

Mineral Insulated Copper Cables Cables that Saves Lives



EXPORT CATALOGUE Edition: 2019/20 EN 60702-1:2002 BS 6387:2013 (Category CWZ) EN 50267-2-1: 1999 EN 50200:2006 (Class PH120) BS 8434-2:2003+A2:2009 BS 5839-1: 2013 (Clause 26.2e Enhanced)



MINERAL INSULATED CABLE The Only True Fire Survival Cable

Copper conductors (Cu-ETP-2) embedded in highly compressed Magnesium Oxide Insulation (Mg0) with a Copper sheath (Cu-DHP) and an optional outer coloured LSF polymer sheath.

Fire Resistant Will neither burn or support combustion

High Operation Temperatures

Continuous operating temperature up to 250°C, and for short periods up to temperatures approaching the melting point of Copper, 1083°C.

Inherent Flameproof Barrier

With a non-flammable sheath the highly compacted insulation will resist the transmission of vapours, gases or flames between items of equipment connected by the cable.

Non-Ageing

Mineral Insulated cable is permanent and non-ageing as its conductors, sheath and insulation are for all practical purposes, indestructible.

Waterproof

The metal sheath is impervious to water, oil and gas.

Mechanical Strength

Mineral Insulated cable is really robust and can withstand a considerable amount of stresses such as, twisting, bending and flattening.

Earth Continuity

Mineral Insulated cable does not require a separate circuit protective conductors as the copper sheath serves this purpose providing excellent low resistance earth continuity.

Pliable

Mineral Insulated cable is fully annealed and consequently extremely ductile and easily manipulated to follow existing wiring routes and irregular shapes.

Small Overall Diameter

Mineral Insulated cables have a much smaller diameter than soft skinned fire resistant cables of equivalent rating.





Appliablecable Standards

EN 60702-1:2002 BS 6387:2013 (Category CWZ) EN 50267-2-1: 1999 EN 50200:2006 (Class PH120) BS 8434-2:2003+A2:2009 BS 5839-1: 2013 (Clause 26.2e Enhanced)

Application

Mineral Insulated cable can withstand temperatures in excess of 1000°C and still operate at its rated voltage. This impressive performance can add vital time to escape a fire and makes it ideal for use in many applications, including;-

Property & Personnel Safety

Shopping malls, airports, underground rail systems, schools, hospitals, hotels, theatres, churches.

High Temperature Situations

• Foundries, Power Stations, Boiler Houses, Iron & Steel Industries, Marine & Ship building

General Installations

- Power Distribution & Sub Circuits:- Fire Alarms
- & Emergency, Lifts & Escalators Lighting, Lighting & Power

Potentially Explosive Area

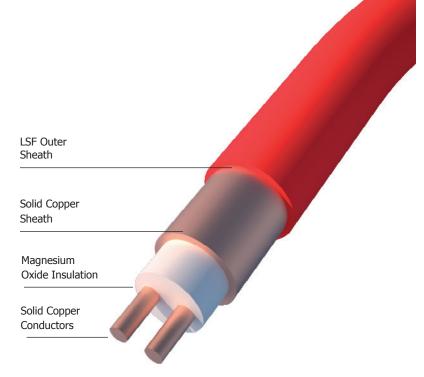
Refineries, Chemical Plants, Oil & Gas Production, Filling Stations, Processing Plants, Garages

Services

Railway Stations, Road & Rail Tunnels, Public
Lighting, Multi-storey Car Parks, Public Service Buildings

Hygiene

Food & Drink Processing, Pharmaceutical Works, Hospitals, Kitchens, Refrigeration Plants







CABLE DATA

CABLE SIZE REFERENCE BARE CABLE CC LSF COVERED CCM	NUMBER & CROSS SECTIONAL AREA OF CONDUCTORS	CURRENT RATINGS		VOLT DROP	CABLE DIAMETER		MATE IAL CTOR	STANCE	EATH	HILY	MATE COIL S FOR TING SES	ERS	APPROX. WEIGHT PER 1000M	
		LSF	BARE	PER AMP PER METRE	LSF	BARE	APPROXIMATE NOMINAL CONDUCTOR DIAMETER	AFROMMALE NOMINAL CONDUCTOR DIAMETER CORE RESISTANCE	COPPER SHEATH SECTION	COPPER SHEATH RESISTANCE	APPROXIMATE LONGEST COIL LENGTHS FOR ESTIMATING PURPOSES	COIL DIAMETERS	LSF	BARE
FOLLOWED BY	No. x sq mm	amps**	amps**	mV**	m	m	mm	Ohm/km	mm²	Ohm/km	m	mm	kg	
Minera	al Insulate	ed Cables	s - Light]	Duty - 50	0V									
2L1 2L1.5 2L2.5 2L4	2x1 2x1.5 2x2.5 2x4	19.5 25 33 44	17.5 22.5 30 40	42 28 17 10	6.6 7.2 8.1 9.4	5.1 5.7 6.6 7.7	1.13 1.39 1.77 2.25	17.24 11.49 6.90 4.31	6.04 7.12 9.41 12.15	2.85 2.42 1.83 1.42	1800 1400 1100 800	1200 1200 1200 1200	159 1 213 1	04 36 87 48
3L1* 3L1.5* 3L2.5*	3x1 3x1.5 3x2.5	16.5 21 28	15 19 25	36 24 14	7.3 7.9 9.0	5.8 6.4 7.3	1.13 1.39 1.77	17.24 11.49 6.90	7.56 8.93 10.68	2.28 1.93 1.61	1500 1100 900	1200 1200 1200	201 1	36 76 23
4L1* 4L1.5* 4L2.5*	4x1 4x1.5 4x2.5	16 21 28	14.5 19 25	36 24 14	7.8 8.5 9.8	6.3 7.0 8.1	1.13 1.39 1.77	17.24 11.49 6.9	8.78 10.21 12.83	1.96 1.69 1.34	1200 900 700	1200 1200 1200	230 2	62 03 77
7L1 7L1.5 7L2.5	7x1 7x1.5 7x2.5	11 14 19	10 12.5 17	42 28 17	9.3 10.1 11.4	7.6 8.4 9.7	1.13 1.39 1.77	17.24 11.49 6.9	11.57 13.33 17.42	1.49 1.29 0.99	800 600 500	1200 1200 1200	332 2	36 95 11
Mineral Insulated Cables - Heavy Duty - 750V														
1H1.5* 1H2.5* 1H4* 1H6* 1H10* 1H16* 1H25* 1H35* 1H50* 1H70* 1H95* 1H120* 1H150* 1H185* 1H185* 1H240* 1H300* 1H400*	1x1.5 1x2.5 1x4 1x6 1x10 1x16 1x25 1x35 1x50 1x70 1x95 1x120 1x150 1x185 1x240 1x300 1x400	33 43 56 69 90 119 154 187 230 279 333 382 431 482 537 883 1053	30 39 51 63 81 107 139 168 207 251 300 344 388 434 483 395 948	21.8 13.5 8.3 5.6 2.3 1.5 1.1 0.87 0.65 0.53 0.46 0.42 0.39 0.36 0.31 0.28	6.2 6.6 7.2 7.7 9.0 10.0 11.3 12.4 13.8 15.4 17.7 19.1 20.7 23.2 26.1 28.8 32.8	$\begin{array}{c} 4.9\\ 5.3\\ 5.9\\ 6.4\\ 7.3\\ 8.3\\ 9.6\\ 10.7\\ 12.1\\ 13.7\\ 15.4\\ 16.8\\ 18.4\\ 20.4\\ 23.3\\ 26.0\\ 30.0 \end{array}$	$\begin{array}{c} 1.39\\ 1.77\\ 2.25\\ 2.75\\ 3.57\\ 4.50\\ 5.66\\ 6.66\\ 7.75\\ 9.32\\ 10.98\\ 12.33\\ 13.70\\ 15.18\\ 17.33\\ 19.37\\ 22.37\end{array}$	11.496.904.312.871.721.080.690.490.340.250.180.140.110.090.070.060.04	5.78 6.44 7.70 8.93 10.68 13.16 16.96 20.23 24.73 30.90 36.69 42.59 49.48 57.47 69.39 84.55 105.97	$\begin{array}{c} 2.98\\ 2.68\\ 2.24\\ 1.93\\ 1.61\\ 1.31\\ 1.02\\ 0.85\\ 0.70\\ 0.56\\ 0.47\\ 0.40\\ 0.35\\ 0.30\\ 0.25\\ 0.20\\ 0.16\end{array}$	$ \begin{array}{c} 1500\\ 1300\\ 1050\\ 1200\\ 950\\ 730\\ 540\\ 440\\ 350\\ 275\\ 220\\ 190\\ 155\\ 125\\ 99\\ 80\\ 60\\ \end{array} $	$\begin{array}{c} 1200\\ 1200\\ 1200\\ 1200\\ 1200\\ 1200\\ 1200\\ 1600\\ 1600\\ 1600\\ 1600\\ 1600\\ 1600\\ 1600\\ 1600\\ 1600\\ 1600\\ 1800\\ 1800\\ 1800 \end{array}$	137 1 170 1- 206 1- 273 2- 361 3- 499 4 632 5 810 7 1075 10 1413 13 1709 16 2055 19 2514 23 3213 30 3972 37 5214 50	97 16 46 80 40 26 57 85 58 016 324 612 949 370 035 791 004
2H1.5 2H2.5 2H4 2H6 2H10 2H16 2H25	2x1.5 2x2.5 2x4 2x6 2x10 2x16 2x25	26 36 47 60 82 109 142	23.5 32 42 54 74 98 128	28 17 10 7 4.2 2.6 1.65	9.6 10.4 11.5 12.6 14.4 16.4 19.4	7.9 8.7 9.8 10.9 12.7 14.7 17.1	1.39 1.77 2.25 2.75 3.57 4.50 5.66	11.49 6.90 4.31 2.87 1.72 1.08 0.69	12.49 14.56 17.61 20.93 26.74 34.11 43.39	$ \begin{array}{r} 1.38\\ 1.18\\ 0.98\\ 0.82\\ 0.64\\ 0.51\\ 0.40\\ \end{array} $	750 610 480 370 280 205 150	1200 1200 1200 1600 1600 1600	314 2 397 3 493 4 673 6 912 8	37 76 55 46 19 50 178
3H1.5* 3H2.5* 3H4* 3H6* 3H10* 3H16* 3H25*	3x1.5 3x2.5 3x4 3x6 3x10 3x16 3x25	22 30 40 51 69 92 120	20 27 36 46 62 83 108	24 14 9.1 6 3.6 2.3 1.45	10.0 11.0 12.1 13.2 15.3 17.9 20.5	8.3 9.3 10.4 11.5 13.6 15.6 18.2	$\begin{array}{c} 1.39 \\ 1.77 \\ 2.25 \\ 2.75 \\ 3.57 \\ 4.50 \\ 5.66 \end{array}$	11.49 6.9 4.31 2.87 1.72 1.08 0.69	13.62 16.14 19.34 23.11 30.28 38.07 47.37	$ \begin{array}{c} 1.27\\ 1.07\\ 0.89\\ 0.75\\ 0.57\\ 0.45\\ 0.36\\ \end{array} $	670 520 420 345 245 180 135	1200 1200 1600 1600 1600 1600 1600	364 33 460 4 575 53 812 73 1124 10	54 23 15 226 54 034 444
4H1.5* 4H2.5* 4H4* 4H6* 4H10* 4H10* 4H16* 4H25*	4x1.5 4x2.5 4x4 4x6 4x10 4x16 4x25	23 30 40 51 68 89 116	20.5 27 36 46 61 80 104	24 14 9.1 6 3.6 2.3 1.45	10.8 11.8 13.1 14.4 16.5 19.6 22.9	9.1 10.1 11.4 12.7 14.8 17.3 20.1	1.39 1.77 2.25 2.75 3.57 4.50 5.66	11.49 6.90 4.31 2.87 1.72 1.08 0.69	15.77 18.47 22.90 26.74 34.36 44.42 56.01	1.09 0.93 0.75 0.64 0.50 0.39 0.31	560 445 350 270 205 148 124	1200 1600 1600 1600 1600 1600 1600	428 33 556 50 698 64 974 9 1386 12 1947 18	05 84 07 44 11 286 805
7H1.5 7H2.5	7x1.5 7x2.5	15.5 21	14 19	28 17	12.5 13.8	10.8	1.39 1.77	11.49 6.90	20.73 24.73	0.83 0.70	385 310	1600	611 5	32 59
12H1.5 12H2.5	12x1.5 12x2.5	13 17	11.5 15.5	28 17		14.1 15.6	1.39 1.77	11.49 6.90 11.49	31.85 37.64 41.59	0.54 0.46	210 175 150	1600 1600 1600	1001 9	12 11 92
19H1.5	19x1.5	11	10	28	18.9	16.6	1.39	11.49	41.39	0.41	150	1000	1088 9	92



CABLE DATA

	ON SEAL 5°C	EXTER THREADE		MICC LSF COVERED CLIPS AND SADDLES MICC CLIP MICC SADDLE				
PLAIN	EARTH	FOR PLAIN SEAL	FOR EARTH TAIL SEAL	BARE COPPER FOR BARE CABLES	LSF COATED FOR FOR COVERED CABLES	BARE COPPER FOR BARE CABLES	LSF COATED FOR FOR COVERED CABLES	CABLE SIZE REFERENCE BARE CABLE CC LSF COVERED CCM
RPS	RPSL	RGM	RGM	RC	RCHIL	RS	RSFL	FOLLOWED BY
Mineral Inst	ulated Cables -]	Light Duty - 500	V					
2L1 20 2L1.5 20 2L2.5 20 2L4 20	2L1 20 2L1.5 20 2L2.5 20 2L4 20	2L1 20 2L1.5 20 2L2.5 20 2L4 20	2L1 20 2L1.5 20 2L2.5 20 2L4 20	20 22 26 30	26 28 32 37	202 222 272 302	272 302 342 382	2L1 2L1.5 2L2.5 2L4
3L1 20 3L1.5 20 3L2.5 20	3L1 20 3L1.5 20 3L2.5 20	3L1 20 3L1.5 20 3L2.5 20	3L1 20 3L1.5 20 3L2.5 20	22 24 28	28 30 34	242 272 302	302 342 342	3L1* 3L1.5* 3L2.5*
4L1 20 4L1.5 20 4L2.5 20	4L1 20 4L1.5 20 4L2.5 20	4L1 20 4L1.5 20 4L2.5 20	4L1 20 4L1.5 20 4L2.5 20	24 28 32	30 34 37	272 302 342	342 342 422	4∟1* 4∟1.5* 4∟2.5*
7L1 25 7L1.5 25 7L2.5 25	7L1 25 7L1.5 25 7L2.5 25	7L1 25 7L1.5 25 7L2.5 25	7L1 25 7L1.5 25 7L2.5 25	30 32 37	37 40 43	302 342 382	382 422 462	7L1 7L1.5 7L2.5
Mineral Ins	ulated Cables -]	Heavy Duty - 75	60V					
1H1.5 20 1H2.5 20 1H4 20 1H6 20 1H10 20 1H25 20 1H35 20 1H45 25 1H95 25 1H120 32 1H185 32 1H240 40	1H1.5 20 1H2.5 20 1H4 25 1H6 25 1H10 25 1H16 25 1H25 32 1H35 32 1H50 40 	1H1.5201H2.5201H4201H6201H10201H25201H35201H50251H70251H95251H120321H150321H185321H24040	1H1.5 20 1H2.5 20 1H4 25 1H6 25 1H10 25 1H16 25 1H25 32 1H35 32 1H50 40 	20 22 24 28 32 37 40 47 54 59 63 71 79 88	26 28 30 34 37 43 47 54 59 67 75 79 88 101	202 222 242 302 342 382 422 502 542 632 702 752 812 932	272 272 302 342 422 462 502 542 632 702 752 812 932 1042	1H1.5* 1H2.5* 1H4* 1H6* 1H10* 1H16* 1H25* 1H35* 1H50* 1H70* 1H95* 1H120* 1H120* 1H150* 1H185* 1H240*
2H1.5 20 2H2.5 20 2H4 20 2H6 20 2H10 25 2H16 25 2H25 32	2H1.5 20 2H2.5 20 2H4 25 2H6 25 2H10 32 2H16 40 2H25 40	2H1.5 20 2H2.5 20 2H4 20 2H6 20 2H10 25 2H16 25 2H25 32	2H1.5 20 2H2.5 20 2H4 25 2H6 25 2H10 32 2H16 40 2H25 40	30 34 37 43 47 54 67	37 40 43 47 54 63 75	342 342 422 462 502 592 702	382 422 462 502 592 702 752	2H1.5 2H2.5 2H4 2H6 2H10 2H16 2H25
3H1.5 20 3H2.5 20 3H4 20 3H6 25 3H10 25 3H16 25 3H16 25 3H25 40	3H1.5 20 3H2.5 25 3H4 25 3H6 25 3H10 32 3H16 40 3H25 40	3H1.5 20 3H2.5 20 3H4 20 3H6 25 3H10 25 3H16 25 3H25 40	3H1.5 20 3H2.5 25 3H4 25 3H6 25 3H10 32 3H16 40 3H25 40	32 37 40 43 54 59 71	37 43 47 51 59 71 79	342 382 422 462 542 642 752	422 462 502 542 632 752 812	3H1.5* 3H2.5* 3H4* 3H6* 3H10* 3H16* 3H25*
4H1.5 20 4H2.5 20 4H4 25 4H6 25 4H10 25 4H10 25 4H16 32 4H25 40	4H1.5 20 4H2.5 25 4H4 25 4H6 32 4H10 32 4H16 40 4H25 40	4H1.5204H2.5204H4254H6254H10254H16324H2540	4H1.5204H2.5254H4254H6324H10324H16404H2540	37 40 43 47 54 67 79	43 47 51 54 63 75 88	382 422 462 502 592 702 812	462 462 542 592 702 752 932	4H1.5* 4H2.5* 4H4* 4H6* 4H10* 4H16* 4H25*
7H1.5 25 7H2.5 25	7H1.5 25 7H2.5 25	7H1.5 25 7H2.5 25	7H1.5 25 7H2.5 25	43 47	47 54	462 502	502 542	7H1.5 7H2.5
12H1.5 32 12H2.5 32		12H1.5 32 12H2.5 32		54 59	59 71	592 632	632 752	12H1.5 12H2.5
19H1.5 40	_	19H1.5 40	_	63	71	702	752	19H1.5

MI wiring cable terminations



TERMINATIONS

A complete termination comprises a seal to provide a means of connection and a gland to secure the cable into the appropriate apparatus.

Externally threaded brass compression glands are available for the entire cable range with ISO metric threads (Ref. RGM) as standard. Other thread forms are available on request.

Internally threaded 20mm ISO metric brass compression glands (Ref. RGU) are available for the full range of 2, 3 and 4 conductor, 500 volt cables. This type of gland is not available with other thread forms.

There are self-threading screw-on brass seals for the entire cable range and these incorporate a variety of sealants and conductor insulating sleeves to suit most applications and environments.

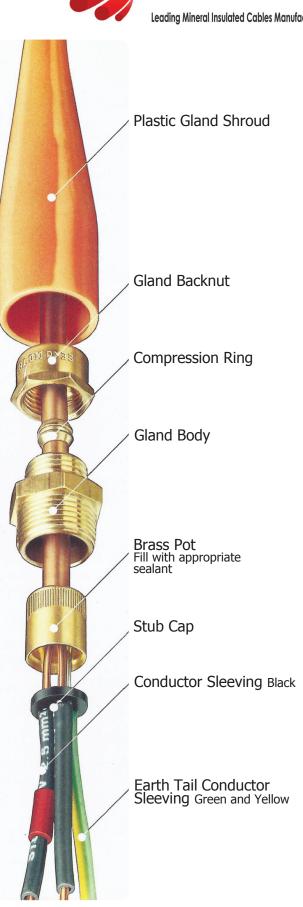
Seals, glands, gland locknuts and lockwashers are supplied in packs as follows:

Size ref	20mm	25mm	32mm	40mm
No. in pack	10	2	2	2

Additional RMX grey plastic compound may be ordered in 166g packs, sufficient to fill 32 x 20mm, 10 x 25, 5 x 32mm, or 2 x 40mm sealing pots.

Additional RMG glazing flux may be ordered in 100g packs, sufficient to fill 10 x 20mm, 3 x 25mm, 2 x 32mm or 1 x 40mm sealing pot.

Pvc shrouds suitable for all gland sizes are supplied in packs on 10.



MICC Cable Components





RGM Glands Brass compression glands for EExd and general applications.



RPS Seal Kit

Termination seals without earth tail Kit contains; Seal pots, RMX compound, Stud caps, Conductor sleeving.



RPSL Earth Tail Kit

Termination seals with built in earth tail. Kit contains; Earth tail seal pots, RMX compound, Stud caps, Conductor and earth sleeving.



RCHL 'P' Clips

'P' Clips are manufactured from Copper available in bare or LSZH (Low Smoke Zero Halogen) powder coated, designed to secure a single cable



RSFL Saddle Clips

Saddle Clips are manufactured from Copper available in bare or LSZH (Low Smoke Zero Halogen) powder coated, designed to secure two cables



Brass Locknuts & Serrated Washers Used to secure and fix RGM glands



PVC Shrouds Manufactured from PVC material, available in four sizes and colours M20, M25, M32 ,M40 / Black, Orange, Red and White.



Low Smoke PVC Shrouds Manufactured from Low Smoke PVC plastisol with reduced Halogens and available in four sizes and colours M20, M25, M32 ,M40 / Black, Orange, Red and White.



LST Low Smoke and Toxicity Shroud Manufactured from LST (Low Smoke and Toxicity) Silicone material and available in four sizes & colours M20, M25, M32 ,M40 / Black, Orange, Red and White.

MICC Cable Gland Tooling





ZSJ

The Joystripper is designed for stripping the Copper sheath on popular cable sizes, including; 2L1 2L1.5 2L2.5 3L1 3L1.5 4L1 4L1.5

Replacement blades ZSJB



ZSUS & ZSU

The Rotary stripper can be used on all cable sizes throughout the range. ZSUS -Cables upto 9mm OD ZSUSB – Replacement blades ZSU – Cables over 9mm OD ZSUB – Replacement blades



ZR

Used to score a light groove around the cables sheath to neatly stop the stripping action.



ZPM

Pot Wrench tool ensures quick accurate screwing of the brass pot and is used in conjunction with the appropriate RGM gland.



ZRP

Wrench tool is quick & easy tool for screwing on brass seal pots, 20mm pots only.



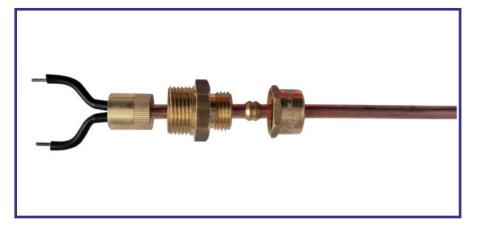
ZDD

Plate Crimper tool locks the stub cap into the pot by three crimp indentations. This is a low cost tool with a life of approximately 100 operations. Available in 20mm, 25mm, 32mm & 40mm sizes.



ZDC

Hand Crimper is a robust long life tool for crimping stub caps into brass seal pots, quickly and easily.





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