

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

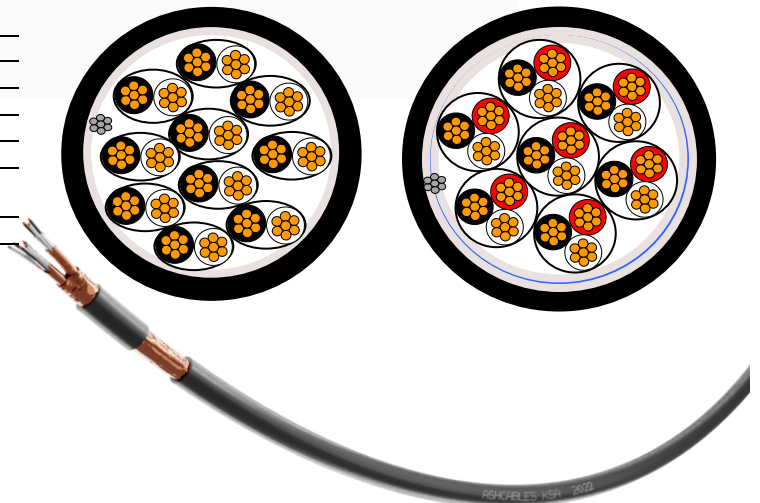
CONDUCTOR	Stranded, circular copper, per ASTM B3, 7 strands minimum; tinned, per ASTM B33
INSULATION	Crosslinked Polyethylene (XLPE) rated 90°C or Polyvinyl Chloride (PVC) rated 90°C.
COLORS IDENTIFICATION	Pair: Black/White, Numeric print on each for Multipair. Triad: Black/White/Red, Numeric print on each for MultiTriads.
PAIRS/TRIADS	Two or Three cores are twisted into Pairs/Triads, in suitable lay length.
COLOR CODES	-Pairs: Black/White with successive numbers on each core. -Triads: Black/White/Red with successive numbers on each core.
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



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)
I6FX-01P18AWG-UXXXX	18(7X0.386)	1P	1.14	9.60	68
I6FX-02P18AWG-UXXXX		2P	1.14	12.80	105
I6FX-04P18AWG-UXXXX		4P	1.52	14.60	170
I6FX-06P18AWG-UXXXX		6P	1.52	18.00	265
I6FX-08P18AWG-UXXXX		8P	1.52	20.00	335
I6FX-10P18AWG-UXXXX		10P	1.52	22.40	405
I6FX-12P18AWG-UXXXX		12P	2.05	24.30	520
I6FX-16P18AWG-UXXXX		16P	2.05	26.60	645
I6FX-24P18AWG-UXXXX		24P	2.05	32.40	915
I6FX-01T18AWG-UXXXX	18(7X0.386)	1T	1.14	10.00	85
I6FX-02PT8AWG-UXXXX		2T	1.14	14.00	140
I6FX-04PT8AWG-UXXXX		4T	1.52	17.00	260
I6FX-06T18AWG-UXXXX		6T	1.52	20.00	360
I6FX-08T18AWG-UXXXX		8T	1.52	22.20	455
I6FX-10T18AWG-UXXXX		10T	2.05	26.10	615
I6FX-12T18AWG-UXXXX		12T	2.05	27.00	700
I6FX-16T18AWG-UXXXX		16T	2.05	29.70	890
I6FX-24T18AWG-UXXXX		24T	2.05	36.20	1270
I6FX-01P16AWG-UXXXX	16 (7X0.488)	1P	1.14	10.20	80
I6FX-02P16AWG-UXXXX		2P	1.14	13.80	135
I6FX-04P16AWG-UXXXX		4P	1.52	16.60	245
I6FX-06P16AWG-UXXXX		6P	1.52	19.50	340
I6FX-08P16AWG-UXXXX		8P	1.52	21.70	430
I6FX-10P16AWG-UXXXX		10P	2.05	25.30	580
I6FX-12P16AWG-UXXXX		12P	2.05	26.20	665
I6FX-16P16AWG-UXXXX		16P	2.05	29.00	840
I6FX-24P16AWG-UXXXX		24P	2.05	35.20	1195
I6FX-01T16AWG-UXXXX	16 (7X0.488)	1T	1.14	10.50	105
I6FX-02PT6AWG-UXXXX		2T	1.52	16.00	205
I6FX-04PT6AWG-UXXXX		4T	1.52	18.30	330
I6FX-06T16AWG-UXXXX		6T	2.05	21.40	465
I6FX-08T16AWG-UXXXX		8T	2.05	25.10	655
I6FX-10T16AWG-UXXXX		10T	2.05	28.30	795
I6FX-12T16AWG-UXXXX		12T	2.05	29.20	915
I6FX-16T16AWG-UXXXX		16T	2.05	32.20	1165
I6FX-24T16AWG-UXXXX		24T	2.05	39.60	1680

Dimensions and Weights are subject for manufacturing Tolerance.

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I6FX-01P14AWG-UXXXX	14(7X0.615)	1P	1.14	11.00	105
I6FX-02P14AWG-UXXXX		2P	1.52	15.80	200
I6FX-04P14AWG-UXXXX		4P	1.52	18.10	320
I6FX-06P14AWG-UXXXX		6P	1.52	21.20	455
I6FX-08P14AWG-UXXXX		8P	2.05	25.00	635
I6FX-10P14AWG-UXXXX		10P	2.05	28.00	770
I6FX-12P14AWG-UXXXX		12P	2.05	28.80	890
I6FX-16P14AWG-UXXXX		16P	2.05	31.80	1130
I6FX-24P14AWG-UXXXX		24P	2.05	39.00	1620
I6FX-01T14AWG-UXXXX	14(7X0.615)	1T	1.14	11.50	130
I6FX-02PT4AWG-UXXXX		2T	1.52	17.30	265
I6FX-04PT4AWG-UXXXX		4T	1.52	20.10	445
I6FX-06T14AWG-UXXXX		6T	2.05	24.90	690
I6FX-08T14AWG-UXXXX		8T	2.05	27.70	875
I6FX-10T14AWG-UXXXX		10T	2.05	31.20	1075
I6FX-12T14AWG-UXXXX		12T	2.05	32.10	1240
I6FX-16T14AWG-UXXXX		16T	2.05	35.50	1595
I6FX-24T14AWG-UXXXX		24T	2.80	45.30	2475
I6FX-01P12AWG-UXXXX	12 (7X0.775)	1P	1.14	11.50	130
I6FX-02P12AWG-UXXXX		2P	1.52	17.30	260
I6FX-04P12AWG-UXXXX		4P	2.05	20.00	430
I6FX-06P12AWG-UXXXX		6P	2.05	24.70	680
I6FX-08P12AWG-UXXXX		8P	2.05	27.60	860
I6FX-10P12AWG-UXXXX		10P	2.05	31.00	1055
I6FX-12P12AWG-UXXXX		12P	2.05	32.10	1220
I6FX-16P12AWG-UXXXX		16P	2.05	32.50	1565
I6FX-24P12AWG-UXXXX		24P	2.05	43.70	2270
I6FX-01T12AWG-UXXXX	12 (7X0.775)	1T	1.14	12.50	170
I6FX-02PT2AWG-UXXXX		2T	1.52	19.00	350
I6FX-04PT2AWG-UXXXX		4T	1.52	22.10	610
I6FX-06T12AWG-UXXXX		6T	2.05	27.40	940
I6FX-08T12AWG-UXXXX		8T	2.05	30.60	1205
I6FX-10T12AWG-UXXXX		10T	2.05	34.75	1480
I6FX-12T12AWG-UXXXX		12T	2.05	35.90	1730
I6FX-16T12AWG-UXXXX		16T	2.05	39.80	2235
I6FX-24T12AWG-UXXXX		24T	2.80	50.50	3445

Dimensions and Weights are subject for manufacturing Tolerance.