



## Specification Sheet

**BWC Part Number #: BWC-3/0-012.4KVNSEP**

### Single Conductor 2.4KV Non-Shielded, MV-90

#### Application

This 2.4KV Non-shielded MV-90 power cable is primarily used for power circuits in commercial, industrial, refinery, and petro-chemical plants, as well as utility power generation and substations. The cable can be installed in wet or dry locations, in ducts, in open air, and in cable trays for sizes 1/0 AWG and larger. It is approved for temperatures up to 90°C and voltages up to 2400 volts.

#### Construction

- Conductor: Class B stranded, soft drawn, or annealed copper per ASTM B496.
- Conductor Shield: Extruded thermoset semiconducting shield that is free-stripping from the conductor and bonded to the insulation.
- Insulation: Natural high dielectric strength EPR-based insulation, formulated to enhance electrical and mechanical characteristics for extended cable life.
- Jacket: Black, sunlight-resistant, non-migrating polyvinyl chloride (PVC) or chlorinated polyethylene (CPE) jacket is applied over the insulation.

#### Standards

- UL 1072.
- ICEA S-96-659 (5kV).
- UL 1685 Vertical Tray Flame Test.

| PART NUMBER       | COND<br>SIZE<br>(AWG/<br>MCM) | INSULATION<br>THICKNES<br>(INCH) | CONDUCTOR<br>DIAMETER<br>(INCH) | INSULATION<br>DIAMETER<br>(INCH) | JACKET<br>DIAMETER<br>(INCH) | NET<br>WEIGHT<br>(LBS/KFT) | AMPACITY<br>90 C* IN<br>DUCT<br>(AMPS) | AMPACIT<br>Y 90 C<br>**IN AIR<br>(AMPS) |
|-------------------|-------------------------------|----------------------------------|---------------------------------|----------------------------------|------------------------------|----------------------------|----------------------------------------|-----------------------------------------|
| BWC-4-012.4KVNSEP | 4                             | .125                             | .215                            | .520                             | .690                         | 311                        | 110                                    | 145                                     |
| BWC-2-012.4KVNSEP | 2                             | .125                             | .266                            | .570                             | .740                         | 407                        | 145                                    | 190                                     |
| BWC-1-012.4KVNSEP | 1                             | .125                             | .299                            | .600                             | .770                         | 472                        | 170                                    | 225                                     |

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| PART NUMBER          | COND SIZE (AWG/MCM) | INSULATION THICKNESS (INCH) | CONDUCTOR DIAMETER (INCH) | INSULATION DIAMETER (INCH) | JACKET DIAMETER (INCH) | NET WEIGHT (LBS/KFT) | AMPACITY 90 C* IN DUCT (AMPS) | AMPACITY 90 C**IN AIR (AMPS) |
|----------------------|---------------------|-----------------------------|---------------------------|----------------------------|------------------------|----------------------|-------------------------------|------------------------------|
| BWC-1/0-012.4KVNSEP  | 1/0                 | .125                        | .341                      | .640                       | .810                   | 556                  | 195                           | 260                          |
| BWC-2/0-012.4KVNSEP  | 2/0                 | .125                        | .376                      | .680                       | .850                   | 655                  | 220                           | 300                          |
| BWC-3/0-012.4KVNSEP  | 3/0                 | .125                        | .423                      | .730                       | .920                   | 806                  | 250                           | 345                          |
| BWC-4/0-012.4KVNSEP  | 4/0                 | .125                        | .479                      | .780                       | .980                   | 961                  | 290                           | 400                          |
| BWC-250-012.4KVNSEP  | 250                 | .140                        | .522                      | .860                       | 1.090                  | 1156                 | 320                           | 445                          |
| BWC-350-012.4KVNSEP  | 350                 | .140                        | .622                      | .960                       | 1.190                  | 1510                 | 385                           | 550                          |
| BWC-500-012.4KVNSEP  | 500                 | .140                        | .742                      | 1.080                      | 1.310                  | 2027                 | 470                           | 695                          |
| BWC-750-.12.4KVNSEP  | 750                 | .155                        | .917                      | 1.290                      | 1.550                  | 2990                 | 585                           | 900                          |
| BWC-1000-012.4KVNSEP | 1000                | .155                        | 1.071                     | 1.450                      | 1.710                  | 3816                 | 670                           | 1075                         |

\*Table data sourced from. All values are nominal and subject to correction.

\*Ampacity in Duct rating is for three cables in an underground duct based on a 20°C earth temperature, 100% load factor, and RHO of 90 per NEC table 310.60(C)(77).

\*\*Ampacity in Air rating is for a single cable isolated in 40°C air per NEC table 310.60(C)(69).

**ALL SPECIFIED PARAMETERS WITHOUT A TOLERANCE ARE NOMINAL AND SUBJECT TO VERIFICATION. BEST WIRE IS NOT RESPONSIBLE FOR UNKNOWN PERFORMANCE ATTRIBUTES THAT WERE NOT MADE KNOWN TO BEST WIRE AT THE TIME OF DESIGN.**

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