

# 3M™ ROUND, JACKETED, FLAT CABLE, HF759 SERIES

.050" 28 AWG STRANDED, MASS TERMINATED, HALOGEN FREE PO/PO



Ø .035±.005 [ .89 ]  
PO JACKET THICKNESS



- \* LOW SMOKE ZERO HALOGEN (LSZH) INSULATION. ADVANTAGES OF LSZH INSULATION ARE THE LOW SMOKE (IEC 61034-2-2005) AND LOW TOXICITY OF COMBUSTION GASES (NF X 70-100-2-2006), REDUCING THE RISK TO FIREFIGHTERS AND REDUCING THE SOOT AND CORROSION DAMAGE TO NEARBY EQUIPMENT.
- \* ROUND CONSTRUCTION PERMITS MORE EASY ROUTING.
- \* 28 AWG WIRE ON .050 INCH CENTERS PERMITS MASS TERMINATION TO BROAD LINE OF IDC CONNECTORS.
- \* CONTINUOUS SPLIT/BOND REPEAT ALLOWS FOR MASS TERMINATIONS OF IDC CONNECTORS.
- \* PRIMARY CABLE IS ZIPPABLE FOR BRANCHING OR DISCRETE TERMINATION.

- NOTES
- REGULATORY INFORMATION: VISIT 3M.com/regs OR CONTACT YOUR 3M REPRESENTATIVE TO FIND THE RoHS COMPLIANCE STATUS OF THE 3M PART YOU ARE INTERESTED IN.
  - IN THE EVENT OF CONFLICT BETWEEN THIS DATA AND THAT CONTAINED IN THE PRODUCT SPECIFICATION, THE PRODUCT SPECIFICATION TAKES PRECEDENT.
  - BLUE MARKING ON ONE EDGE OF PRIMARY CABLE DESIGNATES WIRE #1.
  - DIMENSION "B" PERTAINS TO BONDED AREA ONLY.

## ORDERING INFORMATION

HF759/XX XX XX

NUMBER OF CONDUCTORS (SEE TABLE 1)

BLANK = STANDARD  
SF = SPLICE FREE

BLANK = STANDARD  
SO = CONTINUOUSLY BONDED WIRE (NO SPLIT)

NOTE:  
AVAILABLE IN STANDARD 275FT ROLLS. CONTACT 3M FOR AVAILABILITY OF ADDITIONAL CONDUCTOR COUNTS AND/OR CUSTOM ROLL LENGTHS.

NUMBER OF CONDUCTORS	3M PART NUMBER	DIM. "A"	DIM. "B" SEE NOTE 4
9	HF759/09	0.26 [6.6]	0.40 [10.2]
10	HF759/10	0.26 [6.6]	0.45 [11.4]
14	HF759/14	0.27 [6.9]	0.65 [16.5]
15	HF759/15	0.27 [6.9]	0.70 [17.8]
16	HF759/16	0.27 [6.9]	0.75 [19.1]
20	HF759/20	0.30 [7.6]	0.95 [24.1]
24	HF759/24	0.33 [8.4]	1.15 [29.2]
25	HF759/25	0.33 [8.4]	1.20 [30.5]
26	HF759/26	0.33 [8.4]	1.25 [31.8]
30	HF759/30	0.37 [9.4]	1.45 [36.8]
34	HF759/34	0.37 [9.4]	1.65 [41.9]
36	HF759/36	0.39 [9.9]	1.75 [44.5]
37	HF759/37	0.39 [9.9]	1.80 [45.7]
40	HF759/40	0.39 [9.9]	1.95 [49.5]
50	HF759/50	0.44 [11.2]	2.45 [62.2]
60	HF759/60	0.47 [11.9]	2.95 [74.9]
64	HF759/64	0.50 [12.7]	3.15 [80.0]

## 2 PHYSICAL :

JACKET MATERIAL : HALOGEN FREE POLYOLEFIN (PO)  
COLOR : DARK GRAY  
PRIMARY MATERIAL : HALOGEN FREE POLYOLEFIN (PO)  
COLOR : DARK GRAY

MARKING :  
STANDARD : NONE  
CONDUCTORS : 28 AWG, 7 X 36 AWG [ 7 X Ø .127 ] TINNED STRANDED COPPER  
SHIELDING : POLYESTER FILM

## 2 ELECTRICAL :

VOLTAGE RATING : USA 150V CANADIAN 150V EU : <50V  
INSULATION RESISTANCE : (PRIMARY CABLE) >1 X 10<sup>10</sup>Ω/10ft. [ 3m ]

CHARACTERISTIC IMPEDANCE :	UNBALANCED 75Ω	BALANCED 136Ω
CAPACITANCE :	22.6 pF/ft [ 74.3 pF/m ]	12.4 pF/ft [ 40.6 pF/m ]
INDUCTANCE :	.13μH/ft [ .43μH/m ]	.23μH/ft [ .75μH/m ]
PROPAGATION DELAY :	1.69 ns/ft [ 5.54 ns/m ]	1.69 ns/ft [ 5.54 ns/m ]
VELOCITY OF PROPAGATION :	60%	60%

NOTE : UNBALANCED IS MEASURED BETWEEN GROUND-SIGNAL-GROUND CONDUCTORS.  
BALANCED IS MEASURED BETWEEN CONDUCTORS WITHIN A PAIR.  
"MEASURED VALUES ARE TYPICAL"

## 2 ENVIRONMENTAL :

TEMPERATURE RATING : -40°C TO +105°C (EIA-364-32G, METHOD A, TEST CONDITION 2)  
-10°C TO +75°C (UL TEMPERATURE RATING)

FLAMMABILITY RATING : INTERNAL : HORIZONTAL FLAME PER UL758  
EXTERNAL : CABLE FLAME (VERTICAL) PER UL758

HALOGEN FREE IS DEFINED AS BOTH 1) NO HALOGEN COMPOUNDS THAT ARE INTENTIONALLY ADDED TO THE PRODUCT OR USED IN THE MANUFACTURING PROCESS FOR THE PRODUCT AND 2) ANY IMPURITIES PRESENT ARE LESS THAN 900ppm BROMINE, LESS THAN 900ppm CHLORINE AND/OR LESS THAN 1500ppm TOTAL BROMINE AND CHLORINE. THE LATTER ARE THE LEVELS SET FORTH IN CERTAIN INDUSTRY STANDARDS FOR PRINTED CIRCUIT BOARDS, SUCH AS THE INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC) 61249-2-21 STANDARDS. THIS INFORMATION REPRESENTS 3M'S KNOWLEDGE AND BELIEF WHICH MAY BE BASED IN WHOLE OR IN PART ON INFORMATION PROVIDED BY 3RD PARTY SUPPLIERS TO 3M.

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UL FILE NO : E42769  
STYLE NO : 22170

INCH [ MM ]		
TOLERANCE - UNLESS NOTED		
.X	.XX	.XXX
INCH ±.1 ±.05 ±.010		
[ ] = DIM. FOR REFERENCE ONLY		

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
				JUN 14, 2018		
DIVISION		DIVISION CODE		DATE		
		EMSD		JUN 14, 2018		
DO NOT SCALE DRAWING	SCALE	TOLERANCES EXCEPT AS NOTED		DATE		
				JUN 14, 2018		
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5 - 2009	MILLIMETERS		DATE		
				JUN 14, 2018		
MAX SURFACE ROUGHNESS	DEF SURFACES	INCHES		DATE		
				JUN 14, 2018		
TITLE				CAGE NUMBER		
RD, JACKETED, 28 AWG, FLAT CABLE, HF759, HALOGEN FREE				D 78-5100-2336-5		
MODEL				REV.		
HF759				E		

78-5100-2336-5  
DRAWING NUMBER  
Time 8/1/2018 11:51:00 AM  
UTC Offset (hrs) 6  
Imaged: Central Standard

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3M™ ROUND, JACKETED, FLAT CABLE, HF759 SERIES  
 .050" 28 AWG STRANDED, MASS TERMINATED, HALOGEN FREE PO/PO

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THIRD ANGLE PROJECTION		INTERPRET PER ASME Y14.5 - 2009		MILLIMETERS		TITLE RD, JACKETED, 28 AWG, FLAT CABLE, HF759, HALOGEN FREE			
MAX SURFACE ROUGHNESS		MARKED SURFACES		INCHES		CAGE NUMBER D 78-5100-2336-5			
<input type="checkbox"/> UNMARKED SURFACES <input checked="" type="checkbox"/> MARKED ONLY		<input type="checkbox"/> UNMARKED SURFACES <input checked="" type="checkbox"/> MARKED ONLY		MODEL HF759		REV. E SHEET 2 OF 2			

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