

450 - 750 VOLTS - Copper conductor PVC insulated IEC 60227

HO 7V - U With Solid Conductor - TYPE 60227 IEC 01

AL-ROWAD CABLES

For internal wiring of equipment rated voltage up to 1000 V AC and up to 750 V DC to earth.

| | Nominal | Condu | | | | Weight of | Maximum | Standard |
|---------------------|------------------|-------------|------|---------------------|------------------------------|----------------------------|-------------------|----------|
| Catalogue Number | Cross Section | Number of I | | Overall Diameter | Finished Cable Approx. | DC Resistance at 20℃ | Packing Length | |
| | mm ² | | mm | mm | mm | Kg / Km | Ohm / Km | M ± 5% |
| 0C 010004xx | 1 x 1.5 | 1 | 1.38 | 0.7 | 3.2 | 21 | 12.1 | 100 C |
| 0C 010005xx | 1 x 2.5 | 1 | 1.78 | 0.8 | 3.9 | 34 | 7.41 | 100 C |
| 0C 010006xx | 1 x 4 | 1 | 2.25 | 0.8 | 4.4 | 50 | 4.61 | 100 C |
| 0C 010007xx | 1 x 6 | 1 | 2.76 | 0.8 | 5.0 | 70 | 3.08 | 100 C |
| 0C 010008xx | 1 x 10 | 1 | 3.57 | 1.0 | 6.4 | 115 | 1.83 | 100 C |

Color: green / yellow, blue, black, green, red, yellow, brown, grey, orange, white, Code: 01 02 03 04 05 06 07 08 09 10

For required colour replace the last two digits - xx, by color code.

450 - 750 VOLTS - Copper conductor PVC insulated IEC 60227

HO 7V - R With Stranded Conductor - TYPE 60227 IEC 01

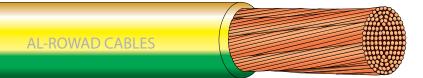


For internal wiring of equipment rated voltage up to 1000 V AC and up to 750 V DC to earth.

| | | Naminal | Cond | uctor | | | Weight of | Maximum | Standard |
|--|---------------------|-----------------------------|------------------------------------|--|-------------------------|---------------------|------------------------------|-----------------------------|-------------------|
| | Catalogue Number | Nominal Cross Section | Number of Wires in Conductor | Diameter of Conductor Approx. | Insulation Thickness | Overall Diameter | Finished Cable Approx. | DC Resistance at 20°C | Packing Length |
| | | mm ² | | mm | mm | mm | Kg / Km | Ohm / Km | M ± 5% |
| | 0C 010104xx | 1 x 1.5 | 7 | 1.50 | 0.7 | 3.3 | 22 | 12.1 | 100 C |
| | 0C 010105xx | 1 x 2.5 | 7 | 2.01 | 0.8 | 4.0 | 35 | 7.41 | 100 C |
| | 0C 010106xx | 1 x 4 | 7 | 2.55 | 0.8 | 4.6 | 52 | 4.61 | 100 C |
| | 0C 010107xx | 1 x 6 | 7 | 3.12 | 0.8 | 5.2 | 71 | 3.08 | 100 C |
| | 0C 010108xx | 1 x 10 | 7 | 4.05 | 1.0 | 6.7 | 116 | 1.83 | 100 C |
| | 0C 010109xx | 1 x 16 | 7 | 5.10 | 1.0 | 7.8 | 185 | 1.15 | 100 C |
| | 0C 0101 10xx | 1 x 25 | 7 | 6.42 | 1.2 | 9.7 | 290 | 0.727 | 100 C |
| | 0C 0101 11xx | 1 x 35 | 7 | 7.65 | 1.2 | 10.9 | 390 | 0.524 | 100 C |
| | 000101xx12 | 1 x 50 | 19 | 8.90 | 1.4 | 12.8 | 525 | 0.387 | 3000 D |
| | 000101xx13 | 1 x 70 | 19 | 10.70 | 1.4 | 14.6 | 735 | 0.268 | 3000 D |
| | 000101xx14 | 1 x 95 | 19 | 12.60 | 1.6 | 17.1 | 1010 | 0.193 | 3000 D |
| | 000101xx15 | 1 x 120 | 37 | 14.21 | 1.6 | 18.8 | 1260 | 0.153 | 2000 D |
| | 000101xx16 | 1 x 150 | 37 | 15.75 | 1.8 | 20.9 | 1540 | 0.124 | 2000 D |
| | 000101xx17 | 1 x 185 | 37 | 17.64 | 2.0 | 23.3 | 1940 | 0.0991 | 2000 D |
| | 000101xx18 | 1 x 240 | 61 | 20.25 | 2.2 | 26.6 | 2550 | 0.0754 | 1000 D |
| | 000101xx19 | 1 x 300 | 61 | 22.68 | 2.4 | 29.6 | 3180 | 0.0601 | 1000 D |
| | 000101xx20 | 1 x 400 | 61 | 25.65 | 2.6 | 33.2 | 4050 | 0.0470 | 500 D |
| | 000101xx21 | 1 x 500 | 61 | 28.80 | 2.8 | 37.0 | 5050 | 0.0366 | 500 D |
| | 000101xx22 | 1 x 630 | 127/91 | 32.76 | 2.8 | 41.0 | 6050 | 0.0283 | 500 D |
| | | | | | | | | | |

Color: green / yellow, blue, black, green, red, yellow, brown, grey, orange, white, Code: 01 02 03 04 05 06 07 08 09 10

For required colour replace the last two digits - xx, by color code.



For internal wiring of equipment rated voltage up to 1000 V AC and up to 750 V DC to earth.

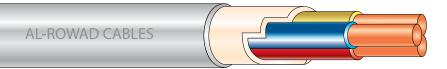
| Catalogue Number | Nominal Cross Section | Approx No & Nom. strand Diameter | Diameter of Conductor Approx. | Insulation Thickness | Overall Diameter | Weight of Finished Cable Approx. | Max. DC Resistance at 20 C | Standard Packing Length |
|---------------------|-----------------------------|---|--|-------------------------|---------------------|---|----------------------------------|-------------------------------|
| 1 / 1/ | mm ² | No x mm | mm | mm | mm | Kg / Km | Ohm / Km | M ± 5% |
| 0C 010504xx | 1 x 1.5 | 28 x 0.25 | 1.7 | 0.7 | 3.4 | 23 | 13.3 | 100 C |
| 0C 010505xx | 1 x 2.5 | 46 x 0.25 | 2.2 | 0.8 | 4.1 | 35 | 7.98 | 100 C |
| 0C 010506xx | 1 x 4 | 51 x 0.30 | 3.1 | 0.8 | 4.8 | 51 | 4.95 | 100 C |
| 0C 010507xx | 1 x 6 | 77 x 0.30 | 3.8 | 0.8 | 5.3 | 71 | 3.30 | 100 C |
| 0C 010508xx | 1 x 10 | 74 x 0.40 | 5.0 | 1.0 | 6.8 | 125 | 1.91 | 100 C |
| 0C 010509xx | 1 x 16 | 118 x 0.40 | 6.3 | 1.0 | 8.1 | 195 | 1.21 | 100 C |
| 0C 010510xx | 1 x 25 | 183 x 0.40 | 6.4 | 1.2 | 9.2 | 300 | 0.780 | 100 C |
| 0C 01051 1xx | 1 x 35 | 257 x 0.40 | 9.2 | 1.2 | 10.5 | 410 | 0.554 | 100 C |
| 000105xx12 | 1 x 50 | 371 x 0.40 | 11.0 | 1.4 | 13.9 | 585 | 0.386 | 1000 D |
| 000105xx13 | 1 x 70 | 337 x 0.50 | 13.0 | 1.4 | 16.0 | 810 | 0.272 | 1000 D |
| 000105xx14 | 1 x 95 | 444 x 0.50 | 15.2 | 1.6 | 18.2 | 1065 | 0.206 | 1000 D |
| 000105xx15 | 1 x 120 | 570 x 0.50 | 17.0 | 1.6 | 20.2 | 1335 | 0.161 | 1000 D |
| 000105xx16 | 1 x 150 | 712 x 0.50 | 19.0 | 1.8 | 22.5 | 1600 | 0.129 | 1000 D |
| 000105xx17 | 1 x 185 | 864 x 0.50 | 21.0 | 2.0 | 24.9 | 2000 | 0.106 | 1000 D |
| 000105xx18 | 1 x 240 | 1140x0.50 | 24.0 | 2.2 | 28.4 | 2500 | 0.0801 | 1000 D |

Color: green / yellow, blue, black, green, red, yellow, brown, grey, orange, white, Code: 01 02 03 04 05 06 07 08 09 10

For required colour replace the last two digits - xx, by color code.

300 - 500 VOLTS - Copper conductor PVC insulated and Sheathed

IEC 60227(IEC 10)



| | Catalogue Number | Nominal Cross Section | Number of Wires in Conductor | Diameter of Conductor Approx. | Insulation Thickness | Sheath Thickness | Overall Diameter | Weight of Finished Cable Approx. | Max. DC Resistance at 20°C | Standard Packing Length |
|---|---------------------|-----------------------------|------------------------------------|--|-------------------------|---------------------|---------------------|---|-------------------------------------|-------------------------------|
| | | mm ² | | mm | mm | mm | mm | Kg/Km | Ohm/Km | M ± 5% |
| | 0B 01002408 | 2 x 1.5 | 1 | 1.38 | 0.7 | 1.2 | 10.0 | 120 | 12.1 | 100 C |
| | 0B 01002508 | 2 x 2.5 | / 1 | 1.78 | 0.8 | 1.2 | 11.5 | 165 | 7.41 | 100 C |
| | 0B 01002608 | 2 x 4 | 1 | 2.25 | 0.8 | 1.2 | 12.5 | 215 | 4.61 | 100 C |
| | 0B 01002708 | 2 x 6 | 1 | 2.76 | 0.8 | 1.2 | 13.5 | 270 | 3.08 | 100 C |
| | 0B 01002808 | 2 x 10 | 1 | 3.57 | 1.0 | 1.4 | 16.5 | 440 | 1.83 | 1000/2000 |
| | | | | | | | | | | |
| | 0B 01003408 | 3 x 1.5 | 1 | 1.38 | 0.7 | 1.2 | 10.5 | 140 | 12.1 | 100 C |
| | 0B 01003508 | 3 x 2.5 | 1 | 1.78 | 0.8 | 1.2 | 12.0 | 195 | 7.41 | 100 C |
| | 0B 01003608 | 3 x 4 | 1 | 2.25 | 8.0 | 1.2 | 13.0 | 250 | 4.61 | 100 C |
| | 0B 01003708 | 3 x 6 | 1 | 2.76 | 0.8 | 1.4 | 14.5 | 345 | 3.08 | 100 C |
| × | 0B 01003808 | 3 x 10 | 1 | 3.57 | 1.0 | 1.4 | 17.5 | 540 | 1.83 | 1000/2000 |
| | | | | | | | | | | |
| | 0B 01004408 | 4 x 1.5 | 1 | 1.38 | 0.7 | 1.2 | 11.5 | 165 | 12.1 | 100 C |
| | 0B 01004508 | 4 x 2.5 | 1 | 1.78 | 0.8 | 1.2 | 13.0 | 235 | 7.41 | 100 C |
| | 0B 01004608 | 4 x 4 | 1 | 2.25 | 0.8 | 1.4 | 14.5 | 325 | 4.61 | 100 C |
| | 0B 01004708 | 4 x 6 | 1 | 2.76 | 0.8 | 1.4 | 16.0 | 430 | 3.08 | 1000/2000 |
| | 0B 01004808 | 4 x 10 | 1 | 3.57 | 1.0 | 1.4 | 19.0 | 665 | 1.83 | 1000/2000 |
| | | | | | • | | | | | |
| | 0B 01005408 | 5 x 1.5 | 1 | 1.38 | 0.7 | 1.2 | 12.0 | 195 | 12.1 | 100 C |
| | 0B 01005508 | 5 x 2.5 | 1 | 1.78 | 0.8 | 1.2 | 14.0 | 285 | 7.41 | 100 C |
| | 0B 01005608 | 5 x 4 | 1 | 2.25 | 0.8 | 1.4 | 16.0 | 405 | 4.61 | 100 C |
| | 0B 01005708 | 5 x 6 | 1 | 2.78 | 0.8 | 1.4 | 17.5 | 530 | 3.08 | 1000/2000 |
| | 0B 01005808 | 5 x 10 | 1 | 3.57 | 1.0 | 1.4 | 21.0 | 810 | 1.83 | 1000/2000 |

Color code:

2 cores : Red, Black 2 cores : light Blue, Brown 3 cores : Red, Yellow and Blue 3 cores : light Blue, Black, Brown 4 cores : Red, Yellow, Blue and Black 5 cores : Red, Yellow, Blue, Black and Green 5 cores : light Blue, Black, Brown, Black 5 cores : light Blue, Black, Brown, Black

For Green / Yellow Core - Replace 5th digits by 3.

For green / yellow Core - add letter "J" at the end of item code.

outer sheath

Gray.

300 - 500 VOLTS - Copper conductor PVC insulated and Sheathed

IEC 60227 (IEC 10)

AL-ROWAD CABLES

| Catalogue Number | Nominal Cross Section | Number of Wires in Conductor | Diameter of Conductor Approx. | Insulation Thickness | Sheath Thickness | Overall Diameter | Weight of Finished Cable Approx. | Max. DC R es is tance at 20°C | Standard Packing Length |
|----------------------------|-----------------------------|------------------------------------|--|-------------------------|---------------------|---------------------|---|--|-------------------------------|
| | mm ² | | mm | mm | mm | mm | Kg/Km | Ohm/Km | M ± 5% |
| 0B 01012408 | 2 x 1.5 | 7 | 1.50 | 0.7 | 1.2 | 10.5 | 125 | 12.1 | 100 C |
| 0B 01012508 | 2 x 2.5 | 7 | 2.01 | 0.8 | 1.2 | 12.0 | 170 | 7.41 | 100 C |
| 0B 01012608 | 2 x 4 | 7 | 2.55 | 0.8 | 1.2 | 13.0 | 220 | 4.61 | 100 C |
| 0B 01012708 | 2 x 6 | 7 | 3.12 | 8.0 | 1.2 | 14.0 | 280 | 3.08 | 100 C |
| 0B 01012808 | 2 x 10 | 7 | 4.05 | 1.0 | 1.4 | 17.5 | 470 | 1.83 | 1000/2000 |
| 0B 01012908 | 2 x 16 | 7 | 5.10 | 1.0 | 1.4 | 20.0 | 650 | 1.15 | 1000/2000 |
| 0B 01012108 | 2 x 25 | 7 | 6.42 | 1.2 | 1.4 | 24.0 | 980 | 0.727 | 1000 |
| 0B 01012118 | 2 x 35 | 7 | 7.65 | 1.2 | 1.6 | 27.5 | 1300 | 0.524 | 1000 |
| | | | | | | | | | |
| 0B 01013408 | 3 x 1.5 | 7 | 1.50 | 0.7 | 1.2 | 11.0 | 145 | 12.1 | 100 C |
| 0B 01013508 | 3 x 2.5 | 7 | 2.01 | 0.8 | 1.2 | 12.5 | 200 | 7.41 | 100 C |
| 0B 01013608 | 3 x 4 | 7 | 2.55 | 0.8 | 1.2 | 13.5 | 270 | 4.61 | 100 C |
| 0B 01013708 | 3 x 6 | 7 | 3.12 | 0.8 | 1.4 | 15.5 | 360 | 3.08 | 100 C |
| 0B 01 <mark>0</mark> 13808 | 3 x 10 | 7 | 4.05 | 1.0 | 1.4 | 19.0 | 570 | 1.83 | 1000/2000 |
| 0B 01013908 | 3 x 16 | 7 | 5.10 | 1.0 | 1.4 | 21.5 | 830 | 1.15 | 1000/2000 |
| 0B 01013108 | 3 x 25 | 7 | 6.42 | 1.2 | 1.6 | 26.0 | 1255 | 0.727 | 1000 |
| 0B 01013118 | 3 x 35 | 7 | 7.65 | 1.2 | 1.6 | 29.0 | 1640 | 0.524 | 1000 |
| | | | | | | | | | |
| 0B 01014408 | 4 x 1.5 | 7 | 1.50 | 0.7 | 1.2 | 12.0 | 165 | 12.1 | 100 C |
| 0B 01014508 | 4 x 2.5 | 7 | 2.01 | 0.8 | 1.2 | 13.5 | 240 | 7.41 | 100 C |
| 0B 01014608 | 4 x 4 | 7 | 2.55 | 0.8 | 1.4 | 15.0 | 330 | 4.61 | 100 C |
| 0B 01014708 | 4 x 6 | 7 | 3.12 | 0.8 | 1.4 | 17.0 | 460 | 3.08 | 1000/2000 |
| 0B 01014808 | 4 x 10 | 7 | 4.05 | 1.0 | 1.4 | 20.5 | 700 | 1.83 | 1000/2000 |
| 0B 01014908 | 4 x 16 | 7 | 5.10 | 1.0 | 1.4 | 23.5 | 1025 | 1.15 | 1000/2000 |
| 0B 01014108 | 4 x 25 | 7 | 6.42 | 1.2 | 1.6 | 28.5 | 1590 | 0.727 | 1000 |
| 0B 01014118 | 4 x 35 | 7 | 7.65 | 1.2 | 1.6 | 32.0 | 2040 | 0.524 | 1000 |
| | | | | | | | | | |
| 0B 01015408 | 5 x 1.5 | 7 | 1.50 | 0.7 | 1.2 | 12.0 | 200 | 12.1 | 100 C |
| 0B 01015508 | 5 x 2.5 | 7 | 2.01 | 0.8 | 1.2 | 14.5 | 290 | 7.41 | 100 C |
| 0B 01015608 | 5 x 4 | 7 | 2.55 | 0.8 | 1.4 | 17.0 | 410 | 4.61 | 100 C |
| OB 01015708 | 5 x 6 | 7 | 3.12 | 8.0 | 1.4 | 18.5 | 550 | 3.08 | 1000/2000 |
| 0B 01015808 | 5 x 10 | 7 | 4.05 | 1.0 | 1.4 | 22.0 | 850 | 1.83 | 1000/2000 |
| 0B 01015908 | 5 x 16 | 7 | 5.10 | 1.0 | 1.6 | 26.0 | 1250 | 1.15 | 1000/2000 |
| 0B 01015108 | 5 x 25 | 7 | 6.42 | 1.2 | 1.6 | 31.5 | 1860 | 0.727 | 1000 |
| 0B 01015118 | 5 x 35 | 7 | 7.65 | 1.2 | 1.6 | 35.0 | 2540 | 0.524 | 1000 |

Color code:

2 cores : Red, Black
3 cores : Red, Yellow and Blue
4 cores : Red, Yellow, Blue and Black
5 cores : Red, Yellow, Blue, Black and Green

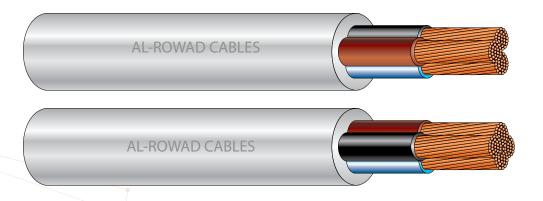
2 cores: light Blue, Brown 3 cores: light Blue, Black, Brown 4 cores: light Blue, Black, Brown, Black 5 cores: light Blue, Black, Brown, Brown, Black

For Green / Yellow Core - Replace 5th digits by 3.

For green / yellow Core - add letter "J" at the end of item code.

outer sheath

Gray.



| | Catalogue Number | Nominal Cross Section Approx. | Number & dia of wires in Conductor | Diameter of Conductor Approx. | Weight of Insulation Thickness | Thickness of Sheath Approx. | Overall Diameter | Weight of Finished Cable Approx. | Max DC Res is tance at 20℃ | Packing |
|---|---------------------|--|---|--|--------------------------------------|------------------------------|---------------------|---|----------------------------------|---------------|
| | / / | mm ² | no x mm | mm | mm | mm | mm | Kg/Km | Ohm/Km | M <u>+</u> 5% |
| | 0B 01252210 | 2 x 0.75 | 22 x 0.20 | 1.1 | 0.6 | 0.8 | 7.2 | 56 | 26.0 | 100 |
| | 0B 01252310 | 2 x 1 | 29 x 0.20 | 1.3 | 0.6 | 0.8 | 7.5 | 65 | 19.5 | 100 |
| | 0B 01252410 | 2 x 1.5 | 28 x 0.25 | 1.6 | 0.7 | 0.8 | 8.6 | 80 | 13.3 | 100 |
| | 0B 01252510 | 2 x 2.5 | 46 x 0.25 | 2.1 | 0.8 | 1.0 | 10.6 | 130 | 7.98 | 100 |
| | | | | | | | | | | |
| | 0B 01253210 | 3 x 0.75 | 22 x 0.20 | 1.1 | 0.6 | 0.8 | 7.6 | 65 | 26.0 | 100 |
| | 0B 01253310 | 3 x 1 | 29 x 0.20 | 1.3 | 0.6 | 0.8 | 8.0 | 80 | 19.5 | 100 |
| 1 | 0B 01253410 | 3 x 1.5 | 28 x 0.25 | 1.6 | 0.7 | 0.9 | 9.4 | 100 | 13.3 | 100 |
| | 0B 01253510 | 3 x 2.5 | 46 x 0.25 | 2.1 | 0.8 | 1.1 | 11.4 | 155 | 7.98 | 100 |
| | | | | | | | | | | |
| | 0B 01254210 | 4 x 0.75 | 22 x 0.20 | 1.1 | 0.6 | 0.8 | 8.3 | 80 | 26.0 | 100 |
| | 0B 01254310 | 4 x 1 | 29 x 0.20 | 1.3 | 0.6 | 0.9 | 9.0 | 95 | 19.5 | 100 |
| | 0B 01254410 | 4 x 1.5 | 28 x 0.25 | 1.6 | 0.7 | 1.0 | 10.5 | 130 | 13.3 | 100 |
| | 0B 01254510 | 4 x 2.5 | 46 x 0.25 | 2.1 | 0.8 | 1.1 | 12.5 | 200 | 7.98 | 100 |
| | | | | | | | | | | |
| | 0B 01255210 | 5 x 0.75 | 22 x 0.20 | 1.1 | 0.6 | 0.9 | 9.3 | 105 | 26.0 | 100 |
| | 0B 01255310 | 5 x 1 | 29 x 0.20 | 1.3 | 0.6 | 0.9 | 9.8 | 125 | 19.5 | 100 |
| | 0B 01255410 | 5 x 1.5 | 28 x 0.25 | 1.6 | 0.7 | 1.1 | 11.6 | 160 | 13.3 | 100 |
| | 0B 01255510 | 5 x 2.5 | 46 x 0.25 | 2.1 | 0.8 | 1.2 | 13.9 | 245 | 7.98 | 100 |

Color code:

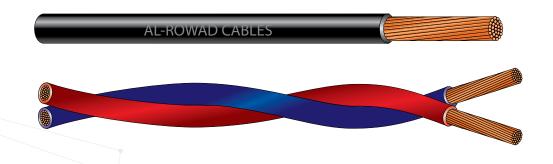
2 cores : light blue, brown
3 cores : light blue, black, brown
4 cores : light blue, black, brown, black
5 cores : light blue, black, brown, brown, Black
5 cores : light blue, black, brown, brown, Black
5 cores : light blue, black, brown, black and green / yellow

For Green / Yellow Core - add letter "J" at the end of item Code.

outer sheath

White.

300 / 500 VOLTS HO5V-K



| Condu | uctor | De diel | Mean | Mandanana | | |
|------------------------|--------------------------------|---|--|--|---------------|---------------|
| Nom.cross sectional | Nominal diameter of wire | Radial Thickness of insulation | Overall diameter (upper limit) single | Maximum DC Resistance at 20°C | Appro: wei | ximate ght |
| area | wire | | Sirigic | | Single | Twin |
| mm ² | mm | mm | mm | / Km | Kg / Km | Kg / Km |
| 0.5 | 0.20 | 0.6 | 2.4 | 39.0 | 9 | 19 |
| 0.75 | 0.20 | 0.6 | 2.6 | 26.0 | 12 | 24 |
| 1.0 | 0.20 | 0.6 | 2.8 | 19.5 | 15 | 29 |

- Note:

 The cord may be available in twin twisted form.

 The cord may be available in twin twisted form.
- For solid wire conductor equivalent cables, please refer to BS 6004 or IEC 60227. For larger sizes of flexible conductor cables, please refer to BS 6004 or IEC 60227.

- Construction:
 Annealed Copper conductor as per IEC 60228, CLASS 5.
 PVC Insulation.

Core Identification : Green / Yellow, Blue or any other colour.

PVC insulated, Non-sheathed Flexible Cords for Internal Wiring - Parallel Twin

COPPER CONDUCTOR - STANDARD (S): IEC 60227 (IEC 42)

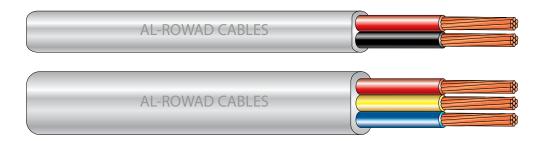
300 / 300 VOLTS



| Con | ductor | Radial | Mean overall o | dimensions | Maximum | |
|---------------------------------|--------------------------------|-------------------------------|----------------|----------------|-----------------------------|-------------------|
| Nom. Cross Sectional area | Maximum diameter of Wire | Thickness of insulation | Lower Limit | Upper Limit | DC Resistance at 20 ℃ | Approx. Weight |
| mm ² | mm | mm | mm | mm | _∩_ / Km | Kg / Km |
| 2 x 0.50 | 0.16 | 0.8 | 2.5 x 5.0 | 3.0 x 6.0 | 39.0 | 22 |
| 2 x 0.75 | 0.16 | 0.8 | 2.7 x 5.4 | 3.2 x 6.4 | 26.0 | 28 |

Construction:

- Annealed Copper conductor as per IEC 60228 Class 6.
- The conductors shall be laid parallel and covered with PVC Insulation
- The insulation shall be provided with a groove on each side between the conductors to facilitate seperation of the cores.



| No. & Cross | No. of | Radial | Radial | Mean overs | | Max. DC | A 10 10 10 10 10 10 10 10 10 10 10 10 10 |
|-----------------------------------|--------------------|-------------------------------|------------------------|--------------------------|---------------------------|---------------------------|---|
| sectional area of conductor | wires in conductor | Thickness of insulation | Thickness of sheath | Lower Limit | Upper Limit | Resist ance at 20 C | Approx. Weight |
| mm ² | mm | mm | mm | mm | mm | _∩_/ Km | Kg / Km |
| 1 x 1.0 | 1 | 0.6 | 0.8 | 3.8 | 4.5 | 18.1 | 28 |
| 1 x 1.5 | /1 | 0.7 | 0.8 | 4.2 | 4.9 | 12.1 | 36 |
| 1 x 2.5 | 1 | 0.8 | 0.8 | 4.8 | 5.8 | 7.41 | 51 |
| 1 x 4 | / 7 | 0.8 | 0.9 | 5.4 | 6.8 | 4.61 | 74 |
| 1 x 6 | 7 | 0.8 | 0.9 | 6.0 | 7.4 | 3.08 | 96 |
| 1 x 10 | / 7 | 1.0 | 0.9 | 7.2 | 8.8 | 1.83 | 150 |
| 1 x 16 | 7 | 1.0 | 1.0 | 8.4 | 10.5 | 1.15 | 220 |
| 1 x 25 | 7 | 1.2 | 1.1 | 10.0 | 12.5 | 0.727 | 335 |
| 1 x 35 | 7 | 1.2 | 1.1 | 11.0 | 13.5 | 0.524 | 440 |
| | | | | | | | |
| 2 x 1.0 | 1 | 0.6 | 0.9 | 4.0 x 6.2 | 4.7 x 7.4 | 18.1 | 53 |
| 2 x 1.5 | 1 | 0.7 | 0.9 | 4.4 x 7.0 | 5.4 x 8.4 | 12.1 | 71 |
| 2 x 2.5 | 1 | 0.8 | 1.0 | 5.2 x 8.4 | 6.2 x 9.8 | 7.41 | 106 |
| 2 x 4 | 7 | 0.8 | 1.0 | 5.6 x 9.6 | 7.2 x 11.5 | 4.61 | 150 |
| 2 x 6 | 7 | 0.8 | 1.1 | 6.4 x 10.5 | 8.0 x 13.0 | 3.08 | 200 |
| 2 x 10 | 7 | 1.0 | 1.2 | 7.8 x 13.0 | 9.6 x 16.0 | 1.83 | 320 |
| 2 x 16 | 7 | 1.0 | 1.3 | 9.0 x 15.5 | 11.0 x 18.5 | 1.15 | 460 |
| 0 10 | 4 | 0.0 | 0.0 | 40.04 | 47.00 | 10.1 | 70 |
| 3 x 1.0 | 1 | 0.6 | 0.9 | 4.0 x 8.4 | 4.7 x 9.8 | 18.1 | 76 |
| 3 x 1.5 | 1 | 0.7 | 0.9 | 4.4 x 9.8 | 5.4 x 11.5 | 12.1 | 106 |
| 3 x 2.5 | 1 | 0.8 | 1.0 1.1 | 5.2 x 11.5 5.8 x 13.5 | 6.2 x 13.5 7.4 x 16.5 | 7.41 | 160 |
| 3 x 4 | 7 | 0.8 | 1.1 1.1 | 6.4 x 15.0 | 7.4 x 16.5 8.0 x 18.0 | 4.61 | 230 300 |
| 3 x 6 3 x 10 | 7 | 1.0 | 1.1 | 7.8 x 19.0 | 9.6 x 22.5 | 3.08 1.83 | 300 475 |
| | 7 | 1.0 | 1.2 | 9.0 x 22.0 | 9.6 x 22.5 11.0 x 26.5 | | |
| 3 x 16 | 1 | 1.0 | 1.3 | 9.0 X 22.0 | 11.0 X 26.5 | 1.15 | 690 |

Construction:

Plain annealed copper conductor Class 1 & 2 as per IEC 60228.

- PVC Insulation.
 PVC Sheath.
 The sheath shall be closely fitting but shall not adhere to the cores and in the case of twin and three-core, the cores shall be laid parallel.

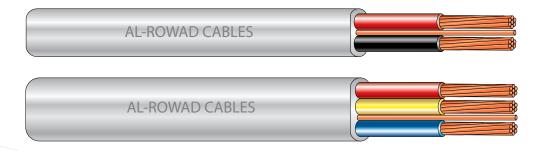
Core Identification :

Brown or Blue, Brown, Blue Brown, Black (Centre core), Gray : Red or Black Single Single Twin/ Twin : Red, Black

Three-core: Three-core : Red, Yellow (centre core), Blue

: Gray, (other colour on request)

Flat Twin and three core: Gray



| | No. & Cross | No. of | Radial | Radial | nuity | conti- | Max. DC | | |
|---|-----------------------------------|-------------------------|-------------------------------|------------------------|----------------|----------------|------------------------------------|------------------------------|-------------------|
| | sectional area of conductor | wires in cond- uctor | Thickness of insulation | Thickness of sheath | Lower Limit | Upper Limit | nuity cond. cross section | Resist ance at 20°C | Approx. Weight |
| | mm² | /mm / | mm | mm | mm | mm | mm2 | _∩_ / Km | Kg / Km |
| | 2 x 1.0 | 1 | 0.6 | 0.9 | 4.0 x 7.2 | 4.7 x 8.6 | 1.0 | 18.1 | 68 |
| | 2 x 1,5 | / 1 | 0.7 | 0.9 | 4.4 x 8.2 | 5.4 x 9.6 | 1.0 | 12.1 | 87 |
| | 2 x 2.5 | 1 | 0.8 | 1.0 | 5.2 x 9.8 | 6.2 x 11.5 | 1.5 | 7.41 | 135 |
| | 2 x 4 | 7 | 0.8 | 1.0 | 5.6 x 10.5 | 7.2 x 13.0 | 1.5 | 4.61 | 170 |
| | 2 x 6 | 7 | 0.8 | 1.1 | 6.4 x 12.5 | 8.0 x 15.0 | 2.5 | 3.08 | 240 |
| | 2 x 10 | | 1.0 | 1.2 | 7.8 x 15.5 | 9.6 x 19.0 | 4 | 1.83 | 380 |
| | 2 x 16 | 7 | 1.0 | 1.3 | 9.0 x 18.0 | 11.0 x 22.5 | 6 | 1.15 | 550 |
| - | $\pm 1/\sqrt{7}$ | | | | | | | | |
| | 3 x 1.0 | 1 | 0.6 | 0.9 | 4.0 x 9.6 | 4.7 x 11.0 | 1.0 | 18.1 | 90 |
| | 3 x 1.5 | 1 | 0.7 | 1.1 | 4.4 x 10.5 | 5.4 x 12.5 | 1.0 | 12.1 | 120 |
| | 3 x 2.5 | 1 | 0.8 | 0.9 | 5.2 x 12.5 | 6.2 x 14.5 | 1.0 | 7.41 | 180 |
| | 3 x 4 | 7 | 0.8 | 1.0 | 5.8 x 14.5 | 7.4 x 18.0 | 1.5 | 4.61 | 250 |
| | 3 x 6 | 7 | 0.8 | 1.1 | 6.4 x 16.5 | 8.0 x 20.0 | 2.5 | 3.08 | 330 |
| | 3 x 10 | 7 | 1.0 | 1.2 | 7.8 x 21.0 | 9.6 x 25.5 | 4 | 1.83 | 540 |
| | 3 x 16 | 7 | 1.0 | 1.3 | 9.0 x 24.5 | 11.0 x 29.5 | 6 | 1.15 | 770 |

Plain annealed copper conductor Class 1 & 2 as per IEC 60228.

- PVC Sheath.
- The sheath shall be closely fitting but shall not adhere to the cores, which shall be laid parallel with uninsulated earth continuity conductor.

Colour for Core Identification

Brown, Blue : Red, Black.

Three-core Brown, Black (Centre core), Gray Three-core: Red, Yellow (centre core), Blue.

Position of continuity conductor

Twin : Centrally placed between cores in same plane.

Three cores : Centrally placed between black and gray cores in same plane (OR) placed between yellow and blue.

Colour of outer sheath

Gray.

Construction:

Conductor - Soft drawn annealed copper conductors as per UL 83. Available in solid or stranded

Type for sizes 14, 12 and 10 AWG. Sizes 8 AWG and larger available in stranded only.

Insulation Jacket

Extruded Polyvinyl Chloride (PVC) compound rated 75 and 90 deg. C.

Tough, smooth, heat and light stablized, low moisture absorption nylon conforming to UL requirements for type THHN or THWN. This jacket offers a great degree of protection to the PVC insulation from abrasion and cut through which may be encountered in pulling wire Through conduits. Nylon has long been recognized as one of the toughest jacketing material used in wire and cable manufacturing.

FEA TURES:

1.Meets UL 'VW - 1' Flame Test requirements.

2. Wet or dry locations - Rated 90 deg. C dry, 75 deg. C wet.

3.Resistant to gas and oil exposure - Rated gasoline and oil resistant II per UL.

4. Versatile - Can be used as follows:

a) THHN - 90 deg. C dry building wire
b) THWN - 75 deg. C wet and dry building wire
c) MTW - 90 deg. C machine tool wire

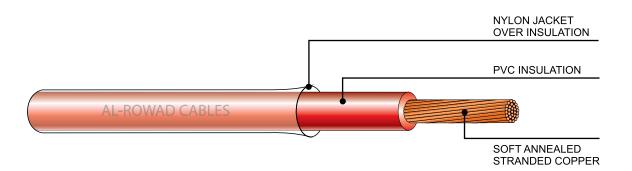
5. Pulls easier - tough, smooth nylon jacket over PVC insulation.

6.Small diameter - more conductors per conduit.

APPLICA TIONS:

Type THHN - THWN building wires are intended for general purpose applications and may be installed in conduit, duct or other recognized raceways in wet or dry locations. Type THHN - THWN wires are designed to operate at conductor temperatures of 75 deg. C for 600 volts service in wet and dry locations. Applicable for both new work and rewiring installations where the smaller wire diameter permits additional circuits or larger conductors to be installed in the conduit without exceeding maximum fill limitations.

Type THHN - THWN wires are also recommended for industrial installation where exceptional resistance to heat and corrosive atmospheres are needed, such as chemical paints, oil refineries, paper mills, etc.



MARKING EXAMPLE:

RIYADH CABLES GROUP, K.S.A Year of manufacturing, 600 V, Type (THHN or THWN or TFFN) GASOLINE AND OIL RESISTANT IIVW-1 Size

Stradards:

UL 83-Underwriters Laboratories, Thermoplastic Insulated wires and Cables.

UL 1063-Underwriters Laboratories, Machine Tool Wires and Cables.

UL 1581-Underwriters Laboratories, Reference standard for Electrical wires, Cables and Flexible Cords. 600 Volts

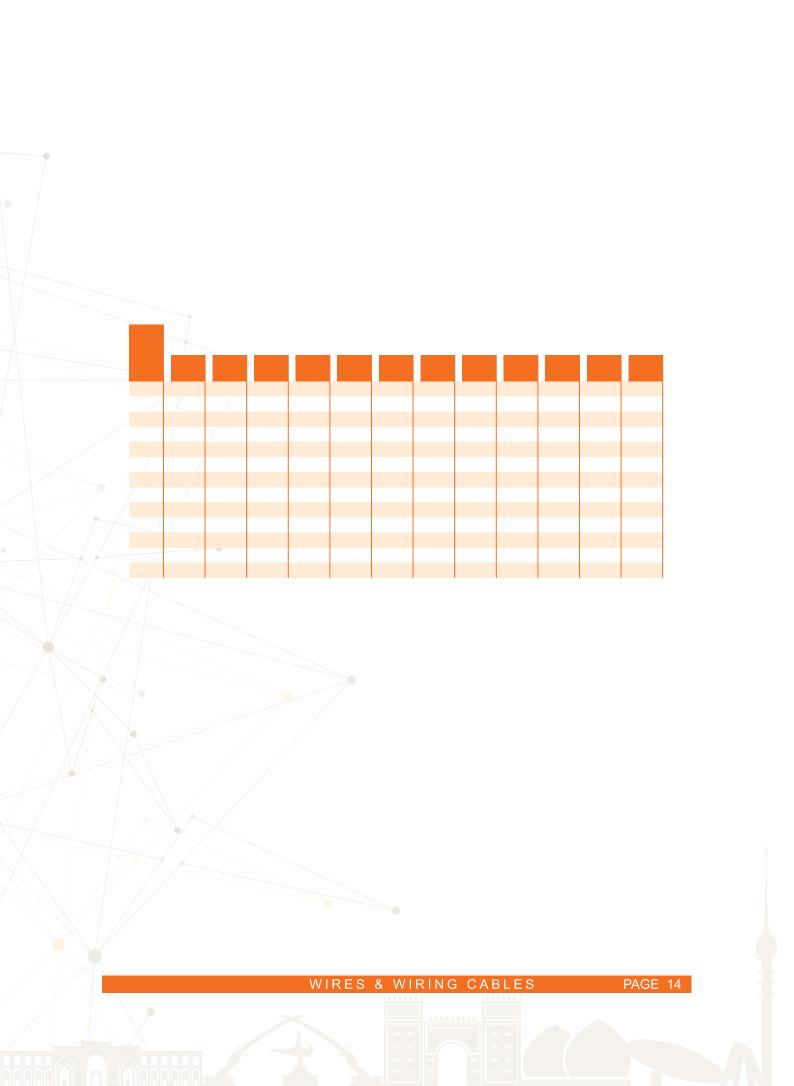
Copper Conductor PVC Insulated NYLON Jacketed THHN/THWN Wires UL 83, 1581

| 9 | | | CONDU | CT OR | Insulation | | Approx. | Approx. | Standard | packing |
|-------------------|-----|----------------|--------------------------------|--------------------------|----------------------------|---------------------------|---------------------------|-----------------------------|--------------------------------------|-----------------------|
| / / | AWG | Equiv . mm2 | Stranding No x mm (Nom.) | Diameter mm (Nom.) | Thickness mm (A ve.) | Thickness mm (Min.) | Overall Diameter mm | Weight of Cond. Kg/Km | DC Resistance at 20℃ Ohm/Km | length M (± 5%) |
| | 18* | 0.82 | 16 x 0.254 | 1.19 | 0.38 | 0.10 | 2.3 | 12 | 18.23 | 152 C |
| | 16* | 1.31 | 19 x 0.296 | 1.48 | 0.38 | 0.10 | 2.5 | 17 | 13.42 | 152 C |
| | 14 | 2.08 | 19 x 0.373 | 1.86 | 0.38 | 0.10 | 2.9 | 25 | 8.62 | 152 C |
| | 12 | 3.31 | 19 x 0.47 | 2.35 | 0.38 | 0.10 | 3.4 | 37 | 5.43 | 152 C |
| | 10 | 5.26 | 19 x 0.594 | 2.97 | 0.51 | 0.10 | 4.3 | 59 | 3.409 | 152 C |
| | 8 | 8.37 | 19 x 0.749 | 3.75 | 0.76 | 0.13 | 5.6 | 96 | 2.144 | 152 C |
| | | | | | | | | | | |
| | 6 | 13.30 | 19 x 0.945 | 4.72 | 0.76 | 0.13 | 6.6 | 146 | 1.348 | 152 C |
| | 4 | 21.15 | 19 x 1.19 | 5.95 | 1.02 | 0.15 | 8.4 | 233 | 0.8481 | 1000 |
| | 2 | 33.63 | 19 x 1.50 | 7.50 | 1.02 | 0.15 | 9.9 | 356 | 0.5335 | 1000 |
| | 1/0 | 53.48 | 37 x 1.36 | 9.52 | 1.27 | 0.18 | 12.5 | 567 | 0.3354 | 1000 |
| | 2/0 | 67.43 | 37 x 1.52 | 10.64 | 1.27 | 0.18 | 13.6 | 697 | 0.266 | 1000 |

* Listed as TFFN

Colour:Black, White, Red, Blue, Green, Yellow, Orange, Brown, etc. Cutting Length:152 M (500 FT) in Coils 1000 M (3280 FT) in Drums







Soft Drawn Bare Copper Conductors IEC 60228. (BSEN 60228)

| Nominal cross sectional area | Number of strands | Approx. Overall daimeter | Approx. Weight | Max. Dc at 20°C | Standard packing |
|---------------------------------------|-------------------|--------------------------------|-------------------|--------------------|---------------------|
| mm² | No . | mm | kg/km | Ohm/km | m <u>+</u> 5% |
| 2.5 | 7 | 2.0 | 20 | 7.41 | 2000 |
| 4 | 7 | 2.55 | 35 | 4.61 | 2000 |
| 6 | 7 | 3.1 | 50 | 3.08 | 2000 |
| 10 | 7 | 4.0 | 85 | 1.83 | 2000 |
| 16 | 7 | 5.0 | 135 | 1.15 | 2000 |
| 25 | 7 | 6.3 | 210 | 0.727 | 2000 |
| 35 | 7 | 7.4 | 300 | 0.524 | 2000 |
| 50 | 19 | 8.8 | 400 | 0.387 | 1000 |
| 70 | 19 | 10.5 | 580 | 0.268 | 1000 |
| 95 | 19 | 12.4 | 810 | 0.193 | 1000 |
| 120 | 37 | 14.0 | 1030 | 0.153 | 1000 |
| 150 | 37 | 15.5 | 1270 | 0.124 | 1000 |
| 185 | 37 | 17.4 | 1600 | 0.0991 | 1000 |
| 240 | 61 | 20.0 | 2100 | 0.0754 | 1000 |
| 300 | 61 | 22.5 | 2640 | 0.0601 | 1000 |
| 400 | 61 | 25.4 | 3400 | 0.0470 | 1000 |
| 500 | 61 | 28.5 | 4370 | 0.0366 | 1000 |
| 630 | 91 | 32.8 | 5680 | 0.0283 | 1000 |

| No. & Cross sectional area of conductor | No. of wires in conductor | Radial Thickness of insulation | Radial Thickness of sheath | Approx. Overall Cable Dimensions | | Max. DC Resist ance at 20°C | Approx. Weight |
|---|---------------------------------|---|----------------------------------|----------------------------------|------|---|-------------------|
| mm ² | / | mm | mm | mm x | c mm | Ω / Km | Kg / Km |
| 2 x 1.5 | 1 | 0.4 | 0.8 | 3.8 x | 11.1 | 12.1 | 65 |
| 2 x 1.5 | 7 | 0.4 | 0.8 | 4.0 x | 11.5 | 12.1 | 69 |
| 2 x 2.5 | 1 | 0.5 | 0.9 | 4.6 x | 12.2 | 7.41 | 92 |
| 2 x 2.5 | 7 | 0.5 | 0.9 | 4.8 x | 12.7 | 7.41 | 97 |
| 2 x 4 | 1 | 0.6 | 0.9 | 5.3 x | 13.8 | 4.61 | 140 |
| 2 x 4 | 7 | 0.6 | 0.9 | 5.5 x | 14.3 | 4.61 | 145 |
| | | | | | | | |
| 3 x 1.5 | 1 | 0.4 | 0.8 | 3.8 x | | 12.1 | 103 |
| 3 x 1.5 | 7 | 0.4 | 0.8 | 4.0 x | | 12.1 | 107 |
| 3 x 2.5 | 1 | 0.5 | 0.9 | 4.6 x | | 7.41 | 145 |
| 3 x 2.5 | 7 | 0.5 | 0.9 | 4.8 x | | 7.41 | 154 |
| 3 x 4 | <u>→ 1</u> | 0.6 | 0.9 | 5.3 x | | 4.61 | 220 |
| 3 x 4 | 7 | 0.6 | 0.9 | 5.5 x | 25.0 | 4.61 | 230 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | 7 | | _ | | | |
| | | | | | | | |

Construction:

- Plain annealed copper conductor Class 1 & 2 as per IEC 60228.

 PVC Insulation.

 PVC Sheath.

 The sheath shall be closely fitting but shall not adhere to the cores and in the case of twin and three-core, the cores shall be laid parallel.

Core Identification:
Twin: Brown, Blue
Three-core: Brown, Black (Centre core), Gray : Red, Black Twin

Three-core : Red, Yellow (centre core), Blue

Colour of sheath Flat Twin and three core : Black

PAGE 16

NOTICE

Alrowad catalogues under circulation are still valid. Some international and National standards mentioned in Alrowad catalogues might get amended by respective organizations without prior notice. For Alrowad Cables Products, the latest Amendments of applicable standards and circulation are applicable. For Wires and Wiring cables manufactured by Alrowad Cables, colour code mentioned in respective standards are applicable. However, Alrowad Cables can also provide the following colour code as required by some utilities.

1 Core: Red or Black 2 Core: Red, Black

3 Core: Red, Yellow, Blue 4 Core: Red, Yellow, Blue, Black 5 Core: Red, Yellow, Blue, Black, Green

More than 5 cores: Black cores with white printed numerals.

In the interest of product improvement, Alrowad Cables reserves the right to alter the given data in this Catalogue without any prior notice.





شركة الرواد لإنتاج الأسلاك والقابلوات الكصربائية AL ROWAD COMPANY FOR PRODUCTION OF ELECTRIC CABLES Phone:+964 772 843 5656 E-mail:sales@alrowadcable.com info@alrowadcable.com

