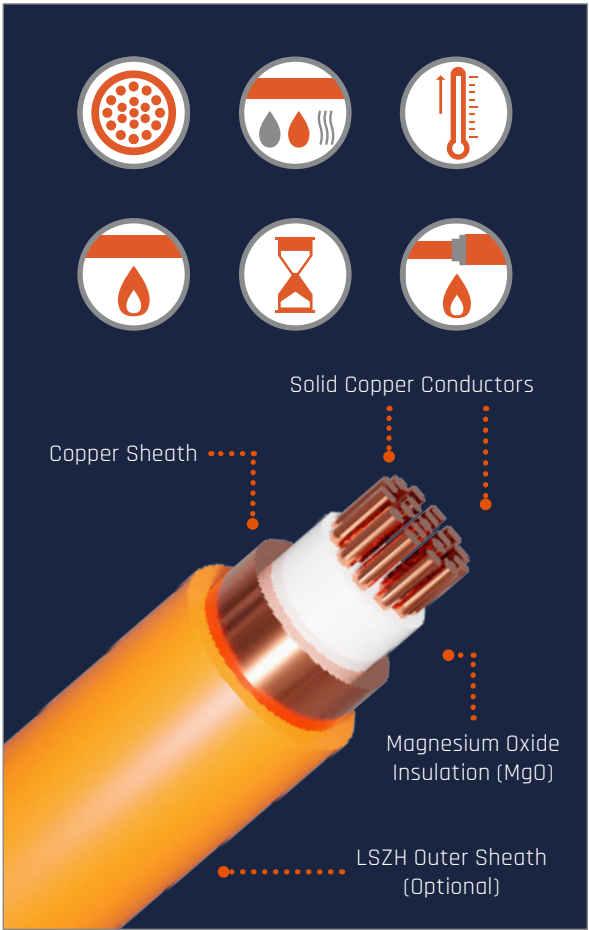


### Country of Origin, Construction, Approvals & Fire Performance

| Manufacturer                                                                                                                                      | Place of Manufacture                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Wrexham Cables KSA                                                                                                                                | Saudi Arabia                                |
| Cables Manufactured to                                                                                                                            | Cable Type – Known as “Fire Survival Cable” |
| BSEN 60702-1:2002+A1:2015                                                                                                                         | Fire Resistant exceeding 3 hours @ 950°C    |
| Continuous Operating Temperature                                                                                                                  | LPCB Product Approval Number                |
| -40°C up to 250°C                                                                                                                                 | 333a/01*1                                   |
| Applicable Standards                                                                                                                              |                                             |
| BS5839-1:2017 Enhanced to Clause 26.2, BS EN 50200:2015, BS 8434-2:2003 + A2:2009, *BS6387:2013 C,W & Z, BS 8519, BS8491 CAT 3, BS 60331          |                                             |
| LPCB Approved Marking on Cables                                                                                                                   | Insulation                                  |
| WMC KSA “Made in Saudi”                                                                                                                           | Highly compressed magnesium oxide (MgO)     |
| Hazardous area cable system ATEX / IEC Ex APPROVED UNDER SIRA LICENCE 1305X & IEC Ex SIR 19.0051X                                                 |                                             |
| Apparatus (type of protection ‘d’) Zones 1 & 2, Groups IIA, IIB and IIC. Zones 20, 21 & 22, groups IIIA, IIIB & IIIC. In compliance with EN 60079 |                                             |
| Copper Conductor Plain Annealed to IEC 60228 Type 1 Solid                                                                                         | Seamed Copper Sheath Construction           |
| Cu - ETP or Cu - FRHC                                                                                                                             | C12200 grade, Cu - DHP                      |
| Number of Cores                                                                                                                                   |                                             |
| 19                                                                                                                                                |                                             |

\*Cables up to 20mm apply only  
1\*Under Process



## Electrical Properties

| Nineteen Core Heavy Duty MICC Cables | Voltage Rating<br>(V) | Test Voltage<br>(Factory Internal D.C Test)<br>(V) | Current Rating Bare or Served Cables Exposed to Touch<br>(Amps) |        | Voltage Drop<br>Cables Exposed to Touch<br>(Per Amp/Per m) | Max Conductor Resistance<br>Ohms per 1000m @ 20°C | Copper Sheath Resistance @ 20°C<br>Ohms/Km | Earth Fault Loop Impedance Resistance @ 70°C (R1+R2)<br>Ohms/Km |
|--------------------------------------|-----------------------|----------------------------------------------------|-----------------------------------------------------------------|--------|------------------------------------------------------------|---------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------|
|                                      |                       |                                                    | Bare                                                            | Served |                                                            |                                                   |                                            |                                                                 |
| 19H1.5                               | 750                   | 3750                                               | 16.6                                                            | 18.9   | 28                                                         | 12.1                                              | 0.570                                      | 15.310                                                          |

## MICC Resistance, Reactance & Impedance

| Cable Type | Resistance R (Ω/Km) |        |        | Reactance X (Ω/Km) | Impedance Z (Ω/Km) |        |        |
|------------|---------------------|--------|--------|--------------------|--------------------|--------|--------|
|            | 30c                 | 70c    | 105c   |                    | 30c                | 70c    | 105c   |
| 19H1.5     | 12.575              | 14.477 | 16.141 | 0.101              | 12.576             | 14.478 | 16.142 |

Mechanical Properties

| Nineteen Core Heavy Duty MICC Cables | Cable Diameter |        | Conductor Diameter | Copper Sheath Mean Thickness | Nominal Insulation Thickness | Mean Serving Thickness (LSZH Optional Outer Covering) | Approx Weight per 1000m |        | Minimum Bend Radius (6 Times Diameter of Cable) |
|--------------------------------------|----------------|--------|--------------------|------------------------------|------------------------------|-------------------------------------------------------|-------------------------|--------|-------------------------------------------------|
|                                      | Bare           | Served |                    |                              |                              |                                                       | Bare                    | Served |                                                 |
| 19H1.5                               | 16.6           | 18.9   | 1.5                | 0.84                         | 1.3                          | 1.0                                                   | 989                     | 1086   | 99.6                                            |

Product Part Codes

| Nineteen Core Heavy Duty MICC Cables | WMC Cable Part Code for Bare or CC MICC | WMC Cable Part Code for LSZH Served or CCM MICC | IEC Ex & ATEX Approved Cable Gland | Seal Kits WRPS Plain | Shrouds (PVC) | Shrouds (LSZH) | Lockwasher WRLM or WRLWS Serrated Washer | Bare Single Clips (P Clips) 1 Clip Every 0.4m | LSZH Single Clips (P Clips) 1 Clip Every 0.4m | Bare Two Way Clips (Saddles) 1 Clip Every 0.4m | LSZH Two Way Clips (Saddles) 1 Clip Every 0.4m |
|--------------------------------------|-----------------------------------------|-------------------------------------------------|------------------------------------|----------------------|---------------|----------------|------------------------------------------|-----------------------------------------------|-----------------------------------------------|------------------------------------------------|------------------------------------------------|
|                                      | Cable Size Followed By                  | Cable Size Followed By                          | WRGM                               | WRPS                 | WRHG          | WRHGMM         | WRLM/ WRLWS                              | WRC                                           | WRCHL                                         | WRS                                            | WRSFL                                          |
| 19H1.5                               | BARE/*                                  | LSF/**/*                                        | 19H1.5/40                          | 19H1.5               | !             | 40/**          | 40                                       | 63                                            | 71/**                                         | 702                                            | 752/**                                         |

\*D or C depending on drum or coil | \*\* Cable colour e.g. RD = RED, OE = ORANGE, BK = BLACK, WE = WHITE.  
 Only standard seals (WRPS) available in 12 & 19 core MICC Cables.

