

# WINDING WIRES AND HIGH FREQUENCY LITZ WIRES / HIGH FREQUENCY LITZ WIRES



These HF stranded wires are made from enamel-insulated wire by twisting several cores together. This largely suppresses the skin effect that occurs at higher frequencies.

## HF stranded wires, single insulated with FEP or ETFE

|                                                                            |                            |                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FEP                                                                        | ETFE                       | <div>Applications</div> <div>&gt; Solar systems</div> <div>&gt; Ballasts</div> <div>&gt; Hearing aids</div> <div>&gt; Identification systems</div> <div>&gt; Inductive heating elements</div> <div>&gt; Power supplies</div> <div>&gt; Proximity switch</div> <div>&gt; Coils</div> <div>&gt; Transformers</div> <div>&gt; Ultrasonic generator</div> |
| Conductor                                                                  |                            |                                                                                                                                                                                                                                                                                                                                                       |
| Nema MW 79                                                                 | Nema MW 79                 |                                                                                                                                                                                                                                                                                                                                                       |
| Temperature Class                                                          |                            |                                                                                                                                                                                                                                                                                                                                                       |
| F / 155 °C                                                                 |                            |                                                                                                                                                                                                                                                                                                                                                       |
| Tensile strength                                                           |                            |                                                                                                                                                                                                                                                                                                                                                       |
| 20'000 N/mm2                                                               | 45'000 N/mm2               |                                                                                                                                                                                                                                                                                                                                                       |
| Operating voltage                                                          |                            |                                                                                                                                                                                                                                                                                                                                                       |
| 600 V                                                                      | UL – 600 V<br>VDE – 1000 V |                                                                                                                                                                                                                                                                                                                                                       |
| Insulation                                                                 |                            |                                                                                                                                                                                                                                                                                                                                                       |
| FEP                                                                        | DuPont ETFE<br>Tefzel®     |                                                                                                                                                                                                                                                                                                                                                       |
| UL - Approvals                                                             |                            |                                                                                                                                                                                                                                                                                                                                                       |
| UL60950-1 (Edition 2), Appendix U<br>System approval UL1446 RXT-2, Class F |                            |                                                                                                                                                                                                                                                                                                                                                       |

| Item number      | Item number      | Equiv.<br>AWG | Conductor-<br>Ø [mm] | Section<br>[mm <sup>2</sup> ] | Number<br>of wires | AWG<br>of the<br>wires | Outer-<br>Ø<br>[mm] | Recommended<br>frequency range |
|------------------|------------------|---------------|----------------------|-------------------------------|--------------------|------------------------|---------------------|--------------------------------|
| HFSXXL825/44FX-3 | HFSXXL825/44TX-3 | 13            | 1,67                 | 2,13                          | 825                | 44                     | 2,30                | 400 - 850 kHz                  |
| HFSXXL120/38FX-2 | HFSXXL120/38TX-2 | 15            | 0,97                 | 1,24                          | 120                | 38                     | 1,54                | 50 - 100 kHz                   |
| HFSXXL120/38FX-3 | HFSXXL120/38TX-3 | 15            | 0,97                 | 1,24                          | 120                | 38                     | 1,59                | 50 - 100 kHz                   |
| HFSXXL550/44FX-2 | HFSXXL550/44TX-2 | 16            | 1,11                 | 1,42                          | 550                | 44                     | 1,85                | 400 - 850 kHz                  |
| HFSXXL550/44FX-3 | HFSXXL550/44TX-3 | 16            | 1,11                 | 1,42                          | 550                | 44                     | 1,90                | 400 - 850 kHz                  |
| HFSXXL100/38FX-2 | HFSXXL100/38TX-2 | 16            | 1,03                 | 1,03                          | 100                | 38                     | 1,49                | 50 - 100 kHz                   |
| HFSXXL100/38FX-3 | HFSXXL100/38TX-3 | 16            | 1,03                 | 1,03                          | 100                | 38                     | 1,47                | 50 - 100 kHz                   |
| HFSXXL07/28FX-2  | HFSXXL07/28TX-2  | 18            | 0,81                 | 0,72                          | 7                  | 28                     | 1,15                | 60 Hz - 1 kHz                  |
| HFSXXL07/28FX-3  | HFSXXL07/28TX-3  | 18            | 0,81                 | 0,72                          | 7                  | 28                     | 1,20                | 60 Hz - 1 kHz                  |
| HFSXXL66/38FX-2  | HFSXXL66/38TX-2  | 18            | 0,54                 | 0,68                          | 66                 | 38                     | 1,17                | 50 - 100 kHz                   |
| HFSXXL66/38FX-3  | HFSXXL66/38TX-3  | 18            | 0,54                 | 0,68                          | 66                 | 38                     | 1,22                | 50 - 100 kHz                   |
| HFSXXL360/44FX-2 | HFSXXL360/44TX-2 | 18            | 0,73                 | 0,93                          | 360                | 44                     | 1,52                | 400 - 850 kHz                  |
| HFSXXL360/44FX-3 | HFSXXL360/44TX-3 | 18            | 0,73                 | 0,93                          | 360                | 44                     | 1,57                | 400 - 850 kHz                  |
| HFSXXL20/34FX-2  | HFSXXL20/34TX-2  | 19            | 0,40                 | 0,51                          | 20                 | 34                     | 1,02                | 20 kHz                         |
| HFSXXL20/34FX-3  | HFSXXL20/34TX-3  | 19            | 0,40                 | 0,51                          | 20                 | 34                     | 1,07                | 20 kHz                         |
| HFSXXL07/30FX-2  | HFSXXL07/30TX-2  | 20            | 0,35                 | 0,45                          | 7                  | 30                     | 0,94                | 1- 10 kHz                      |
| HFSXXL07/30FX-3  | HFSXXL07/30TX-3  | 20            | 0,35                 | 0,45                          | 7                  | 30                     | 0,99                | 1- 10 kHz                      |
| HFSXXL19/36FX-2  | HFSXXL19/36TX-2  | 21.5          | 0,24                 | 0,31                          | 19                 | 36                     | 0,81                | 20 - 50 kHz                    |
| HFSXXL19/36FX-3  | HFSXXL19/36TX-3  | 21.5          | 0,24                 | 0,31                          | 19                 | 36                     | 0,87                | 20 - 50 kHz                    |
| HFSXXL07/32FX-2  | HFSXXL07/32TX-2  | 21.5          | 0,23                 | 0,29                          | 7                  | 32                     | 0,78                | 10 kHz                         |
| HFSXXL07/32FX-3  | HFSXXL07/32TX-3  | 21.5          | 0,23                 | 0,29                          | 7                  | 32                     | 0,83                | 10 kHz                         |
| HFSXXL40/40FX-2  | HFSXXL40/40TX-2  | 22            | 0,20                 | 0,25                          | 40                 | 40                     | 0,75                | 100 - 200 kHz                  |
| HFSXXL230/44FX-2 | HFSXXL230/44TX-2 | 22            | 0,47                 | 0,60                          | 230                | 44                     | 1,23                | 400 - 850 kHz                  |
| HFSXXL230/44FX-3 | HFSXXL230/44TX-3 | 22            | 0,47                 | 0,60                          | 230                | 44                     | 1,28                | 400 - 850 kHz                  |

**Notes:**

The dimensions listed are only a small selection. As all strands have tolerances in their structure, all dimensions are approximate values. For other dimensions or special tolerance requirements, please send us a detailed request.