

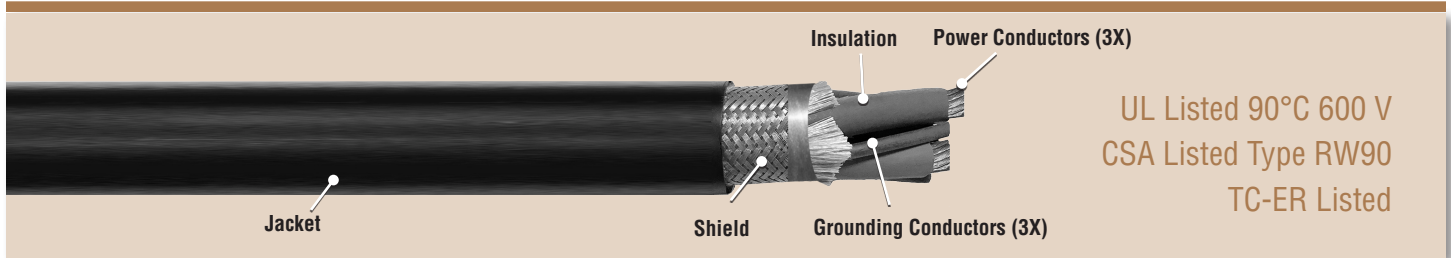
Rock-Flex® K

Flexible TC-ER VFD Cable

UL 2225 Crush & Impact Resistant

RSCC Industrial Cable

www.r-scc.com



Features

An optimized tinned copper braid and aluminum foil tape shielding system which provides 100% coverage as well as an effective electrostatic shield for isolation of high frequency currents and potentials, therefore providing an effective low impedance path to ground for AC motor and drive applications.

Irradiation cross-linked XLPE insulation provides lower capacitance for extended motor life, mitigation of corona discharge and reduced scaling of standing waves resulting in increased power transfer efficiency and improved signal transmission.

- Reduced chance of cable failure from voltage irregularities such as harmonics, corona discharges, and power distortion
- Round configuration for reliable connectorization and sealing
- Impervious to adverse or harsh environments
- TC-ER rating allows for the elimination of conduit for more economical installations
- TC-ER-HL rating allows for installation in Class I Division 1 and Zone 1 areas per Articles 501 and 505 of the 2020 NEC

High Dielectric Strength Insulation

- Highly engineered design effectively handles the overall high power levels of pulse-width modulated (PWM) signals and reliably handles high voltage spikes, therefore eliminating potential damage to motors, drives, bearings and related equipment.

Symmetrical Cable Construction

- Insulated segmented grounds and a robust shielding system are designed to minimize radiated and conducted noise that can disrupt facility control, power and instrumentation systems

Flexible Cable

- High strand count Class K tinned copper conductors coupled with a robust foil/braid shield design is much more flexible and easier to install providing a more effective cabling system for dynamic applications.

Performance Standards

- UL Listed as Type TC-ER rated 90°C, 600 V per UL 1277
- UL Listed as Type TC-ER-HL per UL 2225 – cables with OD ≤ 1.0 inch in diameter
- Cables meet crushing and impact test requirements for Type MC-HL
- Insulation rated type XHHW-2 rated “VW-1” per UL 44
- Thermoset jacket meets the requirements of UL 1277
- Cable passes IEEE 1202/FT4 Flame test
- Compliant with NFPA 79 2018
- CSA Listed as Type RW90 rated 600 V, sunlight resistant, oil resistant, FT4 and direct burial per CSA C22.2 No. 38 and “Type TC” per CSA C22.2 No. 230
- EPA 40 CFR, Part 261 for Leachable lead content per TCLP
- UL Listed as WTTC and Flexible Motor Supply Cable rated 1 kV per UL 2277
- RoHS / RoHS-2 Compliant
- OSHA Acceptable
- MSHA Approved P-07-KA200009

Temperature requirements

- -40°C cold impact
- -55°C cold bend

Scope

Rock-Flex® Flexible VFD (Variable Frequency Drive) Cables are high performance cables specifically designed to combat the problems of system performance and signal disruption in AC Motors and Drives.

Construction

Conductor: Annealed, flexible tinned copper, Class K per ASTM B33, B172 & B174

Insulation: Irradiation cross-linked XLPE

Circuit Identification: Power Conductors – ICEA Method 4 (black and numbered) or black, white and red colored conductors

Ground Conductors: Three segmented, green insulated grounding conductors with the same voltage rating as the circuit conductors

Fillers: Flame retardant fibrillated polypropylene, as required

Jacket: Black, heavy-duty, arctic grade thermoset



Made in the USA

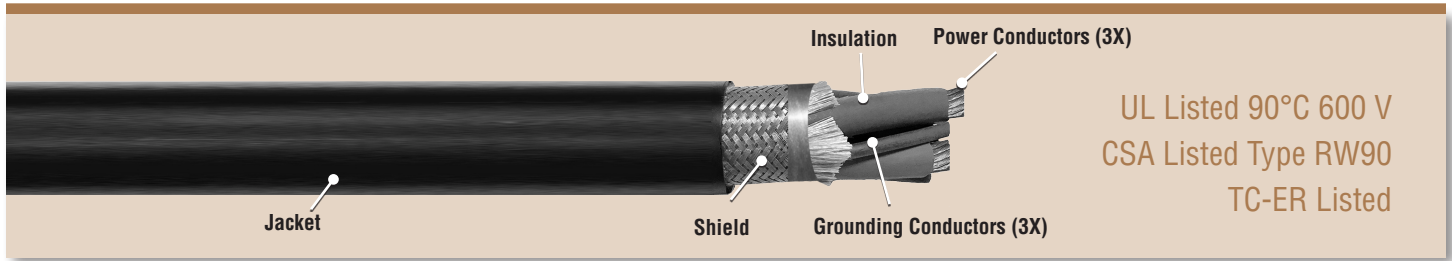


Marmon Electrical
A Berkshire Hathaway Company

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Conductor Size, AWG or kcmil	Insulated Conductor OD, in	TC Grounds	Cable OD, in	Weight, lb./1000 ft.	NEC Ampacity*
14	0.162	3 x 18 AWG	0.575	227	15
12	0.178	3 x 16 AWG	0.611	276	20
10	0.204	3 x 14 AWG	0.675	360	30
8	0.251	3 x 14 AWG	0.746	463	55
6	0.287	3 x 12 AWG	0.823	600	75
4	0.336	3 x 12 AWG	0.968	822	95
2	0.398	3 x 10 AWG	1.101	1152	130
1	0.468	3 x 10 AWG	1.253	1471	145
1/0	0.500	3 x 10 AWG	1.322	1663	170
2/0	0.545	3 x 10 AWG	1.421	1955	195
3/0	0.598	3 x 8 AWG	1.500	2446	225
4/0	0.662	3 x 8 AWG	1.654	3381	260
250	0.730	3 x 8 AWG	1.849	4126	290
350	0.836	3 x 6 AWG	2.075	5483	350
373	0.846	3 x 6 AWG	2.100	5710	364
444	0.915	3 x 6 AWG	2.247	6672	402
500	0.979	3 x 6 AWG	2.386	7549	430
535	1.023	3 x 6 AWG	2.480	8060	446

*Ampacity based on 90°C conductor temperature and 30°C ambient temperature per 2020 NEC Table 310.16

Cables will be marked in accordance with UL and CSA Standards as well as other applicable ratings. For example, a 4 AWG cable would be marked as follows:

RSCC ROCK-FLEX® K VFD 3C 4 AWG (392/30) + 3C 12 AWG (65/30) TYPE TC-ER* XHHW-2 600 V SUN RES OIL RES II DIR BUR -40C IEEE 1202/FT4 OR WTTC OR FLEXIBLE MOTOR SUPPLY CABLE 90C 1 KV (UL) P-07-KA200009-MSHA NFPA-79-2018 ROHS-2 CE OR CSA RW90 600 V SUN RES OIL RES DIR BUR FT4 TYPE TC

Sequential footage and date of manufacture

*Cables smaller than 1.0" in diameter will be marked TC-ER-HL



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