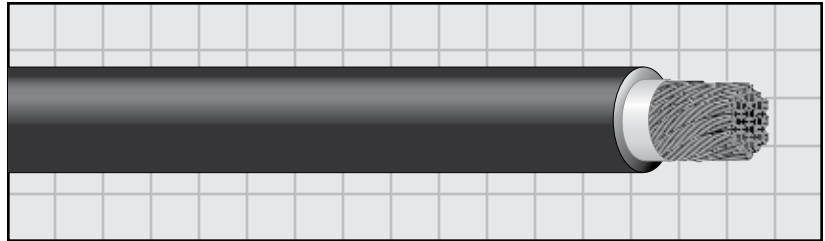
Mica tape

### Insulation:

Crosslinked low smoke halogen free polymer  
(colours – as required)

\* Rated 90°C for normal operation, 130° C for emergency overload conditions and 250°C for short circuit conditions

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Conductor mm <sup>2</sup>	Conductor Diameter Nom. mm	Radial Wall Thickness mm	Nominal Cable Diameter mm	Conductor Resistance** Ohms/km	Weight kg/km
0.75*	1.11	0.60	2.82	24.8	14.9
1*	1.27	0.60	3.05	18.2	17.9
1.5	1.57	0.70	3.55	12.2	26.8
2.5	1.96	0.80	4.14	7.56	38.7
4	2.48	0.80	4.67	4.7	56.6
6	3.05	0.80	5.23	3.11	77.5
10	3.93	1.00	6.52	1.84	126.7
16	4.98	1.00	7.72	1.16	190.8
25	6.2	1.20	9.17	0.73	289
35	7.34	1.20	10.31	0.53	390
50	8.89	1.40	12.26	0.39	555
70	10.51	1.40	13.89	0.27	755
95	12.24	1.60	16.05	0.20	1,020

\* .75-1 mm<sup>2</sup> Rated 300/500 Volt per BS 7211:2012

\*\* According to IEC 60228



Marmon Engineered Wire & Cable LLC  
 A Berkshire Hathaway Company