

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

HF659/XX XX XX

- BLANK = STANDARD
SF = SPLICE FREE

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

2 PHYSICAL :

MARKING: STANDARD: NONE
CONDUCTORS: 28 AWG, 7 X 36 AWG [7 X Ø.127] TINNED STRANDED COPPER
SHIELDING: .001 [.03] THICK ALUMINUM/POLYESTER FILM FOIL AND 90%
COVERAGE TINNED COPPER BRAID.

2 ELECTRICAL :

	UNBALANCED	BALANCED
CHARACTERISTIC IMPEDANCE:	54Ω	107Ω
CAPACITANCE:	28.7 pF/ft [84.2 pF/m]	14.4 pF/ft [47.2 pF/m]
INDUCTANCE:	.08μH/ft [.27μH/m]	.16μH/ft [.52μH/m]
PROPAGATION DELAY:	1.55 ns/ft [4.95 ns/m]	1.54 ns/ft [4.95 ns/m]
VELOCITY OF PROPAGATION:	66%	66%

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

2 ENVIRONMENTAL :

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

- o INSULATION.
- o ARE THE LOW
- o LOW TOXICITY
- o (-100-2-2006),
- o HTERS AND
- o ION DAMAGE TO
- o
- o EASY ROUTING.
- o HTERS PERMITS MASS
- o IDC CONNECTORS.
- o
- o ALLOWS FOR MASS
- o RS.
- o AVERAGE SHIELDING.
- o
- o R BRANCHING OR

1.	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.
2	IN THE EVENT OF CONFLICT BETWEEN THIS DATA AND THAT CONTAINED IN THE PRODUCT SPECIFICATION, THE PRODUCT SPECIFICATION TAKES PRECEDENT.

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INFORMATION CALL 800-225-5373

UL FILE NO: E42769,
UL STYLE NO: 22170

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

3M™ ROUND, SHIELDED/JACKETED, FLAT CABLE, HF659 SERIES

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

Regulatory: For regulatory information about this product, visit 3M.com/regs or contact your 3M representative.

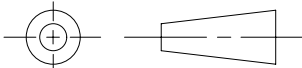
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3M Electronics Materials Solutions Division
6801 River Place Blvd.
Austin, TX 78726-9000
1-800-225-5373
www.3M.com/interconnect

E		80157		AUG 01,2018				JNC		BM					
D		79295		MAY 29,2018				JNC		BM					
				REVISED AND REDRAWN											
DESIGN REFERENCE		NEXT ASSEMBLY		REV		ECO		ISSUE DATE AND DESCRIPTION				DRFT		CHKD	
ADDRESS CODES				DRFT CASTIGLIONE		DATE MAY 29,2018		MFG		DATE					
				CHKD		DATE		APPROV. B. MIZE		DATE MAY 29,2018					
DIVISION				DIVISION CODE EMSD		© 3M COPYRIGHT 2018									
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 THIRD ANGLE PROJECTION				INCHES .00 ± .000 ± .0000 ±		TITLE ROUND, SHIELDED / JACKETED, FLAT, CABLE, .050", HF659									
INTERPRET PER ASME Y14.5 - 2009				MILLIMETERS 0 ± .0 ± .000 ±		CASE NUMBER D78-5100-2335-7								REV. E	
MAX. SURFACE ROUGHNESS R. SURFACES ☒ MARKED ONLY				ANGLES 0 ± .000 ±		MODEL HF659		DET. LISTS ☒ YES ☒ NO		SHT 2 OF 2					