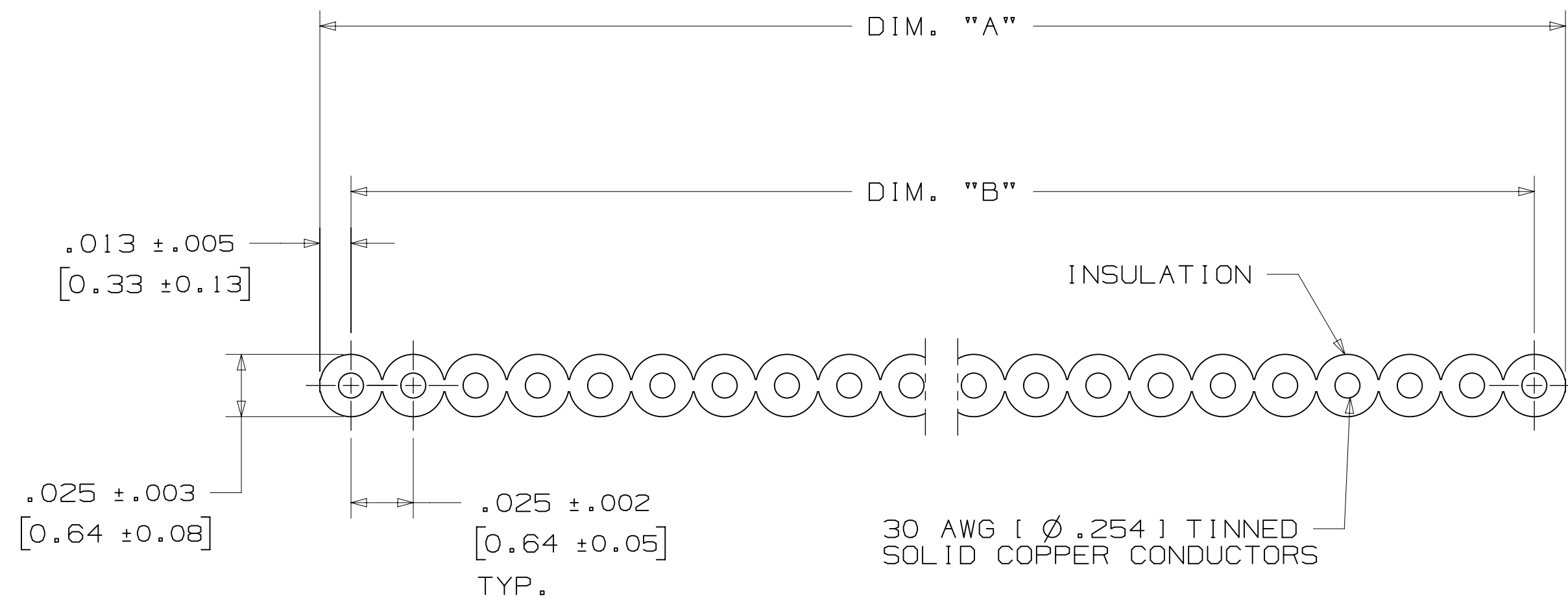


# 3M™ ROUND CONDUCTOR FLAT LSHF CABLE, HF447 SERIES

.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 (Ø .254) TINNED SOLID COPPER

## 2 ELECTRICAL :

VOLTAGE RATING: USA 150V CANADIAN 150V EU: <50V  
INSULATION RESISTANCE: (PRIMARY CABLE) >1 x 10<sup>9</sup>Ω/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"



AWM 22088 90C 150V LSHF 3M NU



AWM 1A 90C 150V FT2 EU <50V

INCH [ MM ]		
TOLERANCE - UNLESS NOTED		
[ INCH ]	±.1	±.01
[ ]	= DIM. FOR REFERENCE ONLY	

REV. ECO MAR 28, 2017 JNC WL  
REDRAWN TO NEW FORMAT WITH DATA CHANGES

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
				FEB 21, 2017 MFG		
				FEB 21, 2017 R. EDWARDS		

DO NOT SCALE DRAWING  
 THIRD ANGLE PROJECTION  
 MAX SURFACE ROUGHNESS  
 INTERPRET PER ASME Y14.5 - 2009  
 MARKED ONLY

TOLERANCES EXCEPT AS NOTED  
 INCHES: .00 ±, .000 ±, .0000 ±  
 MILLIMETERS: 0 ±, .00 ±, .000 ±

CAGE NUMBER: D78-5100-2343-1  
 MODEL: HF447  
 SHEET: 1 OF 2

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

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FOR TECHNICAL, SALES OR ORDERING  
INFORMATION CALL 800-225-5373

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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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	
DO NOT SCALE DRAWING		SCALE		TOLERANCES EXCEPT AS NOTED		 3M Center St. Paul, MN 55144		© 3M COPYRIGHT 2017 This document and the information it contains are 3M property and may not be reproduced or further distributed without 3M permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.	
THIRD ANGLE PROJECTION				INCHES		MILLIMETERS		TITLE	
INTERPRET PER ASME Y14.5 - 2009		.00 ± .000 ± .0000 ±		.00 ± .000 ± .0000 ±		0 ± .00 ± .000 ±		ROUND CONDUCTOR FLAT LSHF CABLE, HF447 SERIES	
MAX SURFACE ROUGHNESS		<input type="checkbox"/> MARKED ONLY		.00 ± .000 ± .000 ±		.00 ± .000 ± .000 ±		CAGE NUMBER <b>D</b> 78-5100-2343-1	
				MODEL <b>HF447</b>		DET <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		SHT 2 OF 2	

78-5100-2343-1  
 DRAWING NUMBER  
 1:58 PM UTC-05:00  
 4/12/2017