

1/C TCU 2000V EPR RHH/RHW-2 CPE Power Cable HDFPC-DLO RW90

UL Listed as 2kV Heavy Duty Flexible Power Cable (HDFPC) DLO, Rated 90°C Dry or Wet. 2kV Type RHH/RHW-2 Flexible Power Cable Rated for Dry or Wet. CSA Listed as 2kV Type RW90. Composite Thermoset Wall EPDM/CPE Insulation/Jacket. Silicone-Free.



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

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

APPLICATIONS AND FEATURES:

HDFPC-DLO is a 2kV flexible power cable with a variety of possible applications such as but not limited to: Drilling rigs, railroad and transit car wiring, mining and other industrial equipment, and as flexible motor leads and wind turbine applications. The cable is suited for use in wet and dry areas, conduits, ducts, troughs, trays, and where superior electrical properties are desired. HDFPC-DLO 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. These cables are capable of operating continuously at the conductor temperature not in excess of 90°C for normal operation in wet and dry locations, 130°C for emergency overload, and 250°C for short circuit conditions. Sizes 1/0 and Larger Rated For CT Use.

SPECIFICATIONS:

- ASTM B3 Standard Specification for 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 (As Applicable)
- 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 Type RW90
- CSA C22.2 No.230 Tray Cables - Rated TC-ER (1/0 AWG and Larger)
- 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) EPR/CPE 2KV HDFPC-DLO TYPE RHH OR RHW-2 (-40°C) PR11 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.



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Table 1 – Weights and Measurements

Stock Number	Cond. Size AWG/Kcmil	Diameter Over Conductor inch	Insul. Thickness mil	Jacket Thickness mil	Approx. OD inch	Copper Weight lb/1000ft	Approx. Weight lb/1000ft
571253	12	0.091	45	15	0.210	20	36
560057	10	0.125	55	25	0.265	32	58
167014	8	0.145	55	30	0.330	52	92
167015	6	0.186	50	30	0.370	81	127
167017	4	0.235	60	35	0.440	133	196
167019	2	0.290	60	35	0.500	210	282
167021	1/0	0.379	75	55	0.645	327	450
167022	2/0	0.400	80	50	0.690	423	566
167023	3/0	0.480	80	55	0.760	518	676
167024	4/0	0.530	80	60	0.815	638	815
167026	262.2	0.565	80	60	0.845	740	974
167027	313.3	0.650	90	70	0.980	896	1139
167029	373.7	0.701	95	70	1.040	1076	1343
167030	444.4	0.782	90	65	1.105	1378	1654
167031	535.3	0.843	105	75	1.212	1549	1889
167032	646.4	0.890	115	80	1.290	1898	2292
167033	777.7	0.966	120	90	1.405	2246	2727
167035	1111	1.168	115	95	1.640	3560	4161

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



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Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance @ 60Hz	Allowable Ampacity At 75°C†	Allowable Ampacity At 90°C†
	AWG/Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
571253	12	1.7	52	1.774	2.301	0.054	25	30
560057	10	2.1	83	1.081	1.302	0.050	35	40
167014	8	2.6	132	0.679	0.818	0.052	50	55
167015	6	3.0	209	0.435	0.524	0.051	65	75
167017	4	3.5	333	0.274	0.330	0.048	85	95
167019	2	4.0	530	0.172	0.207	0.045	115	130
167021	1/0	5.2	844	0.109	0.131	0.044	150	170
167022	2/0	5.5	1064	0.087	0.104	0.043	175	195
167023	3/0	6.1	1342	0.069	0.083	0.042	200	225
167024	4/0	6.5	1692	0.055	0.067	0.041	230	260
167026	262.2	6.8	3555	0.026	0.033	0.040	264	301
167027	313.3	7.8	2506	0.039	0.048	0.041	292	327
167029	373.7	8.3	2989	0.033	0.042	0.040	321	365
167030	444.4	8.8	3555	0.259	0.0395	0.04	354	402
167031	535.3	9.7	4282	0.021	0.028	0.039	394	446
167032	646.4	10.3	5171	0.018	0.025	0.039	439	496
167033	777.7	11.2	6221	0.016	0.024	0.038	483	543
167035	1111	13.1	8888	0.011	0.016	0.036	570	648

† 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). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

MBR is based on an operating voltage of less than or equal to 1000 volts. MBR for operating voltages above 1000 Volt is 8 X OD per NEC 300.34.



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