1/C CU 2000V EPR/CPE Flexible Power Cables for Substation or Underground Network Applications

UL Listed as 2kV Heavy Duty Flexible Power Cable (HDFPC), Rated 90°C Dry or Wet. 2kV Type RHH/RHW-2 Flexible Power Cable Rated 90°C Dry or Wet. CSA Listed as 2kV Type RW90. Composite Thermoset Wall EPDM/CPE Insulation/Jacket. Sizes 1/0 and Larger Rated For CT Use.

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Flexible Stranded Rope-Lay Class I Tinned Copper per ASTM B33 and B172
2. **Binder Tape:** Mylar Tape
3. **Insulation:** 2 layer Thermoset Ethylene Propylene Diene Monomer / Thermoset Chlorinated Polyethylene (EPDM/CPE)

APPLICATIONS AND FEATURES:

Southwire's 2kV Heavy Duty Flexible Power Cable (HDFPC) is suitable for use in Substation or Underground Network Applications where extreme flexibility is needed. The cable is suited for use in wet and dry areas, conduits, ducts, troughs, trays, and where superior electrical properties are desired. The maximum continuous conductor temperature for normal operation is 90°C wet or dry. HDFPC is oil, heat, flame, abrasion, and sunlight resistant. Approved for use per the NEC® as Type RHH/RHW-2 and per the CE Code as 2kV Type RW90.

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- ASTM B172 Standard Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1685 Vertical-Tray Fire Propagation and Smoke Release Test (1/0 and Larger)
- UL 2806 Heavy Duty Flexible Power Cable (HDFPC-DLO)
- CSA C22.2 No. 38 Thermoset-insulated wires and cables
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- MSHA Approved

SAMPLE PRINT LEGEND:

SOUTHWIRE® xxx SIZE AWG (xxx mm2) XXX STRANDS CLASS I EPR/CPE 2KV HDFPC-DLO TYPE RHH OR RHW-2 (-40°C) PRII SUN RES FOR CT USE (UL) E30117 (CSA LOGO) LL90458 RW90 EP 2KV (-40°C) EP/CPE TC FT4 --- P-07-KA100013-MSHA SEQUENTIAL FOOTAGE MARKS.

Table 1 – Weights and Measurements

Cond. Size	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Approx. OD	Approx. Weight
AWG/Kcmil		No. of Strands	inch	mil	inch	lb/1000ft
6	1	63	0.182	85	0.372	128

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
#12 and #10 AWG are not approved for CSA RW90
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

Table 2 – Electrical and Engineering Data

Cond. Size	Cond. Number	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	Inductive Reactance @ 60Hz	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
AWG/ Kcmil		inch	lb	Ω/1000ft	Ω/1000ft	Amp	Amp
6	1	2.98	210	0.419	0.037	65	75

† Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.
† Ampacities have been adjusted for more than Three Current-Carrying Conductors.
* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.