

SERIES
8160S

Tray Cable Instrumentation, TC-ER/CIC/MTW/WTTC/AWM Nylon (THHN), 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, articles 336, 392, 501 of the ANSI/NFPA 70 "National Electrical Code" (NEC) and by CSA C22.1 (CE Code). They are cables suitable for use in Hazardous Locations in Class I, Division 2 and being certified Type TC-ER (Exposed Run) they can be installed in industrial plants for connections between cable trays and equipment without the use of conduits/tubings. These cables are oil resistant, sun resistant and can be used in the presence of humidity even buried (they are certified Direct Burial according to UL 1277); they 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").

Technical data

Characteristics	Value/property
Conductor	Flexible copper strand, ASTM B3, ASTM B174
Insulation	PVC/Nylon (THHN)
Conductor distinction	Numbered black and white pair
Fillers	Central or side fillers, if any
Shield on pairs	Aluminum/polyester, coverage 100% + Drain wire
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Jacket	PVC compound, oil-resistant, black color. Metric marking.
Temperature range	+75°C (wet cond.), +90°C (dry cond.), +105°C (AWM) -40°C (fixed); -5°C (not fixed)
Voltage rating	600 V (TC/CIC/MTW), 1000 V (AWM/WTTC), 600/1000 V (IEC)
Test voltage	6000 V
Bending radius	6 x cable outer diameter (fixed) 20 x cable outer diameter (not fixed)
Standards of construction	UL/CSA approvals: (UL) Type TC-ER (18 AWG-1000 kcmil), MTW, WTTC, Dir Bur, Sun Res, Oil Res I, Oil Res II, c(UL) TC-ER (18 AWG-1000 kcmil), CIC (18 AWG-4/0 AWG), Dir Bur, Sun Res, Oil Res; c(CSA)us AWM I/II A/B; Class 1, Div.2 NEC Art. 336, 392, 501; CSA C22.1 Tab.19; UL 1581, UL 1277, UL 1063, UL 2277, CSA C22.2 No.230-09 e No. 239-09 Flame res.: FT4, IEEE 1202 Other: Low Voltage Directive (LVD) 2014/35/EU
Standards of use	NFPA 79, NFPA 70 (NEC), UL 508a, CSA C22.1 (CE Code), CSA C22.2 No.286

Marking

TEKIMA 8160S – CE (4X(2X0,823)) mm² (UL) E361258 TC-ER (4X(2X18)) AWG DIR BUR SUN RES OIL RES 600V THHN 90°C Dry / 75°C Wet FT4/IEEE 1202 or WTTC or FLEXIBLE MOTOR SUPPLY CABLE 1000V 90°C Dry or MTW 600V c(UL) CONTROL CABLE CIC/TC-ER SUN RES OIL RES 600V 90°C Dry / 75°C Wet PVC/Nylon SHIELDED FT4 - CSA 608137 AWM I/II A/B 105°C 1000V FT1 18 AWG – (prod.reference) = (metric) =

Code	Number of conductors	Size [AWG]	Size [mm ²]	Diameter [mm (inch)]	Weight [kg/km (lb/mft)]
CV012W18_8160S_□□ **	1 X 2	0,823	18	8,1 (0.319)	92 (62)
CV022W18_8160S_□□	2 X 2	0,823	18	12,8 (0.504)	201 (135)
CV032W18_8160S_□□	3 X 2	0,823	18	14,3 (0.562)	260 (175)
CV042W18_8160S_□□	4 X 2	0,823	18	15,5 (0.609)	309 (208)
CV062W18_8160S_□□	6 X 2	0,823	18	18,1 (0.713)	419 (282)
CV082W18_8160S_□□	8 X 2	0,823	18	19,7 (0.774)	517 (347)
CV102W18_8160S_□□	10 X 2	0,823	18	23,9 (0.940)	709 (476)
CV122W18_8160S_□□	12 X 2	0,823	18	24,6 (0.969)	777 (522)
CV162W18_8160S_□□	16 X 2	0,823	18	27,1 (1.066)	954 (641)
CV202W18_8160S_□□	20 X 2	0,823	18	29,2 (1.148)	1122 (754)
CV242W18_8160S_□□	24 X 2	0,823	18	33,2 (1.307)	1409 (947)
CV362W18_8160S_□□	36 X 2	0,823	18	37,8 (1.487)	1887 (1268)

Code	Number of conductors	Size [AWG]	Size [mm ²]	Diameter [mm (inch)]	Weight [kg/km (lb/mft)]
CV502W18_8160S_□□	50 X 2	0,823	18	45,8 (1.804)	2685 (1804)
CV012W16_8160S_□□**	1 X 2	1,31	16	8,8 (0.347)	114 (76)
CV022W16_8160S_□□	2 X 2	1,31	16	15,0 (0.590)	274 (184)
CV032W16_8160S_□□	3 X 2	1,31	16	15,8 (0.623)	325 (219)
CV042W16_8160S_□□	4 X 2	1,31	16	17,2 (0.678)	391 (263)
CV062W16_8160S_□□	6 X 2	1,31	16	20,4 (0.805)	555 (373)
CV082W16_8160S_□□	8 X 2	1,31	16	23,0 (0.907)	715 (480)
CV102W16_8160S_□□	10 X 2	1,31	16	26,8 (1.053)	909 (611)
CV122W16_8160S_□□	12 X 2	1,31	16	27,6 (1.086)	1003 (674)
CV162W16_8160S_□□	16 X 2	1,31	16	30,7 (1.207)	1278 (859)
CV202W16_8160S_□□	20 X 2	1,31	16	33,1 (1.303)	1509 (1014)
CV242W16_8160S_□□	24 X 2	1,31	16	37,5 (1.478)	1847 (1241)
CV362W16_8160S_□□	36 X 2	1,31	16	44,4 (1.746)	2643 (1776)
CV502W16_8160S_□□	50 X 2	1,31	16	51,9 (2.042)	3553 (2387)

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

Code composition

