

8643 Multi-Conductor - Audio, Control and Instrumentation Cable



Description:

30 AWG stranded (7x38) tinned copper conductors, conductors cabled around textile strength member, polypropylene insulation, paper separator, tinned copper braid shield (95% shield coverage), PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material	Dia. (in.)
3	30	7x38	TC - Tinned Copper	.012

Insulation

Insulation Material:

Insulation Material	Wall Thickness (in.)	Dia. (in.)
PP - Polypropylene	.006	.024

Outer Shield

Outer Shield Material:

Type	Outer Shield Material	Coverage (%)
Braid	TC - Tinned Copper	95

Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	.014

Overall Cabling

Overall Cabling Fillers: Textile Strength Member

Overall Cabling Lay Length & Direction:

Length (in.)	Direction	Twists (ft.)
.375	Left Hand Lay	32

Overall Cabling Color Code Chart:

Number	Color
1	Black
2	Red
3	White

Overall Cabling Separator Material: Paper Tape

Overall Cabling Separator Thickness: 0.001 in.

Overall Nominal Diameter: 0.096 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +105°C

Non-UL Temperature Rating: 105°C

Bulk Cable Weight: 7.600 lbs/1000 ft.

Max. Recommended Pulling Tension: 22.500 lbs.

Min. Bend Radius (Install)/Minor Axis: 1 in.

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Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

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): 10/01/2005

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

Plenum/Non-Plenum

Plenum (Y/N): No

Electrical Characteristics (Overall)

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)

25

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)

43

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

98.5

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

11.1

Max. Operating Voltage - UL:

Voltage

200 V RMS

Max. Recommended Current:

Current

0.9 Amps per conductor @ 25°C

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
8643 060100	100 FT	1.100 LB	CHROME		3 #30 PP BRD PVC
8643 060250	250 FT	2.750 LB	CHROME		3 #30 PP BRD PVC

Overall Braid and Special Shielding

Audio, Control and Instrumentation Cables

Non-Plenum

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Cond.	Color Code	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD		Nominal Capacitance			
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m

30 AWG Stranded (7x38) TC Conductors • Conductors Cabled around Textile Strength Member • Paper Separator • TC Braid Shield (95% Coverage)

Polypropylene Insulation • Chrome PVC Jacket

200V RMS 105°C	8643	—	3	Black, Red, White	100 250	30.5 76.2	1.1 3.0	.5 1.4	.006 .15	.014 .36	.096 2.44	25 82	43 141				
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Conductors cabled around textile strength member.

22 AWG Stranded (7x30) Tinned Copper Conductors • Conductors Cabled • Tinned Copper Braid Shield (70% Coverage)

PVC Insulation • Chrome PVC Jacket

UL AWM Style 2095 (300V 80°C)	8735	NEC: CMG CEC: CMG FT4	3	Black, Red, White	500 U-1000 1000	152.4 U-304.8 304.8	14.0 27.0 27.0	6.4 12.3 12.3	.015 .38	.025 .64	.202 5.13	34 112	60 197				
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20 AWG Stranded (7x28) Tinned Copper Conductors • Tinned Copper Braid Shield (85% Coverage)

PVC Insulation • Chrome PVC Jacket

UL AWM Style 2464 (300V 80°C)	9260	NEC: CMG CEC: CMG FT4	6	See Chart 2 (Tech Info Section)	100	30.5	7.3	3.3	.016	.41	.032	.81	.305	7.75	26	85	50	164			
					500	152.4	35.5	16.1	1000	304.8	69.0	31.4									
	9261	NEC: CMG CEC: CMG FT4	12	See Chart 2R (Tech Info Section)	100	30.5	12.0	5.5	.016	.41	.040	1.02	.396	10.06	26	85	57	187			
					500	152.4	60.0	27.3	1000	304.8	119.0	54.1									



Combination Shielded/Unshielded • 22 AWG Stranded (7x30) TC Conductors • Conductors Cabled • TC Braid Shield (80% Coverage)†

PVC Insulation • Chrome PVC Jacket

UL AWM Style 2785 (300V 80°C)	8734	NEC: CM	3: 1 Shld 2 Unshld	Black, Red, White	U-1000 1000	U-304.8 304.8	23.0 21.0	10.4 9.6	.015 .38	.025 .64	.194 4.93	—	—	79	259				
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†Tinned copper braid shield over one conductor (80% coverage).

Overall Spiral Shield • 18 AWG Stranded (7x26) TC Conductors • Conductors Cabled • Tinned Copper Spiral Wrap (80% Coverage)

PVC Insulation • Chrome PVC Jacket

450V RMS 80°C VW-1	8791	—	3	Black, Red, White	500 U-1000 1000	152.4 U-304.8 304.8	23.0 44.0 46.0	10.4 20.0 20.9	.022 .56	.028 .71	.260 6.60	47	154	84	276				
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TC = Tinned Copper

*Capacitance between conductors.

**Nominal capacitance conductor to conductor and shield.