

# PVC Insulated Single Core

2.5mm<sup>2</sup> PVC Building Wire Blue

## Contact

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

Nexans ref.: BAAP07A1001AABE

GTIN: 9319215006822

2.5mm<sup>2</sup> PVC Building Wire Blue

## DESCRIPTION

Single Core Building Wires

- Single core,
- 0.6/1kV V-90 insulated,
- to AS/NZS 5000.1 (unsheathed),
- Copper conductors, 90°C.



## STANDARDS

National AS/NZS 1125; AS/NZS 5000.1



Conductor flexibility  
Solid class 1



Rated Voltage U<sub>0</sub>/U (Um)  
0.6/1 kV



Cable flexibility  
Rigid

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## CHARACTERISTICS

### Construction characteristics

|                                |                 |
|--------------------------------|-----------------|
| Conductor material             | Copper          |
| With Green/Yellow core         | No              |
| Conductor flexibility          | Solid class 1   |
| Colour                         | Blue            |
| Type of conductor              | Stranded copper |
| With smaller neutral conductor | No              |
| Insulation                     | V-90            |

### Dimensional characteristics

|                              |                     |
|------------------------------|---------------------|
| Nominal insulation thickness | 0.8 mm              |
| Conductor cross-section      | 2.5 mm <sup>2</sup> |
| Approximate weight           | 3.2 kg/100m         |
| Nominal overall diameter     | 3.6 mm              |
| Cable length                 | 100 m               |
| Number of cores              | 1                   |

### Electrical characteristics

|                                                   |              |
|---------------------------------------------------|--------------|
| Inductive reactance at 50Hz - trefoil             | 0.143 Ohm/km |
| Inductive reactance at 50Hz - flat touching       | 0.159 Ohm/km |
| Max. DC resistance of the conductor at 20°C       | 7.41 Ohm/km  |
| Conductor AC resistance at 50 Hz                  | 9.01 Ohm/km  |
| Insulation resistance at 20°C                     | 10.0 MOhm.km |
| Rated Voltage U <sub>o</sub> /U (U <sub>m</sub> ) | 0.6/1 kV     |

### Mechanical characteristics

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

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

Copper Conductor Insulation PVC Maximum Conductor Temperature 75C

| Conductor cross-section<br>[mm²] |  |  |  |  |  |  |  |     |
|----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----|
|                                  | Cu                                                                                | Cu                                                                                | Cu                                                                                | Cu                                                                                | Cu                                                                                 | Cu                                                                                  | Cu                                                                                  |     |
| 1                                | 16                                                                                | 16                                                                                | 13                                                                                | 13                                                                                | 11                                                                                 | 6                                                                                   | 18                                                                                  | 21  |
| 1.5                              | 21                                                                                | 21                                                                                | 16                                                                                | 18                                                                                | 14                                                                                 | 8                                                                                   | 23                                                                                  | 26  |
| 2.5                              | 30                                                                                | 29                                                                                | 23                                                                                | 24                                                                                | 20                                                                                 | 12                                                                                  | 32                                                                                  | 36  |
| 4                                | 40                                                                                | 39                                                                                | 31                                                                                | 32                                                                                | 25                                                                                 | 16                                                                                  | 41                                                                                  | 47  |
| 6                                | 51                                                                                | 49                                                                                | 40                                                                                | 41                                                                                | 33                                                                                 | 20                                                                                  | 52                                                                                  | 58  |
| 10                               | 69                                                                                | 67                                                                                | 54                                                                                | 54                                                                                | 44                                                                                 | 27                                                                                  | 69                                                                                  | 77  |
| 16                               | 92                                                                                | 89                                                                                | 72                                                                                | 70                                                                                | 56                                                                                 | 36                                                                                  | 89                                                                                  | 99  |
| 25                               | 124                                                                               | 119                                                                               | 97                                                                                | 94                                                                                | 75                                                                                 | 48                                                                                  | 116                                                                                 | 129 |
| 35                               | 153                                                                               | 145                                                                               | 119                                                                               | 112                                                                               | 90                                                                                 | 59                                                                                  | 139                                                                                 | 155 |
| 50                               | 187                                                                               | 177                                                                               | 146                                                                               | 138                                                                               | 110                                                                                | -                                                                                   | 168                                                                                 | 186 |
| 70                               | 238                                                                               | 223                                                                               | 184                                                                               | 170                                                                               | 136                                                                                | -                                                                                   | 206                                                                                 | 228 |
| 95                               | 295                                                                               | 276                                                                               | 230                                                                               | 212                                                                               | 169                                                                                | -                                                                                   | 252                                                                                 | 278 |
| 120                              | 344                                                                               | 321                                                                               | 267                                                                               | 242                                                                               | 193                                                                                | -                                                                                   | 287                                                                                 | 316 |
| 150                              | 395                                                                               | 367                                                                               | 308                                                                               | 282                                                                               | 225                                                                                | -                                                                                   | 329                                                                                 | 354 |
| 185                              | 459                                                                               | 424                                                                               | 358                                                                               | 320                                                                               | 256                                                                                | -                                                                                   | 373                                                                                 | 408 |
| 240                              | 549                                                                               | 505                                                                               | 428                                                                               | 381                                                                               | 305                                                                                | -                                                                                   | 438                                                                                 | 472 |
| 300                              | 636                                                                               | 582                                                                               | 495                                                                               | -                                                                                 | -                                                                                  | -                                                                                   | 496                                                                                 | 546 |
| 400                              | 744                                                                               | 676                                                                               | 577                                                                               | -                                                                                 | -                                                                                  | -                                                                                   | 575                                                                                 | 621 |
| 500                              | 867                                                                               | 780                                                                               | 668                                                                               | -                                                                                 | -                                                                                  | -                                                                                   | 649                                                                                 | 721 |
| 630                              | 1014                                                                              | 897                                                                               | 770                                                                               | -                                                                                 | -                                                                                  | -                                                                                   | 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 |
|  Underground ducts A - Underground Wiring Enclosure |  Underground ducts B - Individual Wiring Enclosure              |                                                                                                                                                      |

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