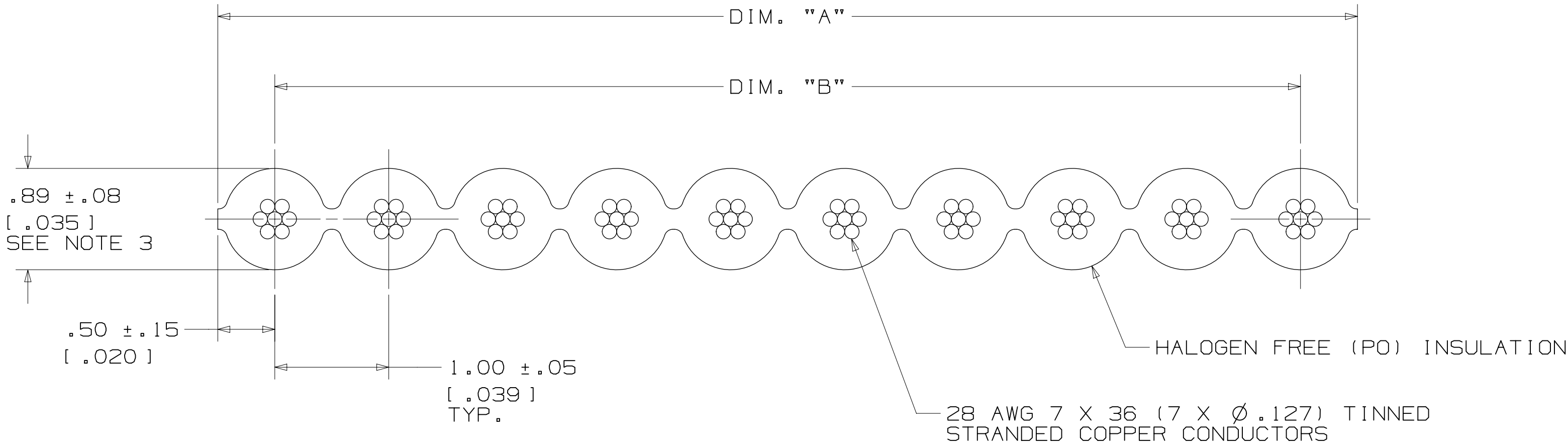


3M™ ROUND CONDUCTOR FLAT CABLE, HF625 SERIES  
1MM, 28 AWG STRANDED, HALOGEN FREE PO



- \* LOW SMOKE ZERO HALOGEN (LSZH). INSULATION ADVANTAGES OF LSZH INSULATION ARE THE LOW SMOKE (IEC 61034-2-2005) AND LOW TOXICITY OF COMBUSTION GASES (NF X 70-100-2:2006), REDUCING THE RISK TO FIREFIGHTERS AND REDUCING THE SOOT AND CORROSION DAMAGE TO NEARBY EQUIPMENT.
- \* 28 AWG STRANDED CONDUCTORS ON 1MM PITCH PERMITS MASS TERMINATIONS TO A BROAD LINE OF METRIC IDC CONNECTORS.
- \* ZIPPABLE FOR BRANCHING OR DISCRETE TERMINATIONS.

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.
3. BLUE MARKING ON ONE EDGE OF PRIMARY CABLE DESIGNATES WIRE #1.

| TABLE 1              |                |                     |                     |
|----------------------|----------------|---------------------|---------------------|
| NUMBER OF CONDUCTORS | 3M PART NUMBER | DIMENSION A         | DIMENSION B         |
| 06                   | HF625/06       | 6.00±.20 [ .236 ]   | 5.00±.18 [ .197 ]   |
| 08                   | HF625/08       | 8.00±.20 [ .315 ]   | 7.00±.18 [ .276 ]   |
| 10                   | HF625/10       | 10.00±.20 [ .394 ]  | 9.00±.18 [ .354 ]   |
| 12                   | HF625/12       | 12.00±.20 [ .472 ]  | 11.00±.18 [ .433 ]  |
| 14                   | HF625/14       | 14.00±.20 [ .551 ]  | 13.00±.18 [ .512 ]  |
| 16                   | HF625/16       | 16.00±.22 [ .630 ]  | 15.00±.20 [ .591 ]  |
| 18                   | HF625/18       | 18.00±.22 [ .709 ]  | 17.00±.20 [ .669 ]  |
| 20                   | HF625/20       | 20.00±.22 [ .787 ]  | 19.00±.20 [ .748 ]  |
| 22                   | HF625/22       | 22.00±.22 [ .866 ]  | 21.00±.20 [ .827 ]  |
| 24                   | HF625/24       | 24.00±.22 [ .945 ]  | 23.00±.20 [ .906 ]  |
| 26                   | HF625/26       | 26.00±.22 [ 1.024 ] | 25.00±.20 [ .984 ]  |
| 28                   | HF625/28       | 28.00±.22 [ 1.102 ] | 27.00±.20 [ 1.063 ] |
| 30                   | HF625/30       | 30.00±.25 [ 1.181 ] | 29.00±.23 [ 1.142 ] |
| 32                   | HF625/32       | 32.00±.25 [ 1.260 ] | 31.00±.23 [ 1.220 ] |
| 34                   | HF625/34       | 34.00±.25 [ 1.339 ] | 33.00±.23 [ 1.299 ] |
| 36                   | HF625/36       | 36.00±.25 [ 1.417 ] | 35.00±.23 [ 1.378 ] |
| 38                   | HF625/38       | 38.00±.25 [ 1.496 ] | 37.00±.23 [ 1.457 ] |
| 40                   | HF625/40       | 40.00±.25 [ 1.575 ] | 39.00±.23 [ 1.535 ] |
| 42                   | HF625/42       | 42.00±.25 [ 1.654 ] | 41.00±.23 [ 1.614 ] |
| 44                   | HF625/44       | 44.00±.25 [ 1.732 ] | 43.00±.23 [ 1.693 ] |
| 46                   | HF625/46       | 46.00±.25 [ 1.811 ] | 45.00±.23 [ 1.772 ] |
| 48                   | HF625/48       | 48.00±.25 [ 1.890 ] | 47.00±.23 [ 1.850 ] |
| 50                   | HF625/50       | 50.00±.25 [ 1.969 ] | 49.00±.23 [ 1.929 ] |

2 PHYSICAL :

INSULATION MATERIAL: HALOGEN FREE POLYOLEFIN (PO)  
COLOR: DARK GRAY

MARKING: NONE  
STANDARD: NONE  
CONDUCTORS: 28 AWG, 7 X 36 AWG [ 7 X Ø .127 ] TINNED STRANDED COPPER

2 ELECTRICAL :

VOLTAGE RATING: USA 300V CANADIAN 150V EU: <50V  
INSULATION RESISTANCE: >1 X 10<sup>10</sup>Ω/3m [ 10 FT. ]

CHARACTERISTIC IMPEDANCE: UNBALANCED 85Ω BALANCED 144Ω  
CAPACITANCE: 60.5 pF/ft [ 18.44 pF/m ] 33.8 pF/ft [ 10.29 pF/m ]  
INDUCTANCE: .43μH/ft [ .13μH/m ] .69μH/ft [ .21μH/m ]  
PROPAGATION DELAY: 5.15 ns/ft [ 1.57 ns/m ] 4.86 ns/ft [ 1.48 ns/m ]  
VELOCITY OF PROPAGATION: 65% 69%

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

2 ENVIRONMENTAL :

TEMPERATURE RATING: -40°C TO +105°C (EIA-364-32G, METHOD A, TEST CONDITION 2)  
-10°C TO +90°C (UL TEMPERATUR E RATING)

FLAMMABILITY RATING: UL: HORIZONTAL

ORDERING INFORMATION

HF625/XX XX

NUMBER OF CONDUCTORS — BLANK = STANDARD  
(SEE TABLE 1) SF = SPLICE FREE

NOTE:  
AVAILABLE IN STANDARD 30M AND 100M ROLLS.  
PLEASE SPECIFY WHEN ORDEING. CONTACT 3M  
FOR AVAILABILITY OF ADDITIONAL CONDUCTOR  
COUNTS AND/OR CUSTOM ROLL LENGTHS.

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 AND 2) ANY IMPURITIES PRESENT ARE LESS THAN 900ppm BROMINE, LESS THAN 900ppm CHLORINE AND/OR LESS THAN 1500ppm TOTAL BROMINE AND CHLORINE. THE LATTER ARE THE LEVELS SET FORTH IN CERTIAN INDUSTRY STANDARDS FOR PRINTED CIRCUIT BOARDS, SUCH AS THE INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC) 61249-2-21 STANDARDS. 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.

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



UL FILE NO: E42769  
STYLE NO: 22089

| MM [ INCH ]                   |     |      |
|-------------------------------|-----|------|
| TOLERANCE - UNLESS NOTED      |     |      |
|                               | .X  | .XX  |
| MM                            | ±.3 | ±.13 |
| [ ] = DIM. FOR REFERENCE ONLY |     |      |

|                        |                                 |                                                       |             |             |             |
|------------------------|---------------------------------|-------------------------------------------------------|-------------|-------------|-------------|
| DESIGN REFERENCE       | NEXT ASSEMBLY                   | D 79845                                               | JUL 17,2018 | JNC         | BM          |
| REV                    | ECO                             | ISSUE DATE AND DESCRIPTION                            | DRFT        | CHKD        |             |
| DATE                   | DATE                            | DATE                                                  | DATE        | DATE        | DATE        |
| JUL 17,2018            | JUL 17,2018                     | JUL 17,2018                                           | JUL 17,2018 | JUL 17,2018 | JUL 17,2018 |
| CHKD                   | CHKD                            | APPR                                                  | DATE        | DATE        | DATE        |
|                        |                                 | B. MIZE                                               |             |             |             |
| DIVISION               | DIVISION CODE                   | EMSD                                                  |             |             |             |
| DO NOT SCALE DRAWING   | SCALE                           | TOLERANCES EXCEPT AS NOTED                            | INCHES      |             |             |
|                        |                                 |                                                       | .0          | +           |             |
|                        |                                 |                                                       | .00         | +           |             |
|                        |                                 |                                                       | .000        | ±           |             |
|                        |                                 |                                                       | .0000       | ±           |             |
| THIRD ANGLE PROJECTION | INTERPRET PER ASME Y14.5 - 2009 | MILLIMETERS                                           | 0           | ±           |             |
|                        |                                 |                                                       | .0          | ±           |             |
|                        |                                 |                                                       | .00         | ±           |             |
|                        |                                 |                                                       | .000        | ±           |             |
| MAX SURFACE ROUGHNESS  | MAX SURFACES                    | ANGLES                                                | ±           |             |             |
| ✓                      | □ MARKED ONLY                   |                                                       |             |             |             |
| TITLE                  |                                 | HF625 ROUND CONDUCTOR FLAT CABLE, 1MM, 28AWG STRANDED |             |             |             |
| CAGE NUMBER            | SIZE                            | DRAWING NO.                                           | REV.        |             |             |
| D                      | 78-5100-2338-1                  | D                                                     |             |             |             |
| MODEL                  | HF625                           | DET                                                   | LISTS       | YES         | NO          |
|                        |                                 | SHT                                                   | 1           | OF 2        |             |



