

Non flammable electrolyte

Screw terminals

High CV product

Long life 8000 h @ 85°C

RoHS compliant

REACH compliant

Features

- All internal contact welded
- Self distinguishing electrolyte
- High capacitance
- High reliability

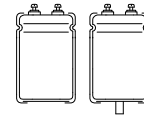
Applications

- Industrial
- Inverter/drives
- Professional photoflash
- Welding

Different case sizes, voltages and capacitance combinations are available on request. Also in small lots.

General specifications

| Items | | Characteristics |
|---|---------------------------------|--|
| Rated capacitance range C_R | | 390 ... 18.000 μF |
| Capacitance tolerance | | $\pm 20\%$ |
| Rated voltage range U_R | | 350 ... 450 V |
| Surge voltage U_S | | $U_S = 1,10 U_R$ |
| Max. reverse voltage / ESL | | 2 V / 20 nH |
| Category temperature range | | -25°C ... +85°C |
| Leakage current I_L after 5 min @ U_R | | $\leq 0,008 * C_R [\mu F] * U_R [V] + 6 \mu A [\mu A]$ |
| Useful life | 8000 h @ 85 °C ; $U_R ; I_{R-}$ | Requirements $\Delta C/C \leq 30\%$ of initial value $ESR \leq 300\%$ of specified limit $I_L \leq /$ specified limit |
| Endurance test | 2000 h @ 85 °C , U_R | Requirements $\Delta C/C \leq 20\%$ of initial value $ESR \leq 130\%$ of specified limit $I_L \leq$ specified limit |
| Climatic category IEC 60068 | | 25/085/56 |
| Voltage proof of the external insulation | | ≥ 2500 V AC |
| Sectional specification | | IEC 60384-4 |



Drawings for series GFA and GFB

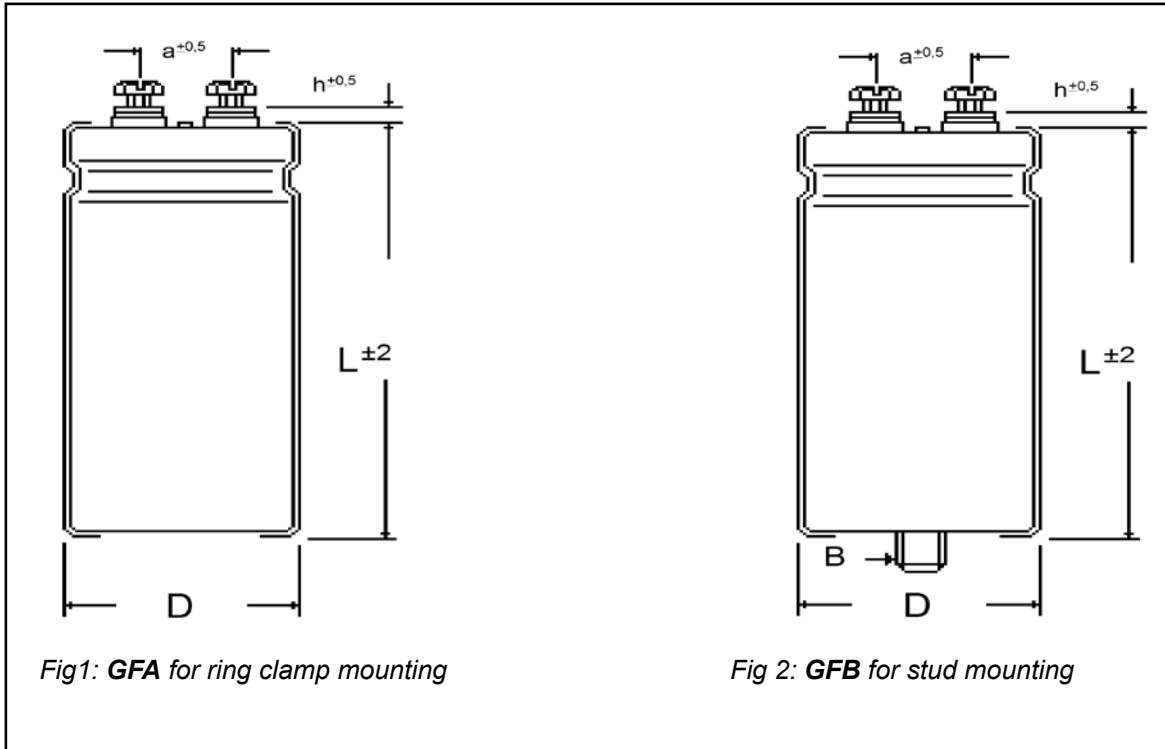


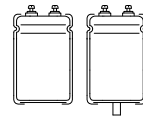
Fig1: **GFA** for ring clamp mounting

Fig 2: **GFB** for stud mounting

Dimensions and mechanical data

| Dimensions, case with insulation sleeve | | | Connecting terminals | | Mounting stud, GFB only | |
|---|-----------|-----------|----------------------|---------------------|-------------------------|---------------------|
| D [mm] | h [mm] | a [mm] | Thread | Max. torque [Nm] | B | Max. torque [Nm] |
| 35 | 6 | 13 | M 5 | 2,0 | M 8 x 12 | 4,0 |
| 40 | 5 | 18 | M 5 | 2,0 | M 8 x 12 | 4,0 |
| 50 | 5 | 22 | M 5 | 2,0 | M 12 x 16 | 10,0 |
| 65 | 5 | 28,5 | M 5 | 2,0 | M 12 x 16 | 10,0 |
| 75 | 5 | 31,7 | M 5, M 6 | 2,0 ; 2,5 | M 12 x 16 | 10,0 |
| 90 | 5 | 31,7 | M 6 | 2,5 | M 12 x 16 | 10,0 |

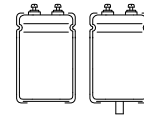
| | |
|---------|--|
| | <p>GFA : connecting screws M 5 or M 6 GFB : connecting screws M 5 or M 6 + mounting nut M 8 or M 12</p> |
| Remarks | <p>Further mounting accessories like clamps, nylon cup nuts and insulation disks on request, see "accessory equipment"</p> |



Electrical data and ordering code for series GF

| Rated voltage U_R [V] | Rated cap. C_R [μ F] | Case size D x L [mm] | Typ. ESR 100 Hz, 20°C [m Ω] | Ripple current IR~ 100 Hz, 85°C [A] | Order code |
|-------------------------------|-----------------------------------|-------------------------|---|--|--------------------------|
| | | | | | Plain base: GFA... |
| | | | | | Stud mounting: GFB... |
| 350 | 560 | 35x55 | 199 | 1,8 | 56135035055 |
| | 680 | 40x55 | 164 | 2,1 | 68135040055 |
| | 1200 | 45x70 | 93 | 3,0 | 12235045070 |
| | 1500 | 35x100 | 74 | 3,7 | 15235035100 |
| | 1800 | 40x100 | 62 | 4,3 | 18235040100 |
| | 1800 | 50x70 | 62 | 4,0 | 18235050070 |
| | 2200 | 45x100 | 51 | 4,7 | 22235045100 |
| | 2700 | 50x100 | 41 | 5,6 | 27235050100 |
| | 3300 | 65x80 | 34 | 6,4 | 33235065080 |
| | 4700 | 75x100 | 24 | 8,3 | 47235075100 |
| | 5600 | 65x130 | 20 | 10,0 | 56235065130 |
| | 8200 | 75x145 | 14 | 12,6 | 82235075145 |
| | 12000 | 75x225 | 9 | 18,3 | 12335075225 |
| | 12000 | 90x148 | 9 | 17,1 | 12335090148 |
| 18000 | 90x230 | 6 | 25,1 | 18335090230 | |
| 400 | 390 | 35x55 | 286 | 1,5 | 39140035055 |
| | 560 | 40x55 | 199 | 1,9 | 56140040055 |
| | 1000 | 45x70 | 111 | 2,8 | 10240045070 |
| | 1000 | 35x100 | 111 | 3,0 | 10240035100 |
| | 1200 | 40x100 | 93 | 3,5 | 12240040100 |
| | 1200 | 50x70 | 93 | 3,2 | 12240050070 |
| | 1500 | 45x100 | 74 | 3,9 | 15240045100 |
| | 1800 | 50x100 | 62 | 4,5 | 18240050100 |

| Rated voltage U_R [V] | Rated cap. C_R [μ F] | Case size D x L [mm] | Typ. ESR 100 Hz, 20°C [m Ω] | Ripple current IR~ 100 Hz, 85°C [A] | Order code |
|-------------------------------|-----------------------------------|-------------------------|---|--|--------------------------|
| | | | | | Plain base: GFA... |
| | | | | | Stud mounting: GFB... |
| 400 | 2200 | 65x80 | 51 | 5,2 | 22240065080 |
| | 3900 | 75x100 | 29 | 7,5 | 39240075100 |
| | 3900 | 65x130 | 29 | 8,3 | 39240065130 |
| | 6800 | 75x145 | 16 | 11,5 | 68240075145 |
| | 10000 | 90x148 | 11 | 15,6 | 10340090148 |
| | 12000 | 75x225 | 9 | 18,3 | 12340075225 |
| | 18000 | 90x230 | 6 | 25,1 | 18340090230 |
| | 450 | 390 | 35x55 | 286 | 1,5 |
| 560 | | 35x100 | 199 | 0,9 | 56145035000 |
| 680 | | 40x55 | 164 | 2,1 | 68145040055 |
| 820 | | 40x60 | 136 | 2,4 | 82145040060 |
| 1000 | | 45x70 | 111 | 3,2 | 10245045100 |
| 1200 | | 40x100 | 93 | 3,5 | 12245040100 |
| 1200 | | 50x70 | 93 | 3,2 | 12245050070 |
| 1200 | | 45x100 | 93 | 3,5 | 12245045100 |
| 1800 | | 50x100 | 62 | 4,5 | 18245050100 |
| 1800 | | 65x80 | 62 | 4,7 | 18245065080 |
| 3900 | | 75x100 | 29 | 7,5 | 39245075100 |
| 3300 | | 65x130 | 34 | 7,7 | 33245065130 |
| 5600 | | 75x145 | 20 | 10,4 | 56245075145 |
| 8200 | | 75x225 | 14 | 15,1 | 82245075225 |
| 10000 | | 90x148 | 11 | 15,6 | 10345090148 |
| 15000 | 90x230 | 7 | 22,9 | 15345090230 | |



Useful life
 as a function of ambient temperature and actual ripple current

