Detailed Specifications & Technical Data



METRIC MEASUREMENT VERSION

3077F Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus Cable



General Description:

22 AWG stranded (7x30) tinned copper conductors, polyolefin insulation, Beldfoil® shield (100% coverage), tinned copper drain wire, PVC jacket.

5 //	
Physical Characteristics (Overall)	
Conductor	
AWG:	
# Pairs AWG Stranding Conductor Mate	
1 22 7x30 TC - Tinned Cop	per 0.762
Total Number of Conductors:	2
Insulation	
Insulation Material:	
Insulation Material	
PO - Polyolefin	
Outer Shield	
Outer Shield Material:	
Outer Shield Trade Name Type Outer Sh	hield Material Coverage (%)
	m Foil-Polyester Tape 100
Outer Shield Drain Wire AWG:	
AWG Stranding Drain Wire Conductor M	laterial
20 7x28 TC - Tinned Copper	
Outer Jacket	
Outer Jacket Material:	
Outer Jacket Material	
PVC - Polyvinyl Chloride	
Overall Cable	
	4.070 mm
Overall Nominal Diameter:	4.978 mm
Pair	
Pair Color Code Chart:	
Number Color	
1 Blue & Orange	
Pair Lay Length & Direction:	
Lay Length (mm) 38.1	
Mechanical Characteristics (Over	all)
Operating Temperature Range:	-30°C To +105°C
UI Temperature Rating	105°C

operating remperature Mange.	
UL Temperature Rating:	105°C
Bulk Cable Weight:	26.788 Kg/Km
Max. Recommended Pulling Tension:	120.101 N
Min. Bend Radius/Minor Axis:	55.880 mm



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pplicable Standards & Environmental Progra	1115
NEC/(UL) Specification:	CM, ITC, PLTC
NEC Articles:	725, 727, 800
CEC/C(UL) Specification:	СМ
EU Directive 2011/65/EU (ROHS II):	Yes
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):	01/01/2004
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
lame Test	
UL Flame Test:	UL1685 UL Loading
lenum/Non-Plenum	
Plenum (Y/N):	No
Irface Printing (Overall)	
Surface Printing:	BELDEN 3077F DATABUS(R) 31.25 KB/S E34972 2C22 SHIELDED (UL) 105C PLTC OR ITC SUN RES OR CM OR C(UL) CM (2 FT, 7 DIGIT SEQUENTIAL NUMBER) FEET
naveraged Impedance:	
Description Freq. (MHz) Start Freq. (MHz) Stop Freq. (M .03125 .03125	100
.03125	
.03125 om. Inductance: Inductance (µH/m)	
0.03125 om. Inductance: Inductance (µH/m) 0.6562 om. Capacitance Conductor to Shield: Capacitance (pF/m)	
.03125 om. Inductance: Inductance (µH/m) 0.6562 om. Capacitance Conductor to Shield: Capacitance (pF/m) 144.364 om. Mutual Capacitance: Capacitance (pF/m)	
.03125 om. Inductance: Inductance (µH/m) 0.6562 om. Capacitance Conductor to Shield: Capacitance (pF/m) 144.364 om. Mutual Capacitance: Capacitance (pF/m) 77.1035 aximum Capacitance Unbalance: Capacitance (pF/m)	
.03125 om. Inductance: Inductance (µH/m) 0.6562 om. Capacitance Conductor to Shield: Capacitance (pF/m) 144.364 om. Mutual Capacitance: Capacitance (pF/m) 77.1035 aximum Capacitance Unbalance: Capacitance (pF/m) 3.9372 ominal Velocity of Propagation: VP (%)	

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Description	n Freq. (MHz) Start Freq. (MHz)	Stop Freq. (MHz)	Attenuation (dB/100m)		
	.039			0.45934		
Max. Attenua	ation:					
() F	Freq. (MHz)	Attenuation (dB/100)m)			
0.498712 0	0.039 0	.499				
Max. Operati	ax. Operating Voltage - UL:					
Voltage						
300 V RMS						
Max. Recom	lax. Recommended Current:					
Description	n Current					
Per Conduc	tor 2.5 Amps	6				
Other El	ectrical Ch	aracteristic 2:	:	31.25 KBits/sec		
lotes (Ove	erall)					

Notes: Tape around pair has shorting fold. CPE & LSOH Jacket optional.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3077F 0031000	1,000 FT	23.000 LB	ORANGE	CN	TWPR #22 PP FS PVC
3077F 003500	500 FT	11.000 LB	ORANGE	CN	TWPR #22 PP FS PVC

Notes:

C = CRATE REEL PUT-UP.

N = FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.

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