



N2XSE(F)H 12/20 (24KV) POWER CABLE



APPLICATION

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

CONSTRUCTION

| | |
|-----------------------|---|
| Conductor: | Class 2 Stranded Copper Conductor |
| Inner layer: | Semi Conductive Compound |
| Insulation: | Cross Linked Polyethylene (XLPE) |
| Outer layer: | Semi Conductive Compound |
| Tape: | Water blocking swellable tape |
| Copper Screen: | Concentric Copper Wire & Copper Equalising Tape |
| Filler: | Low Smoke Zero Halogen (LSZH) |
| Sheath: | Low Smoke Zero Halogen (LSZH) |
| Sheath Colour: | Red |

CABLE STANDARDS

IEC 60502-02
EN 60332-1-2
EN 60228
UV Resistant Sheath

CHARACTERISTICS

| | |
|--------------------------------|-------------------------------------|
| Voltage Rating: | 12/20 (24kV) |
| Temperature Limits: | -5°C to +90°C |
| Minimum Bending Radius: | As per cable manufacturer datasheet |

SHOULD NOT BE INSTALLED AT TEMPERATURES BELOW 0°C



N2XSE(F)H 12/20 (24KV) POWER CABLE - CABLE DIMENSIONS

| CCC CODE | CONDUCTOR SIZE (MM ²) | NUMBER OF CORES | COPPER WIRE SCREEN (MM) | OVERALL DIAMETER (MM) | WEIGHT (KG/KM) |
|------------------|-----------------------------------|-----------------|-------------------------|-----------------------|----------------|
| 22KVN2XSEFH3X35 | 35 | 3 | 16 | 52 | 3200 |
| 22KVN2XSEFH3X50 | 50 | 3 | 16 | 55 | 3800 |
| 22KVN2XSEFH3X70 | 70 | 3 | 16 | 60 | 4800 |
| 22KVN2XSEFH3X95 | 95 | 3 | 16 | 63 | 5750 |
| 22KVN2XSEFH3X120 | 120 | 3 | 16 | 66 | 6650 |
| 22KVN2XSEFH3X150 | 150 | 3 | 25 | 70 | 8000 |
| 22KVN2XSEFH3X185 | 185 | 3 | 25 | 73 | 9100 |
| 22KVN2XSEFH3X240 | 240 | 3 | 25 | 80 | 11200 |
| 22KVN2XSEFH3X300 | 300 | 3 | 25 | 84 | 11350 |
| 22KVN2XSEFH3X400 | 400 | 3 | 35 | 90 | 163200 |

N2XSE(F)H 12/20 (24KV) 3 CORE - ELECTRICAL CHARACTERISTICS

| CONDUCTOR CROSS - SECTIONAL AREA | NOMINAL SHORT-CIRCUIT CURRENT FOR 1 SECOND OF CONDUCTOR KA | CONDUCTOR DC RESISTANCE AT 20°C OHM/KM | CONDUCTOR AC RESISTANCE BY MAX. TEMPERATURE OHM/KM | CURRENT CARRYING CAPACITY METHOD A | | CONDUCTOR LOSSES IN THE GROUND KW/KM |
|----------------------------------|--|--|--|------------------------------------|----------------|--------------------------------------|
| | | | | IN GROUND AT 20°C | IN AIR AT 30°C | |
| 35 | 5.01 | 0.524 | 0.670 | 178 | 173 | 63.68 |
| 50 | 7.15 | 0.387 | 0.497 | 210 | 206 | 65.75 |
| 70 | 10.01 | 0.286 | 0.344 | 256 | 257 | 67.63 |
| 95 | 13.59 | 0.193 | 0.248 | 307 | 313 | 70.12 |
| 120 | 17.16 | 0.153 | 0.196 | 349 | 360 | 71.62 |
| 150 | 21.45 | 0.124 | 0.160 | 392 | 410 | 73.76 |
| 185 | 26.46 | 0.099 | 0.128 | 443 | 469 | 75.36 |
| 240 | 34.32 | 0.0754 | 0.0980 | 513 | 553 | 77.37 |
| 300 | 42.90 | 0.0601 | 0.0800 | 576 | 635 | 79.63 |
| 400 | 57.20 | 0.0470 | 0.0640 | 650 | 731 | 81.12 |

AIR AMBIENT TEMPERATURE: 30°C
 GROUND AMBIENT TEMPERATURE: 20°C
 CONDUCTOR OPERATING TEMPERATURE: 90°C
 DEPTH OF DUCT: 0.7M
 SOIL THERMAL RESISTIVITY: 1km/W