TCU 2000V XLPE Insulation Three Grounds Cu Tape Shield PVC Jacket. RHH/RHW-2 Flexible Variable Frequency Drive (VFD). CT Rated -Sunlight Resistant - For Direct Burial - Silicone Free

Type TC-ER VFD Power Cable. 2000 Volt Tinned Copper Flexible Stranded Conductors. Cross-Linked Polyethylene (XLPE) Insulation RHH/RHW-2. Polyvinylchloride (PVC) Jacket with 3 Symmetrical Grounds. Rated 90°C Wet or Dry, FT4 Flame.

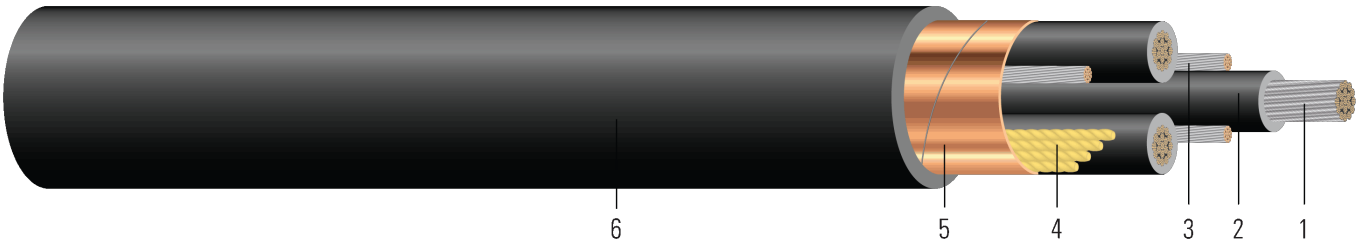

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class Class I flexible ropelay stranded tinned copper per ASTM B33 and B172.
2. **Insulation:** Cross-Linked Polyethylene (XLPE); Type RHH/RHW-2
3. **Grounding Conductor:** : 3 Flexible Ropelay Stranded Tinned Copper Grounds per ASTM B33 and B172
4. **Filler:** Flame & Moisture Resistant Paper Filler
5. **Tape Shield:** 5 mil Copper Tape Shield with a minimum of 50% Overlap for 100% Coverage
6. **Overall Jacket:** Black 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® Article 336.10.

SPECIFICATIONS:

- 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 1277 TC-ER
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-58-679 Control Cable Conductor Identification Method 4
- 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

SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE® VFD {UL} [#AWG or #KCMIL] 3/C TYPE TC-ER RHH OR RHW-2 CDRS CU GW 3 X # AWG CU T/S50% 90°C PVC JACKET SUN RES DIRECT BURIAL FT4/IEEE1202 2000 VOLTS

Table 1 – Weights and Measurements

Cond. Size	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Ground	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	Jacket Color
AWG/ Kcmil		No. of Strands	inch	mil	No. x AWG	mil	inch	lb/1000ft	lb/1000ft	
8	3	168	0.145	60	3 x 14	60	0.707	189	346	Black
4	3	133	0.235	60	3 x 12	80	0.942	456	713	Black
2	3	168	0.290	60	3 x 10	80	1.061	592	895	Black
1	3	385	0.300	80	3 x 10	80	1.169	716	1094	Black
262.6	3	646	0.565	95	3 x 2	110	1.968	3105	4052	Black
313.3	3	779	0.650	95	3 x 2	140	2.205	3637	4840	Black
373.7	3	931	0.701	95	3 x 2	110	2.227	4162	5304	Black
500	3	1221	0.858	95	3 x 1	115	2.578	5638	6871	Black
535.3	3	1332	0.843	110	3 x 2	110	2.616	5876	7330	Black
646.4	3	1628	0.890	110	3 x 4	110	2.633	5748	7146	Black
777.7	3	1924	0.966	110	3 x 2/0	140	2.857	6798	8483	Black

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
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	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
8	3	8.5	396	0.679	0.818	0.052	50	55
4	3	11.3	1001	0.274	0.330	0.048	85	95
2	3	12.7	1592	0.172	0.207	0.045	115	130
1	3	14.0	2008	0.137	0.164	0.046	130	145
262.6	3	23.6	6302	0.048	0.058	0.041	267	304
313.3	3	26.5	7519	0.039	0.048	0.041	298	332
373.7	3	26.7	8968	0.033	0.042	0.040	323	365
500	3	30.9	12000	0.023	0.031	0.039	380	430
535.3	3	31.4	12847	0.021	0.028	0.039	394	446
646.4	3	31.6	15513	0.018	0.025	0.039	439	496
777.7	3	34.3	18664	0.016	0.024	0.038	483	543

***** Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.