



MEDIUM VOLTAGE CABLES

# NA2XS(F)2Y



## APPLICATION

The NA2XS(F)2Y complies with standards DIN VDE 0276-620, HD 620 S2 and IEC 60502. It is suitable for installation indoors, in cable ducts, underground, in water, outdoors, or on cable trays. Its main applications are in utility grids, industrial facilities, and substations, where additional safety reserves against moisture ingress and mechanical stress are required.

## TECHNICAL DATA

|                                                |                                                                                       |
|------------------------------------------------|---------------------------------------------------------------------------------------|
| CONDUCTOR MATERIAL                             | Aluminum                                                                              |
| CONDUCTOR CLASS                                | Class 1                                                                               |
| CORE INSULATION                                | XLPE DIX8                                                                             |
| FIELD CONTROL                                  | inner and outer semiconducting layer made of semiconducting plastic - 3-fold extruded |
| SCREEN                                         | copper wires + transverse conductive helix                                            |
| LONGITUDINAL WATER TIGHTNESS                   | yes, with swelling tape                                                               |
| TRANSVERSE WATER TIGHTNESS                     | no                                                                                    |
| SHEATH MATERIAL                                | Polyethylene DMP2                                                                     |
| SHEATH COLOR                                   | black                                                                                 |
| FLAME RETARDANCY                               | no                                                                                    |
| UV RESISTANT                                   | yes                                                                                   |
| MAX. PERMISSIBLE CONDUCTOR TEMPERATURE         | +90                                                                                   |
| PERMISSIBLE CABLE OUTER TEMPERATURE, FIXED     | 70°C                                                                                  |
| PERMISSIBLE CABLE OUTER TEMPERATURE, IN MOTION | -20 °C to +70 °C                                                                      |
| MAXIMUM SHORT-CIRCUIT TEMPERATURE              | +250                                                                                  |
| MIN. BENDING RADIUS, FIXED                     | 15 times diameter                                                                     |
| MINIMUM LAYING TEMPERATURE                     | -20                                                                                   |
| METER MARKING                                  | yes                                                                                   |
| PARTIAL DISCHARGE                              | 2 pC                                                                                  |
| TEST VOLTAGE 6/10 KV                           | 21 kV                                                                                 |
| TEST VOLTAGE 12/20 KV                          | 42 kV                                                                                 |
| TEST VOLTAGE 18/30 KV                          | 63 kV                                                                                 |



## CROSS-SECTIONS/VOLTAGE — 6/10 KV

| CORES & CROSS-SECTION | LF | LD MM | ID MM | DI MM | MWD MM | AD MM | BR  | G KG | RI OHM | BK   | SBL 30     | SBE 20     |
|-----------------------|----|-------|-------|-------|--------|-------|-----|------|--------|------|------------|------------|
| 1x50/16               | RM | 8.3   | 3.4   | 16.4  | 2.1    | 25    | 375 | 625  | 0.641  | 4.7  | 183        | 171        |
| 1x70/16               | RM | 9.8   | 3.4   | 17.9  | 2.1    | 26    | 390 | 707  | 0.443  | 6.6  | 228        | 208        |
| 1x95/16               | RM | 11.3  | 3.4   | 19.4  | 2.1    | 28    | 420 | 808  | 0.32   | 9    | 278        | 248        |
| 1x120/16              | RM | 12.8  | 3.4   | 20.9  | 2.1    | 29    | 435 | 909  | 0.253  | 11.3 | 321        | 283        |
| 1x150/25              | RM | 14.2  | 3.4   | 22.3  | 2.1    | 30    | 450 | 1089 | 0.206  | 14.2 | 364        | 315        |
| 1x185/25              | RM | 15.8  | 3.4   | 23.9  | 2.1    | 32    | 480 | 1232 | 0.164  | 17.5 | 418        | 357        |
| 1x240/25              | RM | 18.1  | 3.4   | 26.2  | 2.1    | 34    | 510 | 1427 | 0.125  | 22.7 | 494        | 413        |
| 1x300/25              | RM | 20.2  | 3.4   | 28.3  | 2.1    | 37    | 555 | 1666 | 0.1    | 28.4 | 568        | 466        |
| 1x400/35              | RM | 23.3  | 3.4   | 31.4  | 2.1    | 40    | 600 | 2089 | 0.0778 | 37.8 | 660        | 529        |
| 1x500/35              | RM | 26.5  | 3.4   | 34.6  | 2.1    | 43    | 645 | 2456 | 0.0605 | 47.3 | 767        | 602        |
| 1x630/35              | RM | 29.9  | 3.4   | 38    | 2.1    | 46    | 690 | 2909 | 0.0469 | 59.6 | 855        | 688        |
| 1x800/35              | RM | 34.2  | 3.4   | 42.3  | 2.4    | 51    | 765 | 3521 | 0.0367 | 75.6 | 968        | 764        |
| 1x1000/35             | RM | 38.1  | 3.4   | 46.2  | 2.4    | 55    | 825 | 4195 | 0.0291 | 94   | 1187       | 852        |
| 1x1200/35             | RM | 41.5  | 3.4   | 48.5  | 2.1    | 59    | 885 | 4800 | 0.0247 | 113  | On Request | On Request |

## CROSS-SECTIONS/VOLTAGE — 12/20 KV

| CORES & CROSS-SECTION | LF | LD MM | ID MM | DI MM | MWD MM | AD MM | BR  | G KG | RI OHM | BK   | SBL 30 | SBE 20 |
|-----------------------|----|-------|-------|-------|--------|-------|-----|------|--------|------|--------|--------|
| 1x50/16               | RM | 8.3   | 5.5   | 20.5  | 2.1    | 29    | 435 | 780  | 0.641  | 4.7  | 185    | 172    |
| 1x70/16               | RM | 9.8   | 5.5   | 22    | 2.1    | 30    | 450 | 873  | 0.443  | 6.6  | 231    | 210    |
| 1x95/16               | RM | 11.3  | 5.5   | 23.5  | 2.1    | 32    | 480 | 984  | 0.32   | 9    | 280    | 251    |
| 1x120/16              | RM | 12.8  | 5.5   | 25    | 2.1    | 33    | 495 | 1093 | 0.253  | 11.3 | 323    | 285    |
| 1x150/25              | RM | 14.2  | 5.5   | 26.4  | 2.1    | 35    | 525 | 1282 | 0.206  | 14.2 | 366    | 319    |
| 1x185/25              | RM | 15.8  | 5.5   | 28    | 2.1    | 36    | 540 | 1434 | 0.164  | 17.5 | 420    | 361    |
| 1x240/25              | RM | 18.1  | 5.5   | 30.3  | 2.1    | 39    | 585 | 1647 | 0.125  | 22.7 | 496    | 417    |
| 1x300/25              | RM | 20.2  | 5.5   | 32.4  | 2.1    | 41    | 615 | 1869 | 0.1    | 28.4 | 569    | 471    |
| 1x400/35              | RM | 23.3  | 5.5   | 35.5  | 2.1    | 44    | 660 | 2321 | 0.0778 | 37.8 | 660    | 535    |
| 1x500/35              | RM | 26.5  | 5.5   | 38.7  | 2.1    | 47    | 705 | 2728 | 0.0605 | 47.3 | 766    | 609    |
|                       |    |       |       |       |        |       |     |      |        |      |        |        |

|           |    |      |     |      |     |    |     |      |        |      |            |            |
|-----------|----|------|-----|------|-----|----|-----|------|--------|------|------------|------------|
| 1x630/35  | RM | 29.9 | 5.5 | 42.1 | 2.4 | 51 | 765 | 3227 | 0.0469 | 59.6 | 861        | 690        |
| 1x800/35  | RM | 34.2 | 5.5 | 46.4 | 2.4 | 55 | 825 | 3846 | 0.0367 | 75.6 | 976        | 764        |
| 1x1000/35 | RM | 38.1 | 5.5 | 50.3 | 2.4 | 60 | 900 | 4634 | 0.0291 | 94.6 | 1095       | 837        |
| 1x1200/35 | RM | 41.5 | 5.5 | 52.3 | 2.1 | 66 | 990 | 5200 | 0.0247 | 113  | On Request | On Request |

## CROSS-SECTIONS/VOLTAGE — 18/30 KV

| CORES & CROSS-SECTION | LF | LD MM | ID MM | DI MM | MWD MM | AD MM | BR   | G KG | RI OHM | BK   | SBL 30     | SBE 20     |
|-----------------------|----|-------|-------|-------|--------|-------|------|------|--------|------|------------|------------|
| 1x50/16               | RM | 8.3   | 8     | 25.5  | 2.1    | 34    | 510  | 988  | 0.641  | 4.7  | 187        | 174        |
| 1x70/16               | RM | 9.8   | 8     | 27    | 2.1    | 35    | 525  | 1094 | 0.443  | 6.6  | 232        | 213        |
| 1x95/16               | RM | 11.3  | 8     | 28.5  | 2.1    | 37    | 555  | 1216 | 0.32   | 9    | 282        | 254        |
| 1x120/16              | RM | 12.8  | 8     | 30    | 2.1    | 38    | 570  | 1335 | 0.253  | 11.3 | 325        | 289        |
| 1x150/25              | RM | 14.2  | 8     | 31.4  | 2.1    | 40    | 600  | 1535 | 0.206  | 14.2 | 367        | 322        |
| 1x185/25              | RM | 15.8  | 8     | 33    | 2.1    | 41    | 615  | 1699 | 0.164  | 17.5 | 421        | 364        |
| 1x240/25              | RM | 18.1  | 8     | 35.3  | 2.1    | 44    | 660  | 1928 | 0.125  | 22.7 | 496        | 422        |
| 1x300/25              | RM | 20.2  | 8     | 37.4  | 2.1    | 46    | 690  | 2167 | 0.1    | 28.4 | 568        | 476        |
| 1x400/35              | RM | 23.3  | 8     | 40.5  | 2.1    | 49    | 735  | 2654 | 0.0778 | 37.8 | 659        | 541        |
| 1x500/35              | RM | 26.5  | 8     | 43.7  | 2.4    | 52    | 780  | 3087 | 0.0605 | 47.3 | 764        | 616        |
| 1x630/35              | RM | 29.9  | 8     | 47.1  | 2.4    | 56    | 840  | 3603 | 0.0469 | 59.6 | 866        | 692        |
| 1x800/35              | RM | 34.2  | 8     | 51.4  | 2.4    | 60    | 900  | 4284 | 0.0367 | 75.6 | 984        | 770        |
| 1x1000/35             | RM | 38.1  | 8     | 55.3  | 2.4    | 65    | 975  | 5093 | 0.0291 | 94.6 | 1095       | 841        |
| 1x1200/35             | RM | 41.5  | 8     | 57.5  | 2.4    | 71    | 1065 | 5900 | 0.0247 | 113  | On Request | On Request |

## ABBREVIATIONS

|        |                                    |
|--------|------------------------------------|
| LF     | Leiterform                         |
| LD MM  | Leiterdurchmesser ca.              |
| ID MM  | Isolierwanddicke NWD               |
| DI MM  | Durchmesser über Isolierung ca.    |
| MWD MM | Manteldicke Kleinstwert            |
| AD MM  | Aussendurchmesser ca.              |
| BR     | Biegeradius                        |
| G KG   | Gewicht ca.                        |
| RI OHM | RI Ohm/km 20Grad                   |
| BK     | Bemessungs-Kurzschlußstrom 1 s     |
| SBL 30 | Strombelastbarkeit in Luft 30 Grad |
| SBE 20 | Strombelastbarkeit in Erde 20 Grad |