DLO TCU 2000V EPDM Insulation Thermoset CPE Jacket. RHH/RHW-2/ RW90 MSHA Approved.

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 Insulation Thermoset CPE Jacket. Silicone-Free. MSHA Approved

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 (as applicable)
2. **Binder Tape:** Mylar tape
3. **Insulation:** Black Thermoset Ethylene Propylene Diene Monomer (EPDM)
4. **Jacket:** Thermoset Chlorinated Polyethylene (CPE). Other colors available (see table below)

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 AWG and larger are rated for CT Use.

WARNING: Mechanical connectors should not be used on products constructed with rope-lay, high-strand-count conductors. Only compression connectors should be used with these conductor designs.

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 (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
- 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
- Made in America: Compliant with both Buy American and Buy America Act (BAA) requirements per 49 U.S.C. § 5323(j) and the Federal Transit Administration Buy America requirements per 49 C.F.R. part 661

SAMPLE PRINT LEGEND:

Sizes 12 AWG and 10 AWG:

{SQFTG} TANNER XX AWG (XXmm2) (UL) TYPE RHH/RHW-2 90°C DRY 90°C WET 2KV (-40°C) PRI PRII SR --- EPR/CPE DLO --- MSHA---RoHS

Sizes 8 AWG to 1 AWG:

TANNER XX AWG (XX{mm2}) {UL} TYPE HDFPC EPR/CPE 2KV DLO 90°C DRY 90°C WET OR TYPE RHH/RHW-2 90°C DRY 90°C WET 2KV -40°C PRI PRII SR VW-1 -- {CSA} RW90 90°C DRY 90°C WET 2KV -40°C PRI PRII FT1 SR {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

Sizes 1/0 AWG and larger:

{SQFTG} TANNER XX AWG XX STRAND CLASS XX (XX{mm2}) {UL} TYPE HDFPC EPR/CPE 2KV DLO 90°C DRY 90°C WET OR TYPE RHH/RHW-2 90°C DRY 90°C WET 2KV -40°C PRI PRII SR FOR CT USE FT4 -- {CSA} RW90 90°C DRY 90°C WET TC-ER 2KV -40°CPRI PRII FT1 FT4 SR

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Strand Count	Diameter Over Conductor	Min. Avg. Insul. Thickness	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	Jacket Color
	AWG/ Kcmil	No. of Strands	inch	mil	mil	inch	lb/1000ft	lb/1000ft	
07D-0012-01	12	19	0.091	45	15	0.210	20	36	BK
07D-0010-01	10	19	0.125	55	25	0.265	32	58	BK
07D-0008-01	8	41	0.145	55	30	0.330	52	92	BK
07D-0006-01	6	65	0.186	50	30	0.370	81	127	BK
07D-0004-01	4	105	0.235	60	35	0.440	133	196	BK
07D-0002-01	2	161	0.290	60	35	0.500	210	282	BK
07D-0001-01	1	210	0.330	85	60	0.635	267	400	BK
07D-0100-01	1/0	266	0.379	75	55	0.645	327	450	BK
07D-0200-01	2/0	342	0.400	80	50	0.690	423	566	BK
07D-0300-01	3/0	418	0.480	80	55	0.760	518	676	BK
07D-0400-01	4/0	532	0.530	80	60	0.815	638	815	BK
07D-262.2M-01	262.2	646	0.565	80	60	0.845	740	974	BK
07D-313.3M-01	313.3	779	0.650	90	70	0.980	896	1139	BK
07D-373.7M-01	373.7	931	0.701	95	70	1.040	1076	1343	BK
07D-444.4M-01	444.4	1121	0.782	90	65	1.105	1378	1654	BK
07D-535.3M-01	535.3	1330	0.843	105	75	1.212	1549	1889	BK
07D-646.4M-01	646.4	1628	0.890	115	80	1.290	1898	2292	BK
07D-777.7M-01	777.7	1924	0.966	120	90	1.405	2246	2727	BK
07D-929.2M-01	929.2	2300	1.113	90	65	1.470	2745	3171	BK
07D-1111M-01	1111	2745	1.168	115	95	1.640	3560	4161	BK

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	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°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
07D-0012-01	12	0.8	52	1.774	2.301	0.054	25	30
07D-0010-01	10	1.1	83	1.081	1.302	0.050	35	40
07D-0008-01	8	1.3	132	0.679	0.818	0.052	50	55
07D-0006-01	6	1.5	209	0.435	0.524	0.051	65	75
07D-0004-01	4	1.8	333	0.274	0.330	0.048	85	95
07D-0002-01	2	2.0	530	0.172	0.207	0.045	115	130
07D-0001-01	1	2.5	670	0.143	0.186	0.046	130	145
07D-0100-01	1/0	2.6	844	0.109	0.131	0.044	150	170
07D-0200-01	2/0	2.8	1064	0.087	0.104	0.043	175	195
07D-0300-01	3/0	3.0	1342	0.069	0.083	0.042	200	225
07D-0400-01	4/0	3.3	1692	0.055	0.067	0.041	230	260
07D-262.2M-01	262.2	3.4	2097	0.026	0.033	0.031	264	301
07D-313.3M-01	313.3	3.9	2506	0.039	0.048	0.031	298	332
07D-373.7M-01	373.7	5.2	2989	0.033	0.042	0.031	323	365
07D-444.4M-01	444.4	5.5	3555	0.026	0.040	0.029	358	405
07D-535.3M-01	535.3	6.1	4282	0.021	0.028	0.030	394	446
07D-646.4M-01	646.4	6.5	5171	0.018	0.025	0.030	439	496
07D-777.7M-01	777.7	7.0	6221	0.016	0.024	0.030	483	543
07D-929.2M-01	929.2	7.4	7433	0.012	0.019	0.028	527	593
07D-1111M-01	1111	8.2	8888	0.011	0.016	0.029	570	648

* Ampacities in raceway are based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) 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. Ampacities for non-standard sizes were extrapolated
* Inductive Reactance is based on non-ferrous conduit with one diameter spacing center-to-center.
* #12 and #10 AWG are not approved for CSA RW90

Other Insulation Colors

Cond. Size	Black	Red	Brown	Orange	Yellow	Green	Gray
AWG/kcmil							
12	07D-0012-01	07D-0012-XX	07D-0012-XX	07D-0012-XX	07D-0012-XX	07D-0012-XX	
10	07D-0010-01	07D-0010-XX	07D-0010-XX	07D-0010-XX	07D-0010-XX	07D-0010-XX	
8	07D-0008-01	07D-0008-XX	07D-0008-XX	07D-0008-XX	07D-0008-XX	07D-0008-XX	
6	07D-0006-01	07D-0006-XX	07D-0006-XX	07D-0006-XX	07D-0006-XX	07D-0006-XX	
4	07D-0004-01	07D-0004-XX	07D-0004-XX	07D-0004-XX	07D-0004-XX	07D-0004-XX	
2	07D-0002-01	07D-0002-XX	07D-0002-XX	07D-0002-XX	07D-0002-XX	07D-0002-XX	
1	07D-0001-01	07D-0001-XX	07D-0001-XX	07D-0001-XX	07D-0001-XX	07D-0001-XX	
1/0	07D-0100-01	07D-0100-XX	07D-0100-XX	07D-0100-XX	07D-0100-XX	07D-0100-XX	
2/0	07D-0200-01	07D-0200-XX	07D-0200-XX	07D-0200-XX	07D-0200-XX	07D-0200-XX	
3/0	07D-0300-01	07D-0300-XX	07D-0300-XX	07D-0300-XX	07D-0300-XX	07D-0300-XX	
4/0	07D-0400-01	07D-0400-XX	07D-0400-XX	07D-0400-XX	07D-0400-XX	07D-0400-XX	
262.6	07D-262.6M-01	07D-262.6M-XX	07D-262.6M-XX	07D-262.6M-XX	07D-262.6M-XX	07D-262.6M-XX	
313.3	07D-313.3M-01	07D-313.3M-XX	07D-313.3M-XX	07D-313.3M-XX	07D-313.3M-XX	07D-313.3M-XX	
373.7	07D-373.7M-01	07D-373.7M-XX	07D-373.7M-XX	07D-373.7M-XX	07D-373.7M-XX	07D-373.7M-XX	
444.4	07D-444.4M-01	07D-444.4M-XX	07D-444.4M-XX	07D-444.4M-XX	07D-444.4M-XX	07D-444.4M-XX	
535.3	07D-535.3M-01	07D-535.3M-XX	07D-535.3M-XX	07D-535.3M-XX	07D-535.3M-XX	07D-535.3M-XX	
646.4	07D-646.4M-01	07D-646.4M-XX	07D-646.4M-XX	07D-646.4M-XX	07D-646.4M-XX	07D-646.4M-XX	
777.7	07D-777.7M-01	07D-777.7M-XX	07D-777.7M-XX	07D-777.7M-XX	07D-777.7M-XX	07D-777.7M-XX	07D-777.7M-XX
1111	07D-1111M-01	07D-1111M-XX	07D-1111M-XX	07D-1111M-XX	07D-1111M-XX	07D-1111M-XX	

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