

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.

Plenum-Rated


Individually Shielded Pairs

Audio, Control and Instrumentation Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Nom. DCR		Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nom. Capacitance			
					Ft.	m	Lbs.	kg	Cond.	Shield	Inch	mm			* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m


22 AWG Stranded (7x30) TC Conductors • Twisted Pairs • Individually Shielded Beldfoil® (100% Coverage) • 22 AWG Stranded TC Drain Wire††

Plenum • FEP Insulation • Natural Flamarrest® Jacket


 <p>300V RMS</p>	82723	NEC:	2	Red &	U-500	U-152.4	10.5	4.8	14.7Ω/M'	16.6Ω/M'	.153	3.89	36	62%	43	141	75	246
		CMP		Black,	U-1000	U-304.8	20.0	9.1	48.2Ω/km	54.5Ω/km								
		CEC:		Green &	1000	304.8	19.0	8.6										
		CMP FT6		White	U-2000	U-609.6	40.0	18.2										

Z-Fold®


††82723 has 24 AWG drain wire
Pairs cabled on common axis to reduce diameter.

 <p>300V RMS</p>	82777	NEC:	3	See	U-500	U-152.4	19.5	8.9	14.7Ω/M'	11.3Ω/M'	.237	6.02	46	62%	35	115	76	249
		CMP		Chart 3	U-1000	U-304.8	38.0	17.3	48.2Ω/km	37.1Ω/km								
		CEC:		(Tech Info	1000	304.8	39.0	17.7										
		CMP FT6		Section)														

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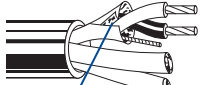
 <p>300V RMS</p>	82778	NEC:	6	See	1000	304.8	71.0	32.2	14.7Ω/M'	11.3Ω/M'	.314	7.98	46	62%	35	115	76	249
		CMP		Chart 3			48.2Ω/km	37.1Ω/km										
		CEC:		(Tech Info														
		CMP FT6		Section)														

Plenum • FEP Insulation • Red FEP Jacket


 <p>300V RMS</p>	88723	NEC:	2	Red &	100	30.5	3.4	1.5	14.7Ω/M'	16.6Ω/M'	.148	3.76	40	69%	35	115	67	220
		CMP		Black,	500	152.4	11.0	5.0	48.2Ω/km	54.5Ω/km								
		CEC:		Green &	1000	304.8	19.0	8.6										
		CMP FT6		White														

Z-Fold®

††88723 has 24 AWG drain wire


 <p>300V RMS</p>	88777	NEC:	3	See	100	30.5	6.0	2.7	14.7Ω/M'	11.3Ω/M'	.234	5.94	50	69%	31	102	67	220
		CMP		Chart 3	500	152.4	19.0	8.6	48.2Ω/km	37.1Ω/km								
		CEC:		(Tech Info	1000	304.8	42.0	19.1										
		CMP FT6		Section)														

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 <p>300V RMS</p>	88778	NEC:	6	See	100	30.5	7.0	3.2	14.7Ω/M'	11.3Ω/M'	.309	7.85	50	69%	31	102	67	220
		CMP		Chart 3	500	152.4	38.5	17.5	48.2Ω/km	37.1Ω/km								
		CEC:		(Tech Info	1000	304.8	75.0	34.1										
		CMP FT6		Section)														


Pairs cabled on common axis to reduce diameter.

Plenum • FEP Insulation • Red Fluorocopolymer Jacket


 <p>300V RMS</p>	87723	NEC:	2	Red &	500	152.4	11.0	5.0	14.7Ω/M'	15.0Ω/M'	.148	3.76	40	69%	35	115	67	220
		CMP		Black,	1000	304.8	18.0	8.2	48.2Ω/km	49.2Ω/km								
		CEC:		Green &														
		CMP FT6		White														

Z-Fold®

††87723 has 24 AWG drain wire.

 <p>300V RMS</p>	87777	NEC:	3	See	500	152.4	18.0	8.2	14.7Ω/M'	11.3Ω/M'	.234	5.94	50	69%	31	102	67	220
		CMP		Chart 3	1000	304.8	40.0	18.2	48.2Ω/km	37.1Ω/km								
		CEC:		(Tech Info														
		CMP FT6		Section)														

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 <p>300V RMS</p>	87778	NEC:	6	See	500	152.4	37.5	17.0	14.7Ω/M'	11.3Ω/M'	.309	7.85	50	69%	31	102	67	220
		CMP		Chart 3	1000	304.8	73.0	33.2	48.2Ω/km	37.1Ω/km								
		CEC:		(Tech Info														
		CMP FT6		Section)														

Pairs cabled on common axis to reduce diameter.

DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene • TC = Tinned Copper

*Capacitance between conductors.

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