

APPLICATION

TC Power and Control Tray Cable are intended for use in accordance with Article 336 of NFPA 70, National Electrical Code. Recommended for indoor and outdoor installation in dry and wet locations, in cable racks and trays, in conduits and suitable for direct burial.

For Transmission of analogue and digital signals in instrument and control systems; UL listed tray cable in compliance with NEC article 336, for use in hazardous classified locations class I and class II division 2 acc. to NEC 501-4(b) and NEC 502-4(b), not allowed for direct connection to low impedance sources, e.g. public mains electricity supply.

STANDARDS

Tray Cable type UL 1277	Power-limited tray cable, per NFPA 70, NEC Article 336
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CONSTRUCTION DETAILS

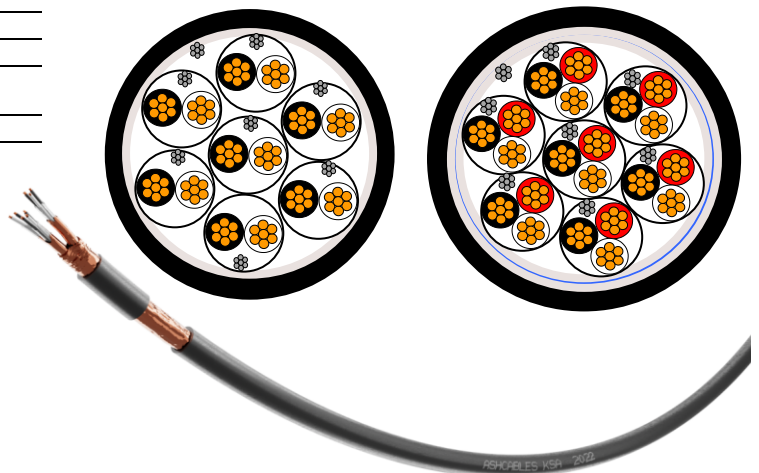
CONDUCTOR	Stranded, circular copper, per ASTM B3, 7 strands minimum: tinned, per ASTM B33
INSULATION	Crosslinked Polyethylene (XLPE) rated 90°C or Polyvinyl Chloride (PVC) rated 90°C.
COLOR CODES	- Pairs : Black/White with successive numbers on each core. - Triads: Black/White/Red with successive numbers on each core.
PAIRS/TRIADS	Two or Three cores are twisted into Pairs/Triads, in suitable lay length.
INDIVIDUAL SHIELDING	Aluminum-Polyester (AL-PET foil) laminated tape with 100% coverage and suitable overlap, in contact with stranded tinned copper drain wire.
ASSEMBLY	The required number of pairs/triads are assembled with non-hygroscopic fillers (if required) and wrapped with a polyester binder tape
OVERALL SHIELDING	Aluminum-Polyester (AL-PET foil) laminated tape with 100% coverage and suitable overlap, in contact with stranded tinned copper drain wire.
OUTER JACKET	Poly Vinyl Chloride Flame Retardant Sunlight and Oil Resistant.

ELECTRICAL PROPERTIES

CONDUCTOR (DC) RESISTANCE @ 20°C(Ω/Km)	MATERIAL TYPE	UNIT	CONDUCTOR SIZE (AWG)			
			18	16	14	12
	PLAIN Cu	Ω/Km	≤21.80	≤13.70	≤8.620	5.41
	TINNED Cu	Ω/Km	≤22.70	≤14.30	≤8.96	5.61
Insulation Resistance (min.)		MΩ/Km	10	10	10	10
Mutual Capacitance	XLPE	nF/Km	150	150	150	150
	PVC	nF/Km	250	250	250	250
Inductance to Resistance Ratio	L/R	μH/Ω	25	40	60	100
Voltage Test	3 Kv AC (1 min)					

PHYSICAL & ENVIRONMENTAL PROPERTIES

Flame Retardant	Flame Retardance Vertical Tray Test of UL
Oil Resistance	Passes Oil test of UL
Direct Burial	Passes Crush test of UL
Sunlight Resistance	Passes UL-1581 test (720 hours)
Minimum Bending Radius	10xCable Outside Diameter
Temperature Range	-30°C to 90°C



ASH INSTRUMENTATION
MULTI PAIR/TRIAD TCU/XLPE or PVC/ INDIVIDUAL + OVERALL SHIELDED
UL 1277, 90°C / TC 600V, Sunlight & Oil Resistant, Flame Retardant

DIMENSIONS AND WEIGHTS

ASH CABLES ITEM CODE	Cross Sectional Area (AWG) (No. of wire X SIZE mm)	NO. OF PAIRS/ TRIAD	Jacket Thickness (nom.) (mm)	Overall diameter Approx. (mm)	Net Weight Approx. (Kg/km)
I7FX-02P18AWG-UXXXX	18(7X0.386)	2P	1.14	13.70	130
I7FX-04P18AWG-UXXXX		4P	1.52	16.50	240
I7FX-06P18AWG-UXXXX		6P	1.52	19.30	330
I7FX-08P18AWG-UXXXX		8P	1.52	21.40	410
I7FX-10P18AWG-UXXXX		10P	2.05	25.00	560
I7FX-12P18AWG-UXXXX		12P	2.05	25.90	630
I7FX-16P18AWG-UXXXX		16P	2.05	28.40	790
I7FX-24P18AWG-UXXXX		24P	2.05	34.60	1130
I7FX-02T18AWG-UXXXX	18(7X0.386)	2T	1.52	16.40	200
I7FX-04T18AWG-UXXXX		4T	1.52	18.70	310
I7FX-06T18AWG-UXXXX		6T	1.52	20.20	430
I7FX-08T18AWG-UXXXX		8T	2.05	25.50	600
I7FX-10T18AWG-UXXXX		10T	2.05	29.50	730
I7FX-12T18AWG-UXXXX		12T	2.05	30.10	830
I7FX-16T18AWG-UXXXX		16T	2.05	33.00	1055
I7FX-24T18AWG-UXXXX		24T	2.05	40.10	1500
I7FX-02P16AWG-UXXXX	16 (7X0.488)	2P	1.14	14.80	160
I7FX-04P16AWG-UXXXX		4P	1.52	17.70	290
I7FX-06P16AWG-UXXXX		6P	1.52	20.80	405
I7FX-08P16AWG-UXXXX		8P	2.05	24.30	560
I7FX-10P16AWG-UXXXX		10P	2.05	27.00	685
I7FX-12P16AWG-UXXXX		12P	2.05	28.00	780
I7FX-16P16AWG-UXXXX		16P	1.52	30.80	990
I7FX-24P16AWG-UXXXX		24P	1.52	37.60	1410
I7FX-02T16AWG-UXXXX	16 (7X0.488)	2T	1.52	17.50	240
I7FX-04T16AWG-UXXXX		4T	1.52	20.20	385
I7FX-06T16AWG-UXXXX		6T	2.05	25.10	600
I7FX-08T16AWG-UXXXX		8T	2.05	27.80	755
I7FX-10T16AWG-UXXXX		10T	2.05	31.20	915
I7FX-12T16AWG-UXXXX		12T	2.05	32.10	1050
I7FX-16T16AWG-UXXXX		16T	2.05	35.70	1340
I7FX-24T16AWG-UXXXX		24T	2.05	44.00	1925

Dimensions and Weights are subject for manufacturing Tolerance.

DIMENSIONS AND WEIGHTS

ASH CABLES ITEM CODE	Cross Sectional Area (AWG) (No. of wire X SIZE mm)	NO. OF PAIRS/ TRIAD	Jacket Thickness (nom.) (mm)	Overall diameter Approx. (mm)	Net Weight Approx. (Kg/km)
I7FX-02P14AWG-UXXXX	14(7X0.615)	2P	1.52	16.80	230
I7FX-04P14AWG-UXXXX		4P	1.52	19.30	370
I7FX-06P14AWG-UXXXX		6P	1.52	22.70	520
I7FX-08P14AWG-UXXXX		8P	2.05	26.50	880
I7FX-10P14AWG-UXXXX		10P	2.05	29.70	1015
I7FX-12P14AWG-UXXXX		12P	2.05	30.60	1290
I7FX-16P14AWG-UXXXX		16P	2.05	33.80	1860
I7FX-24P14AWG-UXXXX		24P	2.05	41.45	2825
I7FX-02T14AWG-UXXXX	14(7X0.615)	2T	1.52	19.10	300
I7FX-04T14AWG-UXXXX		4T	1.52	22.20	500
I7FX-06T14AWG-UXXXX		6T	2.05	27.20	750
I7FX-08T14AWG-UXXXX		8T	2.05	30.50	950
I7FX-10T14AWG-UXXXX		10T	2.05	34.30	1200
I7FX-12T14AWG-UXXXX		12T	2.05	35.50	1380
I7FX-16T14AWG-UXXXX		16T	2.05	39.20	1775
I7FX-24T14AWG-UXXXX		24T	2.80	50.10	2750
I7FX-02P12AWG-UXXXX	12 (7X0.775)	2P	1.52	18.40	280
I7FX-04P12AWG-UXXXX		4P	1.52	21.20	470
I7FX-06P12AWG-UXXXX		6P	2.05	26.20	750
I7FX-08P12AWG-UXXXX		8P	2.05	29.00	950
I7FX-10P12AWG-UXXXX		10P	2.05	32.80	1170
I7FX-12P12AWG-UXXXX		12P	2.05	33.90	1350
I7FX-16P12AWG-UXXXX		16P	2.05	37.50	1735
I7FX-24P12AWG-UXXXX		24P	2.80	47.70	2685
I7FX-02T12AWG-UXXXX	12 (7X0.775)	2T	1.52	21.00	380
I7FX-04T12AWG-UXXXX		4T	2.05	25.50	730
I7FX-06T12AWG-UXXXX		6T	2.05	30.20	1025
I7FX-08T12AWG-UXXXX		8T	2.05	33.80	1315
I7FX-10T12AWG-UXXXX		10T	2.05	38.10	1615
I7FX-12T12AWG-UXXXX		12T	2.05	39.50	1870
I7FX-16T12AWG-UXXXX		16T	2.05	44.00	2420
I7FX-24T12AWG-UXXXX		24T	2.80	56.00	3730

Dimensions and Weights are subject for manufacturing Tolerance.