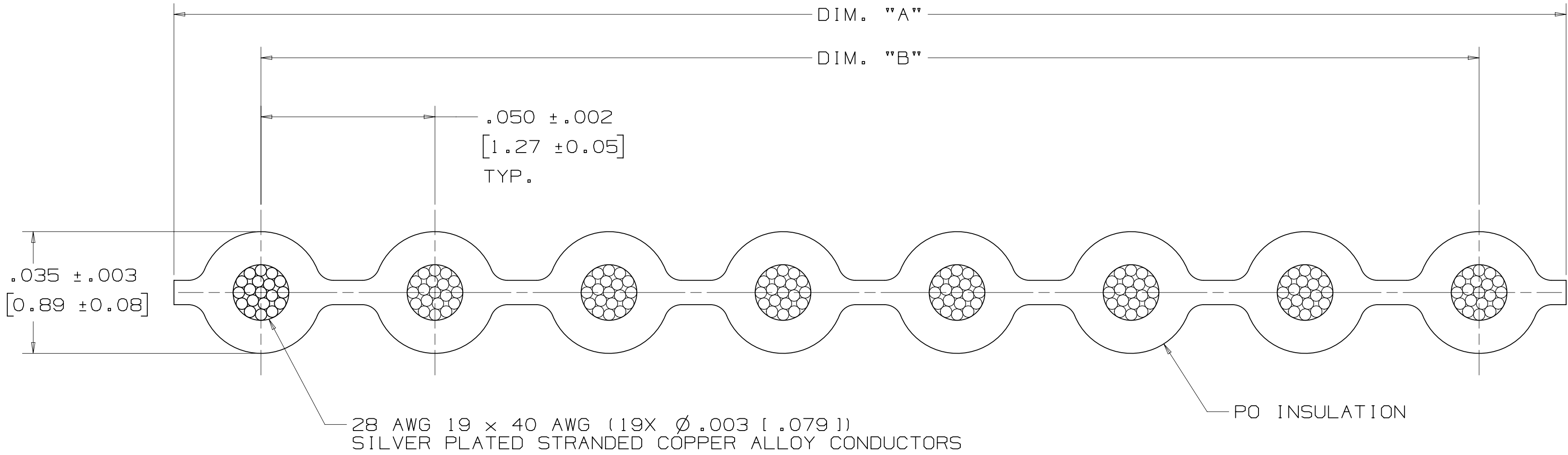


3M™ HIGH FLEX LIFE FLAT CABLE, HF319 SERIES
.050", 28 AWG STRANDED, HIGH FLEX LIFE, HALOGEN FREE PO



Note: Available in standard 100 ft and 300 ft rolls, please specify when ordering.
Contact 3M for availability of additional conductor counts and/or custom roll lengths.

ORDERING INFORMATION

X HF319/XX XX

BLANK = STANDARD
C = CANADIAN

NUMBER OF CONDUCTORS
(SEE TABLE 1)

BLANK = STANDARD
SF = SPLICE FREE

TABLE 1

DIMENSION CHART

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"

TABLE 2
ELECTRICAL CHARACTERISTICS

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 μH/ft [0.49 μH/m]	0.24 μH/ft [0.79 μH/m]
PROPAGATION DELAY	1.48 ns/ft [4.86 ns/m]	1.42 ns/ft [4.66 ns/m]
VELOCITY OF PROPAGATION	68%	72%

NOTE: UNBALANCED IS MEASURED BETWEEN GROUND-SIGNAL-GROUND CONDUCTORS.
BALANCED IS MEASURED WITHIN A PAIR.

"PRINTING ILLUSTRATION"



AWM 21682 105°C 300V HOR



AWM 1A 105°C 150V FT2 EU<50V



3M ELECTRONICS MATERIALS SOLUTIONS DIVISION
INTERCONNECT SOLUTIONS
<http://www.3Mconnectors.com>

3M IS A TRADEMARK OF 3M COMPANY.
FOR TECHNICAL, SALES OR ORDERING
INFORMATION CALL 800-225-5373

NOTES

- MATERIAL:
A) PRIMARY INSULATION: HALOGEN FREE POLYOLEFIN (PO).
B) CONDUCTORS: 28 AWG, 19 X 40 AWG SILVER PLATED STRANDED COPPER ALLOY
 - 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.
 - MARKINGS:
STANDARD: NONE
CANADIAN: SEE "PRINTING ILLUSTRATION" VIEW
PRIMARY CABLE: BLUE MARK ON EDGES
DESIGNATES WIRE NUMBER 1.
 - 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		

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
XXXX	XXXX	DR	CASTIGLIONE	MAY 15, 2012	MFG	DATE
DIVISION	DIVISION CODE	CHKD	DATE	APPR	DATE	DATE
	EMSD			S. NEU	MAY 15, 2012	
DO NOT SCALE DRAWING	SCALE	TOLERANCES EXCEPT AS NOTED				
		INCHES				
		.0 ± .1				
		.00 ± .05				
		.000 ± .010				
		.0000 ±				
THIRD ANGLE PROJECTION		MILLIMETERS				
		0 ± .5				
		.0 ± 1.3				
		.00 ± .25				
		.000 ±				
MAX SURFACE ROUGHNESS		ANGLES				
✓	MARKED ONLY					
		MODEL				
		HF319				
		LISTS				
		YES				
		NO				
		SHT 1 OF 2				

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TITLE
HIGH FLEX LIFE, FLAT CABLE, 28 AWG STRANDED, HF319

CAGE NUMBER
D 78-5100-2342-3

DRAWING NO.
78-5100-2342-3

REV.
C

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.

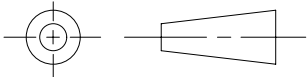
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www.3M.com/interconnect

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ACCORD CODES		DRAFT CASTIGLIONE	MAY 15,2012	MFG DATE
DIVISION		CHKD DATE	APPROV S. NEU	DATE MAY 15,2012
DIVISION CODE		© 3M COPYRIGHT 2018		
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DO NOT SCALE DRAWING		TOLERANCES EXCEPT AS NOTED INCHES .00 ± .01 .00 ± .05 .000 ± .010 .0000 ±		
 THIRD ANGLE PROJECTION		MILLIMETERS 0 ± 2.5 0 ± 1.3 0.00 ± .25 0.00 ±		
INTERPRET PER ASME Y14.5 - 2009 MAX SURFACE ROUGHNESS MIN SURFACES ✓ ☐ MARKED ONLY		TITLE HIGH FLEX LIFE, FLAT CABLE, 28 AWG STRANDED, HF 319		
CAGE NUMBER		SIZE	DRAWING NO.	REV.
D		78-5100-2342-3	C	
MODEL		DET. LISTS		YES ☒ NO
HF319		SHT 2 OF 2		



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Электрон
Связь**

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