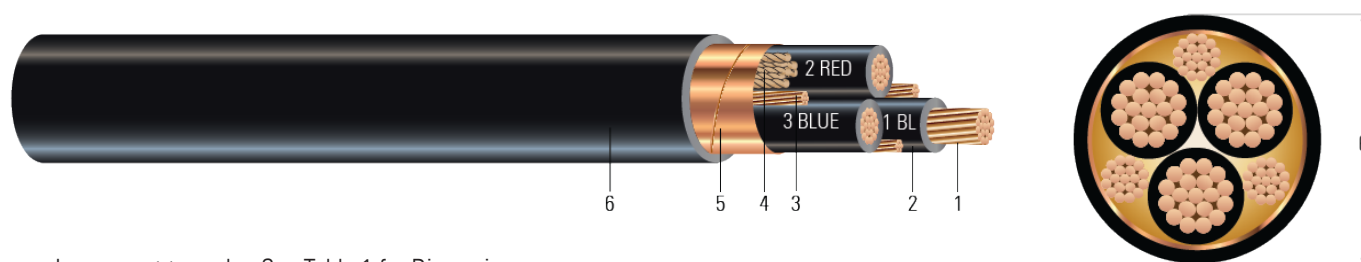


3/C CU 2000V XLPE RHH/RHW-2 PVC VFD Power Cable Type TC-ER

Type TC-ER VFD Power Cable 2000 Volt Three Conductor Copper, Cross Linked Polyethylene (XLPE) insulation RHH/RHW-2 Polyvinyl Chloride (PVC) Jacket with 3 Symmetrical Bare CU Ground 50% Minimum Tape Shield Overlap



Images not to scale. See Table 1 for Dimensions

CONSTRUCTION:

- Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
- Insulation:** Cross Linked Polyethylene (XLPE) Type RHH/RHW-2
- Grounding Conductor:** 3 Class B compressed stranded bare copper ground per ASTM B3 and ASTM B8 (ground size is 50% of the phase conductor)
- Filler:** Paper filler (cable size 8 & 6 uses Polypropylene filler)
- Tape Shield:** 5 mil copper tape shield with a minimum of 50% overlap
- Overall Jacket:** Polyvinyl Chloride (PVC) Jacket

APPLICATIONS AND FEATURES:

Southwire's 2000 Volt Type TC-ER VFD power cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial, aerial supported by a messenger, and where superior electrical properties are desired. 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. For uses in Class I, II, and III, Division 2 hazardous locations per NEC Article 501 and 502. Constructions with 3 or more conductors are listed for exposed runs (TC-ER) per NEC 336.10

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper
- ASTM B8 Concentric-lay-standard copper
- UL 44 Thermoset Insulated wires And cables
- UL 1277 Electrical Power And Control Cable
- UL 1685 - Flame Test
- UL 1581 - Electrical Wires, Cables and Flexible Cords
- IEEE 1202/FT4 - Vertical Tray Flame Test (70,000 Btu/hr)
- ICEA S-58-679 - Control Cable Conductor Identification Method 3 (1-BLACK, 2-RED, 3-BLUE)
- ICEA S-95-658 NEMA WC70 - Power cables rated 2000 volts or less for the distribution of electrical energy

SAMPLE PRINT LEGEND:

SOUTHWIRE EXXXXX #P# (UL) [#AWG Or #kcmil] CU RHH/RHW-2 XLPE/PVC 2000V Type TC-ER For CT USE SUN. RES. For DIRECT BURIAL FT4 YEAR (NESC) [SEQUENTIAL FEET MARKS]



Southwire Company, LLC | One Southwire Drive, Carrollton, GA 30119 | www.southwire.com



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Table 1 – Weights & Measurements

Stock Code	Cond. Size	Dia Over Cond. (1)	Insul. Thickness	Dia Over Insul. (2)	Ground	Jacket Thickness	Approx. OD (6)	Copper Weight	Approx. Weight
	AWG	inches	inches	inches	No. x AWG	mils	inches	lbs./MFT	lbs./MFT
580672 [◇]	14	0.070	60	0.190	3 x 18	45	0.519	54	175
580685 [◇]	12	0.087	60	0.207	3 x 16	45	0.558	85	220
580693 [◇]	10	0.111	60	0.231	3 x 14	60	0.638	136	307
569388 [◇]	8	0.139	70	0.279	3 x 14	60	0.743	193	427
580701 [◇]	6	0.174	70	0.314	3 x 12	60	0.819	307	586
569389 [◇]	4	0.221	70	0.361	3 x 12	80	0.959	452	789
569387 [◇]	2	0.277	70	0.417	3 x 10	80	1.081	718	1120
TBA	1	0.321	90	0.501	3 x 8	80	1.262	937	1460
644333 [◇]	1/0	0.360	90	0.540	3 x 6	80	1.346	1233	1805
644334 [◇]	2/0	0.404	90	0.584	3 x 6	80	1.441	1491	2121
644337	3/0	0.454	90	0.634	3 x 5	80	1.549	1880	2577
644338 [◇]	4/0	0.510	90	0.690	3 x 4	80	1.67	2370	3146
644339 [◇]	250	0.558	105	0.768	3 x 2	110	1.899	2960	3978
644340 [◇]	350	0.661	105	0.871	3 x 2	110	2.121	3896	5084
644341 [◇]	500	0.789	105	0.999	3 x 1	110	2.398	5461	6867

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Standard stock item

Table 2 – Electrical and Engineering Data

Stock Code	Cond. Size AWG	Min. Bending Radius Inches	Max. Pull Tension lbs.	Resistance		Reactance X _L @ 60Hz Ω/MFT	Ø Short Circuit Current 6 Cycles Amps	Allowable Ampacities †		
				DC @ 25°C Ω/MFT	AC @ 90°C Ω/MFT			60 °C Amps	75 °C Amps	90 °C Amps
580672	14	6.2	99	2.630	3.288	0.045	935	15	15	15
580685	12	6.7	157	1.660	2.075	0.042	1485	20	20	20
580693	10	7.7	249	1.040	1.300	0.039	2360	30	30	30
569388	8	8.9	396	0.652	0.815	0.038	3754	40	50	55
580701	6	9.8	630	0.411	0.514	0.035	5966	55	65	75
569389	4	11.5	1002	0.258	0.323	0.033	9491	70	85	95
569387	2	13.0	1593	0.162	0.203	0.031	15089	95	115	130
TBA	1	15.1	2009	0.129	0.161	0.032	19029	110	130	145
644333	1/0	16.2	2534	0.102	0.128	0.031	24011	125	150	170
644334	2/0	17.3	3194	0.081	0.102	0.030	30264	145	175	195
644337	3/0	18.6	4027	0.064	0.081	0.029	38154	165	200	225
644338	4/0	20.0	5078	0.051	0.064	0.029	48114	195	230	260
644339	250	22.8	6000	0.043	0.055	0.029	56845	215	255	290
644340	350	25.5	8400	0.031	0.040	0.028	79583	260	310	350
644341	500	28.8	12000	0.022	0.028	0.027	113690	320	380	430

† Ampacities are based on Table 310.15 (B)(16) of the NEC, 2014 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts, based on ambient temperature of 30°C (86°F)

