

658AFJ Composite - Lock Power, Card Reader, Door Contract, REX Applications

For more Information
please call

1-800-Belden1



General Description:

Access Control Cable, Plenum-CMP, 3-22 AWG pairs, 4-18 AWG conductors, 4-22 AWG conductors, 2-22 AWG conductors, All conductors stranded bare copper with Flamarrest® insulation, Each cable has overall Beldfoil® shield and Flamarrest® jacket, Overall Flamarrest® jacket

Usage (Overall)

Suitable Applications: Access Control

Twisted Pair

Physical Characteristics

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (mm)
3	22	7x30	BC - Bare Copper	0.762

Insulation

Insulation Material:

Insulation Trade Name	Insulation Material	Dia. (mm)
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride	1.194

Twisted Pair Color Code Chart:

Number	Color	Description
1	Black and Red	Card Reader 1
2	Green and White	Card Reader 2
3	Orange and Brown	Card Reader 3

Individual Shield

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
24	(7x32)	TC - Tinned Copper

Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride

Outer Jacket Diameter:

Nom. Dia. (mm)
5.486

Outer Jacket Color Code Chart:

Number	Color	Description
1	Orange	Card Reader

Electrical Characteristics

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)

METRIC MEASUREMENT VERSION

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196.860

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m)
108.273

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
53.480

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C: 45.606 Ohm/km

Max. Recommended Current:

Description	Current
Card Reader	2

Multi Conductor

Physical Characteristics

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material	Dia. (mm)
2	22	7x30	BC - Bare Copper	0.762
4	22	7x30	BC - Bare Copper	0.762
4	18	7x26	BC - Bare Copper	1.194

Insulation

Insulation Material:

Insulation Trade Name	Insulation Material	Dia. (mm)	AWG
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride	1.194	22
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride	1.626	18

Insulation Color Code Chart:

Number	Color	Description
1	Black	Door Contact 1
2	Red	Door Contact 2
3	Black	Rex/Spare 1
4	Red	Rex/Spare 2
5	White	Rex/Spare 3
6	Green	Rex/Spare 4
7	Black	Lock/Power 1
8	Red	Lock/Power 2
9	White	Lock/Power 3
10	Green	Lock/Power 4

Individual Shield

Outer Shield

Outer Shield Material:

AWG	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)	Description
22	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100.000	Door Contact
22	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100.000	Rex/Spare
18	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100.000	Lock/Power

Outer Shield Drain Wire AWG:

Component	AWG	Stranding	Drain Wire Conductor Material
Door Contact	24	(7x32)	TC - Tinned Copper
Rex/Spare	24	(7x32)	TC - Tinned Copper
Lock/Power	24	(7x32)	TC - Tinned Copper

Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride

Outer Jacket Diameter:

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Component #	Nom. Dia. (mm)
Door Contact	3.251
Rex/Spare	3.734
Lock/Power	4.775

Outer Jacket Ripcord: Yes

Outer Jacket Color Code Chart:

Number	Color	Description
1	White	Door Contact
2	Blue	Rex/Spare
3	Gray	Lock/Power

Electrical Characteristics

Nom. Capacitance Conductor to Shield:

Description	Freq. (MHz)	Capacitance (pF/m)
Door Contact	1.000	324.819
Rex/Spare	1.000	193.579
Lock Power	1.000	249.356

Nom. Capacitance Conductor to Conductor:

Description	Freq. (MHz)	Capacitance (pF/m)
Door Contact	1.000	180.455
Rex/Spare	1.000	108.273
Lock Power	1.000	137.802

Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/km)
Door Contact	53.808
Rex/Spare	53.808
Lock Power	21.327

Nom. Inner Shield DC Resistance:

Description	DCR @ 20°C (Ohm/km)
Door Contact	50.199
Rex/Spare	50.199
Loxk Power	23.951

Max. Operating Voltage - UL:

Voltage
300 V RMS

Max. Recommended Current:

Description	Current
Door Contact	2.2 Amps
Rex/Spare	2.2 Amps
Lock Power	4 Amps

Physical Characteristics (Overall)

Conductor

Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name
Flamarrest®

Overall Cable

Overall Nominal Diameter: 11.760 mm

Mechanical Characteristics (Overall)

Operating Temperature Range: 0°C To +75°C

Bulk Cable Weight: 160.726 Kg/Km

Max. Recommended Pulling Tension: 889.640 N

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Min. Bend Radius/Minor Axis: 120.650 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMP

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): 05/09/2007

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 Plenum Flame Test (UL910)(FT6)

Suitability

Suitability - Indoor: Yes

Plenum/Non-Plenum

Plenum (Y/N): Yes

Non-Plenum Number: 558AFJ

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
658AFJ 0041000	1,000 EA	115.000 LB	YELLOW		3P22+2C22+4C22+4C18 IFS CMP

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