

## Portable Power Cable Extra Heavy Duty EPR / NEO 90°C MSHA Mining Grade



### SPECIFICATIONS & STANDARDS

ICEA S-75-381/NEMA WC58, ASTM B 172, ASTM B 33

### CONSTRUCTION:

- Conductors:** Flexible strand tinned copper conductor, ASTM B-172 and ICEA S-75-381, table 3-22
- Separator:** Polyester tape between conductor and insulation. ICEA S-75-381
- Conductor Shield:** Extruded semi-conducting layer over conductor. ICEA S-75-381 sec. 3.14
- Insulation:** Ethylene-propylene rubber (EPR) ICEA S-75-381, table 3-22
- Insulation Shield:** Semi-conducting bedding tape and composite tinned copper/polyamide braid 60% minimum coverage
- Color Code:** Polyamide braid color code - black, white, red, ICEA S-75-381
- Grounding Cond:** Tinned copper - ICEA S-75-381 Tab. 3-22
- Ground Check:** Yellow polypropylene-insulated tinned copper conductor, ICEA S-75-381 Tab. 3-22
- Cable Assembly:** Three power conductors, ground check and two non-insulated grounding conductors cabled together to form a round cable core
- Separator:** Single faced rubber-filled binder tape applied over core
- Jacket:** Black, extra heavy duty, high torsion-resistant, integral-filled, reinforced Neoprene thermoset jacket, ICEA S-75-381 Tab. 3-3, 3-22, Sec. 3.21

| FEATURES   | APPLICATION   |
|--|---|
| <ul style="list-style-type: none"> <li>- Excellent flexibility</li> <li>- Highly ozone, sun, weather, water and flame resistant</li> <li>- Rated and flexible at -40°C</li> <li>- Excellent impact and abrasion resistant</li> <li>- Oil and heat resistant</li> <li>- Indent printed for easy identification</li> </ul> | <ul style="list-style-type: none"> <li>- Use on AC off track equipment such as longwall miners loaders, drills, conveyors, pumps and mobile equipment requiring grounding conductors and a ground check conductor and metallic shielding overall</li> <li>- Maximum continuous conductor temperature is 90°C</li> </ul> |

### APPROVALS:

**MSHA:** P-07-KA060012

| Part Number    | Power Conductor Size | Power Conductor Stranding | Ground Check Conductor Size | Grounding Conductor |           | Nominal Insulation Thickness | Nominal Jacket Thickness | Nominal O.D. |      | Approx. Weight |       |
|----------------|----------------------|---------------------------|-----------------------------|---------------------|-----------|------------------------------|--------------------------|--------------|------|----------------|-------|
|                |                      |                           |                             | Size                | Stranding |                              |                          | inches       | mm   | lbs/1000 ft    | kg/km |
| SHDGC8KV1/0-3  | 1/0 AWG              | 266 19x14                 | 8                           | 4                   | 259 7x37  | 0.150                        | 0.220                    | 2.32         | 58.9 | 3530           | 5112  |
| SHDGC8KV2/0-3  | 2/0 AWG              | 342 19x18                 |                             | 3                   | 259 7x37  | 0.150                        | 0.235                    | 2.46         | 62.5 | 4160           | 6191  |
| SHDGC8KV4/0-3  | 4/0 AWG              | 532 19x28                 |                             | 1                   | 259 7x37  | 0.150                        | 0.250                    | 2.75         | 69.9 | 5590           | 8319  |
| SHDGC15KV2-3   | 2 AWG                | 259 7x37                  | 8                           | 6                   | 133 7x19  | 0.210                        | 0.235                    | 2.41         | 61.2 | 3505           | 5216  |
| SHDGC15KV1/0-3 | 1/0 AWG              | 266 19x14                 |                             | 4                   | 259 7x37  | 0.210                        | 0.250                    | 2.64         | 67.1 | 4614           | 6867  |
| SHDGC15KV2/0-3 | 2/0 AWG              | 342 19x18                 |                             | 3                   | 259 7x37  | 0.210                        | 0.250                    | 2.73         | 69.3 | 4895           | 7285  |
| SHDGC15KV4/0-3 | 4/0 AWG              | 532 19x28                 |                             | 1                   | 259 7x37  | 0.210                        | 0.265                    | 3.05         | 77.5 | 6821           | 10151 |

### ELECTRICAL AND MECHANICAL PARAMETERS

| Power-Grounding Conductor Size | Power Conductor Resistance at 25°C | Grounding Conductor Resistance at 25°C | Ground Check Conductor Resistance at 25°C | Inductance per unit length | Operating Capacitance per unit length | Permissible Short-Circuit Current <sup>(2)</sup> (1s) | Ampacity <sup>(1)</sup> 40°C Ambient Temp. | Maximum Permissible Tensile Force |
|--------------------------------|------------------------------------|--|---|----------------------------|---------------------------------------|---|--|-----------------------------------|
| AWG or MCM                     | Ω/1000Ft                           | Ω/1000Ft                               | Ω/1000Ft                                  | mH/1000Ft                  | μF/1000Ft                             | kA  | A  | N                                 |
| 2 AWG – 6 AWG                  | 0.172                              | 0.436                                  | 0.679                                     | 0.122                      | 0.09                                  | 4.80  | 159  | 1500                              |
| 1/0 AWG – 4 AWG                | 0.109                              | 0.274                                  |   | 0.113                      | 0.10                                  | 7.65  | 211  | 2400                              |
| 2/0 AWG – 3 AWG                | 0.0868                             | 0.227                                  |   | 0.107                      | 0.11                                  | 9.64  | 243  | 3000                              |
| 4/0 AWG – 1 AWG                | 0.0546                             | 0.137                                  |   | 0.101                      | 0.13                                  | 15.30   | 321  | 4800                              |

(1) Ampacity- Free air measured; Based on continuous duty at 90°C conductor temperature (2) Short-circuit current (1s) – Based on conductor temperature from 90°C up to 250°C

### STANDARD PRINT LEGEND:

TF CABLE (VOLTAGE) (SIZE) TYPE SHD-GC  
FT1 FT5 (-50C) +90C P-07-KA060012-MSHA

### SPECIAL FACTORY OPTIONS:

- Jacket:** Red, yellow, green, orange, blue
- MSHA:** P-7K-268101 (CPE)
- Jacket:** TPU Red, yellow, green, orange, blue
- MSHA:** P-07-KA030001 (TPU)