

# Technical Data Sheet

**Rosenberger**  
Rosenberger Site Solutions, LLC

## 8 AWG 6 Conductor Shielded 600V Power Cable

Part Number: WR-VG86ST-BRD

**Description:** 8 AWG, 6 conductor shielded 600V power tray cable constructed with stranded tinned copper, polyvinylchloride and nylon insulation, an uninsulated tinned copper ground conductor, an aluminum/mylar shield with a stranded tinned copper drain wire, a tinned copper braid shield and an overall polyvinylchloride jacket. Individual conductors are manufactured in accordance with UL Standard 83, Type THHN/THWN/VW-1. Cable is manufactured in the USA in accordance with UL Standard 1277 and NEC listed Type TC, suitable for use in Class I Division II hazardous locations and approved for installation in cable trays per Article 336 of the National Electric Code. Cable may be installed in open air, in ducts or conduits, in trays or troughs and is approved for direct burial and outdoor applications. Jacket is sunlight and oil resistant and cable is (UL) TC-ER approved for 600V, 75°C Wet or 90°C Dry, and meets or exceeds the requirements of UL 1581 and 1202 (FT-4) 70,000 BTU/HR and ICEA T-29-520 210,000 BTU/HR flame tests.

### 1. Conductor

- 1.1 AWG Size & Stranding: 8 AWG, Class B 7 Strands
- 1.2 Material: Annealed Tinned Copper
- 1.3 DC Resistance: 0.66 ohms/1000 ft @ 20°C

### 2. Insulation

- 2.1 Material: Polyvinylchloride & Nylon per UL Standard 83, Type THHN/THWN/VW-1
- 2.2 Wall Thickness: 0.030" PVC & 0.006" Nylon - The minimum at any point shall not be less than 90% of the specified wall thickness

### 3. Color Code

- 3.1 Code: Red/Blue, Black/Blue, Red/Orange, Black/Orange, Red/Green, Black/Green

### 4. Assembly

- 4.1 Lay Length: Per UL Standard 1277
- 4.2 Fillers: Non-Hygroscopic Polypropylene - As required for a circular cross-section
- 4.3 Binder: Clear Mylar
- 4.4 Shield: Aluminum/Myar Tape - 100% coverage
- 4.5 Drain Wire: 12 AWG, 7 Strand Tinned Copper
- 4.6 Shield: 36 AWG Tinned Copper Braid - 65% minimum coverage
- 4.7 Ground: Uninsulated - 10 AWG, 7 Strand Tinned Copper
- 4.8 2<sup>ND</sup> Binder: Clear Mylar

### 5. Jacket

- 5.1 Material: Polyvinylchloride per UL Standard 1277
- 5.2 Wall Thickness: 0.060" - The minimum at any point shall not be less than 80% of the specified wall thickness
- 5.3 Diameter: 0.774"
- 5.4 Color: Black
- 5.5 Weight: 590 lbs./Mft.

### 6. Markings

- 6.1 Type: Cable shall be permanently identified via surface inkjet print
- 6.2 Legend: .Rosenberger: 8AWG 6C SHIELDED (UL) TC-ER PVC/NYLON UNINSULATED GROUND  
600V 90°C DRY 75°C WET PVC JACKET SUN RES DIR BUR OIL RES I FT4 "ROHS"

### 7. Standards

- 7.1 UL listed as Type TC-ER per UL Standard 1277 for tray cables
- 7.2 UL approved for Direct Burial, Sunlight and Oil Resistant applications
- 7.3 Individual conductors pass UL VW-1 flame test, rated THHN/THWN/VW-1
- 7.4 Cable meets UL 1581 & 1202 (FT-4) 70,000 BTU/HR & ICEA T-29-520 210,000 BTU/HR requirements
- 7.5 Meets ICEA S-95-658, where applicable
- 7.6 Cold Temperature Rating: -40°C
- 7.7 All materials used in the manufacture of this cable are RoHS compliant

**ALL SPECIFIED PARAMETERS ARE NOMINAL AND SUBJECT TO VERIFICATION**

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