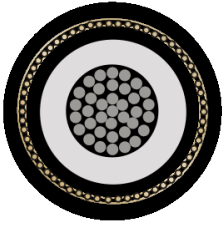


NA2XS2Y 12/20KV POWER CABLE



APPLICATION

Medium voltage power cables for fixed installations and distribution networks. Cables can be fixed on cable trays, within conduits or fixed to walls. This cable is not suitable for direct burial.

CABLE STANDARDS

BS EN / IEC 60228

BS EN / IEC 60502-2

VDE 0276-620

HD 620

CONSTRUCTION

Conductor: Stranded Aluminium Conductor

Inner Screen: Semi Conductive Compound

Insulation: Cross Linked Polyethylene (XLPE)

Core Screen: Semi Conductive Compound

Outer Screen: Copper Wire Screen & Counter Helix Copper Tape

Sheath: Polyethelene (PE)

Sheath Colour: Black

CHARACTERISTICS

Voltage Rating: 12/20 (24)kV

Temperature Limits: -20°C to +90°C

Minimum Bending Radius: As per cable manufacturer datasheet

Should not be installed at temperatures below 0°C

NA2XS2Y 12/20KV POWER CABLE - CABLE DIMENSIONS

| CCC CODE | CONDUCTOR SIZE (MM ²) | STRANDING (MM) | CWS (MM) | OVERALL DIAMETER (MM) | WEIGHT (KG/KM) |
|---------------------|-----------------------------------|----------------|----------|-----------------------|----------------|
| 12/20KVNA2XS2Y1X50 | 50 | 19/1.78 | RM/25 | 33 | 820 |
| 12/20KVNA2XS2Y1X70 | 70 | 19/2.14 | RM/35 | 35 | 930 |
| 12/20KVNA2XS2Y1X95 | 95 | 19/2.52 | RM/50 | 36 | 1050 |
| 12/20KVNA2XS2Y1X120 | 120 | 37/2.03 | RM/50 | 38 | 1150 |
| 12/20KVNA2XS2Y1X150 | 150 | 37/2.03 | RM/70 | 39 | 1350 |
| 12/20KVNA2XS2Y1X185 | 185 | 37/2.25 | RM/80 | 41 | 1500 |
| 12/20KVNA2XS2Y1X240 | 240 | 37/2.52 | RM/100 | 44 | 1750 |
| | | | | | |
| | | | | | |
| | | | | | |

THE ABOVE IS IN ACCORDANCE WITH 18TH EDITION OF IET WIRING REGULATIONS

NA2XS2Y 12/20KV POWER CABLE - CARRYING CAPACITY (AMPERES)

| CONDUCTOR CROSS-SECTIONAL AREA | REFERENCE METHOD A (ENCLOSED IN CONDUIT THERMALLY INSULATING WALL ETC) | | REFERENCE METHOD B (ENCLOSED IN CONDUIT ON A WALL OR IN TRUNKING ETC) | | REFERENCE METHOD C (CLIPPED DIRECT) | | REFERENCE METHOD F (IN FREE AIR ON A PERFORATED CABLE TRAY HORIZONTAL / VERTICAL) | | | | |
|--------------------------------|--|---------------------------|---|-------------------------------------|---|--|---|---------------------------------|------------------------------------|---|------------|
| | 2 CABLES, SINGLE - PHASE AC OR DC | 3 OR 4 CABLES, 3 PHASE AC | 2 CABLES, SINGLE - PHASE AC OR DC | 3 OR 4 CABLES, THREE PHASE AC OR DC | 2 CABLES, SINGLE - PHASE AC OR DC FLAT AND TOUCHING | 3 OR 4 CABLES, THREE - PHASE AC FLAT AND TOUCHING OR TREFOIL | TOUCHING | | | SPACED BY ONE DIAMETER | |
| | | | | | | | 2 CABLES, SINGLE - PHASE AC OR DC FLAT | 3 CABLES, THREE - PHASE AC FLAT | 3 CABLES, THREE - PHASE AC TREFOIL | 2 CABLES, SINGLE PHASE AC OR DC OR 3 CABLES THREE-PHASE AC FLAT | HORIZONTAL |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| (MM ²) | (A) | (A) | (A) | (A) | (A) | (A) | (A) | (A) | (A) | (A) | (A) |
| 25 | 80 | 73 | 101 | 89 | 114 | 104 | 131 | 114 | 110 | 146 | 130 |
| 35 | 99 | 89 | 125 | 110 | 141 | 129 | 162 | 143 | 137 | 181 | 162 |
| 50 | 119 | 108 | 151 | 134 | 182 | 167 | 196 | 174 | 167 | 219 | 197 |
| 70 | 151 | 136 | 192 | 171 | 234 | 214 | 251 | 225 | 216 | 281 | 254 |
| 95 | 182 | 164 | 232 | 207 | 284 | 261 | 304 | 275 | 264 | 341 | 311 |
| 120 | 278 | 249 | 354 | 312 | 413 | 379 | 437 | 400 | 383 | 500 | 454 |
| 150 | 318 | 285 | 393 | 342 | 476 | 436 | 504 | 464 | 444 | 577 | 527 |
| 185 | 362 | 324 | 449 | 384 | 545 | 500 | 575 | 533 | 510 | 661 | 605 |
| 240 | 424 | 380 | 528 | 450 | 644 | 590 | 679 | 634 | 607 | 781 | 719 |
| 300 | 486 | 435 | 603 | 514 | 743 | 681 | 783 | 736 | 703 | 902 | 833 |
| 400 | - | - | 683 | 584 | 868 | 793 | 940 | 868 | 823 | 1,085 | 1,008 |
| 500 | - | - | 783 | 666 | 990 | 904 | 1,083 | 998 | 946 | 1,253 | 1,169 |
| 630 | - | - | 900 | 764 | 1,130 | 1,033 | 1,254 | 1,151 | 1,088 | 1,454 | 1,362 |
| 800 | - | - | - | - | 1,288 | 1,179 | 1,358 | 1,275 | 1,214 | 1,581 | 1,485 |
| 1,000 | - | - | - | - | 1,443 | 1,323 | 1,520 | 1,436 | 1,349 | 1,775 | 1,671 |

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NA2XS2Y 12/20KV POWER CABLE - VOLTAGE DROP

| CROSS SECTIONAL AREA | 2 CABLES DC MVA/M | 2 CABLES SINGLE-PHASE AC MVA/M | | | | | | 3 OR 4 CABLES THREE-PHASE AC MVA/M | | | | | | | | |
|----------------------|-------------------|--------------------------------|-------|-------|----------------|-------|-------|---|-------|-------|-----------------------|-------|-------|----------------------|-------|-------|
| | | MM ² | | | | | | REFERENCE METHODS C, F AND G (CLIPPED DIRECT, ON TRAY OR IN FREE AIR) | | | | | | | | |
| | | CABLES TOUCHING | | | CABLES SPACED* | | | CABLES TOUCHING, TREFOIL | | | CABLES TOUCHING, FLAT | | | CABLES SPACED*, FLAT | | |
| 1 | 2 | 4 | | | 5 | | | 7 | | | 8 | | | 9 | | |
| | | R | X | Z | R | X | Z | R | X | Z | R | X | Z | R | X | Z |
| 35 | 1.250 | 1.250 | 0.200 | 1.250 | 1.250 | 0.280 | 1.300 | 1.100 | 0.170 | 1.100 | 1.100 | 0.24 | 1.100 | 1.100 | 0.320 | 1.150 |
| 50 | 0.930 | 0.930 | 0.190 | 0.950 | 0.930 | 0.280 | 0.970 | 0.800 | 0.170 | 0.820 | 0.800 | 0.24 | 0.840 | 0.800 | 0.320 | 0.860 |
| 70 | 0.630 | 0.630 | 0.185 | 0.660 | 0.630 | 0.270 | 0.690 | 0.550 | 0.160 | 0.57 | 0.550 | 0.24 | 0.600 | 0.550 | 0.31 | 0.630 |
| 95 | 0.460 | 0.47 | 0.180 | 0.500 | 0.47 | 0.270 | 0.540 | 0.41 | 0.160 | 0.430 | 0.41 | 0.230 | 0.47 | 0.400 | 0.31 | 0.51 |
| 120 | 0.360 | 0.370 | 0.180 | 0.410 | 0.370 | 0.260 | 0.450 | 0.320 | 0.150 | 0.360 | 0.320 | 0.230 | 0.400 | 0.320 | 0.300 | 0.440 |
| 150 | 0.32 | 0.32 | 0.165 | 0.36 | 0.32 | 0.25 | 0.41 | 0.28 | 0.14 | 0.31 | 0.28 | 0.165 | 0.32 | 0.28 | 0.24 | 0.37 |
| 185 | 0.25 | 0.26 | 0.165 | 0.3 | 0.25 | 0.25 | 0.36 | 0.22 | 0.14 | 0.26 | 0.22 | 0.165 | 0.28 | 0.22 | 0.24 | 0.33 |
| 240 | 0.19 | 0.2 | 0.16 | 0.25 | 0.195 | 0.25 | 0.31 | 0.17 | 0.14 | 0.22 | 0.17 | 0.165 | 0.24 | 0.17 | 0.24 | 0.29 |
| 300 | 0.155 | 0.16 | 0.16 | 0.22 | 0.155 | 0.25 | 0.29 | 0.14 | 0.14 | 0.195 | 0.135 | 0.16 | 0.21 | 0.135 | 0.24 | 0.27 |
| 500 | 0.093 | 0.125 | 0.170 | 210 | 0.165 | 0.24 | 0.29 | 0.105 | 0.145 | 0.18 | 0.145 | 0.2 | 0.25 | 0.19 | 0.24 | 0.31 |
| 630 | 0.073 | 0.105 | 0.165 | 0.195 | 0.15 | 0.23 | 0.27 | 0.092 | 0.145 | 0.17 | 0.135 | 0.195 | 0.24 | 0.175 | 0.23 | 0.29 |

THE ABOVE IS IN ACCORDANCE WITH 18TH EDITION OF IET WIRING REGULATIONS

CONDUCTOR OPERATING TEMPERATURE: 90°C

R = RESISTIVE COMPONENT
X = REACTIVE COMPONENT
Z = IMPEDANCE VALUE

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