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# Tri-Rated Flexible PVC Wires

## Single Core, Flexible, Unshielded

RND cable



**SHEATH COLOURS:**

Black, Light Blue, Brown, Blue, Green, Grey, Dark Blue, Green/Yellow, Orange, Pink, Red, Violet, White, Yellow

**APPLICATION:**

High temperature, flame retardant cable designed for use in the switch control, relay and instrumentation panels of power switchgear and for purposes such as internal connectors in rectifier equipment, motor starters and controllers. Tri-rated cable is sometimes referred to as BS 6231 cable, H07V2-K or panel wire

**SPECIFICATION:**

| | |
|---|---|
| Wire Code | H05V2-K, H07V2-K |
| Cable type | Stranded |
| Shielding | unshielded |
| Conductor | Class 5 flexible copper conductor |
| Conductor insulation | PVC (Polyvinyl Chloride) Type TI3 |
| Packaging | Sold by reel |
| Original Packaging | 100 m |
| Rated voltage | 600 V |
| Test voltage | 1000 V |
| Temperature range | -15...+105 °C |
| Minimum bending radius | 6 x Overall Diameter |

**ELECTRICAL CHARASTERISTICS:**

| Nominal Cross Sectional Area mm² | Maximum Diameter of Wires in Conductor mm | Maximum Resistance of Conductor at 20ºC Plain Wires ohms/km | Current Rating (Peak) Amps | Voltage Drop mV/A/m |
|---|---|---|---|---|
| 0.5 | 0.21 | 39 | 11 | 46 |
| 0.75 | 0.21 | 26 | 14 | 31 |
| 1 | 0.21 | 19.5 | 17 | 22 |
| 1.5 | 0.26 | 13.3 | 21 | 15 |
| 2.5 | 0.26 | 7.98 | 30 | 9.1 |
| 4 | 0.31 | 4.95 | 41 | 5.7 |
| 6 | 0.31 | 3.3 | 53 | 3.8 |

**DE-RATING FACTORS:**

| Ambient Temperature | 45°C | 50°C | 55°C | 60°C | 65°C | 70°C | 75°C |
|---|---|---|---|---|---|---|---|
| De-Rating Factor | 1.00 | 0.97 | 0.90 | 0.82 | 0.73 | 0.63 | 0.52 |

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**PRODUCT RANGE:**

| Art. Nr. | Colour | Cross-section | Cross-section AWG | Overall Diameter | ø insulation |
|---|---|---|---|---|---|
| RND 475-00532 | black | 0.50 mm² | 21 AWG | 2.7 mm | 0.8 mm |
| RND 475-00533 | black | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00534 | black | 1.00 mm² | 17 AWG | 3 mm | 0.8 mm |
| RND 475-00535 | black | 1.50 mm² | 16 AWG | 3.3 mm | 0.8 mm |
| RND 475-00536 | black | 2.50 mm² | 14 AWG | 3.75 mm | 0.8 mm |
| RND 475-00537 | black | 4.00 mm² | 12 AWG | 4.35 mm | 0.8 mm |
| RND 475-00538 | black | 6.00 mm² | 10 AWG | 4.85 mm | 0.8 mm |
| RND 475-00539 | blue | 0.50 mm² | 21 AWG | 2.7 mm | 0.8 mm |
| RND 475-00540 | blue | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00541 | blue | 1.00 mm² | 17 AWG | 3 mm | 0.8 mm |
| RND 475-00542 | blue | 1.50 mm² | 16 AWG | 3.3 mm | 0.8 mm |
| RND 475-00543 | blue | 2.50 mm² | 14 AWG | 3.75 mm | 0.8 mm |
| RND 475-00544 | blue | 4.00 mm² | 12 AWG | 4.35 mm | 0.8 mm |
| RND 475-00545 | blue | 6.00 mm² | 10 AWG | 4.85 mm | 0.8 mm |
| RND 475-00546 | brown | 0.50 mm² | 21 AWG | 2.7 mm | 0.8 mm |
| RND 475-00547 | brown | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00548 | brown | 1.00 mm² | 17 AWG | 3 mm | 0.8 mm |
| RND 475-00549 | brown | 1.50 mm² | 16 AWG | 3.3 mm | 0.8 mm |
| RND 475-00550 | brown | 2.50 mm² | 14 AWG | 3.75 mm | 0.8 mm |
| RND 475-00551 | brown | 4.00 mm² | 12 AWG | 4.35 mm | 0.8 mm |
| RND 475-00553 | dark blue | 0.50 mm² | 21 AWG | 2.7 mm | 0.8 mm |
| RND 475-00554 | dark blue | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00555 | dark blue | 1.00 mm² | 17 AWG | 3 mm | 0.8 mm |
| RND 475-00556 | dark blue | 1.50 mm² | 16 AWG | 3.3 mm | 0.8 mm |
| RND 475-00557 | dark blue | 2.50 mm² | 14 AWG | 3.75 mm | 0.8 mm |
| RND 475-00559 | dark blue | 6.00 mm² | 10 AWG | 4.85 mm | 0.8 mm |
| RND 475-00560 | green | 0.50 mm² | 21 AWG | 2.7 mm | 0.8 mm |
| RND 475-00561 | green | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00562 | green | 1.00 mm² | 17 AWG | 3 mm | 0.8 mm |
| RND 475-00563 | green | 1.50 mm² | 16 AWG | 3.3 mm | 0.8 mm |
| RND 475-00567 | grey | 0.50 mm² | 21 AWG | 2.7 mm | 0.8 mm |
| RND 475-00568 | grey | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00569 | grey | 1.00 mm² | 17 AWG | 3 mm | 0.8 mm |
| RND 475-00571 | grey | 1.50 mm² | 16 AWG | 3.3 mm | 0.8 mm |
| RND 475-00572 | grey | 2.50 mm² | 14 AWG | 3.75 mm | 0.8 mm |
| RND 475-00574 | grey | 6.00 mm² | 10 AWG | 4.85 mm | 0.8 mm |
| RND 475-00575 | green/yellow | 0.50 mm² | 21 AWG | 2.7 mm | 0.8 mm |
| RND 475-00576 | green/yellow | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00577 | green/yellow | 1.00 mm² | 17 AWG | 3 mm | 0.8 mm |
| RND 475-00578 | green/yellow | 1.50 mm² | 16 AWG | 3.3 mm | 0.8 mm |
| RND 475-00579 | green/yellow | 2.50 mm² | 14 AWG | 3.75 mm | 0.8 mm |
| RND 475-00580 | green/yellow | 4.00 mm² | 12 AWG | 4.35 mm | 0.8 mm |
| RND 475-00581 | green/yellow | 6.00 mm² | 10 AWG | 4.85 mm | 0.8 mm |
| RND 475-00582 | light blue | 0.50 mm² | 21 AWG | 2.7 mm | 0.8 mm |
| RND 475-00583 | light blue | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00584 | light blue | 1.00 mm² | 17 AWG | 3 mm | 0.8 mm |
| RND 475-00585 | light blue | 1.50 mm² | 16 AWG | 3.3 mm | 0.8 mm |
| RND 475-00586 | light blue | 2.50 mm² | 14 AWG | 3.75 mm | 0.8 mm |
| RND 475-00587 | light blue | 4.00 mm² | 12 AWG | 4.35 mm | 0.8 mm |

| Art. Nr. | Colour | Cross-section | Cross-section AWG | Overall Diameter | ø insulation |
|---|---|---|---|---|---|
| RND 475-00589 | orange | 0.50 mm² | 21 AWG | 2.7 mm | 0.8 mm |
| RND 475-00590 | orange | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00591 | orange | 1.00 mm² | 17 AWG | 3 mm | 0.8 mm |
| RND 475-00592 | orange | 1.50 mm² | 16 AWG | 3.3 mm | 0.8 mm |
| RND 475-00593 | orange | 2.50 mm² | 14 AWG | 3.75 mm | 0.8 mm |
| RND 475-00596 | pink | 0.50 mm² | 21 AWG | 2.7 mm | 0.8 mm |
| RND 475-00597 | pink | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00601 | pink | 2.50 mm² | 14 AWG | 3.75 mm | 0.8 mm |
| RND 475-00604 | red | 0.50 mm² | 21 AWG | 2.7 mm | 0.8 mm |
| RND 475-00605 | red | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00606 | red | 1.00 mm² | 17 AWG | 3 mm | 0.8 mm |
| RND 475-00607 | red | 1.50 mm² | 16 AWG | 3.3 mm | 0.8 mm |
| RND 475-00608 | red | 2.50 mm² | 14 AWG | 3.75 mm | 0.8 mm |
| RND 475-00609 | red | 4.00 mm² | 12 AWG | 4.35 mm | 0.8 mm |
| RND 475-00610 | red | 6.00 mm² | 10 AWG | 4.85 mm | 0.8 mm |
| RND 475-00611 | violet | 0.50 mm² | 21 AWG | 2.7 mm | 0.8 mm |
| RND 475-00612 | violet | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00613 | violet | 1.00 mm² | 17 AWG | 3 mm | 0.8 mm |
| RND 475-00614 | violet | 1.50 mm² | 16 AWG | 3.3 mm | 0.8 mm |
| RND 475-00618 | white | 0.50 mm² | 21 AWG | 2.7 mm | 0.8 mm |
| RND 475-00619 | white | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00620 | white | 1.00 mm² | 17 AWG | 3 mm | 0.8 mm |
| RND 475-00621 | white | 1.50 mm² | 16 AWG | 3.3 mm | 0.8 mm |
| RND 475-00622 | white | 2.50 mm² | 14 AWG | 3.75 mm | 0.8 mm |
| RND 475-00623 | white | 4.00 mm² | 12 AWG | 4.35 mm | 0.8 mm |
| RND 475-00625 | yellow | 0.50 mm² | 21 AWG | 2.7 mm | 0.8 mm |
| RND 475-00626 | yellow | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00627 | yellow | 1.00 mm² | 17 AWG | 3 mm | 0.8 mm |
| RND 475-00628 | yellow | 1.50 mm² | 16 AWG | 3.3 mm | 0.8 mm |
| RND 475-00631 | yellow | 6.00 mm² | 10 AWG | 4.85 mm | 0.8 mm |
| RND 475-00845 | brown | 6.00 mm² | 10 AWG | 4.85 mm | 0.8 mm |
| RND 475-00846 | dark blue | 4.00 mm² | 12 AWG | 4.35 mm | 0.8 mm |
| RND 475-00847 | green | 2.50 mm² | 14 AWG | 3.75 mm | 0.8 mm |
| RND 475-00848 | green | 4.00 mm² | 12 AWG | 4.35 mm | 0.8 mm |
| RND 475-00849 | green | 6.00 mm² | 10 AWG | 4.85 mm | 0.8 mm |
| RND 475-00850 | grey | 0.75 mm² | 19 AWG | 2.85 mm | 0.8 mm |
| RND 475-00851 | grey | 4.00 mm² | 12 AWG | 4.35 mm | 0.8 mm |
| RND 475-00852 | light blue | 6.00 mm² | 10 AWG | 4.85 mm | 0.8 mm |
| RND 475-00853 | orange | 4.00 mm² | 12 AWG | 4.35 mm | 0.8 mm |
| RND 475-00854 | orange | 6.00 mm² | 10 AWG | 4.85 mm | 0.8 mm |
| RND 475-00855 | pink | 1.00 mm² | 17 AWG | 3 mm | 0.8 mm |
| RND 475-00856 | pink | 1.50 mm² | 16 AWG | 3.3 mm | 0.8 mm |
| RND 475-00857 | pink | 4.00 mm² | 12 AWG | 4.35 mm | 0.8 mm |
| RND 475-00858 | pink | 6.00 mm² | 10 AWG | 4.85 mm | 0.8 mm |
| RND 475-00859 | violet | 2.50 mm² | 14 AWG | 3.75 mm | 0.8 mm |
| RND 475-00860 | violet | 4.00 mm² | 12 AWG | 4.35 mm | 0.8 mm |
| RND 475-00861 | violet | 6.00 mm² | 10 AWG | 4.85 mm | 0.8 mm |
| RND 475-00862 | white | 6.00 mm² | 10 AWG | 4.85 mm | 0.8 mm |
| RND 475-00863 | yellow | 2.50 mm² | 14 AWG | 3.75 mm | 0.8 mm |
| RND 475-00864 | yellow | 4.00 mm² | 12 AWG | 4.35 mm | 0.8 mm |