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Flexible Cables and Cords

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Tri-Rated

105°C 600/1000 V

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Application

For the internal wiring appliances and also the wiring of switch, control, metering and instrument panels of power switchgear.

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Specifications

- In accordance with BS6231 Type CK
- Conforms to UL subject 758 Appliance Wiring Material (AWM) for styles 1015, 1028, 1283 and 1284 as applicable. RoHS Compliant
- Canadian Standards Association (CSA) approved. Complies with standard C22.2 No.127, Type TEW
- < HAR > Approved to H05V-K/H07V-K in accordance with H05V2-K/H07V2-K, depending on manufacturer
- **Conductors:** Flexible Class 5 conductors to BS EN 60228
- **Insulation:** PVC insulation
- Normal colours available see page 2:3
- Flame retardant to BS EN 60332-1-2 and VW-1
- **Temperature Rating:** BS6231 specifies a maximum continuous conductor operating temperature of 90°C, and for limited use up to 105°C. UL and CSA rated 105°C
- **Voltage Rating:** 600/1000 V (BS), 600 V (UL & CSA) 450/750 V (HAR)

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| Anixter Number | Nominal Conductor Area | Nominal O/D | Approximate Weight | UL Style Number |
|----------------|------------------------|-------------|--------------------|-----------------|
| | mm ² | mm | kg/km | |
| TRI-0005-## | 0.5 | 2.6 | 12 | 1015 |
| TRI-0007-## | 0.75 | 2.8 | 15 | 1015 |
| TRI-0010-## | 1.0 | 3.0 | 18 | 1015 |
| TRI-0015-## | 1.5 | 3.3 | 23 | 1015 |
| TRI-0025-## | 2.5 | 3.7 | 34 | 1015 |
| TRI-0040-## | 4.0 | 4.4 | 50 | 1015 |
| TRI-0060-## | 6.0 | 5.1 | 71 | 1015 |
| TRI-0100-## | 10 | 6.9 | 123 | 1028 |
| TRI-0160-## | 16 | 8.6 | 207 | 1283 |
| TRI-0250-## | 25 | 10.5 | 303 | 1283 |
| TRI-0350-## | 35 | 11.9 | 412 | 1283 |
| TRI-0500-## | 50 | 14.4 | 607 | 1284 |
| TRI-0700-## | 70 | 16.7 | 837 | 1284 |
| TRI-0950-## | 95 | 19.0 | 1080 | 1284 |
| TRI-1200-## | 120 | 20.5 | 1280 | 1284 |

= colour, -01 = white, -02 = black, -03 = red, -04 = green, -05 = yellow, -06 = blue, -07 = brown, -08 = orange, -09 = grey, -10 = violet, -12 = pink, -60 = green/yellow. etc.
Other colours available upon request.

For more technical information see page 2:50.

Technical Specifications for Tri-Rated

| Nominal Conductor Area | Max DC Conductor Resistance @ 20°C | Current Rating | Nominal Voltage Drop* |
|------------------------|---------------------------------------|----------------|-----------------------|
| mm ² | ohms/Km | A | mV/A/m |
| 0.5 | 39.0 | 11 | 46.0 |
| 0.75 | 26.0 | 14 | 31.0 |
| 1.0 | 19.5 | 17 | 22.0 |
| 1.5 | 13.3 | 21 | 15.0 |
| 2.5 | 7.98 | 30 | 9.1 |
| 4.0 | 4.95 | 41 | 5.7 |
| 6.0 | 3.30 | 53 | 3.8 |
| 10 | 1.91 | 75 | 2.2 |
| 16 | 1.21 | 100 | 1.4 |
| 25 | 0.780 | 136 | 0.89 |
| 35 | 0.554 | 167 | 0.64 |
| 50 | 0.386 | 204 | 0.45 |
| 70 | 0.272 | 259 | 0.32 |
| 95 | 0.206 | 321 | 0.24 |
| 120 | 0.161 | 374 | 0.19 |
| 150 | 0.129 | 429 | 0.15 |
| 185 | 0.106 | 496 | 0.13 |
| 240 | 0.0801 | 595 | 0.092 |

Current ratings are based on a conductor operating temperature of 85°C and an ambient air temperature of 45°C and assumes single cable isolated in free air.

The ratings do not apply if the cable is protected by a semi-enclosed fuse to BS3036.

For further guidance refer to the BS7671 Requirements for Electrical Installations (IEE Wiring Regulations - latest edition).

For ambient air temperature other than 45°C the following rating factors should be applied:

| | | | | | | | |
|---------------------|-----|------|------|------|------|------|------|
| Ambient air temp °C | 45 | 50 | 55 | 60 | 65 | 70 | 75 |
| Rating factor | 1.0 | 0.97 | 0.90 | 0.82 | 0.73 | 0.63 | 0.52 |

Where cables are to be grouped, the following factors should be applied:

| | | | | | | | |
|-----------------------|------|------|------|------|------|------|------|
| No of cables in group | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Rating factor | 0.80 | 0.70 | 0.65 | 0.60 | 0.56 | 0.53 | 0.50 |

* The voltage drop figures quoted are for one cable only. For other circuit arrangements they should be adjusted as follows:

Single phase 50Hz a.c. or 2-wire d.c. x 2 Three phase a.c. x 1.732.