

**SERIES
8110S**

Tray Cable Instrumentation, TC-ER-HL/CIC/MTW/WTTC/AWM Direct Burial, Sun Res



Fixed application, multiple pairs, shielded



Use

Shielded UL Listed multiple pairs cables built for the uses specified by ANSI/NFPA 79, by Art. 336, 392, 501 of ANSI/NFPA 70 "National Electrical Code" (NEC) and by CSA C22.1 (CE Code). For applications in Hazardous Locations, the TC-ER version is suitable for use in Class I, Division 2 while the TC-ER-HL* version is suitable for use in Class I, Division 1. The cables identified with Type TC-ER (Exposed Run) can be installed in the industrial plants for the connections between the cable trays and the equipment without the employment of metal conduits or reinforced cables MC type (Metal Clad Cable); this type of connection is called Open Wiring. The TC-ER / MTW type cables must comply with the impact resistance requirements required for MC type cables, they are oil resistant, sun resistant and can be used in the presence of humidity also buried (they are certified Direct Burial according UL 1277). These cables are also certified Flexible Motor Supply Cable for variable speed drives and Wind Turbine Tray Cable (WTTC) for wind turbine applications.

Information. An additional UL certified cut-to-length service is carried out on request ("Processed Wire").

* Important. The TC-ER-HL version for installations in Hazardous Locations Class I, Division 1 is upon specific request.

Technical data

Characteristics	Value/property
Conductor	Flexible copper strand, class 5
Insulation	TKblend®-R
Conductor distinction	Numbered black and white pairs
Fillers	Central or side fillers, if any
Shield on pairs	Aluminum/polyester, coverage 100% + Drain wire
Shield	Aluminum/polyester, coverage 100% + Drain wire
Jacket	PVC compound, oil-resistant, black color. Rip cord. Metric marking.
Temperature range	+90°C (dry conditions), +75°C (wet conditions) -40°C (fixed); -5°C (not fixed)
Voltage rating	600 V (TC/CIC/MTW), 1000 V (AWM/WTTC), 600/1000 V (IEC)
Spark test	6000 V
Bending radius	6 x cable outer diameter (20 x cable outer diameter for non-cyclical mobile uses)
Standards of construction	UL/CSA approvals: (UL) Type TC-ER-HL (18 AWG-1000 kcmil), MTW, WTTC, Dir Bur, Sun Res, Oil Res I, Oil Res II, c(UL) Type CIC/TC-ER (18 AWG-4/0 AWG), Dir Bur, Sun Res, Oil Res I, cURus AWM Style 21179, AWM I/II A/B; Class 1, Div.1* or Div.2 NEC Art. 336, 392, 501; CSA C22.1 Tab.19; UL 1581, UL 758, UL 1277, UL 1063, UL 2277, CSA C22.2 No.230-09 e No. 239-09 Flame res.: FT1, FT4, IEC 60332-1-2, IEC 60332-3-24 UV res.: UNI EN ISO 4892-3 (gray), UNI EN ISO 4892-2 (black) Other: Low Voltage Directive (LVD) 2014/35/EU
Standards of use	NFPA 79, NFPA 70 (NEC), CSA C22.1 (CE Code), CSA C22.2 No.286, Style 21179

Marking

TEKIMA 8110S – CE (4X(2X1)) mm² (UL) E361258 TC-ER-HL (4X(2X16)) AWG DIR BUR SUN RES OIL RES I OIL RES II 600V 90°C Dry / 75°C Wet FT4/IEEE 1202 or WTTC or FLEXIBLE MOTOR SUPPLY CABLE 1000V 90°C Dry or MTW "FLEXING" 600V or AWM 21179 90°C 1000V c(UL) CONTROL CABLE CIC/TC-ER DIR BUR SUN RES OIL RES I OIL RES II 600V 90°C Dry / 75°C Wet PVC SHIELDED FT4 or AWM I/II A/B 90°C 1000V FT1 16 AWG – (prod.reference) = (metric) =

Coding and dimensions

Code	Number of conductors	Size [AWG]	Size [mm ²]	Diameter [mm (inch)]	Weight [kg/km (lb/mft)]
CV012100_8110S_NE**	1 X 2	18	1	7,8 (0.307)	80 (54)
CV022100_8110S_NE	2 X 2	18	1	10,5 (0.413)	150 (101)
CV032100_8110S_NE	3 X 2	18	1	n.a.	n.a.
CV042100_8110S_NE	4 X 2	18	1	12,3 (0.484)	231 (155)
CV062100_8110S_NE	6 X 2	18	1	16,7 (0.657)	370 (249)
CV082100_8110S_NE	8 X 2	18	1	18,0 (0.709)	496 (333)
CV102100_8110S_NE	10 X 2	18	1	20,0 (0.787)	517 (347)
CV122100_8110S_NE	12 X 2	18	1	22,7 (0.894)	656 (441)
CV162100_8110S_NE	16 X 2	18	1	25,6 (1.008)	850 (571)
CV202100_8110S_NE	20 X 2	18	1	28,1 (1.106)	1053 (708)

Code	Number of conductors	Size [AWG]	Size [mm ²]	Diameter [mm (inch)]	Weight [kg/km (lb/mft)]
CV242100_8110S_NE	24 X 2	18	1	30,4 (1.197)	1180 (793)
CV362100_8110S_NE	36 X 2	18	1	36,3 (1.429)	1713 (1151)
CV502100_8110S_NE	50 X 2	18	1	42,1 (1.657)	2265 (1522)
CV012150_8110S_NE	1 X 2	16	1,5	8,4 (0.331)	94 (63)
CV022150_8110S_NE	2 X 2	16	1,5	11,4 (0.449)	182 (122)
CV032150_8110S_NE	3 X 2	16	1,5	n.a.	n.a.
CV042150_8110S_NE	4 X 2	16	1,5	14,1 (0.555)	310 (208)
CV062150_8110S_NE	6 X 2	16	1,5	18,2 (0.717)	453 (304)
CV082150_8110S_NE	8 X 2	16	1,5	19,6 (0.772)	610 (410)
CV102150_8110S_NE	10 X 2	16	1,5	22,9 (0.902)	693 (466)
CV122150_8110S_NE	12 X 2	16	1,5	24,7 (0.972)	808 (543)
CV162150_8110S_NE	16 X 2	16	1,5	27,8 (1.094)	1051 (706)
CV202150_8110S_NE	20 X 2	16	1,5	30,7 (1.209)	1309 (880)
CV242150_8110S_NE	24 X 2	16	1,5	33,2 (1.307)	1471 (988)
CV362150_8110S_NE	36 X 2	16	1,5	39,7 (1.563)	2148 (1443)
CV502150_8110S_NE	50 X 2	16	1,5	47,6 (1.874)	3022 (2031)

** According to NFPA 70 (NEC) and CSA C22.1 (CEC) cables with 2 conductors are not Exposed Run (ER).

Code composition

