# **Detailed Specifications & Technical Data**



METRIC MEASUREMENT VERSION



## 6309FE Multi-Conductor - Commercial Applications

For more Information please call

1-800-Belden1



## **General Description:**

Security & Alarm Cable, Plenum-CMP, 12-18 AWG stranded bare copper conductors with Flamarrest® insulation, Beldfoil® shield and Flamarrest® jacket with ripcord

Controls       Controls         controt       Contention         cont	sage (Overall)					
Conductor         AWG:         # Conductors AWG Stranding Conductor Material         12       18       7x26       BC - Bare Copper         Total Number of Conductors:       12         Insulation       Insulation         Insulation Material:       Insulation Material         Insulation Trade Name Insulation Material       Wall Thickness (mm)         Flamarrest®       LS PVC - Low Smoke Polyvinyl Chloride         Outer Shield       Outer Shield Material:         Outer Shield Trade Name Type Outer Shield Material       Coverage (%)         Beldfoil®       Tape         Aluminum Foil-Polyester Tape       100.000         Outer Shield Drain Wire AWG:       AWG Stranding Drain Wire Conductor Material	Suitable Application	ons:	Security Systems, Intercom/PA Systems, Sound/Audio Systems, Power Limited Controls			
AWG:         # Conductors AWG Stranding Conductor Material         12       18       7x26       BC - Bare Copper         Total Number of Conductors:       12         nsulation Insulation Material:       12         Insulation Trade Name Insulation Material       Wall Thickness (mm)         Flamarrest®       LS PVC - Low Smoke Polyvinyl Chloride         Outer Shield       Material:         Outer Shield Material:       Coverage (%)         Beldfoil®       Tape         Aluminum Foil-Polyester Tape       100.000         Outer Shield Drain Wire AWG:       AWG Stranding Drain Wire Conductor Material	hysical Character	istics (Overall)				
12 18 7x26 BC - Bare Copper   Total Number of Conductors:  12    Table Insulation Material:   Insulation Trade Name Insulation Material   Wall Thickness (mm)   Flamarrest® LS PVC - Low Smoke Polyvinyl Chloride   Outer Shield Trade Name Type   Outer Shield Material:   Outer Shield Trade Name Type   Outer Shield Trade Name Type   Tape Aluminum Foil-Polyester Tape   100.000 0uter Shield Drain Wire AWG:   AWG Stranding Drain Wire Conductor Material						
Total Number of Conductors:       12         Insulation       Insulation Material:         Insulation Trade Name       Insulation Material         Vall Thickness (mm)         Flamarrest®       LS PVC - Low Smoke Polyvinyl Chloride         Outer Shield         Outer Shield Material:         Outer Shield Trade Name       Type         Outer Shield Trade Name       Type         Outer Shield Trade Name       Type         Outer Shield Trade Name       Tape         Aluminum Foil-Polyester Tape       100.000	# Conductors AWG	Stranding Conductor Material				
Insulation Material: Insulation Trade Name Insulation Material Wall Thickness (mm) Flamarrest® LS PVC - Low Smoke Polyvinyl Chloride 0.254 Outer Shield Outer Shield Material: Outer Shield Trade Name Type Outer Shield Material Coverage (%) Beldfoil® Tape Aluminum Foil-Polyester Tape 100.000 Outer Shield Drain Wire AWG: AWG Stranding Drain Wire Conductor Material	12 18	7x26 BC - Bare Copper				
Insulation Material: Insulation Trade Name Insulation Material Wall Thickness (mm) Flamarrest® LS PVC - Low Smoke Polyvinyl Chloride 0.254 Outer Shield Outer Shield Material: Outer Shield Material: Outer Shield Trade Name Type Outer Shield Material Coverage (%) Beldfoil® Tape Aluminum Foil-Polyester Tape 100.000 Outer Shield Drain Wire AWG: AWG Stranding Drain Wire Conductor Material	Total Number of C	onductors:	12			
Flamarrest®       LS PVC - Low Smoke Polyvinyl Chloride       0.254         Outer Shield Material:       Outer Shield Material       Coverage (%)         Beldfoil®       Tape       Aluminum Foil-Polyester Tape       100.000         Outer Shield Drain Wire AWG:       AWG Stranding Drain Wire Conductor Material       Coverage (%)	Insulation Material:					
Outer Shield Material:       Outer Shield Material:       Coverage (%)         Beldfoil®       Tape       Aluminum Foil-Polyester Tape       100.000         Outer Shield Drain Wire AWG:       AWG Stranding Drain Wire Conductor Material       Vertical						
Outer Shield Material:       Outer Shield Trade Name Type Outer Shield Material       Coverage (%)         Beldfoil®       Tape       Aluminum Foil-Polyester Tape       100.000         Outer Shield Drain Wire AWG:       AWG Stranding Drain Wire Conductor Material       Coverage (%)	Flamarrest®	LS PVC - Low Smoke Polyvinyl C	Chloride 0.254			
Beldfoil®       Tape       Aluminum Foil-Polyester Tape       100.000         Outer Shield Drain Wire AWG:       AWG Stranding Drain Wire Conductor Material	Outer Shield Materia		Coverage (%)			
AWG Stranding Drain Wire Conductor Material						
24 (7x32) TC - Timed Copper						
	24 (/x32) IC					
	Outer Jacket Materi	al:				
Outer Jacket Material:	Outer Jacket Trade	Name Outer Jacket Material	Nom. Wall Thickness (mm)			
	Flamarrest®	LS PVC - Low Smoke Polyviny	yl Chloride 0.432			

Outer Jacket Ripcord:

Yes

**Overall Cable** 

#### **Overall Cabling Color Code Chart:**

Color		
Black		
Red		
White		
Green		
Brown		
Blue		
Orange		
Yellow		
Purple		
Gray		
Pink		
Tan		

# **Detailed Specifications & Technical Data**



## METRIC MEASUREMENT VERSION

## 6309FE Multi-Conductor - Commercial Applications

Overall Nominal Diameter:	7.925 mm
Mechanical Characteristics (Overall)	
Operating Temperature Range:	0°C To +75°C
UL Temperature Rating:	75°C
Bulk Cable Weight:	135.575 Kg/Km
Max. Recommended Pulling Tension:	1257.951 N
Min. Bend Radius/Minor Axis:	79.375 mm
Applicable Specifications and Agency C	ompliance (Overall)
Applicable Standards & Environmental Prog	grams
NEC/(UL) Specification:	CMP
NEC Articles:	800
CEC/C(UL) Specification:	CMP
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):	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
Suitability	
Suitability - Indoor:	Yes
Plenum/Non-Plenum	
Plenum (Y/N):	Yes
Plenum Number:	5309FE
Electrical Characteristics (Overall)	
Nom. Capacitance Conductor to Conductor:	

Capacitance (pF/m)

137.802

## Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/m)

249.356

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

21.3265

## Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km) 42.981

Max. Operating Voltage - UL:

Voltage

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### METRIC MEASUREMENT VERSION

### 6309FE Multi-Conductor - Commercial Applications

300 V RMS

#### Max. Recommended Current:

Current Description 10C Temperature Rise 3.5 Amps per conductor @ 25°C ambient

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
6309FE 8771000	1,000 FT	99.000 LB	NATURAL	С	12 #18 FLRST FS FLRST
6309FE 877500	500 FT	50.500 LB	NATURAL		12 #18 FLRST FS FLRST

#### Notes:

C = CRATE REEL PUT-UP.

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