

# PVC SDI Single Core

CU TPS 1X 6 RD WH 1HM

## Contact

OLEX CUSTOMER SERVICE - Purchase orders, invoices, general enquiries  
Phone: 1300 CABLES  
olex.customerservice@nexans.com

Nexans ref.: AABP11A1001WTRD

GTIN: 9322576240002

6mm<sup>2</sup> PVC SDI Red Insulation White Sheath

## DESCRIPTION

Single Core PVC SDI Cable

- Single core, V-90 insulated,
- PVC sheathed to AS/NZS 5000,
- Copper conductors, 90°C.
- 1.0 to 16mm<sup>2</sup> 450/750V to AS/NZS 5000.2
- Larger sizes; 25 to 630mm<sup>2</sup> 0.6/1kV to AS/NZS 5000.1 are available on request



## STANDARDS

National AS/NZS 1125; AS/NZS 5000.1; AS/NZS 5000.2



Rated Voltage U<sub>o</sub>/U (U<sub>m</sub>)  
450 / 750 V



Cable flexibility  
Rigid

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Nexans is indicative only and shall not be binding on Nexans or be treated as constituting a representation on the part of Nexans.

Generated 12/12/20 [www.olex.com.au](http://www.olex.com.au) Page 1 / 4

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## CHARACTERISTICS

### Construction characteristics

|                                |                 |
|--------------------------------|-----------------|
| Conductor material             | Copper          |
| With Green/Yellow core         | No              |
| Outer sheath                   | PVC             |
| Colour                         | White / red     |
| Type of conductor              | Stranded copper |
| With smaller neutral conductor | No              |
| Insulation                     | V-90            |

### Dimensional characteristics

|                                |                   |
|--------------------------------|-------------------|
| Nominal insulation thickness   | 0.8 mm            |
| Nominal outer sheath thickness | 0.9 mm            |
| Conductor cross-section        | 6 mm <sup>2</sup> |
| Nominal overall diameter       | 6.6 mm            |
| Approximate weight             | 9.4 kg/100m       |
| Cable length                   | 100 m             |
| Number of cores                | 1                 |

### Electrical characteristics

|   |              |
|---|--------------|
| Inductive reactance at 50Hz - trefoil             | 0.128 Ohm/km |
| Inductive reactance at 50Hz - flat touching       | 0.143 Ohm/km |
| Max. DC resistance of the conductor at 20°C       | 3.08 Ohm/km  |
| Conductor AC resistance at 50 Hz                  | 3.75 Ohm/km  |
| Insulation resistance at 20°C                     | 7.2 MOhm.km  |
| Rated Voltage U <sub>o</sub> /U (U <sub>m</sub> ) | 450 / 750 V  |

### Mechanical characteristics

|                   |       |
|-------------------|-------|
| Cable flexibility | Rigid |
|-------------------|-------|

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## PVC SDI - CURRENT CARRYING CAPACITY TABLE SINGLE PHASE (IN AMPS)

Copper Conductor Insulation PVC Maximum Conductor Temperature 75C

| Conductor cross-section<br>[mm <sup>2</sup> ] |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|--|---|---|---|
|   | Cu  | Cu  | Cu  | Cu  | Cu  | Cu   | Cu  | Cu  | Cu  |
| 1   | 16  | 16  | 13  | 13  | 11  | 6  | 24  | 18  | 21  |
| 1.5   | 21  | 21  | 16  | 18  | 14  | 8  | 31  | 23  | 26  |
| 2.5   | 30  | 29  | 23  | 24  | 20  | 12   | 43  | 32  | 36  |
| 4   | 40  | 39  | 31  | 32  | 25  | 16   | 56  | 41  | 47  |
| 6   | 51  | 49  | 40  | 41  | 33  | 20   | 71  | 52  | 58  |
| 10  | 69  | 67  | 54  | 54  | 44  | 27   | 94  | 69  | 77  |
| 16  | 92  | 89  | 72  | 70  | 56  | 36   | 122   | 89  | 99  |
| 25  | 124   | 119   | 97  | 94  | 75  | 48   | 158   | 116   | 129   |
| 35  | 153   | 145   | 119   | 112   | 90  | 59   | 190   | 139   | 155   |
| 50  | 187   | 177   | 146   | 138   | 110   | -  | 225   | 168   | 186   |
| 70  | 238   | 223   | 184   | 170   | 136   | -  | 277   | 206   | 228   |
| 95  | 295   | 276   | 230   | 212   | 169   | -  | 332   | 252   | 278   |
| 120   | 344   | 321   | 267   | 242   | 193   | -  | 378   | 287   | 316   |
| 150   | 395   | 367   | 308   | 282   | 225   | -  | 424   | 329   | 354   |
| 185   | 459   | 424   | 358   | 320   | 256   | -  | 480   | 373   | 408   |
| 240   | 549   | 505   | 428   | 381   | 305   | -  | 556   | 438   | 472   |
| 300   | 636   | 582   | 495   | -   | -   | -  | 628   | 496   | 546   |
| 400   | 744   | 676   | 577   | -   | -   | -  | 713   | 575   | 621   |
| 500   | 867   | 780   | 668   | -   | -   | -  | 805   | 649   | 721   |
| 630   | 1014  | 897   | 770   | -   | -   | -  | 904   | 750   | 816   |

|   |  |  |
|---|--|--|
|  Unenclosed spaced       |  Unenclosed spaced from surface                                 |  Unenclosed touching   |
|  Enclosed conduit in air |  Thermal insulation, partially surrounded by thermal insulation |  Thermal insulation, completely surrounded by thermal insulation |
|  Buried direct           |  Underground ducts A - Underground Wiring Enclosure             |  Underground ducts B - Individual Wiring Enclosure               |

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








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## PVC SDI - CURRENT CARRYING CAPACITY TABLE THREE PHASE (IN AMPS)

Copper Conductor Insulation PVC Maximum Conductor Temperature 75C

| Conductor cross-section<br>[mm <sup>2</sup> ] |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|
|   | Cu  | Cu  | Cu  | Cu  | Cu  | Cu  | Cu  | Cu  | Cu  |
| 1   | 16  | 14  | 13  | 12  | 10  | 6   | 21  | 16  | 19  |
| 1.5   | 20  | 17  | 16  | 15  | 12  | 8   | 27  | 20  | 24  |
| 2.5   | 29  | 25  | 23  | 21  | 17  | 12  | 37  | 27  | 33  |
| 4   | 38  | 33  | 31  | 28  | 23  | 16  | 49  | 36  | 43  |
| 6   | 49  | 42  | 40  | 35  | 28  | 20  | 61  | 45  | 53  |
| 10  | 67  | 58  | 54  | 47  | 37  | 27  | 81  | 59  | 70  |
| 16  | 89  | 77  | 72  | 62  | 50  | 36  | 104   | 78  | 90  |
| 25  | 120   | 103   | 97  | 81  | 64  | 48  | 134   | 100   | 117   |
| 35  | 148   | 127   | 119   | 100   | 80  | 59  | 160   | 122   | 140   |
| 50  | 181   | 156   | 146   | 119   | 95  | -   | 190   | 144   | 168   |
| 70  | 230   | 197   | 184   | 152   | 122   | -   | 233   | 180   | 205   |
| 95  | 287   | 246   | 230   | 183   | 147   | -   | 279   | 217   | 250   |
| 120   | 335   | 287   | 267   | 217   | 173   | -   | 317   | 252   | 283   |
| 150   | 385   | 330   | 308   | 244   | 195   | -   | 356   | 283   | 317   |
| 185   | 447   | 383   | 357   | 284   | 227   | -   | 402   | 325   | 365   |
| 240   | 535   | 457   | 426   | 331   | 265   | -   | 465   | 377   | 422   |
| 300   | 620   | 529   | 492   | 388   | 311   | -   | 524   | 434   | 488   |
| 400   | 726   | 615   | 573   | 442   | 353   | -   | 593   | 492   | 553   |
| 500   | 846   | 710   | 661   | 523   | 418   | -   | 668   | 571   | 641   |
| 630   | 990   | 817   | 760   | 588   | 471   | -   | 748   | 639   | 723   |



Unenclosed spaced



Unenclosed spaced from surface



Unenclosed touching



Enclosed conduit in air



Thermal insulation, partially surrounded by thermal insulation



Thermal Insulation, completely surrounded by thermal insulation



Buried direct



Underground ducts A - Underground Wiring Enclosure



Underground ducts B - Individual Wiring Enclosure