

ETFE flame retardant, low smoke cores

1kV/150°C

## H-ZZ xxxx TPC

### H-ZZ xxxx

#### Key features:

Voltage rating: 1000/1900V  
 Test voltage: 5000V  
 Temperature range: -65°C / +150°C  
 Radiation tolerant: 10<sup>5</sup> Gy  
 Flame retardant  
 Low smoke generation  
 RoHS Compliant  
 Also referred to as: ZZ xxxx TPC  
 ZZ xxxx

#### Application:

ETFE offers an excellent range of physical properties such as mechanical toughness, flex-life, fire performance and chemical resistance. ETFE cores are ideal for all-round general purpose use and are used extensively in both military and industrial applications.

#### Wire construction:

Conductor: H-ZZ xxxx TPC: Tin Plated Copper (TPC)  
 H-ZZ xxxx: Silver Plated Copper (SPC)  
 Insulation: Extruded ETFE

#### Prefix (AAA):

579  
 569

#### Order reference (AAAccZZZZ):

Prefix: AAA (e.g. 579, see above) + colour code: cc (e.g. 00, see below) + size: ZZZZ (e.g. 3201, see table)

|       |       |     |        |        |       |      |        |      |       |      |       |       |
|-------|-------|-----|--------|--------|-------|------|--------|------|-------|------|-------|-------|
| 00    | 11    | 22  | 33     | 44     | 55    | 66   | 77     | 88   | 99    | 29   | 89    | 45    |
| Black | Brown | Red | Orange | Yellow | Green | Blue | Violet | Grey | White | Pink | Clear | Yw/Gn |

| Description   | Size |       | Conductor  |            |        | Finished Wire |           |        | Electrical   |     | Order reference |
|---------------|------|-------|------------|------------|--------|---------------|-----------|--------|--------------|-----|-----------------|
|               | AWG  | CSA   | stranding  | resistance | wire Ø | core Ø        | tolerance | weight | amps at 40°C |     |                 |
|               |      | mm²   |            | Ω/km       |        |               |           | g/m    | TPC          | SPC |                 |
| H-ZZ 3201 ... | 32   | 0,03  | 1 x 0,20   | 584,00     | 0,20   | 0,91          | ±0,05     | 1,2    | 2            | 2   | AAAcc3201       |
| H-ZZ 3207 ... | 32   | 0,04  | 7 x 0,08   | 597,10     | 0,24   | 0,94          | ±0,05     | 1,2    | 2            | 2   | AAAcc3207       |
| H-ZZ 3001 ... | 30   | 0,05  | 1 x 0,25   | 374,00     | 0,25   | 0,96          | ±0,05     | 1,5    | 3            | 3   | AAAcc3001       |
| H-ZZ 3007 ... | 30   | 0,06  | 7 x 0,10   | 354,30     | 0,30   | 1,01          | ±0,05     | 1,5    | 3            | 3   | AAAcc3007       |
| H-ZZ 2801 ... | 28   | 0,08  | 1 x 0,32   | 232,30     | 0,32   | 1,03          | ±0,05     | 2,0    | 4            | 4   | AAAcc2801       |
| H-ZZ 2807 ... | 28   | 0,09  | 7 x 0,13   | 223,80     | 0,38   | 1,09          | ±0,05     | 2,0    | 4            | 4   | AAAcc2807       |
| H-ZZ 2601 ... | 26   | 0,13  | 1 x 0,40   | 146,00     | 0,40   | 1,11          | ±0,05     | 2,6    | 6            | 6   | AAAcc2601       |
| H-ZZ 2607 ... | 26   | 0,14  | 7 x 0,16   | 139,80     | 0,48   | 1,19          | ±0,05     | 2,7    | 6            | 6   | AAAcc2607       |
| H-ZZ 2619 ... | 26   | 0,16  | 19 x 0,10  | 131,60     | 0,48   | 1,19          | ±0,05     | 2,8    | 6            | 6   | AAAcc2619       |
| H-ZZ 2401 ... | 24   | 0,20  | 1 x 0,51   | 89,20      | 0,51   | 1,22          | ±0,05     | 3,5    | 9            | 9   | AAAcc2401       |
| H-ZZ 2407 ... | 24   | 0,22  | 7 x 0,20   | 86,00      | 0,60   | 1,31          | ±0,05     | 3,7    | 9            | 9   | AAAcc2407       |
| H-ZZ 2419 ... | 24   | 0,24  | 19 x 0,13  | 83,30      | 0,60   | 1,31          | ±0,05     | 3,9    | 9            | 9   | AAAcc2419       |
| H-ZZ 2201 ... | 22   | 0,32  | 1 x 0,64   | 56,40      | 0,64   | 1,35          | ±0,05     | 5,0    | 12           | 12  | AAAcc2201       |
| H-ZZ 2207 ... | 22   | 0,36  | 7 x 0,25   | 54,80      | 0,76   | 1,47          | ±0,05     | 5,2    | 12           | 12  | AAAcc2207       |
| H-ZZ 2219 ... | 22   | 0,38  | 19 x 0,16  | 52,20      | 0,76   | 1,47          | ±0,05     | 5,5    | 12           | 12  | AAAcc2219       |
| H-ZZ 2001 ... | 20   | 0,52  | 1 x 0,81   | 35,10      | 0,81   | 1,52          | ±0,05     | 6,8    | 16           | 16  | AAAcc2001       |
| H-ZZ 2007 ... | 20   | 0,56  | 7 x 0,32   | 34,10      | 0,96   | 1,67          | ±0,05     | 7,5    | 16           | 16  | AAAcc2007       |
| H-ZZ 2019 ... | 20   | 0,60  | 19 x 0,20  | 32,00      | 0,97   | 1,67          | ±0,05     | 8,1    | 16           | 16  | AAAcc2019       |
| H-ZZ 1819 ... | 18   | 0,96  | 19 x 0,25  | 20,40      | 1,21   | 2,00          | ±0,08     | 12,0   | 22           | 22  | AAAcc1819       |
| H-ZZ 1619 ... | 16   | 1,23  | 19 x 0,29  | 15,80      | 1,36   | 2,19          | ±0,13     | 16,0   | 27           | 27  | AAAcc1619       |
| H-ZZ 1419 ... | 14   | 1,87  | 19 x 0,36  | 10,00      | 1,70   | 2,58          | ±0,13     | 20,0   | 37           | 37  | AAAcc1419       |
| H-ZZ 1219 ... | 12   | 3,02  | 19 x 0,45  | 6,30       | 2,14   | 3,09          | ±0,16     | 33,0   | 50           | 50  | AAAcc1219       |
| H-ZZ 1037 ... | 10   | 4,65  | 37 x 0,40  | 4,13       | 2,82   | 3,62          | ±0,16     | 55,0   | 69           | 69  | AAAcc1037       |
| H-ZZ 8133 ... | 8    | 8,60  | 133 x 0,29 | 2,30       | 4,10   | 5,20          | ±0,21     | 95,0   | 109          | 109 | AAAcc8133       |
| H-ZZ 6133 ... | 6    | 14,00 | 133 x 0,36 | 1,46       | 5,13   | 6,20          | ±0,30     | 140,0  | 150          | 150 | AAAcc6133       |
| H-ZZ 4133 ... | 4    | 22,00 | 133 x 0,45 | 0,92       | 6,75   | 7,80          | ±0,40     | 225,0  | 207          | 207 | AAAcc4133       |
| H-ZZ 2665 ... | 2    | 34,00 | 655 x 0,25 | 0,60       | 8,51   | 9,50          | ±0,50     | 335,0  | tbc          | tbc | AAAcc2665       |

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

| De-rating Factors for Current Rating |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 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 |
| 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: 2011-01-27 Created: CJV Approved: TN Reference: EQ\_ZZ\_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.