

# EPSILON COMPOSITE CABLE

The alternative



| HVCRC® Conductor Data Sheets |                    |                |                               |          |               |         |                     |                      |            |            |            |             |                         |       |       |
|------------------------------|--------------------|----------------|-------------------------------|----------|---------------|---------|---------------------|----------------------|------------|------------|------------|-------------|-------------------------|-------|-------|
| HVCRC®                       |                    |                | Aluminum Cross sectional area | Diameter | Core Diameter | Weight  | Core Rated Strength | Cond. Rated Strength | DC at 20°C | AC at 25°C | AC at 75°C | AC at 180°C | Ampacity <sup>(1)</sup> |       |       |
| Reference                    | International Size | ASTM Size      | (mm <sup>2</sup> )            | (mm)     | (mm)          | (Kg/Km) | (KN)                | (KN)                 | (Ohm/Km)   | (Ohm/Km)   | (Ohm/Km)   | (Ohm/Km)    | 75°C                    | 160°C | 180°C |
| HVCRC® 130 - 28              | SILVASSA           | -              | 123                           | 14.35    | 5.97          | 391.8   | 59.8                | 67.2                 | 0.2277     | 0.2327     | 0.2790     | 0.3762      | 431                     | 681   | 722   |
| HVCRC® 160 - 28              | HELSINKI           | PASADENA       | 153                           | 15.65    | 5.97          | 473.8   | 59.8                | 69.0                 | 0.1836     | 0.1878     | 0.2251     | 0.3034      | 492                     | 779   | 826   |
| HVCRC® 160 - 47              | JAIPUR             | -              | 154                           | 16.51    | 7.75          | 513.2   | 105.8               | 115.1                | 0.1822     | 0.1863     | 0.2234     | 0.3011      | 501                     | 794   | 843   |
| HVCRC® 160 - 18              | BERN               | -              | 159                           | 15.5     | 4.82          | 473.8   | 39.0                | 48.5                 | 0.1758     | 0.1798     | 0.2155     | 0.2906      | 501                     | 793   | 841   |
| HVCRC® 180 - 40              | ZADAR              | -              | 178                           | 17.09    | 7.11          | 564.9   | 89.1                | 99.7                 | 0.1578     | 0.1615     | 0.1935     | 0.2609      | 543                     | 863   | 915   |
| HVCRC® 190 - 28              | ROVINJ             | -              | 189                           | 17.09    | 5.97          | 574.9   | 59.8                | 71.2                 | 0.1481     | 0.1517     | 0.1817     | 0.2449      | 560                     | 890   | 945   |
| HVCRC® 230 - 28              | COPENHAGEN         | LINNET         | 221                           | 18.29    | 5.97          | 663.8   | 59.8                | 73.1                 | 0.1265     | 0.1297     | 0.1553     | 0.2093      | 617                     | 983   | 1,044 |
| HVCRC® 230 - 40              | REYKJAVIK          | ORIOLE         | 223                           | 18.82    | 7.11          | 690.8   | 89.1                | 102.5                | 0.1255     | 0.1287     | 0.1541     | 0.2076      | 624                     | 996   | 1,058 |
| HVCRC® 230 - 87              | MONTE CARLO        | -              | 229                           | 20.78    | 10.54         | 796.6   | 195.8               | 209.5                | 0.12251    | 0.1257     | 0.1505     | 0.2027      | 649                     | 1,040 | 1,104 |
| HVCRC® 240 - 47              | GLASGOW            | WACO           | 238                           | 19.55    | 7.75          | 746.3   | 105.8               | 120.1                | 0.1176     | 0.1207     | 0.1445     | 0.1946      | 651                     | 1,041 | 1,106 |
| HVCRC® 250 - 28              | GDANSK             | -              | 248                           | 19.21    | 5.97          | 735.8   | 59.8                | 74.7                 | 0.1131     | 0.1161     | 0.1390     | 0.1872      | 661                     | 1,056 | 1,121 |
| HVCRC® 280 - 40              | CASABLANCA         | LAREDO         | 276                           | 20.51    | 7.11          | 835.5   | 89.1                | 105.6                | 0.1016     | 0.1045     | 0.1250     | 0.1683      | 710                     | 1,137 | 1,207 |
| HVCRC® 320 - 60              | OSLO               | IRVING         | 315                           | 22.4     | 8.76          | 983.5   | 135.2               | 154.1                | 0.0889     | 0.0916     | 0.1096     | 0.1474      | 776                     | 1,249 | 1,327 |
| HVCRC® 320 - 40              | LISBON             | HAWK           | 317                           | 21.79    | 7.11          | 949.5   | 89.1                | 108.1                | 0.0884     | 0.0911     | 0.1089     | 0.1465      | 773                     | 1,241 | 1,319 |
| HVCRC® 370 - 47              | AMSTERDAM          | DOVE           | 369                           | 23.55    | 7.75          | 1107.3  | 105.8               | 128.0                | 0.0759     | 0.0785     | 0.0938     | 0.1260      | 851                     | 1,372 | 1,459 |
| HVCRC® 410 - 47              | CORDOBA            | -              | 400                           | 24.43    | 7.75          | 1194.0  | 105.8               | 129.9                | 0.07       | 0.0726     | 0.0866     | 0.1163      | 894                     | 1,445 | 1,536 |
| HVCRC® 430 - 52              | BRUSSELS           | GROSBEAK       | 422                           | 25.13    | 8.13          | 1262.0  | 116.5               | 141.8                | 0.0664     | 0.0689     | 0.0823     | 0.1104      | 925                     | 1,496 | 1,592 |
| HVCRC® 470 - 60              | STOCKHOLM          | LUBBOCK        | 463                           | 26.4     | 8.76          | 1392.5  | 135.2               | 163.0                | 0.0604     | 0.0629     | 0.0750     | 0.1006      | 981                     | 1,592 | 1,695 |
| HVCRC® 520 - 60              | WARSAW             | CUCKOO         | 513                           | 27.72    | 8.76          | 1532.5  | 135.2               | 166.0                | 0.0546     | 0.0572     | 0.0680     | 0.0911      | 1,044                   | 1,700 | 1,810 |
| HVCRC® 530 - 71              | DUBLIN             | DRAKE          | 525                           | 28.17    | 9.53          | 1583.0  | 160.1               | 191.5                | 0.0533     | 0.0559     | 0.0665     | 0.0889      | 1,061                   | 1,729 | 1,841 |
| HVCRC® 560 - 60              | HAMBURG            | PLANO          | 552                           | 28.62    | 8.76          | 1638.5  | 135.2               | 168.3                | 0.0508     | 0.0534     | 0.0635     | 0.0849      | 1,091                   | 1,779 | 1,895 |
| HVCRC® 580 - 60              | MILAN              | CORPUS CHRISTI | 573                           | 29.1     | 8.76          | 1696.5  | 135.2               | 169.6                | 0.049      | 0.0516     | 0.0613     | 0.0819      | 1,115                   | 1,820 | 1,939 |
| HVCRC® 600 - 71              | ROME               | ARLINGTON      | 595                           | 29.87    | 9.53          | 1779.0  | 160.1               | 195.8                | 0.0471     | 0.0497     | 0.0590     | 0.0788      | 1,144                   | 1,871 | 1,994 |
| HVCRC® 640 - 60              | VIENNA             | CARDINAL       | 630                           | 30.42    | 8.76          | 1857.5  | 135.2               | 173.1                | 0.0445     | 0.0472     | 0.0559     | 0.0746      | 1,182                   | 1,935 | 2,062 |
| HVCRC® 680 - 71              | BUDAPEST           | FORT WORTH     | 670                           | 31.49    | 9.53          | 1988.0  | 160.1               | 200.3                | 0.0418     | 0.0445     | 0.0527     | 0.0702      | 1,229                   | 2,017 | 2,150 |
| HVCRC® 700 - 60              | PRAGUE             | EL PASO        | 696                           | 31.8     | 8.76          | 2037.5  | 135.2               | 177.0                | 0.0403     | 0.0430     | 0.0509     | 0.0678      | 1,254                   | 2,059 | 2,196 |
| HVCRC® 740 - 71              | MUNICH             | BEAUMONT       | 738                           | 32.87    | 9.53          | 2174.0  | 160.1               | 204.3                | 0.038      | 0.0408     | 0.0482     | 0.0640      | 1,300                   | 2,141 | 2,284 |
| HVCRC® 750 - 87              | WARWICK            | -              | 751                           | 33.4     | 10.54         | 2235.9  | 195.8               | 240.8                | 0.0373     | 0.0401     | 0.0474     | 0.0629      | 1,317                   | 2,172 | 2,317 |
| HVCRC® 770 - 75              | LONDON             | SAN ANTONIO    | 762                           | 33.42    | 9.78          | 2248.0  | 168.6               | 214.3                | 0.0368     | 0.0396     | 0.0468     | 0.0621      | 1,326                   | 2,186 | 2,333 |
| HVCRC® 820 - 60              | PARIS              | BITTERN        | 815                           | 34.2     | 8.76          | 2366.5  | 135.2               | 184.1                | 0.0344     | 0.0373     | 0.0440     | 0.0582      | 1,377                   | 2,275 | 2,428 |
| HVCRC® 880 - 87              | BORDEAUX           | -              | 874                           | 35.76    | 10.54         | 2579.1  | 195.8               | 248.2                | 0.032      | 0.0350     | 0.0412     | 0.0544      | 1,441                   | 2,389 | 2,551 |
| HVCRC® 950 - 75              | ANTWERP            | DALLAS         | 944                           | 36.9     | 9.78          | 2751.0  | 168.6               | 225.2                | 0.0297     | 0.0328     | 0.0385     | 0.0507      | 1,503                   | 2,500 | 2,671 |
| HVCRC® 1020 - 75             | MADRID             | LAPWING        | 1013                          | 38.18    | 9.78          | 2944.0  | 168.6               | 229.3                | 0.0277     | 0.0310     | 0.0362     | 0.0475      | 1,565                   | 2,611 | 2,791 |
| HVCRC® 1160 - 79             | CHUKAR             | CHUKAR         | 1156                          | 40.74    | 10.03         | 3353.0  | 177.3               | 246.7                | 0.0243     | 0.0278     | 0.0323     | 0.0421      | 1,686                   | 2,833 | 3,031 |

(1) Ampacity values based on IEEE Standard 738-2012, according to the following data: 50 Hz, zero elevation, 25°C ambient temperature, 0.5 Solar Absorbtivity, 0.6 Emissivity, 0.61 m/sec wind and 1000 W/m<sup>2</sup>, at corresponding surface temperatures. Coefficient of thermal resistance is 0.00407 for International sizes.

Depending on conductor manufacturer rated specifications may slightly change.

Revision 04

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