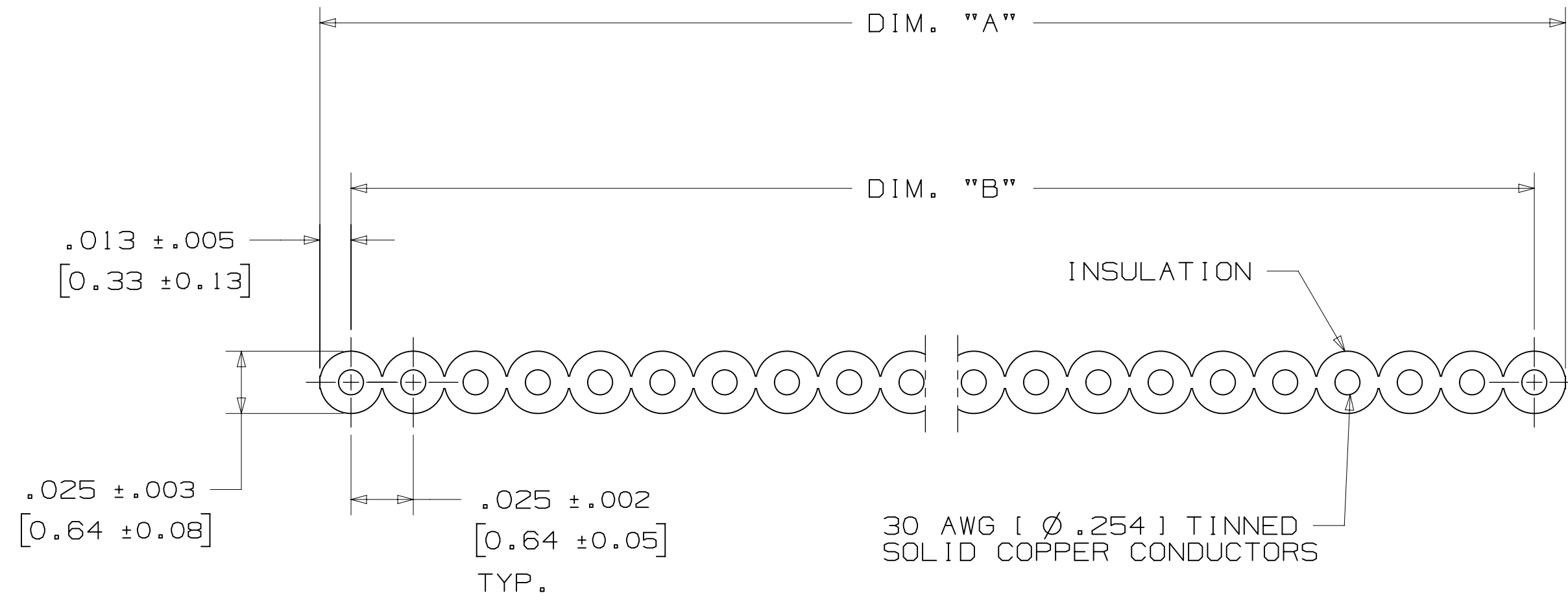


3M™ ROUND CONDUCTOR FLAT LSHF CABLE, HF447 SERIES

.025" 30 AWG SOLID



NUMBER OF CONDUCTORS	3M PART NUMBER	DIM. "A"	DIM. "B"
10	HF447/10	.250±.006 [6.35]	.225±.004 [5.72]
12	HF447/12	.300±.006 [7.62]	.275±.004 [6.99]
14	HF447/14	.350±.006 [8.89]	.325±.004 [8.26]
16	HF447/16	.400±.006 [10.16]	.375±.004 [9.53]
20	HF447/20	.500±.006 [12.70]	.475±.004 [12.07]
26	HF447/26	.650±.006 [16.51]	.625±.004 [15.88]
30	HF447/30	.750±.006 [19.05]	.725±.004 [18.42]
34	HF447/34	.850±.009 [21.59]	.825±.006 [20.96]
36	HF447/36	.900±.009 [22.86]	.875±.006 [22.23]
40	HF447/40	1.000±.009 [25.40]	.975±.006 [24.77]
50	HF447/50	1.250±.009 [31.75]	1.225±.006 [31.12]
60	HF447/60	1.500±.012 [38.10]	1.475±.009 [37.47]
68	HF447/68	1.700±.012 [43.18]	1.675±.009 [42.55]
80	HF447/80	2.000±.015 [50.80]	1.975±.011 [50.17]
100	HF447/100	2.500±.015 [63.50]	2.475±.012 [62.87]

ASSESSMENT HALOGENS (CHLORINE, BROMINE & FLUORINE)	IEC62821-1, 62821-2 AND 60684-2
DETERMINATION OF THE HALOGEN ACID GAS CONTENT	IEC 60754-1:2011, BS EN60754-1:2014
DETERMINATION OF ACIDITY (BY pH MEASUREMENT) AND CONDUCTIVITY	IEC 60754-2

UL LOW SMOKE HALOGEN FREE (LSHF) WIRE AND CABLE MARK COVERED UNDER IEC 62821-1,2,3 SERIES-UL 2885 HARMONIZED TO EU, INTERNATIONAL STANDARDS.

- 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.

UL FILE: E42769
STYLE: 22088
 - IN THE EVENT OF CONFLICT BETWEEN THIS DATA AND THAT CONTAINED IN THE PRODUCT SPECIFICATION, THE PRODUCT SPECIFICATION TAKES PRECEDENT.
 - UL HAS TESTED THE INSULATION MATERIAL UNDER UL2885 AND DETERMINED THEM TO BE HALOGEN FREE. THE UL REFERENCE FILE NUMBER IS E118773. PLEASE SEE TABLE 2 FOR THE EQUIVALENT IEC TEST STANDARDS.
 - UL HAS TESTED THE COMPLETE CABLE UNDER IEC 61034-2 FOR LOW SMOKE CHARACTERISTICS. THE UL REFERENCE FILE NUMBER IS E42769. THE SMOKE TEST OF IEC 61034-2.

ORDERING INFORMATION

HF447/XX-XX

NUMBER OF CONDUCTORS (SEE TABLE 1)

BLANK = STANDARD
SF = SPLICE FREE

NOTE: AVAILABLE IN STANDARD LENGTHS OF 100 ft AND 300 ft PER ROLL, PLEASE SPECIFY WHEN ORDERING. CONTACT 3M FOR AVAILABILITY OF ADDITIONAL CONDUCTOR COUNTS AND/OR CUSTOM ROLL LENGTHS.

2 PHYSICAL :

INSULATION: LSHF EVA/PO
MATERIAL: LSHF EVA/PO
COLOR: DARK GRAY
MARKING: NONE
STANDARD: SEE "PRINTING ILLUSTRATION" VIEW
CANADIAN: SEE "PRINTING ILLUSTRATION" VIEW
PRIMARY CABLE: BLUE MARKING ON ONE EDGE OF CABLE DESIGNATES WIRE NUMBER 1.

CONDUCTORS: 30 AWG (∅ .254) TINNED SOLID COPPER

2 ELECTRICAL :

VOLTAGE RATING: USA 150V CANADIAN 150V EU: <50V
INSULATION RESISTANCE: (PRIMARY CABLE) >1 x 10⁹Ω/10ft. [3m]

CHARACTERISTIC IMPEDANCE:	UNBALANCED 80Ω	BALANCED 134Ω
CAPACITANCE:	19.68 pF/ft [64.6 pF/m]	11.2 pF/ft [36.5 pF/m]
INDUCTANCE:	.13μH/ft [.43μH/m]	.2μH/ft [.66μH/m]
PROPAGATION DELAY:	1.57 ns/ft [5.15 ns/m]	1.49 ns/ft [4.89 ns/m]
VELOCITY OF PROPAGATION:	65%	65%

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

2 ENVIRONMENTAL :

TEMPERATURE RATING: -40°C TO 90°C
FLAMMABILITY RATING: UL: HORIZONTAL

CANADIAN OPTION
"PRINTING ILLUSTRATION"

RU AWM 22088 90C 150V LSHF 3M NU
RU AWM 1A 90C 150V FT2 EU <50V

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

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INFORMATION CALL 800-225-5373

INCH [MM]		
[INCH]	[INCH]	[INCH]
±.1	±.01	±.005
[] = DIM. FOR REFERENCE ONLY		

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
				MAR 28, 2017 REDRAWN TO NEW FORMAT WITH DATA CHANGES	JNC	WL
DIVISION	DIVISION CODE	DRW	DATE	MFG	DATE	
	EMSD	CASTIGLIONE	FEB 21, 2017			
DO NOT SCALE DRAWING	TOLERANCES EXCEPT AS NOTED	DRW	DATE	APPV	DATE	
		R. YANG	FEB 21, 2017	R. EDWARDS	FEB 21, 2017	
THIRD ANGLE PROJECTION	INCHES					
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MAX SURFACE ROUGHNESS	INTERPRET PER ASME Y14.5 - 2009	TITLE ROUND CONDUCTOR FLAT LSHF CABLE, HF447 SERIES				
		CAGE NUMBER	SIZE	DRAWING NO.	REV.	
		D		78-5100-2343-1	C	
		MODEL		HF447		
				DET	YES	NO
				SHT	1	OF 2

78-5100-2343-1
DRAWING NUMBER
1:15B PM UTC-05:00
4/12/2017

3M™ ROUND CONDUCTOR FLAT LSHF CABLE, HF447 SERIES

.025" 30 AWG SOLID


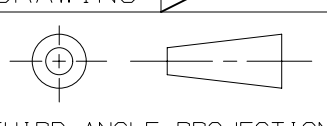
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Unless otherwise noted, references to industry specifications are intended to indicate substantial compliance to the material elements of the specification. Such references should not be construed as a guarantee of compliance to all requirements in a given specification.

DESIGN REFERENCE		NEXT ASSEMBLY		REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD
C 72311		MAR 28, 2017				REDRAWN TO NEW FORMAT WITH DATA CHANGES		JNC	WL
DRAWING CODES		DIP		DATE		MFG		DATE	
		CASTIGLIONE		FEB 21, 2017					
DIVISION		DIVISION CODE		DATE		DATE		DATE	
		EMSD		FEB 21, 2017		R. EDWARDS		FEB 21, 2017	
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THIRD ANGLE PROJECTION				INCHES		MILLIMETERS		TITLE	
INTERPRET PER ASME Y14.5 - 2009		<input type="checkbox"/> MARKED ONLY		.00 ±		0 ±		ROUND CONDUCTOR FLAT LSHF CABLE, HF447 SERIES	
MAX SURFACE ROUGHNESS		<input type="checkbox"/> SURFACES		.000 ±		.000 ±		CAGE NUMBER	
				.000 ±		.000 ±		D 78-5100-2343-1	
				.000 ±		.000 ±		DRAWING NO.	
				.000 ±		.000 ±		HF447	
				.000 ±		.000 ±		REV.	
				.000 ±		.000 ±		C	
				.000 ±		.000 ±		MODEL	
				.000 ±		.000 ±		HF447	
				.000 ±		.000 ±		DET	
				.000 ±		.000 ±		YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
				.000 ±		.000 ±		SHT 2 OF 2	

78-5100-2343-1 DRAWING NUMBER
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4/12/2017