



# PQC

Power Quality Components

DC Link Capacitors

## EGB DCL/EBB DCL

**Applications**

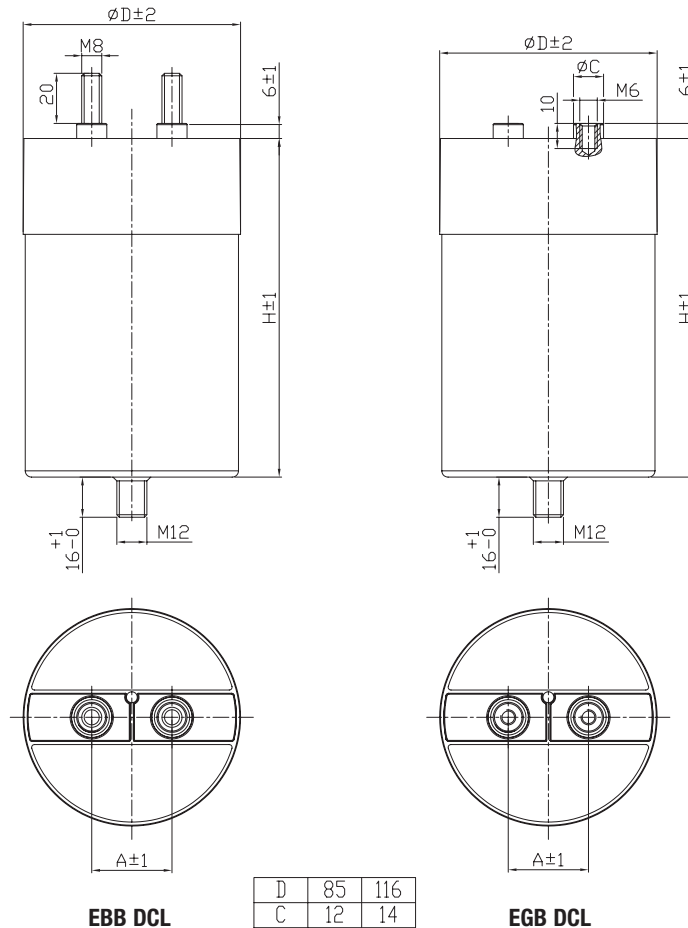
- DC-link and DC-filter in industrial inverters (wind turbines, solar power, power drives)
- Replacement of aluminium electrolytic capacitors
- AC filter in UPS application

**Features**

- High RMS current rating (ripple)
- Low ESR (equivalent series resistance) allows high currents
- Low self-inductance for high-speed IGBT converters (special low inductance design)
- Dry resin filling (no leakage of poisonous electrolytes)
- Self healing dielectric withstand overvoltages 2 times rated voltage
- No series connections of capacitors necessary
- High reliability and life expectancy

**General Characteristics**

|  |   |
|--|---|
| <b>Dielectric</b>                                      | Metallized polypropylene                        |
| <b>Dissipation factor (<math>\tan \delta_0</math>)</b> | $< 2 \times 10^{-4}$ (1kHz)                     |
| <b>Capacitance tolerance</b>                           | $\pm 10\%$                                      |
| <b>Operating temperatures (case)</b>                   | -25°C to 60°C (70°C max.)                       |
| <b>Storage temperature</b>                             | -40°C to 85°C                                   |
| <b>Humidity class</b>                                  | F (75% annual means, 95%, 30 days/a)            |
| <b>Inductance</b>                                      | $< 50\text{nH}$                                 |
| <b>Test voltage terminal/terminal (VDC)</b>            | 1,5 x Undc (10s)                                |
| <b>Test voltage terminal/case (VAC)</b>                | 3600VAC (10s)                                   |
| <b>Life expectancy</b>                                 | 100.000h at Un and $< 70^\circ\text{C}$ hotspot |
| <b>Case material</b>                                   | Aluminium                                       |
| <b>Cover material</b>                                  | Plastic UL 94 (V-0)                             |
| <b>Filling</b>   | Polyurethane/epoxy resin                        |
| <b>Mounting</b>  | Indoor in any position                          |
| <b>Mounting torque</b>                                 | 12 Nm for M12                                   |
| <b>Standard</b>  | IEC 61071                                       |



## Product Table HYDRA EGB DCL/EBB DCL

| Capacitance<br>Cn (µF)     | Diameter<br>Ø D (mm) | Height<br>H (mm) | A (mm) | Max. RMS<br>current<br>Imax (A) | Repet. Peak<br>current Ip<br>(A) | Surge<br>current Is<br>(A) | Series<br>resistance<br>Rs (mΩ) | Weight<br>(kg) |
|----------------------------|----------------------|------------------|--------|---------------------------------|----------------------------------|----------------------------|---------------------------------|----------------|
| Un = 700VDC, Us = 1050VDC  |                      |                  |        |                                 |                                  |                            |                                 |                |
| 280                        | 85                   | 70               | 32     | 25                              | 2856                             | 8568                       | 2,5                             | 0,7            |
| 480                        | 85                   | 100              | 32     | 40                              | 2911                             | 8733                       | 2,3                             | 0,7            |
| 580                        | 85                   | 115              | 32     | 50                              | 2925                             | 8775                       | 2,1                             | 1              |
| 700                        | 85                   | 135              | 32     | 60                              | 2883                             | 8649                       | 2                               | 1              |
| 900                        | 85                   | 185              | 32     | 60                              | 5460                             | 16380                      | 1,5                             | 1,3            |
| 1100                       | 85                   | 215              | 32     | 60                              | 5548                             | 16644                      | 1,4                             | 1,6            |
| 1300                       | 85                   | 255              | 32     | 60                              | 5354                             | 16062                      | 1,3                             | 1,7            |
| 1400                       | 116*                 | 135              | 50     | 80                              | 5820                             | 17460                      | 1,2                             | 1,8            |
| 2000                       | 116*                 | 185              | 50     | 80                              | 11520                            | 34560                      | 0,8                             | 2,4            |
| 2300                       | 116*                 | 215              | 50     | 100                             | 11600                            | 34800                      | 0,7                             | 2,8            |
| 2800                       | 116*                 | 255              | 50     | 100                             | 11640                            | 34920                      | 0,7                             | 3,3            |
| Un = 900VDC, Us = 1350VDC  |                      |                  |        |                                 |                                  |                            |                                 |                |
| 220                        | 85                   | 70               | 32     | 25                              | 2565                             | 7695                       | 3,5                             | 0,7            |
| 350                        | 85                   | 100              | 32     | 40                              | 2427                             | 7281                       | 3                               | 0,7            |
| 460                        | 85                   | 115              | 32     | 50                              | 2652                             | 7956                       | 2,3                             | 1              |
| 550                        | 85                   | 135              | 32     | 60                              | 2589                             | 7767                       | 2,1                             | 1              |
| 650                        | 85                   | 185              | 32     | 60                              | 4506                             | 13518                      | 2                               | 1,3            |
| 920                        | 85                   | 215              | 32     | 60                              | 5303                             | 15909                      | 1,7                             | 1,6            |
| 1080                       | 85                   | 255              | 32     | 60                              | 5083                             | 15249                      | 1,5                             | 1,7            |
| 1250                       | 116*                 | 135              | 50     | 80                              | 5900                             | 17700                      | 1,2                             | 1,8            |
| 1650                       | 116*                 | 185              | 50     | 80                              | 11440                            | 34320                      | 0,8                             | 2,4            |
| 2000                       | 116*                 | 215              | 50     | 100                             | 11530                            | 34590                      | 0,7                             | 2,8            |
| 2500                       | 116*                 | 255              | 50     | 100                             | 11800                            | 35400                      | 0,7                             | 3,3            |
| Un = 1100VDC; Us = 1650VDC |                      |                  |        |                                 |                                  |                            |                                 |                |
| 140                        | 85                   | 70               | 32     | 20                              | 1959                             | 5877                       | 4                               | 0,6            |
| 240                        | 85                   | 100              | 32     | 30                              | 1997                             | 5991                       | 3,4                             | 0,7            |
| 310                        | 85                   | 115              | 32     | 40                              | 2145                             | 6435                       | 3,3                             | 0,9            |
| 420                        | 85                   | 135              | 32     | 50                              | 2090                             | 6270                       | 2,4                             | 1              |
| 480                        | 85                   | 185              | 32     | 60                              | 3993                             | 11979                      | 2,2                             | 1,3            |
| 610                        | 85                   | 215              | 32     | 60                              | 4220                             | 12660                      | 2                               | 1,6            |
| 720                        | 85                   | 255              | 32     | 60                              | 4067                             | 12201                      | 1,8                             | 1,7            |
| 750                        | 116*                 | 135              | 50     | 80                              | 4275                             | 12825                      | 1,5                             | 1,8            |
| 1000                       | 116*                 | 185              | 50     | 80                              | 8320                             | 24960                      | 1,1                             | 2,4            |
| 1200                       | 116*                 | 215              | 50     | 100                             | 8300                             | 24900                      | 1                               | 2,8            |
| 1500                       | 116*                 | 255              | 50     | 100                             | 8550                             | 25650                      | 0,9                             | 3,3            |
| Un = 1300VDC; Us = 1950VDC |                      |                  |        |                                 |                                  |                            |                                 |                |
| 120                        | 85                   | 70               | 32     | 15                              | 1924                             | 5772                       | 4,5                             | 0,6            |
| 180                        | 85                   | 100              | 32     | 25                              | 1716                             | 5148                       | 4,2                             | 0,8            |
| 220                        | 85                   | 115              | 32     | 35                              | 1744                             | 5232                       | 4                               | 1              |
| 260                        | 85                   | 135              | 32     | 40                              | 1683                             | 5049                       | 3,7                             | 1,1            |
| 340                        | 85                   | 185              | 32     | 55                              | 3241                             | 9723                       | 3,2                             | 1,6            |
| 480                        | 85                   | 215              | 32     | 60                              | 3805                             | 11415                      | 2,2                             | 1,7            |
| 600                        | 85                   | 255              | 32     | 60                              | 3883                             | 11649                      | 2,1                             | 1,9            |
| 600                        | 116*                 | 135              | 50     | 80                              | 3920                             | 11760                      | 1,7                             | 1,8            |
| 750                        | 116*                 | 185              | 50     | 80                              | 6670                             | 20010                      | 1                               | 2,4            |
| 950                        | 116*                 | 215              | 50     | 80                              | 7530                             | 22590                      | 0,9                             | 2,8            |
| 1150                       | 116*                 | 255              | 50     | 80                              | 6670                             | 20010                      | 1,1                             | 3,3            |

Note: Other voltages, and capacitance values are available on request

\* Diameter 116mm from 2013

## Product Table HYDRA EGB DCL/EBB DCL

| Capacitance<br>Cn (µF)     | Diameter<br>Ø D (mm) | Height<br>H (mm) | A (mm) | Max. RMS<br>current<br>Imax (A) | Repet. Peak<br>current Ip<br>(A) | Surge<br>current Is<br>(A) | Series<br>resistance<br>Rs (mΩ) | Weight<br>(kg) |
|----------------------------|----------------------|------------------|--------|---------------------------------|----------------------------------|----------------------------|---------------------------------|----------------|
| Un = 1500VDC; Us = 2250VDC |                      |                  |        |                                 |                                  |                            |                                 |                |
| 140                        | 85                   | 115              | 32     | 25                              | 1312                             | 3935                       | 4,5                             | 0,8            |
| 200                        | 85                   | 135              | 32     | 35                              | 1530                             | 4589                       | 4,1                             | 1,1            |
| 280                        | 85                   | 185              | 32     | 45                              | 3154                             | 9462                       | 3,5                             | 1,4            |
| 320                        | 85                   | 215              | 32     | 60                              | 2997                             | 8991                       | 3                               | 1,6            |
| 350                        | 85                   | 255              | 32     | 60                              | 2677                             | 8031                       | 2,9                             | 1,6            |
| 425                        | 116*                 | 135              | 50     | 80                              | 3280                             | 9840                       | 1,5                             | 1,8            |
| 560                        | 116*                 | 185              | 50     | 80                              | 6310                             | 18930                      | 1                               | 2,4            |
| 700                        | 116*                 | 215              | 50     | 80                              | 6556                             | 19668                      | 1,1                             | 2,8            |
| 850                        | 116*                 | 255              | 50     | 80                              | 6560                             | 19680                      | 1,2                             | 3,3            |

Note: Other voltages, and capacitance values are available on request

\* Diameter 116mm from 2013

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