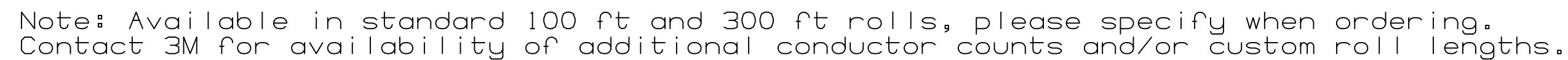


.050", 28 AWG STRANDED, HIGH FLEX LIFE, HALOGEN FREE PO



X HF319/XX XX

BLANK = STANDARD
SF = SPLICE FREE

NUMBER OF CONDUCTORS	3M PART NUMBER	DIMENSION 'A' ± AS NOTED	DIMENSION 'B' (SEE NOTE 2)
6	HF319/06	0.300"±0.010"	0.250"±0.007"
9	HF319/09	0.450"±0.010"	0.400"±0.007"
10	HF319/10	0.500"±0.010"	0.450"±0.007"
14	HF319/14	0.700"±0.010"	0.650"±0.007"
15	HF319/15	0.750"±0.010"	0.700"±0.007"
16	HF319/16	0.800"±0.015"	0.750"±0.011"
20	HF319/20	1.000"±0.015"	0.950"±0.011"
24	HF319/24	1.200"±0.015"	1.150"±0.011"
25	HF319/25	1.250"±0.015"	1.200"±0.011"
26	HF319/26	1.300"±0.015"	1.250"±0.011"
30	HF319/30	1.500"±0.020"	1.450"±0.015"
34	HF319/34	1.700"±0.020"	1.650"±0.015"
36	HF319/36	1.800"±0.020"	1.750"±0.015"
37	HF319/37	1.850"±0.020"	1.800"±0.015"
40	HF319/40	2.000"±0.020"	1.950"±0.015"
50	HF319/50	2.500"±0.020"	2.450"±0.015"
60	HF319/60	3.000"±0.020"	2.950"±0.015"
64	HF319/64	3.200"±0.020"	3.150"±0.015"

VOLTAGE RATING	USA: 300V, CANADA: 150V, EU: 50V	
INSULATION RESISTANCE	PRIMARY CABLE >1 X 10 ¹⁰ Ω /10 FT [3 m]	
	UNBALANCED	BALANCED
CHARACTERISTIC IMPEDANCE	100 Ω	169 Ω
CAPACITANCE	15.0 pF/ft [49.2 pF/m]	8.4 pF/ft [27.7 pF/m]
INDUCTANCE	0.15 μ H/ft [0.49 μ H/m]	0.24 μ H/ft [0.79 μ H/m]
PROPAGATION DELAY	1.48 ns/ft [4.86 ns/m]	1.42 ns/ft [4.66 ns/m]
VELOCITY OF PROPAGATION	68%	72%

"PRINTING ILLUSTRATION"

CAU[®] US

NOTES

1. MATERIAL:
A) PRIMARY INSULATION: HALOGEN FREE POLYOLEFIN (PO).
B) CONDUCTORS: 28 AWG, 19 X 40 AWG SILVER PLATED STRANDED COPPER ALLOY
2. 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.

UL FILE NO: E42769.
UL STYLE NO: 21682.
3. MARKINGS:
STANDARD: NONE
CANADIAN: SEE "PRINTING ILLUSTRATION" VIEW
PRIMARY CABLE: BLUE MARK ON EDGES
DESIGNATES WIRE NUMBER 1.
4. ENVIRONMENTAL:
TEMP RATING: -40°C TO +105°C (EIA-364-32G, METHOD A, TEST CONDITION 2).

-10°C TO +105°C (UL TEMPERATURE RATING)
FLAMABILITY RATING: HORIZONTAL.
5. 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.
2) ANY IMPURITIES PRESENT ARE LESS THAN 900 ppm BROMINE, LESS THAN 900 ppm CHLORINE AND/OR LESS THAN 1500 ppm 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 STANDARD. 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.

ROLLING FLEX CYCLES PER EIA-364-41	
RADIUS	MINIMUM CYCLES
1/2"	18 MILLION
3/4"	113 MILLION

ALL CYCLES WERE PERFORMED AT AMBIENT CONDITIONS.

C	80477	SEP 06, 2018	JNC	BPM
		REVISED DATA AND NOTES		
B	40826	MAY 22, 2012	JNC	SN
		REVISED AND REDRAWN		
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DRFT	CASTIGLIONE	DATE MAY 15, 2012	MRG	DATE
CHKD		DATE	SERIAL S. NEU	DATE MAY 15, 2012

DESIGN REFERENCE		NEXT ASSEMBLY		REV.		ECO		ISSUE DATE AND DESCRIPTION		DRFT		CHKD	
AREA CODES				REV.		CASTIGLIONE		DATE		MFG		DATE	
				CHKD				DATE		S. NEU		DATE	
												DATE	
DIVISION		DIVISION CODE		EMSD		3M Center		© 3M COPYRIGHT 2018					
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THIRD ANGLE PROJECTION		INCHES		TITLE				HIGH FLEX LIFE, FLAT CABLE, 28 AWG STRANDED, HF319					
INTERPRET PER ASME Y14.5 - 2009		MILLIMETERS		CAGE NUMBER		SIZE		DRAWING NO.		REV.			
MAX SURFACE ROUGHNESS		.00 .0000		D		78-5100-2342-3		C					
MIN SURFACES		.00 .0000		MODEL		HF319		DET.		SHT 1 OF 2			
MARKED ONLY		ANGLES						YES NO					

3M™ HIGH FLEX LIFE FLAT CABLE, HF319 SERIES

.050", 28 AWG STRANDED, HIGH FLEX LIFE, HALOGEN FREE PO

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

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ACCESS CODES						

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[HF319/20SF \(100'\)](#) [HF319/20 \(300'\)](#) [HF319/30 \(100'\)](#) [HF319/40 \(100'\)](#) [HF319/16 \(300'\)](#) [HF319/34 \(300'\)](#) [HF319/06 \(300'\)](#) [HF319/24 \(100'\)](#) [HF319/06SF \(300'\)](#) [HF319/16SF \(300'\)](#)