

2941X / H05V-K / H07V-K

BS EN 50525-2-31 Flexible Wire

pro-POWER



RoHS
Compliant

Application:

Designed for use in the switch control, relay and instrumentation panels of power switch gear and for purposes such as internal connectors in rectifier equipment, motor starters and controllers.

Construction:

Conductor:

Class 5 flexible copper conductor according to BS EN 60228 (previously BS 6360)

Insulation:

PVC (Polyvinyl Chloride) Type T11 according to BS EN 50363

Cable Standards

BS EN 50525-2-31 (previously BS 6004, Cenelec HD21.3), BS EN/IEC 60332-1-2

Characteristics:

Voltage Rating (Uo/U)

H05V-K : 300/500V

H07V-K : 450/750V

Temperature Rating:

Fixed : -30°C to +70°C

Flexed : -5°C to +70°C

Minimum Bending Radius:

Fixed : 6 × overall diameter

Flexed : 12 × overall diameter

Sheath Colour:

Red, Black, Blue, Yellow, White, Green/Yellow, & Brown

Dimensions:

H05V-K

| Part Number | Colour | Nominal Cross Sectional Area mm ² | No. of Strands × Strand Size mm ² | Nominal Overall Diameter mm | Nominal Weight kg/km |
|-------------|--------|--|--|-----------------------------|----------------------|
| PP000454 | Black | 0.5 | 16 × 0.19 | 2.2 | 9 |
| PP000455 | | 0.75 | 24 × 0.19 | 2.4 | 11 |
| PP000456 | | 1 | 32 × 0.19 | 2.5 | 14 |
| PP000459 | Blue | 0.5 | 16 × 0.19 | 2.2 | 9 |

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| Part Number | Colour | Nominal Cross Sectional Area mm ² | No. of Strands × Strand Size mm ² | Nominal Overall Diameter mm | Nominal Weight kg/km |
|-------------|--------------|--|--|-----------------------------|----------------------|
| PP000460 | Blue | 0.75 | 24 × 0.19 | 2.4 | 11 |
| PP000461 | | 1 | 32 × 0.19 | 2.5 | 14 |
| PP000464 | Brown | 0.5 | 16 × 0.19 | 2.2 | 9 |
| PP000465 | | 0.75 | 24 × 0.19 | 2.4 | 11 |
| PP000466 | | 1 | 32 × 0.19 | 2.5 | 14 |
| PP000469 | Green/Yellow | 0.5 | 16 × 0.19 | 2.2 | 9 |
| PP000470 | | 0.75 | 24 × 0.19 | 2.4 | 11 |
| PP000471 | | 1 | 32 × 0.19 | 2.5 | 14 |
| PP000474 | Red | 0.5 | 16 × 0.19 | 2.2 | 9 |
| PP000475 | | 0.75 | 24 × 0.19 | 2.4 | 11 |
| PP000476 | | 1 | 32 × 0.19 | 2.5 | 14 |
| PP000479 | White | 0.5 | 16 × 0.19 | 2.2 | 9 |
| PP000480 | | 0.75 | 24 × 0.19 | 2.4 | 11 |
| PP000481 | | 1 | 32 × 0.19 | 2.5 | 14 |
| PP000484 | Yellow | 0.5 | 16 × 0.19 | 2.2 | 9 |
| PP000485 | | 0.75 | 24 × 0.19 | 2.4 | 11 |
| PP000486 | | 1 | 32 × 0.19 | 2.5 | 14 |

H07V-K

| Part Number | Colour | Nominal Cross Sectional Area mm ² | No. of Strands × Strand Size mm ² | Nominal Overall Diameter mm | Nominal Weight kg/km |
|-------------|--------------|--|--|-----------------------------|----------------------|
| PP000457 | Black | 1.5 | 30 × 0.24 | 2.9 | 20 |
| PP000458 | | 2.5 | 45 × 0.25 | 3.6 | 31 |
| PP000462 | Blue | 1.5 | 30 × 0.24 | 2.9 | 20 |
| PP000463 | | 2.5 | 45 × 0.25 | 3.6 | 31 |
| PP000467 | Brown | 1.5 | 30 × 0.24 | 2.9 | 20 |
| PP000468 | | 2.5 | 45 × 0.25 | 3.6 | 31 |
| PP000472 | Green/Yellow | 1.5 | 30 × 0.24 | 2.9 | 20 |
| PP000473 | | 2.5 | 45 × 0.25 | 3.6 | 31 |
| PP000477 | Red | 1.5 | 30 × 0.24 | 2.9 | 20 |
| PP000478 | | 2.5 | 45 × 0.25 | 3.6 | 31 |
| PP000482 | White | 1.5 | 30 × 0.24 | 2.9 | 20 |
| PP000483 | | 2.5 | 45 × 0.25 | 3.6 | 31 |
| PP000487 | Yellow | 1.5 | 30 × 0.24 | 2.9 | 20 |

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Conductors:

Class 5 Flexible Copper Conductors for Single Core and Multi-Core Cables

| Nominal Cross Sectional Area mm ² | Maximum Diameter of Wires in Conductor mm | Maximum Resistance of Conductor at 20°C | |
|--|---|---|-------------------------|
| | | Plain Wires Ω/km | Metal-Coated Wires Ω/km |
| 0.5 | 0.21 | 39 | 40.1 |
| 0.75 | 0.21 | 26 | 26.7 |
| 1 | 0.21 | 19.5 | 20 |
| 1.5 | 0.26 | 13.3 | 13.7 |
| 2.5 | 0.26 | 7.98 | 8.21 |

Electrical Characteristics:

Current Carrying Capacity

| Nominal Cross Sectional Area mm ² | In a Thermal Insulated Wall | | On a Wall | | In Free Air |
|--|-----------------------------|-------------|-------------|-------------|-------------|
| | 2 Core Amps | 3 Core Amps | 2 Core Amps | 3 Core Amps | 1 Core Amps |
| 0.5 | - | - | - | - | - |
| 0.75 | - | - | - | - | 15 |
| 1 | - | - | - | - | 19 |
| 1.5 | 14.5 | 13.5 | 17.5 | 15.5 | 24 |
| 2.5 | 19.5 | 18 | 24 | 21 | 32 |

De-Rating Factors:

| Ambient Temperature | 10°C | 15°C | 20°C | 25°C | 30°C | 35°C | 40°C | 45°C | 50°C | 55°C | 60°C |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|
| De-Rating Factor | 1.22 | 1.17 | 1.12 | 1.06 | 1.00 | 0.94 | 0.87 | 0.79 | 0.71 | 0.61 | 0.50 |

Part Number Table

| Description | Harmonised Type | Nominal Cross Sectional Area mm ² | Colour | Reel Length | Part Number |
|--|-----------------|--|--------|-------------|-------------|
| 2491X / H05V-K / H07V-K BS EN 50525-2-31 Flexible Wire | H05V-K | 0.5 | Black | 100m | PP000454 |
| | | 0.75 | | | PP000455 |
| | | 1 | | | PP000456 |
| | | 0.5 | Blue | | PP000459 |
| | | 0.75 | | | PP000460 |

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| Description | Harmonised Type | Nominal Cross Sectional Area mm ² | Colour | Reel Length | Part Number |
|--|-----------------|--|--------------|-------------|-------------|
| 2491X / H05V-K / H07V-K BS EN 50525-2-31 Flexible Wire | H05V-K | 1 | Blue | 100m | PP000461 |
| | | 0.5 | Brown | | PP000464 |
| | | 0.75 | | | PP000465 |
| | | 1 | | | PP000466 |
| | | 0.5 | Green/Yellow | | PP000469 |
| | | 0.75 | | | PP000470 |
| | | 1 | | | PP000471 |
| | | 0.5 | Red | | PP000474 |
| | | 0.75 | | | PP000475 |
| | | 1 | | | PP000476 |
| | | 0.5 | White | | PP000479 |
| | | 0.75 | | | PP000480 |
| | | 1 | | | PP000481 |
| | | 0.5 | Yellow | | PP000484 |
| | | 0.75 | | | PP000485 |
| | 1 | PP000486 | | | |
| | H07V-K | Black | 1.5 | | PP000457 |
| | | | 2.5 | | PP000458 |
| | | Blue | 1.5 | | PP000462 |
| | | | 2.5 | | PP000463 |
| | | Brown | 1.5 | | PP000467 |
| | | | 2.5 | | PP000468 |
| | | Green/Yellow | 1.5 | | PP000472 |
| | | | 2.5 | | PP000473 |
| | | Red | 1.5 | | PP000477 |
| | | | 2.5 | | PP000478 |
| | | White | 1.5 | | PP000482 |
| 2.5 | | | PP000483 | | |
| Yellow | 1.5 | PP000487 | | | |

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