

87777 Multi-Conductor - CMP Rated (Plenum) Cable



Description:

22 AWG stranded (7x30) TC conductor, FEP insulation, twisted pairs individually shielded with Beldfoil® (100% coverage), overall jacket per table below, 22 AWG stranded TC drain wire.

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (in.)
3	22	7x30	TC - Tinned Copper	.030

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
FEP - Fluorinated Ethylene Propylene	.050

Insulation Resistance:

200,000 megaohms/1000 ft. @500 Volts DC (Cond. to Cond.); 75,000 megaohms/1000 ft. @ 500 Volts DC (Cond. to Shield)

Inner Shield

Inner Shield Material:

Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
Beldfoil® (Z-Fold®)	Tape	Aluminum Foil-Polyester Tape	100

Inner Shield Drain Wire AWG:

AWG
22

Inner Shield Drain Wire Stranding: Stranded

Inner Shield Drain Wire Conductor Material: TC - Tinned Copper

Outer Shield

Outer Shield Material:

Outer Shield Material
Unshielded

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVDF - Fluorocopolymer

Overall Cabling

Overall Nominal Diameter: 0.234 in.

Pair

Pair Color Code Chart:

Number	Color
1	Black & Red
2	Black & White
3	Black & Green

Pair Lay Length & Direction:

Lay Length (in.)	Twists/ft. (twist/ft)	Direction
1.350	8.800	Left Hand Lay

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Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +150°C
Bulk Cable Weight:	37 lbs/1000 ft.
Max. Recommended Pulling Tension:	82 lbs.
Min. Bend Radius (Install)/Minor Axis:	2.300 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	04/01/2005
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Flame Test

UL Flame Test:	NFPA 262
C(UL) Flame Test:	FT6

Plenum/Non-Plenum

Plenum (Y/N):	Yes
Non-Plenum Number:	8777

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
50

Nom. Inductance:

Inductance (µH/ft)
0.18

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
31

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)
67

Nominal Velocity of Propagation:

VP (%)
69

Nominal Delay:

Delay (ns/ft)
1.47

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)
16

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Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C: 11.300 Ohm/1000 ft

Max. Operating Voltage - UL:

Voltage

300 V RMS

Max. Recommended Current:

Current

3.5 Amps per conductor @ 25°C

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
87777 0021000	1,000 FT	40.000 LB	RED	C	3 SH PR #22 FEP SOLEF
87777 002500	500 FT	18.000 LB	RED	C	3 SH PR #22 FEP SOLEF

Notes:

C = CRATE REEL PUT-UP.

Analog Multi-Pair Snake Cable

CMP Rated (Plenum) Cables
Individually Shielded Twisted Pairs



Individually Shielded Pairs

NEC: CMP (CEC: CMP FT6)

Product Description

22 AWG stranded (7x30) tinned copper conductors. FEP insulation. Twisted pairs individually Beldfoil® shielded (100% Coverage). Overall jacket per table below. 22 AWG stranded tinned copper drain wire.

Color Code: See Chart 3 (in Technical Information Section)

Specifications

Nominal OD — Conductor .030" (.76mm)

Nominal OD — Insulation .050" (1.27mm)

Overall Jacket

88000 Series FEP
87000 Series PVDF
82000 Series Flamarrest®

Approvals

NEC CMP
CEC CMP FT6

UL Ratings

Non-conduit

Voltage Rating

300V RMS

Temperature Rating

88000 Series 200°C
87000 Series 150°C
82000 Series 60°C

Nominal DCR

Conductor 16.0Ω/M' (52.5Ω/km)
Shield 11.3Ω/M' (37.1Ω/km)

Nominal Impedance

82000 Series 46Ω
87000, 88000 Series 50Ω

Nominal Velocity of Propagation

82000 Series 62%
87000, 88000 Series 69%

Nominal Capacitance (82000 Series)

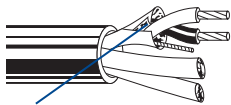
Between Conductors 35 pF/Ft. (115 pF/m)
Between Conductor/Shield* 76 pF/Ft. (249 pF/m)

Nominal Capacitance (87000, 88000 Series)

Between Conductors 31 pF/Ft. (102 pF/m)
Between Conductor/Shield* 67 pF/Ft. (220 pF/m)

DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene

*Capacitance between one conductor and other conductors connected to shield.



Z-Fold®

Part No.	No. of Pairs	Standard Lengths		Standard Unit Weight		Nominal OD	
		Ft.	m	Lbs.	kg	Inch	mm

Plenum-Rated Twisted Pairs NEC: CMP (CEC: CMP FT6)

22 AWG							
88777	3	100	30.5	6.0	2.7	.234	5.94
		500†	152.4	19.0	8.6		
		1000†	304.8	42.0	19.1		
88778	6	100	30.5	7.0	3.2	.309	7.85
		500†	152.4	38.5	17.5		
		1000†	304.8	75.0	34.1		
87777	3	500†	152.4	18.0	8.2	.234	5.94
		1000†	304.8	40.0	18.2		
87778	6	500†	152.4	37.5	17.0	.309	7.85
		1000†	304.8	73.0	33.2		
82777	3	U-500†	U-152.4	19.5	8.9	.237	6.02
		U-1000	U-304.8	38.0	17.3		
		1000†	304.8	39.0	17.7		
82778	6	1000†	304.8	71.0	32.2	.314	7.98

†Spools and/or UnReel® cartons are one piece, but length may vary ±10% for spools and UnReel U-500 and -10% to +5% for UnReel U-1000 from length shown.