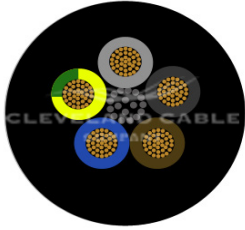


## H07RN-F FLEXIBLE MAINS AND CONTROL CABLE BS EN 50525-2-21



### APPLICATION

Flexible EPR cable with high resistance to mechanical stress. Able to withstand water and weather. For use on Work sites, mobile power supplies, ports and harbors, water treatment plants, sewage and drains, hot and cold areas and harsh industrial environments. For use in portable power supplies, site equipment, industrial machinery, and audio visual equipment. Can be cut to size for patch leads with a choice of fittings.

### CONSTRUCTION

**Conductor:** Class 5 flexible stranded copper conductor to BS EN 60228

**Insulation:** EPR (Ethylene Propylene Rubber) to BS 50363

**Sheath:** PCP (Polychloroprene)  
To BS EN 50363

### CABLE STANDARDS

BS EN 50525-2-21

BS EN 60811-2-1

BS EN/IEC 60332-1-2

### CHARACTERISTICS

**Voltage Rating:** 450/750 Volts

**Temperature Limits:** Fixed: -25°C to +60°C,  
Can be supplied up to 90°C

**Minimum Bending Radius:** As per manufacturer datasheet

### CORE IDENTIFICATION

2 Core: Brown Blue

3 Core: Brown Blue Green/Yellow

4 Core: Brown Black Blue Green/Yellow

5 Core: Brown Black Grey Blue Green/Yellow

Cable with 6 core and above

Black with White Numbers plus Green/Yellow

Should not be installed below 0°C

For more information contact:  
**01642 241 133**



## H07RN-F FLEXIBLE MAINS AND CONTROL CABLE - DIMENSIONS

| CCC CODE    | CONDUCTOR SIZE<br>(MM <sup>2</sup> ) | STRANDING<br>(MM) | NO OF CORES | WEIGHT<br>(KG/KM) | OVERALL MEAN<br>DIAMETER<br>(MM) |                |
|-------------|--------------------------------------|-------------------|-------------|-------------------|----------------------------------|----------------|
|             |                                      |                   |             |                   | LOWER<br>LIMIT                   | UPPER<br>LIMIT |
| 3182P       | 1                                    | 32/0.20           | 2           | 95                | 6.1                              | 8              |
| 3183P1      | 1                                    | 32/0.20           | 3           | 115               | 6.5                              | 8.5            |
| 3184P1      | 1                                    | 32/0.20           | 4           | 140               | 7.1                              | 9.3            |
| 3182P1/5    | 1.5                                  | 30/0.25           | 2           | 132               | 7.6                              | 9.8            |
| 3183P1/5    | 1.5                                  | 30/0.25           | 3           | 165               | 8                                | 10.4           |
| 3184P1/5    | 1.5                                  | 30/0.25           | 4           | 200               | 9                                | 11.6           |
| 3185P1/5    | 1.5                                  | 30/0.25           | 5           | 240               | 11.2                             | 14.4           |
| 3187P1/5    | 1.5                                  | 30/0.25           | 7           | 385               | 14.6                             | 18.2           |
| 3180/12P1/5 | 1.5                                  | 30/0.25           | 12          | 520               | 17.6                             | 22.4           |
| 3180/19P1/5 | 1.5                                  | 30/0.25           | 19          | 700               | 21                               | 26             |
| 3180/27P1/5 | 1.5                                  | 30/0.25           | 27          | 920               | 25.3                             | 30             |
| 3180/37P1/5 | 1.5                                  | 30/0.25           | 37          | 1260              | 29                               | 34.2           |
| 3182P2/5    | 2.5                                  | 50/0.25           | 2           | 193               | 9                                | 11.6           |
| 3183P2/5    | 2.5                                  | 50/0.25           | 3           | 235               | 9.6                              | 12.4           |
| 3184P2/5    | 2.5                                  | 50/0.25           | 4           | 290               | 10.7                             | 13.8           |
| 3185P2/5    | 2.5                                  | 50/0.25           | 5           | 345               | 13.3                             | 17             |
| 3187P2/5    | 2.5                                  | 50/0.25           | 7           | 520               | 17.2                             | 21             |
| 3180/12P2/5 | 2.5                                  | 50/0.25           | 12          | 810               | 20.6                             | 26.2           |
| 3181P4      | 4                                    | 50/0.25           | 1           | 94                | 7.2                              | 9              |
| 3182P4      | 4                                    | 56/0.30           | 2           | 275               | 11.8                             | 15.1           |
| 3183P4      | 4                                    | 56/0.30           | 3           | 320               | 12.7                             | 16.2           |
| 3184P4      | 4                                    | 56/0.30           | 4           | 395               | 14                               | 17.9           |
| 3185P4      | 4                                    | 56/0.30           | 5           | 485               | 15.6                             | 19.9           |
| 3187P4      | 4                                    | 56/0.30           | 7           | 773               | 19.8                             | 24.4           |
| 6381P6      | 6                                    | 84/0.30           | 1           | 130               | 7.9                              | 9.8            |
| 6382P6      | 6                                    | 84/0.30           | 2           | 350               | 13.1                             | 16.8           |
| 6383P6      | 6                                    | 84/0.30           | 3           | 495               | 14.1                             | 18             |
| 6384P6      | 6                                    | 84/0.30           | 4           | 610               | 15.7                             | 20             |
| 6385P6      | 6                                    | 84/0.30           | 5           | 760               | 17.5                             | 22.9           |
| 6387P6      | 6                                    | 84/0.30           | 7           | 904               | 21.6                             | 26.9           |
| 6381P10     | 10                                   | 80/0.40           | 1           | 230               | 17.7                             | 22.6           |
| 6383P10     | 10                                   | 80/0.40           | 3           | 880               | 19.1                             | 24.2           |
| 6384P10     | 10                                   | 80/0.40           | 4           | 1060              | 20.9                             | 26.5           |
| 6385P10     | 10                                   | 80/0.40           | 5           | 1300              | 22.9                             | 29.1           |
| 6381P16     | 16                                   | 126/0.40          | 1           | 320               | 10.8                             | 13.4           |
| 6382P16     | 16                                   | 126/0.40          | 2           | 850               | 20.2                             | 25.7           |
| 6383P16     | 16                                   | 126/0.40          | 3           | 1090              | 21.8                             | 27.6           |
| 6384P1      | 16                                   | 126/0.40          | 4           | 1345              | 23.8                             | 30.1           |
| 6385P16     | 16                                   | 126/0.40          | 5           | 1680              | 26.4                             | 33.3           |

For more information contact:  
**01642 241 133**



## H07RN-F FLEXIBLE MAINS AND CONTROL CABLE - DIMENSIONS

| CCC CODE | CONDUCTOR SIZE (MM <sup>2</sup> ) | STRANDING (MM) | NO OF CORES | WEIGHT (KG/KM) | OVERALL MEAN DIAMETER (MM) |             |
|----------|-----------------------------------|----------------|-------------|----------------|----------------------------|-------------|
|          |                                   |                |             |                | LOWER LIMIT                | UPPER LIMIT |
| 6381P25  | 25                                | 196/0.40       | 1           | 450            | 12.7                       | 15.8        |
| 6382P25  | 25                                | 196/0.40       | 2           | 1210           | 24.3                       | 30.7        |
| 6383P25  | 25                                | 196/0.40       | 3           | 1394           | 26.1                       | 33          |
| 6384P25  | 25                                | 196/0.40       | 4           | 1995           | 28.9                       | 36.6        |
| 6385P25  | 25                                | 196/0.40       | 5           | 2470           | 32                         | 40.4        |
| 6381P35  | 35                                | 276/0.4        | 1           | 605            | 14.3                       | 17.9        |
| 6383P35  | 35                                | 276/0.40       | 3           | 1850           | 29.3                       | 37.1        |
| 6384P35  | 35                                | 276/0.40       | 4           | 2645           | 32.5                       | 41.1        |
| 6385P35  | 35                                | 276/0.40       | 5           | 2930           | 34                         | 43          |
| 6381P50  | 50                                | 396/0.40       | 1           | 825            | 16.5                       | 20.6        |
| 6383P50  | 50                                | 396/0.40       | 3           | 2890           | 34.1                       | 42.9        |
| 6384P50  | 50                                | 396/0.40       | 4           | 3635           | 37.7                       | 47.5        |
| 6385P50  | 50                                | 396/0.40       | 5           | 4450           | 39.03                      | 49.18       |
| 6381P70  | 70                                | 360/0.50       | 1           | 1090           | 18.6                       | 23.3        |
| 6383P70  | 70                                | 360/0.50       | 3           | 3850           | 38.4                       | 48.3        |
| 6384P70  | 70                                | 360/0.50       | 4           | 4830           | 42.7                       | 54          |
| 6385P70  | 70                                | 360/0.50       | 5           | 5938           | 48.5                       | 55          |
| 6381P95  | 95                                | 475/0.50       | 1           | 1405           | 20.8                       | 26          |
| 6383P95  | 95                                | 475/0.50       | 3           | 4185           | 43.3                       | 50          |
| 6384P95  | 95                                | 475/0.50       | 4           | 6320           | 48.5                       | 61          |
| 6385P95  | 95                                | 475/0.50       | 5           | 6695           | 54                         | 64.5        |
| 6381P120 | 120                               | 608/0.50       | 1           | 1745           | 22.8                       | 28.6        |
| 6383P120 | 120                               | 608/0.50       | 3           | 5080           | 47.4                       | 60          |
| 6384P120 | 120                               | 608/0.50       | 4           | 6500           | 53                         | 66          |
| 6385P120 | 120                               | 608/0.50       | 5           | 7542           | 57.9                       | 68.5        |
| 6381P150 | 150                               | 756/0.50       | 1           | 1824           | 25.2                       | 31.4        |
| 6383P150 | 150                               | 756/0.50       | 3           | 6267           | 52                         | 66          |
| 6384P150 | 150                               | 756/0.50       | 4           | 8031           | 58                         | 73          |
| 6381P185 | 185                               | 925/0.50       | 1           | 2202           | 27.6                       | 34.4        |
| 6383P185 | 185                               | 925/0.50       | 3           | 7661           | 57                         | 72          |
| 6384P185 | 185                               | 925/0.50       | 4           | 9830           | 64                         | 80          |
| 6381P240 | 240                               | 1221/0.50      | 1           | 2847           | 30.6                       | 38.3        |
| 6383P240 | 240                               | 1221/0.50      | 3           | 9692           | 65                         | 82          |
| 6384P240 | 240                               | 1221/0.50      | 4           | 12444          | 72                         | 91          |
| 6381P300 | 300                               | 1525/0.50      | 1           | 3495           | 33.5                       | 41.9        |
| 6381P400 | 400                               | 2257/0.50      | 1           | 4880           | 45.5                       | 56.5        |
| 6381P500 | 500                               | 1769/0.60      | 1           | 5301           | 41.3                       | 52          |
| 6381P630 | 630                               | 2257/0.60      | 1           | 7460           | 45.5                       | 56.5        |

For more information contact:  
**01642 241 133**



## H07RN-F CURRENT - CARRYING CAPACITY (AMPS)

| CONDUCTOR CROSS -<br>SECTIONAL AREA<br>MM <sup>2</sup> | 60°C CONDUCTOR OPERATING TEMPERATURE<br>(60°C STANDARD STOCK CABLE) |                         |                         | 85°C CONDUCTOR OPERATING TEMPERATURE<br>(90°C CABLE - SPECIAL ORDER) |                                  |                         |
|--------------------------------------------------------|---------------------------------------------------------------------|-------------------------|-------------------------|----------------------------------------------------------------------|----------------------------------|-------------------------|
|                                                        | SINGLE-PHASE AC OR DC<br>*1MM - 2.5MM AC ONLY                       |                         | THREE-PHASE AC          | SINGLE-PHASE AC OR DC                                                |                                  | THREE-PHASE AC          |
|                                                        | 2 CORE CABLE<br>WITH OR WITHOUT<br>PROTECTIVE<br>CONDUCTOR          | 2 SINGLE CORE<br>CABLES | 3, 4 OR 5<br>CORE CABLE | 2 CORE<br>CABLE WITH<br>OR WITHOUT<br>PROTECTIVE<br>CONDUCTOR        | 2 SINGLE CORE<br>CABLES TOUCHING | 3, 4 OR 5<br>CORE CABLE |
| (MM <sup>2</sup> )                                     | (A)                                                                 | (A)                     | (A)                     | (A)                                                                  | (A)                              | (A)                     |
| 1*                                                     | 10                                                                  | -                       | 10                      | -                                                                    | -                                | -                       |
| 1.5*                                                   | 16                                                                  | -                       | 16                      | -                                                                    | -                                | -                       |
| 2.5*                                                   | 25                                                                  | -                       | 20                      | -                                                                    | -                                | -                       |
| 4                                                      | 30                                                                  | -                       | 26                      | 41                                                                   | -                                | 36                      |
| 6                                                      | 39                                                                  | -                       | 34                      | 53                                                                   | -                                | 47                      |
| 10                                                     | 51                                                                  | -                       | 47                      | 73                                                                   | -                                | 64                      |
| 16                                                     | 73                                                                  | -                       | 63                      | 99                                                                   | -                                | 86                      |
| 25                                                     | 97                                                                  | -                       | 83                      | 131                                                                  | -                                | 114                     |
| 35                                                     | -                                                                   | 140                     | 102                     | -                                                                    | 192                              | 140                     |
| 50                                                     | -                                                                   | 175                     | 124                     | -                                                                    | 240                              | 170                     |
| 70                                                     | -                                                                   | 216                     | 158                     | -                                                                    | 297                              | 216                     |
| 95                                                     | -                                                                   | 258                     | 192                     | -                                                                    | 354                              | 262                     |
| 120                                                    | -                                                                   | 302                     | 222                     | -                                                                    | 414                              | 303                     |
| 150                                                    | -                                                                   | 347                     | 255                     | -                                                                    | 476                              | 348                     |
| 185                                                    | -                                                                   | 394                     | 291                     | -                                                                    | 540                              | 397                     |
| 240                                                    | -                                                                   | 471                     | 343                     | -                                                                    | 645                              | 467                     |
| 300                                                    | -                                                                   | 541                     | 394                     | -                                                                    | 741                              | 537                     |
| 400                                                    | -                                                                   | 644                     | -                       | -                                                                    | 885                              | -                       |
| 500                                                    | -                                                                   | 738                     | -                       | -                                                                    | 1017                             | -                       |
| 630                                                    | -                                                                   | 861                     | -                       | -                                                                    | 1190                             | -                       |

THE ABOVE IS IN ACCORDANCE WITH 18TH EDITION OF IET WIRING REGULATIONS

For more information contact:  
**01642 241 133**



## H07RN-F - VOLTAGE DROP

| NOMINAL CROSS SECTIONAL AREA MM <sup>2</sup> | 2 CORE CABLE DC mV/A/m | TWO CORE CABLE SINGLE-PHASE AC mV/A/m |       |      | 1 X THREE CORE, FOUR CORE OR FIVE CORE CABLE, THREE PHASE AC |       |       | 2 X SINGLE CORE CABLES TOUCHING |                          |       |       |
|----------------------------------------------|------------------------|---------------------------------------|-------|------|--------------------------------------------------------------|-------|-------|---------------------------------|--------------------------|-------|-------|
|                                              |                        |                                       |       |      |                                                              |       |       | DC mV/A/m                       | SINGLE PHASE AC * mV/A/m |       |       |
| 1                                            | 46                     | 46                                    |       |      | 40                                                           |       |       | -                               | -                        |       |       |
| 1.5                                          | 32                     | 32                                    |       |      | 27                                                           |       |       | -                               | -                        |       |       |
| 2.5                                          | 19                     | 19                                    |       |      | 16                                                           |       |       | -                               | -                        |       |       |
| 4                                            | 12                     | 12                                    |       |      | 10                                                           |       |       | -                               | -                        |       |       |
| 6                                            | 7.8                    | 7.8                                   |       |      | 6.7                                                          |       |       | -                               | -                        |       |       |
| 10                                           | 4.6                    | 4.6                                   |       |      | 4                                                            |       |       | -                               | -                        |       |       |
| 16                                           | 2.9                    | 2.9                                   |       |      | 2.5                                                          |       |       | -                               | -                        |       |       |
|                                              |                        | R                                     | X     | Z    | R                                                            | X     | Z     |                                 | R                        | X     | Z     |
| 25                                           | 1.8                    | 1.8                                   | 0.175 | 1.85 | 1.55                                                         | 0.15  | 1.55  | -                               | -                        | -     | -     |
| 35                                           | -                      | -                                     | -     | -    | 1.10                                                         | 0.15  | 1.15  | 1.31                            | 1.31                     | 0.21  | 1.32  |
| 50                                           | -                      | -                                     | -     | -    | 0.83                                                         | 0.145 | 0.84  | 0.91                            | 0.91                     | 0.21  | 0.93  |
| 70                                           | -                      | -                                     | -     | -    | 0.57                                                         | 0.14  | 0.58  | 0.64                            | 0.64                     | 0.2   | 0.67  |
| 95                                           | -                      | -                                     | -     | -    | 0.42                                                         | 0.135 | 0.44  | 0.49                            | 0.49                     | 0.195 | 0.53  |
| 120                                          | -                      | -                                     | -     | -    | 0.33                                                         | 0.135 | 0.36  | 0.38                            | 0.38                     | 0.19  | 0.43  |
| 150                                          | -                      | -                                     | -     | -    | 0.27                                                         | 0.13  | 0.3   | 0.31                            | 0.31                     | 0.19  | 0.36  |
| 185                                          | -                      | -                                     | -     | -    | 0.22                                                         | 0.13  | 0.26  | 0.25                            | 0.25                     | 0.19  | 0.32  |
| 240                                          | -                      | -                                     | -     | -    | 0.17                                                         | 0.13  | 0.21  | 0.19                            | 0.195                    | 0.185 | 0.27  |
| 300                                          | -                      | -                                     | -     | -    | 0.135                                                        | 0.125 | 0.185 | 0.15                            | 0.155                    | 0.18  | 0.24  |
| 400                                          | -                      | -                                     | -     | -    | -                                                            | -     | -     | 0.115                           | 0.12                     | 0.175 | 0.21  |
| 500                                          | -                      | -                                     | -     | -    | -                                                            | -     | -     | 0.09                            | 0.099                    | 0.17  | 0.2   |
| 630                                          | -                      | -                                     | -     | -    | -                                                            | -     | -     | 0.068                           | 0.079                    | 0.17  | 0.185 |

THE ABOVE IS IN ACCORDANCE WITH 18TH EDITION OF IET WIRING REGULATIONS

CONDUCTOR OPERATING TEMPERATURE: 90°C

R = RESISTIVE COMPONENT  
X = REACTIVE COMPONENT  
Z = IMPEDANCE VALUE

\* A LARGER VOLTAGE DROP WILL RESULT IF THE CABLES ARE SPACED APART

THE INFORMATION CONTAINED WITHIN THIS DATASHEET IS FOR GUIDANCE ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE OR LIABILITY. WE BELIEVE THE INFORMATION IS CORRECT AT THE TIME OF PUBLICATION. PLEASE NOTE WHEN SELECTING CABLE ACCESSORIES THAT ACTUAL CABLE DIMENSIONS MAY VARY DUE TO MANUFACTURING TOLERANCES.

For more information contact:  
**01642 241 133**



Cleveland Cable Company  
www.clevelandcable.com | sales@clevelandcable.com