

## HFI 260 LSZH, flame retardant, radiation tolerant cores 600V/150°C, 190°C

### H-M xxxx TPC

### H-M xxxx NPC

#### Key features:

Voltage rating: 600/1000V  
 Test voltage: 3000V  
 Temperature range: -60°C / +150°C (TPC)  
 -60°C / +190°C (NPC)  
 Radiation tolerant: 10<sup>7</sup> Gy  
 Flame retardant  
 Low Smoke Zero Halogen (LSZH)  
 RoHS Compliant  
 Also referred to as: M xxxx TPC  
 M xxxx NPC

#### Application:

HFI 260 equipment wires are available in both AWG and metric (Class 5) sizes. Designed as part of the Habiatron range of wires, cables and coaxial cables, HFI 260 is low smoke, halogen free (LSZH), flame retardant (FR) and has exceptional radiation (Rad Tol) resistance. It is often used as control, signal and instrumentation applications. Two options exist: M xxxx TPC offers good solderability up to +150°C whilst M xxxx NPC is intended for crimp connections, offering increased temperature and current up to +190°C.

#### Wire construction:

Conductor: H-M xxxx TPC: Tin Plated Copper (TPC)  
 H-M xxxx NPC: Nickel Plated Copper (NPC)  
 Insulation: Extruded HFI 260

#### Prefix (AAA):

580  
 590

#### Order reference (AAAccZZZZ):

Prefix: AAA (e.g. 580, see above) + colour code: cc (e.g. 00, see below) + size: ZZZZ (e.g. 3007, see table)



| Description  | Size |                        | Conductor |                    |        | Finished Wire |           |               | Electrical          |     | Order reference |
|--------------|------|------------------------|-----------|--------------------|--------|---------------|-----------|---------------|---------------------|-----|-----------------|
|              | AWG  | CSA<br>mm <sup>2</sup> | stranding | resistance<br>Ω/km | wire Ø | core Ø        | tolerance | weight<br>g/m | amps at 40°C<br>TPC | NPC |                 |
| H-M 3007 ... | 30   | 0,05                   | 7 x 0,10  | 354,30             | 0,30   | 0,70          | ±0,07     | 0,9           | 3                   | 4   | AAAcc3007       |
| H-M 2807 ... | 28   | 0,09                   | 7 x 0,13  | 223,80             | 0,38   | 0,78          | ±0,07     | 1,2           | 4                   | 5   | AAAcc2807       |
| H-M 2619 ... | 26   | 0,16                   | 19 x 0,10 | 131,60             | 0,48   | 0,88          | ±0,07     | 1,9           | 5                   | 7   | AAAcc2619       |
| H-M 2419 ... | 24   | 0,22                   | 19 x 0,13 | 83,30              | 0,60   | 1,00          | ±0,10     | 2,7           | 7                   | 10  | AAAcc2419       |
| H-M 2219 ... | 22   | 0,34                   | 19 x 0,16 | 52,20              | 0,76   | 1,16          | ±0,10     | 4,0           | 10                  | 14  | AAAcc2219       |
| H-M 0,5 ...  | -    | 0,50                   | 16 x 0,20 | 40,10              | 0,88   | 1,28          | ±0,10     | 5,2           | 12                  | 17  | AAAcc0050       |
| H-M 2019 ... | 20   | 0,60                   | 19 x 0,20 | 32,00              | 0,96   | 1,36          | ±0,10     | 6,2           | 13                  | 19  | AAAcc2019       |
| H-M 0,75 ... | -    | 0,75                   | 24 x 0,20 | 26,70              | 1,05   | 1,45          | ±0,10     | 7,5           | 15                  | 22  | AAAcc0075       |
| H-M 1819 ... | 18   | 0,96                   | 19 x 0,25 | 20,40              | 1,20   | 1,60          | ±0,10     | 9,5           | 18                  | 26  | AAAcc1819       |
| H-M 1,0 ...  | -    | 1,00                   | 32 x 0,20 | 20,00              | 1,20   | 1,60          | ±0,10     | 9,5           | 18                  | 26  | AAAcc0100       |
| H-M 1619 ... | 16   | 1,23                   | 19 x 0,29 | 15,80              | 1,36   | 1,86          | ±0,13     | 12,0          | 22                  | 31  | AAAcc1619       |
| H-M 1,5 ...  | -    | 1,50                   | 30 x 0,25 | 13,70              | 1,50   | 2,00          | ±0,13     | 14,8          | 25                  | 34  | AAAcc0150       |
| H-M 1419 ... | 14   | 1,87                   | 19 x 0,36 | 10,00              | 1,71   | 2,21          | ±0,13     | 18,5          | 30                  | 42  | AAAcc1419       |
| H-M 2,5 ...  | -    | 2,50                   | 50 x 0,25 | 8,21               | 1,95   | 2,45          | ±0,13     | 24,0          | 35                  | 49  | AAAcc0250       |
| H-M 1237 ... | 12   | 2,97                   | 37 x 0,32 | 2,20               | 2,24   | 2,74          | ±0,13     | 29,0          | 41                  | 57  | AAAcc1237       |

Note: resistance values are for TPC. For accurate NPC values see Custom Design: Conductors: Resistance values: Table 3

| De-rating Factors for Current Rating       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| H-M xxxx TPC<br>Temperature de-rating (°C) | 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   | 100  | 110  | 120  | 130  | 140  |
|                                            | 1.16 | 1.11 | 1.06 | 1.00 | 0.94 | 0.88 | 0.82 | 0.76 | 0.69 | 0.62 | 0.54 | 0.45 | 0.35 | 0.23 |
| H-M xxxx NPC<br>Temperature de-rating (°C) | 20   | 40   | 60   | 80   | 100  | 120  | 140  | 160  | 180  | -    | -    | -    | -    | -    |
|                                            | 1.08 | 1.00 | 0.92 | 0.84 | 0.75 | 0.65 | 0.55 | 0.42 | 0.28 | -    | -    | -    | -    | -    |
| Multicore de-rating factor                 | 2    | 3    | 4    | 6    | 8    | 10   | 12   | 16   | 20   | 24   | 28   | 32   | 36   | 40   |
|                                            | 1.00 | 0.88 | 0.80 | 0.69 | 0.62 | 0.59 | 0.55 | 0.51 | 0.48 | 0.43 | 0.41 | 0.39 | 0.38 | 0.36 |

Note: All dimensions in mm and ±4% unless stated Date: 2010-02-02 Created: CJV Approved: TN Reference: EQ\_M\_11  
 Data provided indicates nominal values unless stated otherwise and is only valid for reference purposes at the time of publication and is subject to change without prior notice.