

3/C CU 25KV 100% XLP/PVC RHINOPOWER™ Type MP-GC

Class B Copper conductors, XLP 100% Insulation Level, Copper Tape Shield, Polyvinyl Chloride (PVC) Jacket, 90°C



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compact stranded bare copper per ASTM B3 and ASTM B496
2. **Conductor Shield:** Semi-conducting cross-linked copolymer
3. **Insulation:** Cross-Linked Polyethylene (XLP), 100% Insulation Level
4. **Insulation Shield:** Strippable semi-conducting cross-linked copolymer
5. **Copper Tape Shield:** Helically wrapped 5 mil copper tape with 25% overlap
6. **Ground Check:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8 with yellow high strength, polypropylene insulation
7. **Grounding Conductors:** Two Class B compressed stranded bare copper per ASTM B3 and ASTM B8
8. **Filler:** Rubber Fillers as needed
9. **Tape:** Polyester tape, applied over the cable core for improved mechanical integrity and ease of stripping
10. **Reinforcement:** Reinforcing twine applied over the taped core
11. **Jacket:** Black, single layer, flame resistant, thermoplastic Polyvinyl Chloride (PVC). Alternate colors available

APPLICATIONS AND FEATURES:

RHINOPOWER™ Type MP-GC mine power feeder cable is a heavy-duty power cable for use in stationary horizontal HV mine power distribution circuits, for permanent or semi-portable applications with power transmission in deep mines, surface mines, open pits, tunnels, in conduit or duct (not to exceed max rated voltage), and suitable for direct burial in wet or dry locations. For vertical drop requirements consult with factory application specialist.

SPECIFICATIONS:

- ASTM B3 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B496 Compact Round Concentric-lay-standard copper
- ICEA S-75-381 Portable and Power Feeder Cables for Use in Mines
- MSHA Approved

SAMPLE PRINT LEGEND:

SOUTHWIRE (R) RHINO™ BRAND CABLE # AWG COMPACT CU 3/C TYPE MP-GC 25000V 100% INS. LEVEL 90°C P-07-K130025 MSHA



Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Cond. Number | Cond. Strands | Diameter Over Conductor | Insul. Thickness | Diameter Over Insulation | Ground Size | Ground Strands | Ground Check Size | Ground Check Strands | Ground Check Insulation Thickness | Jacket Thickness | Approx. OD | Approx. Weight |
|--------------|---------------|--------------|---------------|-------------------------|------------------|--------------------------|-------------|----------------|-------------------|----------------------|-----------------------------------|------------------|------------|----------------|
| | AWG/ Kcmil | No. | No. | inch | mil | inch | AWG | No. | AWG | No. | mil | mil | inch | lb/1000ft |
| TBA | 1 | 3 | 19 | 0.299 | 260 | 0.855 | 5 | 7 | 8 | 7 | 45 | 140 | 2.42 | 3660 |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

Table 2 – Electrical and Engineering Data

| Stock Number | Cond. Size | Cond. Number | DC Resistance @ 25°C | AC Resistance @ 90°C | Capacitive Reactance | Inductive Reactance | Working Tension | Min Bending Radius | Allowable Ampacity In Air 90°C† |
|--------------|---------------|--------------|----------------------|----------------------|----------------------|---------------------|-----------------|--------------------|---------------------------------|
| | AWG/ Kcmil | No. | $\Omega/1000ft$ | $\Omega/1000ft$ | $M\Omega*1000ft$ | $M\Omega/1000ft$ | lb | inch | Amp |
| TBA | 1 | 3 | 0.130 | 0.163 | 0.069 | 0.047 | 572.000 | 29 | 191 |

† Ampacity based on ICEA S-75-381 Table I-1 and is for a single isolated cable in air operated with an open-circuited shield at an ambient temperature of 40°C and a conductor temperature of 90°C

