# JOHNSON MULTICORE ROUND INDUSTRIAL & CONTROL CABLES

## PVC INSULATED AND PVC SHEATHED ROUND FLEXIBLE COPPER CABLES (UP TO 1100 VOLTS)

PRODUCT DESIGN

| | | |
|---|---|---|
| APPLICABLE STANDARD | : | IS 694:2010 |
| CONDUCTOR | : | THE CONDUCTORS ARE DRAW FROM 99.97 % BRIGHT ELECTROLYTIC GRADE COPPER WITH MORE THAN 100 % CONDUCTIVITY ARE ANNEALED AND BUNCHED TOGETHER ( CLASS - 2 & 5) |
| PVC INSULATION | : | THE BUNCH CONDUCTORS ARE INSULATED WITH SPECIALLY FORMULATED PVC COMPOUND WITH A HIGH INSULATION RESISTANCE VALUE.<br>THE INSULATION PROCESS IS CARRIED OUT ON MODERN HIGH SPEED EXTRUSION LINES, WHICH ENSURES HIGH ACCURACY AND CONSISTENCY IN PERFORMANCE |
| PVC SHEATH | : | THE SHEATHING MATERIAL PROVIDED RESISTANCE TO OIL, AND MOISTURE AND SUPERIOR MECHANICAL STRENGTH WITHOUT LOSING ITS FLEXIBILITY |
| OPERATING TEMPERATURE RANGE | : | TEMP -15 °C TO MAX. +70 °C / +85 °C |
| SHEATH COLOUR | : | BLACK (AND ALSO OTHER COLOUR REQUEST ON CUSTOMER) |
| PACKING | : | 100m , 500m & 1000m. (+/- 5%) HIGHER LENGTH AVAILABLE ON REQUEST. |
| MARKING | : | THE CABLES ARE PRINTED WITH GENERIC MARKING " JOHNSON CABLES " |
| APPLICATION | : | THIS TYPE OF CABLES USED FOR WIRING IN MACHINES, CONTROL PANELS, ELECTRIC POWER SUPPLY, MODERN ELECTRIC APPLIANCES AND EQUIPMENTS |
| FEATURE | : | MANUFACTURED FROM BRIGHT ANNEALED 99.97 % PURE COPPER CONDUCTORS AND HENCE, OFFER LOW CONDUCTOR RESISTANCE.<br>OUTER SHEATH CONSISTS OF HIGHLY ABRASION RESISTANT PVC COMPOUND IMPERVIOUS TO GREASE, OIL AND WATER ETC<br>EXCELLENT MECHANICAL AND ELECTRICAL PROPERTIES.<br>PROGRESSIVE SEQUENTIAL LENGTH MARKING ON EVERY METER. |
| CORE COLOUR | : | 2 CORE : RED , BLACK<br>3 CORE : RED , BLACK , GREEN<br>4 CORE : RED, YELLOW , BLACK, GREEN<br>5 CORE : RED, YELLOW , BLUE , BLACK , GREEN |
| ISO CERTIFICATION | : | ISO 9001 : 2015, ISO 45001 : 2018, ISO 14001 : 2015, CE, RoHS |
| PRODUCT CERTIFICATION | : | IS 694 : 2010 (IS 694:2010 CM/L-3981279) IS 7098 P-1 (IS 7098 P-1 CM/L-7200172911), TUV RHEINLAND CERTIFICATE No. R 60160536 |

# MULTICORE FLEXIBLE CABLES


## Technical Data

### SIZE DIMENSIONS AND RATING

| NOMINAL CROSS SECTIONAL AREA | NUMBER/ NOMINAL DIA OF WIRES (MAX.) | NOMINAL THICKNESS OF INSULATION | THICKNESS OF SHEATH (NOM.) | | | | APPROX OVERALL DIA | | | | D.C. RESISTANCE MAX. AT 20° C | MAX. CURRENT CARRYING CAPACITY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2 CORE | 3 CORE | 4 CORE | 5 CORE | 2 CORE | 3 CORE | 4 CORE | 5 CORE | | |
| Sq. mm | Number/mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | Ω/km | Amps |
| 0.5 | 16/0.2 | 0.6 | 0.90 | 0.90 | 0.90 | 0.90 | 6.00 | 6.30 | 6.80 | 7.60 | 39 | 4 |
| 0.75 | 24/0.2 | 0.6 | 0.90 | 0.90 | 0.90 | 0.90 | 6.30 | 6.70 | 7.30 | 8.20 | 26 | 7 |
| 1.0* | 14/0.3 | 0.6 | 0.90 | 0.90 | 0.90 | 1.00 | 7.10 | 7.60 | 8.20 | 9.60 | 18.10 | 12 |
| 1.5* | 22/0.3 | 0.6 | 0.90 | 0.90 | 1.00 | 1.00 | 7.70 | 8.10 | 9.60 | 11.00 | 12.10 | 16 |
| 2.5* | 36/0.3 | 0.7 | 1.00 | 1.00 | 1.00 | 1.00 | 8.80 | 9.50 | 10.60 | 12.50 | 7.41 | 22 |
| 4 | 56/0.3 | 0.8 | 1.00 | 1.00 | 1.00 | 1.10 | 10.20 | 11.20 | 12.20 | 14.60 | 4.95 | 29 |
| 6 | 84/0.3 | 0.8 | 1.10 | 1.20 | 1.20 | - | 12.50 | 13.50 | 15.30 | - | 3.30 | 37 |
| 10 | 140/0.3 | 1.0 | 1.30 | 1.40 | 1.40 | - | 16.40 | 17.00 | 19.20 | - | 1.91 | 40 |
| 16 | 224/0.3 | 1.0 | 1.40 | 1.40 | 1.40 | - | 19.40 | 20.60 | 22.90 | - | 1.21 | 55 |
| 25 | 354/0.3 | 1.2 | 1.40 | 1.50 | 1.60 | - | 23.80 | 25.00 | 28.00 | - | 0.780 | 70 |
| 35 | 495/0.3 | 1.2 | 1.60 | 1.60 | 1.70 | - | 27.20 | 28.00 | 30.80 | - | 0.554 | 90 |
| 50 | 703/0.3 | 1.4 | 2.00 | 2.00 | 2.00 | - | 32.00 | 32.50 | 37.00 | - | 0.386 | 120 |

ALL ARE CLASS 5 CONDUCTOR *CLASS 2

1. THE NUMBER OF WIRES AND DIAMETER MENTIONED IN THE TABLE ARE APPROXIMATE AND NOMINAL, HOWEVER THEY SHALL MEET THE REQUIREMENTS OF CONDUCTOR RESISTANCE AS PER STANDARDS. IS 8130
   TOLERANCE: UP TO 4.0 SQ MM +/- 0.5 MM. 6.0 SQ MM AND 10 SQ MM +/- 1.0 MM AND ABOVE 10 SQ MM +/- 1.2 MM
2. THE ABOVE DATA IS INDICATIVE AND MAY BE REVISED WITHOUT PRIOR INFORMATION. JOHNSON CABLES WILL NOT BE LIABLE FOR ANY DAMAGES ARISING OUT OF INCORRECT APPLICATION.

# ROUND CONTROL CABLES


## Technical Data

### SIZE DIMENSIONS AND RATING

| NOMINAL CROSS SECTIONAL AREA OF CONDUCTOR | NUMBER/ NOMINAL DIA OF WIRES (NOM.) | THICKNESS OF INSULATION (NOM.) | THICKNESS OF SHEATH (NOM.) | | | | | | | APPROX OVERALL DIA | | | | | | | D.C. RESISTANCE MAX. AT 20° C | MAX. CURRENT CARRYING CAPACITY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 6 CORE | 7 CORE | 10 CORE | 12 CORE | 16 CORE | 19 CORE | 24 CORE | 6 CORE | 7 CORE | 10 CORE | 12 CORE | 16 CORE | 19 CORE | 24 CORE | | |
| Sq. mm | Number/mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | Ω/km | Amps |
| 0.5 | 16/0.2* | 0.6 | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 9.20 | 9.20 | 11.50 | 12.20 | 13.30 | 14.00 | 16.40 | 39 | 4 |
| 0.75 | 24/0.2* | 0.6 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.2 | 1.3 | 9.80 | 9.80 | 12.50 | 13.00 | 14.40 | 15.10 | 17.80 | 26 | 7 |
| 1.0 | 14/0.3 | 0.6 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.3 | 1.4 | 10.50 | 10.50 | 14.20 | 14.70 | 16.40 | 17.30 | 20.20 | 18.10 | 12 |
| 1.5 | 22/0.3 | 0.6 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.3 | 1.4 | 12.40 | 12.40 | 15.80 | 16.20 | 18.00 | 19.30 | 22.90 | 12.10 | 16 |
| 2.5 | 36/0.3 | 0.7 | 1.1 | 1.1 | 1.3 | 1.3 | 1.4 | 1.4 | 1.5 | 14.20 | 14.20 | 18.50 | 19.20 | 21.50 | 23.30 | 27.00 | 7.41 | 22 |

CLASS 5 CONDUCTOR*, OTHER CLASS 2

1. THE NUMBER OF WIRES AND DIAMETER MENTIONED IN THE TABLE ARE APPROXIMATE AND NOMINAL, HOWEVER THEY SHALL MEET THE REQUIREMENTS OF CONDUCTOR RESISTANCE AS PER STANDARDS. IS 8130
2. THE ABOVE DATA IS INDICATIVE AND MAY BE REVISED WITHOUT PRIOR INFORMATION. JOHNSON CABLES WILL NOT BE LIABLE FOR ANY DAMAGES ARISING OUT OF INCORRECT APPLICATION.