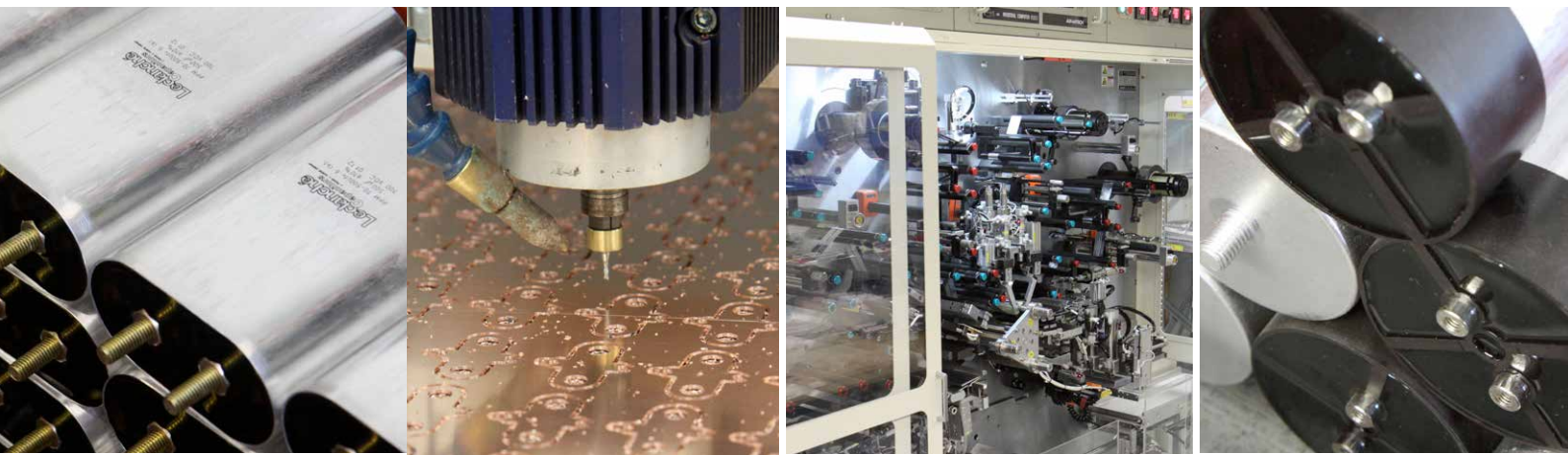




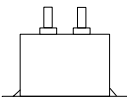
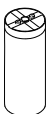
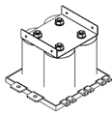
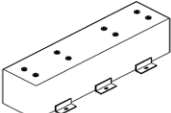


FTCAP
FISCHER & TAUSCHE
CAPACITORS

FILM CAPACITORS



| | |
|------------------|---|
| Terminal Designs | 3 |
|------------------|---|

| Series | Design | Application | Page |
|--------------|---|---|------|
| Joule Cap |  | DC-Link, energy storage, flash application | 4 |
| Power Link |  | Compact design for frequency converters | 6 |
| Double Power |  | Ultra compact design | 8 |
| Castor Cap |  | Compact, DC-Filtering | 10 |
| Coax Cap |  | High current, DC-Link, induction heating, very low inductance | 12 |
| Energy Cap |  | High capacity, robust, power conversion, low inductance | 14 |
| FischerLink |  | Film capacitor assembly for inverter application, extremely low inductance, high capacity | 16 |
| Power Box |  | Metal case for extreme environments | 18 |

Examples of custom-made Film Capacitors

| | |
|--|----|
| Intermediate-circuit Film Capacitor with direct busbar connection | 20 |
| High voltage Film Capacitor with terminals on ceramic bushing | 20 |
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| High voltage Film Capacitor with low ESR and flat construction | 22 |
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| Very low inductive Film Capacitor for IGBT application | 22 |

Applications for Terminals

| Terminal Design | Terminal Design |
|---|---|
| <p>PCB Pins, radial</p>  | <p>Solder lugs</p>  |
| <p>New: Elo-Pin</p>  | <p>Axial leaded</p>  |
| <p>PCB Pins</p>  | <p>Screw terminals on ceramic bushing</p>  |
| <p>Screw terminals / threaded studs</p>  | <p>Direct busbar connection</p>  |
| <p>Screw terminals / internal thread</p>  | <p>Faston connection</p>   |
| <p>Screw terminals / internal thread/ GTO style</p>  | <p>Variable terminals for easy busbar connection</p>  |
| <p>Screw terminal / internal thread</p>  | <p>Direct IGBT-connection</p>  |



Joule Cap



RoHS compliant
REACH compliant

FEATURES

- Greatest Capacitance/Voltage product in smallest size package
- Box construction facilitates high density PCB layout
- Low inductance achieved by horizontal layering of capacitor element
- Self-healing PP dielectric

APPLICATIONS

- Inverters
- Photoflash
- Stroboscopes
- Motor Drivers
- Bulk energy storage for applications with high active currents

GENERAL SPECIFICATIONS

| Items | Characteristics |
|--------------------------------|---|
| Capacitance range | 2,5 µF ... 50 µF others on request |
| Rated voltage DC | 500 V _{DC} ... 1500 V _{DC} |
| Available tolerance | ± 5 % (J); ± 10 % (K) |
| Rated RMS current | max. 23 A _{RMS} |
| Operating temperature range | -40 °C ... +85 °C |
| Climatic category DIN IEC 68/1 | 40/085/21 |
| Terminals | PCB Pins, 2x 1mm or 4x 1mm, or press-fit contacts |
| Terminal length | 3,5 - 25mm |

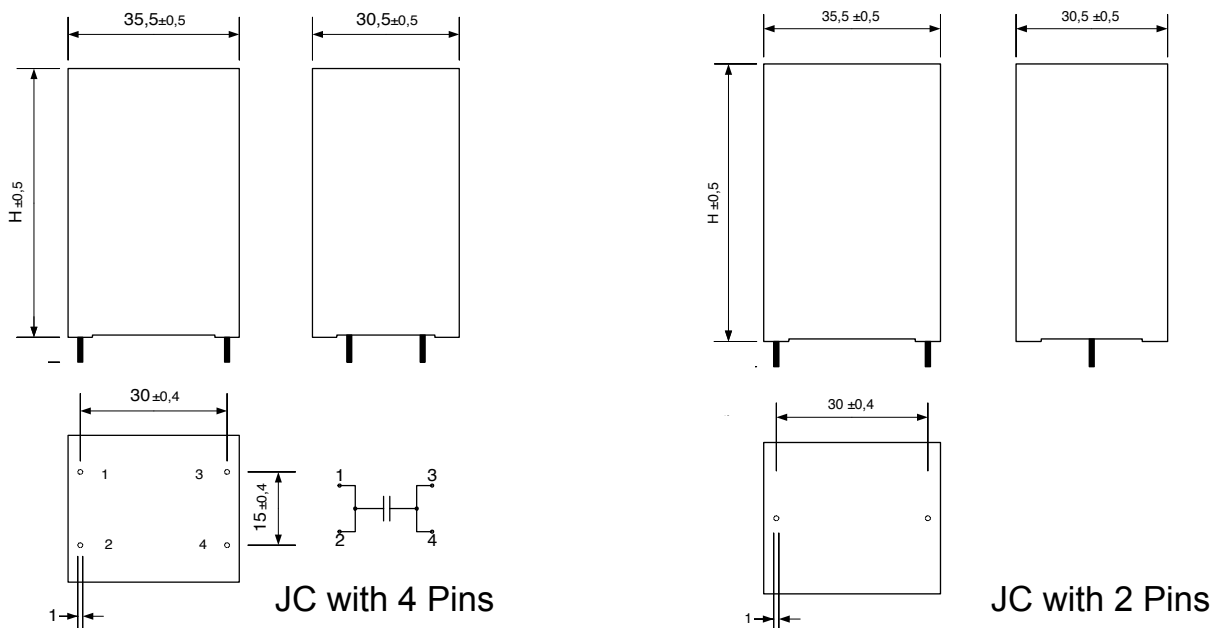
Different voltages and capacitance combinations are available on request. Also in small lots.

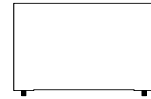


■ ELECTRICAL DATA FOR SERIES JOULE CAP

| U_R | C_R | H | Max. ESR @10kHz | Max. I_{RMS} @10kHz/30°C | | R_{th} | Weight (approx) | Part No. plus (...) = tol. and wire length |
|-------|-------|----|-----------------|----------------------------|-------|----------|-----------------|--|
| | | | | [A] | | | | |
| | | | | 2-Pin | 4-Pin | | | |
| 500 | 18 | 38 | 6 | 15 | 23 | 13 | 55 | JC18µ500d38... |
| | 35 | 55 | 4 | 15 | 23 | 10 | 75 | JC35µ500d55... |
| | 50 | 84 | 3 | - | 23 | 7 | 110 | JC50µ500d84... |
| 600 | 15 | 38 | 7 | 15 | 23 | 13 | 55 | JC15µ600d38... |
| | 30 | 55 | 4 | 15 | 23 | 10 | 75 | JC30µ600d55... |
| | 40 | 84 | 3,5 | - | 23 | 7 | 110 | JC40µ600d84... |
| 750 | 10 | 38 | 8 | 15 | 23 | 13 | 55 | JC10µ750d38... |
| | 20 | 55 | 4 | 15 | 23 | 10 | 75 | JC20µ750d55... |
| | 33 | 84 | 4 | - | 23 | 7 | 110 | JC33µ750d84... |
| 900 | 6,8 | 38 | 9 | 15 | 23 | 13 | 55 | JC6.8µ900d38... |
| | 14 | 55 | 5 | 15 | 23 | 10 | 75 | JC14µ900d55... |
| | 22 | 84 | 4 | - | 23 | 7 | 110 | JC22µ900d84... |
| 1000 | 5,6 | 38 | 10 | 15 | 22 | 13 | 55 | JC5.6µ1000d38... |
| | 10 | 55 | 6 | 15 | 23 | 10 | 75 | JC10µ1000d55... |
| | 16 | 84 | 5 | - | 23 | 7 | 110 | JC16µ1000d84... |
| 1200 | 4,2 | 38 | 11 | 15 | 21 | 13 | 55 | JC4.2µ1200d38... |
| | 7 | 55 | 7 | 15 | 23 | 10 | 75 | JC7µ1200d55... |
| | 12 | 84 | 5,5 | - | 23 | 7 | 110 | JC12µ1200d84... |
| 1500 | 2,5 | 38 | 12 | 15 | 18 | 13 | 55 | JC2.5µ1500d38... |
| | 4,7 | 55 | 8 | 15 | 23 | 10 | 75 | JC4.7µ1500d55... |
| | 7,5 | 84 | 6 | - | 23 | 7 | 110 | JC7.5µ1500d84... |

■ EXAMPLE OF DRAWINGS FOR SERIES JOULE CAP





POWER LINK



RoHS compliant
REACH compliant

FEATURES

- High CV product
- Compact design
- Overvoltage capability
- Self-healing PP dielectric

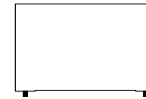
APPLICATIONS

- High-end and industrial power supplies
- Solar inverters
- Frequency converters

GENERAL SPECIFICATIONS

| Items | Characteristics |
|--------------------------------|--|
| Capacitance range | 6 μ F ... 65 μ F others on request |
| Rated voltage DC | 700 V _{DC} ... 1500 V _{DC} |
| Available tolerance | $\pm 5\%$ (J); $\pm 10\%$ (K) |
| Rated RMS current @ 30 °C | max. 29 A _{RMS} |
| Operating temperature range | -40 °C ... +85 °C |
| Climatic category DIN IEC 68/1 | 40/085/21 |
| Terminals | PCB Pins, 4x 1,2mm, or press-fit contacts |
| Terminal length | 3,5 - 25 mm |

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

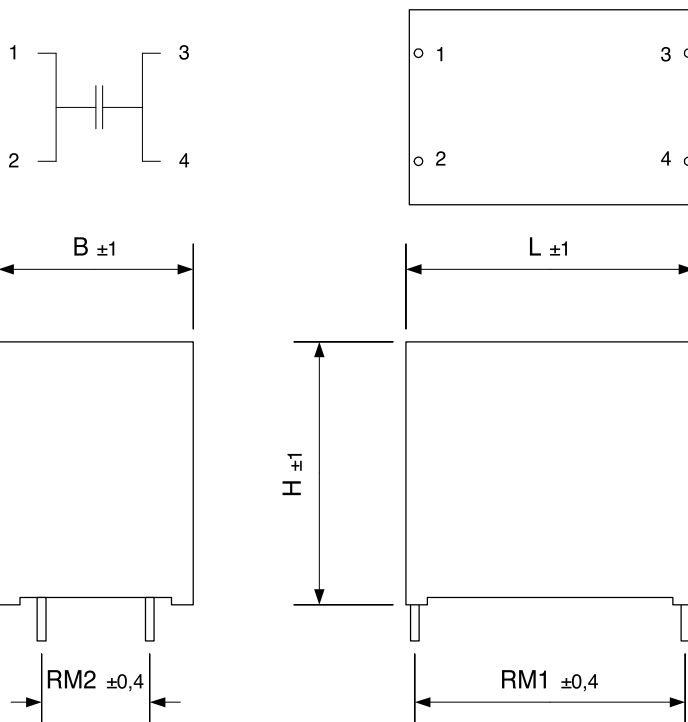


PL

■ ELECTRICAL DATA FOR SERIES POWER LINK

| U_R | C_R | Dimensions | Pitch | Max. ESR @1kHz | dU/dt | Max. I_{RMS} @1kHz/30°C | I_{Peak} | Energy | R_{th} | Weight (approx) | Part No. plus (...) = tol. and wire length |
|--------------------|-------|------------|-----------|----------------|--------|---------------------------|------------|--------|----------|-----------------|--|
| [V _{DC}] | [μF] | [mm] | [mm] | [mΩ] | [V/μs] | [A] | [A] | [Ws] | [K/W] | [g] | |
| 700 | 24 | 40x27x36 | 37,5x16 | 9 | 33 | 22 | 795 | 5,9 | 14 | 50 | PL24μ700d040027036... |
| | 33 | 43x30x45 | 37,5x16 | 7 | 33 | 29 | 1093 | 8,1 | 11 | 75 | PL33μ700d043030045... |
| | 50 | 58x30x45 | 52,5x20,3 | 9 | 22 | 28 | 1116 | 12,3 | 9 | 100 | PL50μ700d058030045... |
| | 65 | 58x35x50 | 52,5x20,3 | 7 | 22 | 29 | 1451 | 15,9 | 7 | 135 | PL65μ700d058035050... |
| 900 | 16 | 40x27x36 | 37,5x16 | 10 | 41 | 20 | 662 | 6,5 | 14 | 50 | PL16μ900d040027036... |
| | 22 | 43x30x45 | 37,5x16 | 6 | 41 | 29 | 911 | 8,9 | 11 | 75 | PL22μ900d043030045... |
| | 32 | 58x30x45 | 52,5x20,3 | 11 | 28 | 26 | 893 | 13,0 | 9 | 100 | PL32μ900d058030045... |
| | 42 | 58x35x50 | 52,5x20,3 | 8 | 28 | 29 | 1172 | 17,0 | 7 | 135 | PL42μ900d058035050... |
| 1100 | 11 | 40x27x36 | 37,5x16 | 13 | 27 | 25 | 303 | 6,7 | 14 | 50 | PL11μ1100d040027036... |
| | 15 | 43x30x45 | 37,5x16 | 9 | 50 | 24 | 745 | 9,1 | 11 | 75 | PL15μ1100d043030045... |
| | 22 | 58x30x45 | 52,5x20,3 | 13 | 33 | 23 | 737 | 13,3 | 9 | 100 | PL22μ1100d058030045... |
| | 30 | 58x35x50 | 52,5x20,3 | 10 | 33 | 29 | 1004 | 18,2 | 7 | 135 | PL30μ1100d058035050... |
| 1300 | 8 | 40x27x36 | 37,5x16 | 15 | 58 | 17 | 464 | 6,8 | 14 | 50 | PL8μ1300d040027036... |
| | 10 | 43x30x45 | 37,5x16 | 12 | 58 | 22 | 580 | 8,5 | 11 | 75 | PL10μ1300d043030045... |
| | 16 | 58x30x45 | 52,5x20,3 | 15 | 39 | 22 | 625 | 13,5 | 9 | 100 | PL16μ1300d058030045... |
| | 21 | 58x35x50 | 52,5x20,3 | 12 | 39 | 27 | 820 | 17,8 | 7 | 135 | PL21μ1300d058035050... |
| 1500 | 6 | 40x27x36 | 37,5x16 | 16 | 66 | 16 | 397 | 6,8 | 14 | 50 | PL6μ1500d040027036... |
| | 8 | 43x30x45 | 37,5x16 | 13 | 66 | 21 | 530 | 9,0 | 11 | 75 | PL8μ1500d043030045... |
| | 12 | 58x30x45 | 52,5x20,3 | 17 | 45 | 20 | 536 | 13,5 | 9 | 100 | PL12μ1500d058030045... |
| | 16 | 58x35x50 | 52,5x20,3 | 13 | 45 | 25 | 714 | 18,0 | 7 | 135 | PL16μ1500d058035050... |

■ EXAMPLE OF DRAWINGS FOR SERIES POWER LINK





DOUBLE POWER



RoHS compliant
REACH compliant

■ FEATURES

- High CV product
- Compact design
- Overvoltage capability
- 2 windings parallel placed, therefore half PCB Space
- Self-healing PP dielectric

■ APPLICATIONS

- High-end and industrial power supplies
- Solar inverters
- Frequency converters

■ GENERAL SPECIFICATIONS

| Items | Characteristics |
|--------------------------------|--|
| Capacitance range | 11 μ F ... 85 μ F others on request |
| Rated voltage DC | 700 V _{DC} ... 1500 V _{DC} |
| Available tolerance | $\pm 5\%$ (J); $\pm 10\%$ (K) |
| Rated RMS current @ 30 °C | max. 43 A _{RMS} |
| Operating temperature range | -40 °C ... +85 °C |
| Climatic category DIN IEC 68/1 | 40/085/21 |
| Terminals | PCB Pins, 4x 1,4mm, or press-fit contacts |
| Terminal length | 3,5 - 25 mm |

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

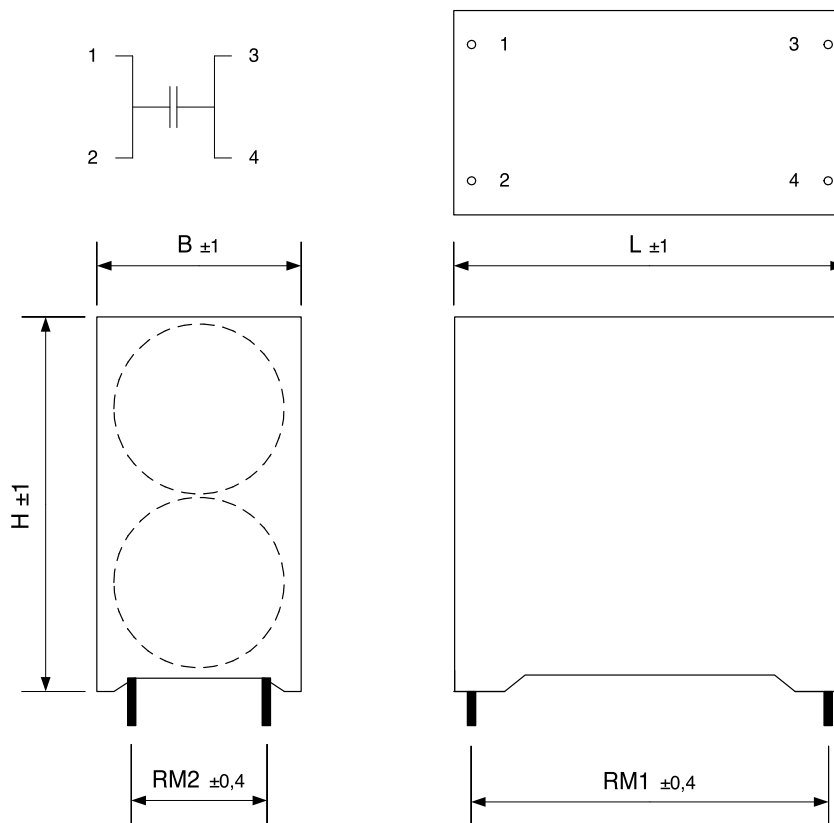


DP

■ ELECTRICAL DATA FOR SERIES DOUBLE POWER

| U_R | C_R | Dimensions | Pitch | Max. ESR @1kHz | Max. I_{RMS} @1kHz/30°C | I_{Peak} | Energy | R_{th} | Weight (approx) | Part No. plus (...)= tol. and wire length |
|--------------------|-------|------------|-----------|----------------|---------------------------|------------|--------|----------|-----------------|---|
| [V _{DC}] | [μF] | [mm] | [mm] | [mΩ] | [A] | [A] | [Ws] | [K/W] | [g] | |
| 700 | 40 | 43x30x60 | 37,5x16 | 6 | 35 | 1470 | 9,8 | 8 | 100 | DP40μ700d043030060... |
| | 60 | 58x30x60 | 52,5x20,3 | 7,5 | 34 | 1490 | 14,7 | 6,5 | 140 | DP60μ700d058030060... |
| | 85 | 58x35x69 | 52,5x20,3 | 5,5 | 43 | 2110 | 20,8 | 5,5 | 180 | DP85μ700d058035069... |
| 900 | 33 | 43x30x60 | 37,5x16 | 7 | 34 | 1350 | 13,4 | 8 | 100 | DP33μ900d043030060... |
| | 50 | 58x30x60 | 52,5x20,3 | 8,5 | 33 | 1370 | 20,2 | 6,5 | 140 | DP50μ900d058030060... |
| | 70 | 58x35x69 | 52,5x20,3 | 6 | 43 | 1920 | 28,3 | 5,5 | 180 | DP70μ900d058035069... |
| 1100 | 22 | 43x30x60 | 37,5x16 | 8,5 | 31 | 1100 | 13,3 | 8 | 100 | DP22μ1100d043030060... |
| | 32 | 58x30x60 | 52,5x20,3 | 10,5 | 29 | 1050 | 19,3 | 6,5 | 140 | DP32μ1100d058030060... |
| | 45 | 58x35x69 | 52,5x20,3 | 7,5 | 38 | 1500 | 27,2 | 5,5 | 180 | DP45μ1100d058035069... |
| 1300 | 15 | 43x30x60 | 37,5x16 | 10,5 | 28 | 920 | 12,6 | 8 | 100 | DP15μ1300d043030060... |
| | 22 | 58x30x60 | 52,5x20,3 | 13 | 27 | 900 | 18,5 | 6,5 | 140 | DP22μ1300d058030060... |
| | 32 | 58x35x69 | 52,5x20,3 | 9 | 35 | 1310 | 27,0 | 5,5 | 180 | DP32μ1300d058035069... |
| 1500 | 11 | 43x30x60 | 37,5x16 | 12,5 | 26 | 800 | 12,3 | 8 | 100 | DP11μ1500d043030060... |
| | 16 | 58x30x60 | 52,5x20,3 | 15,5 | 25 | 770 | 18,0 | 6,5 | 140 | DP16μ1500d058030060... |
| | 23 | 58x35x69 | 52,5x20,3 | 11 | 32 | 1080 | 25,8 | 5,5 | 180 | DP23μ1500d058035069... |

■ EXAMPLE OF DRAWINGS FOR SERIES DOUBLE POWER





CASTOR CAP



RoHS compliant
REACH compliant

FEATURES

- Compact design
- Controlled self-healing process
- Designed for printed circuit board mounting
- Self-healing PP dielectric

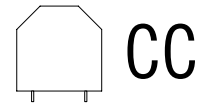
APPLICATIONS

- Medical application
- Aviation technology
- Inverters
- Railway application
- Signalling
- Flash application

GENERAL SPECIFICATIONS

| Items | Characteristics |
|--------------------------------|--|
| Capacitance range | 4,2 μF ... 32 μF others on request |
| Rated voltage DC | 600 V_{DC} ... 1700 V_{DC} |
| Available tolerance | $\pm 5\%$ (J); $\pm 10\%$ (K) |
| Rated RMS current 30 °C | max. 30 A_{RMS} |
| Operating temperature range | -40 °C ... +85 °C |
| Climatic category DIN IEC 68/1 | 40/085/21 |
| Terminals | PCB Pins, 4x 1,2mm, or press-fit contacts |
| Terminal length | 3,5 - 25 mm |

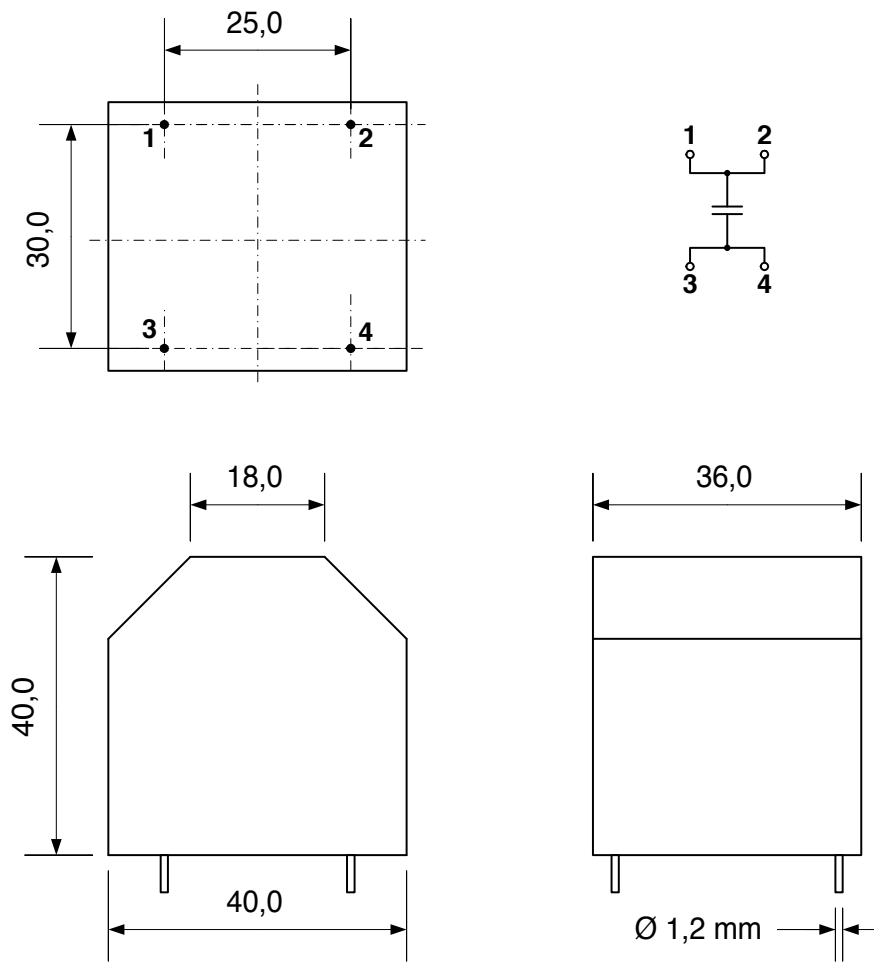
Different voltages and capacitance combinations are available on request. Also in small lots.

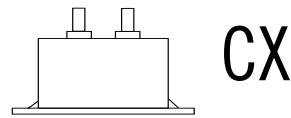


■ ELECTRICAL DATA FOR SERIES CASTOR CAP

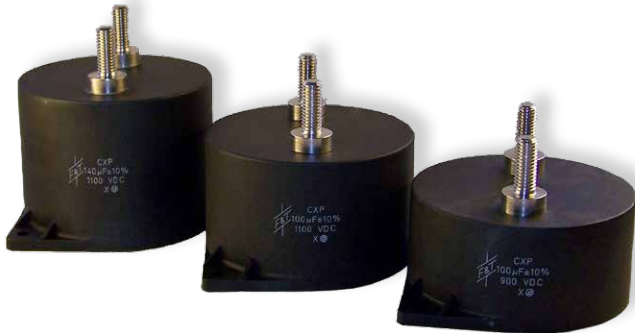
| U_R | C_R | Max. ESR @10 kHz | dU/dt | Max. I_{RMS} @10 kHz/30°C | I_{Peak} | Weight (approx) | Part No. plus (...)= tol. and wire length |
|--------------------|-------|------------------|--------|-----------------------------|------------|-----------------|---|
| [V _{DC}] | [μF] | [mΩ] | [V/μs] | [A] | [A] | [g] | |
| 600 | 32 | 3,4 | 24 | 30 | 753 | 70 | CC32μ600d... |
| 700 | 25 | 4,1 | 26 | 30 | 656 | 70 | CC25μ700d... |
| 750 | 20 | 4,6 | 29 | 30 | 578 | 70 | CC20μ750d... |
| 900 | 17 | 4,8 | 32 | 30 | 549 | 70 | CC17μ900d... |
| 1000 | 13 | 5,5 | 37 | 30 | 481 | 70 | CC13μ1000d... |
| 1100 | 10 | 6 | 42 | 30 | 424 | 70 | CC10μ1100d... |
| 1200 | 8,5 | 6,8 | 46 | 30 | 389 | 70 | CC8.5μ1200d... |
| 1300 | 7,5 | 7,1 | 49 | 30 | 368 | 70 | CC7.5μ1300d... |
| 1400 | 6,5 | 7,4 | 55 | 28 | 354 | 70 | CC6.5μ1400d... |
| 1700 | 4,2 | 9,6 | 65 | 26 | 274 | 70 | CC4.2μ1700d... |

■ EXAMPLE OF DRAWINGS FOR SERIES CASTOR CAP





COAX CAP



RoHS compliant
REACH compliant

FEATURES

- Temperature range -40 °C to 105 °C
- Usable in high duty cycles with higher currents
- Optimized bottom side cooling by achieving plain bottom surface
- Self-healing PP dielectric
- Very low inductance

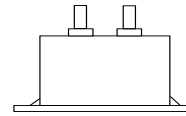
APPLICATIONS

- High power
- Medium-high frequency
- Power electronics

GENERAL SPECIFICATIONS

| Items | Characteristics |
|--------------------------------|--|
| Capacitance range | 20 μ F ... 830 μ F |
| Rated voltage DC | 600 V _{DC} ... 1900 V _{DC} |
| Available tolerance | $\pm 5\%$ (J); $\pm 10\%$ (K) |
| Rated RMS current @ 30 °C | max. 100 A _{RMS} |
| Operating temperature range | -40 °C ... +105 °C |
| Climatic category DIN IEC 68/1 | 40/105/21 |
| Terminals | M6 female or M8 male, others on request |
| Inductance | <10,5 nH |
| Lifetime | 200 000 h |

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



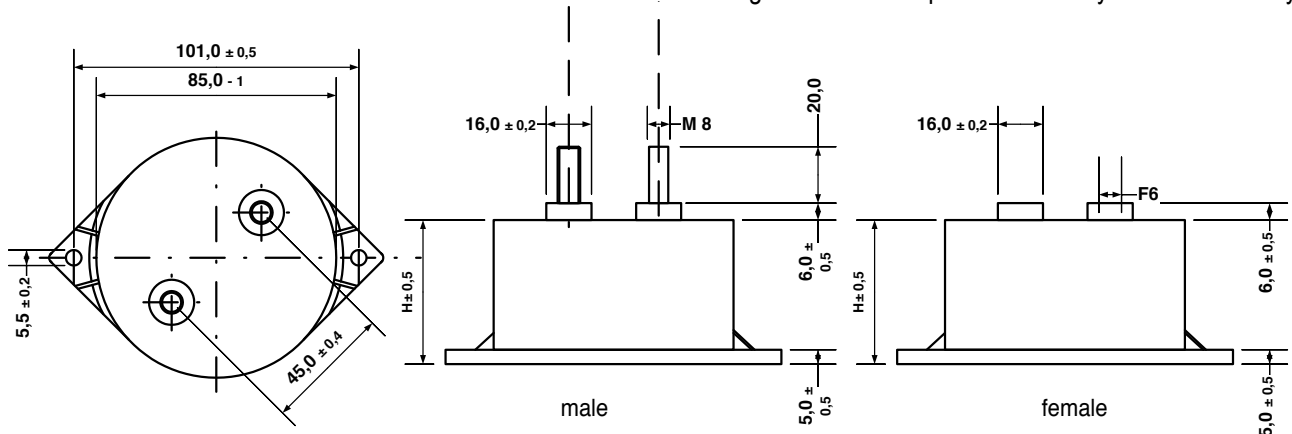
CX

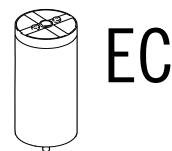
ELECTRICAL DATA FOR SERIES COAX CAP

| U _R DC | C _R | U _R AC | H | Max. ESR @10 kHz | dU/dt | Max. I _{RMS} @10 kHz 30°C | I _{Peak} | Energy | R _{th} | Weight (approx) | Part No. plus (...)= tol. and wire length |
|--------------------|----------------|--------------------|------|------------------|--------|------------------------------------|-------------------|--------|-----------------|-----------------|---|
| [V _{DC}] | [μF] | [V _{AC}] | [mm] | [mΩ] | [V/μs] | [A] | [kA] | [Ws] | [K/W] | [g] | |
| 600 | 200 | 100 | 40 | 1 | 18,4 | 100 | 3,7 | 36 | 4,5 | 350 | CX200μ600d40... |
| | 300 | 100 | 51 | 1 | 22 | 100 | 3,7 | 54 | 4 | 410 | CX300μ600d51... |
| | 400 | 100 | 64 | 1 | 9,2 | 100 | 3,7 | 72 | 3,5 | 480 | CX400μ600d64... |
| | 600 | 100 | 76 | 1,3 | 7,2 | 100 | 4,3 | 108 | 3 | 560 | CX600μ600d76... |
| | 830 | 100 | 100 | 2,5 | 5,2 | 100 | 4,3 | 149 | 2,5 | 740 | CX830μ600d100... |
| 700 | 150 | 100 | 40 | 1,2 | 21,5 | 100 | 3,2 | 37 | 4,5 | 350 | CX150μ700d40... |
| | 220 | 100 | 51 | 1 | 14,7 | 100 | 3,2 | 54 | 4 | 410 | CX220μ700d51... |
| | 300 | 100 | 64 | 1 | 10,7 | 100 | 3,2 | 74 | 3,5 | 480 | CX300μ700d64... |
| | 425 | 100 | 76 | 1,4 | 8,5 | 100 | 3,6 | 104 | 3 | 560 | CX425μ700d76... |
| | 600 | 100 | 100 | 2,4 | 6,1 | 97 | 3,7 | 147 | 2,5 | 740 | CX600μ700d100... |
| 800 | 130 | 100 | 40 | 1 | 24 | 100 | 3,2 | 42 | 4,5 | 350 | CX130μ800d40... |
| | 180 | 100 | 51 | 1,2 | 17,9 | 100 | 3,2 | 58 | 4 | 410 | CX180μ800d51... |
| | 260 | 100 | 64 | 1,4 | 12,3 | 100 | 3,2 | 83 | 3,5 | 480 | CX260μ800d64... |
| | 340 | 100 | 76 | 1,6 | 9,7 | 100 | 3,3 | 109 | 3 | 560 | CX340μ800d76... |
| | 460 | 100 | 100 | 2,6 | 7 | 91 | 3,2 | 147 | 2,5 | 740 | CX460μ800d100... |
| 900 | 100 | 115 | 40 | 1,2 | 26,4 | 100 | 2,6 | 41 | 4,5 | 350 | CX100μ900d40... |
| | 150 | 115 | 51 | 1,2 | 20,2 | 100 | 3 | 61 | 4 | 410 | CX150μ900d51... |
| | 200 | 115 | 64 | 1,4 | 13,2 | 100 | 2,6 | 81 | 3,5 | 480 | CX200μ900d64... |
| | 260 | 115 | 76 | 1,8 | 11 | 98 | 2,8 | 105 | 3 | 560 | CX260μ900d76... |
| | 370 | 115 | 100 | 3 | 7,8 | 87 | 2,9 | 150 | 2,5 | 740 | CX370μ900d100... |
| 1000 | 85 | 125 | 40 | 1 | 30,7 | 100 | 2,6 | 43 | 4,5 | 350 | CX85μ1000d40... |
| | 120 | 125 | 51 | 1,3 | 21 | 100 | 2,5 | 60 | 4 | 410 | CX120μ1000d51... |
| | 170 | 125 | 64 | 2,5 | 15,3 | 91 | 2,6 | 85 | 3,5 | 480 | CX170μ1000d64... |
| | 210 | 125 | 76 | 2,6 | 12 | 86 | 2,5 | 105 | 3 | 560 | CX210μ1000d76... |
| | 300 | 125 | 100 | 3,2 | 8,7 | 83 | 2,6 | 150 | 2,5 | 740 | CX300μ1000d100... |
| 1100 | 65 | 150 | 40 | 1,2 | 33,7 | 100 | 2,2 | 39 | 4,5 | 350 | CX65μ1100d40... |
| | 100 | 150 | 51 | 1,2 | 23,7 | 100 | 2,3 | 61 | 4 | 410 | CX100μ1100d51... |
| | 140 | 150 | 64 | 1,5 | 17 | 100 | 2,3 | 85 | 3,5 | 480 | CX140μ1100d64... |
| | 175 | 150 | 76 | 2,2 | 13 | 91 | 2,3 | 106 | 3 | 560 | CX175μ1100d76... |
| | 240 | 150 | 100 | 3,5 | 9,7 | 78 | 2,3 | 145 | 2,5 | 740 | CX240μ1100d100... |
| 1200 | 55 | 200 | 40 | 1,3 | 39,6 | 100 | 2,2 | 40 | 4,5 | 350 | CX55μ1200d40... |
| | 85 | 200 | 51 | 2 | 26 | 100 | 2,2 | 61 | 4 | 410 | CX85μ1200d51... |
| | 115 | 200 | 64 | 2,5 | 18,8 | 84 | 2,1 | 83 | 3,5 | 480 | CX115μ1200d64... |
| | 150 | 200 | 76 | 2,8 | 15 | 80 | 2,2 | 108 | 3 | 560 | CX150μ1200d76... |
| | 200 | 200 | 100 | 3,8 | 11 | 75 | 2,1 | 144 | 2,5 | 740 | CX200μ1200d100... |
| 1400 | 40 | 200 | 40 | 1,8 | 45 | 94 | 1,8 | 39 | 4,5 | 350 | CX40μ1400d40... |
| | 60 | 200 | 51 | 2 | 30 | 90 | 1,8 | 59 | 4 | 410 | CX60μ1400d51... |
| | 85 | 200 | 64 | 2,4 | 22 | 85 | 1,9 | 83 | 3,5 | 480 | CX85μ1400d64... |
| | 110 | 200 | 76 | 3,4 | 17 | 80 | 1,9 | 108 | 3 | 560 | CX110μ1400d76... |
| | 150 | 200 | 100 | 4,5 | 12 | 70 | 1,9 | 147 | 2,5 | 740 | CX150μ1400d100... |
| 1900 | 20 | 200 | 40 | 2,8 | 64 | 72 | 1,3 | 36 | 4,5 | 350 | CX20μ1900d40... |
| | 32 | 200 | 51 | 3,3 | 42 | 70 | 1,3 | 58 | 4 | 410 | CX32μ1900d51... |
| | 45 | 200 | 64 | 3,5 | 30,5 | 74 | 1,4 | 81 | 3,5 | 480 | CX45μ1900d64... |
| | 55 | 200 | 76 | 4,5 | 24 | 62 | 1,4 | 99 | 3 | 560 | CX55μ1900d76... |
| | 80 | 200 | 100 | 5,5 | 17 | 60 | 1,3 | 144 | 2,5 | 740 | CX80μ1900d100... |

EXAMPLE OF DRAWINGS FOR SERIES COAX CAP

Mixed high terminals are possible for easy busbar assembly





ENERGY CAP



RoHS compliant
REACH compliant

FEATURES

- Low inductance
- Aluminum case
- Stud mounting
- Robust design
- Long lifetime,
- Self-healing PP dielectric

APPLICATIONS

- Laser
- Industrial
- High voltage power supplies
- Baggage scanners
- Railway

GENERAL SPECIFICATIONS

| Items | Characteristics |
|--------------------------------|--|
| Capacitance range | 200 µF ... 3300 µF; others on request |
| Rated voltage DC | 700 V _{DC} ... 1500 V _{DC} ; others on request |
| Available tolerance | ± 5 % (J); ± 10 % (K) |
| Rated RMS current | up to 100 A _{RMS} |
| Operating temperature range | -40 °C ... +85 °C |
| Climatic category DIN IEC 68/1 | 40/085/21 |
| Terminals | M5, M6 or M8 female or M8 male |
| Lifetime | > 200 000 h |
| Self inductance | < 30 - 60 nH |
| Standard | DIN EN 61071 |

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



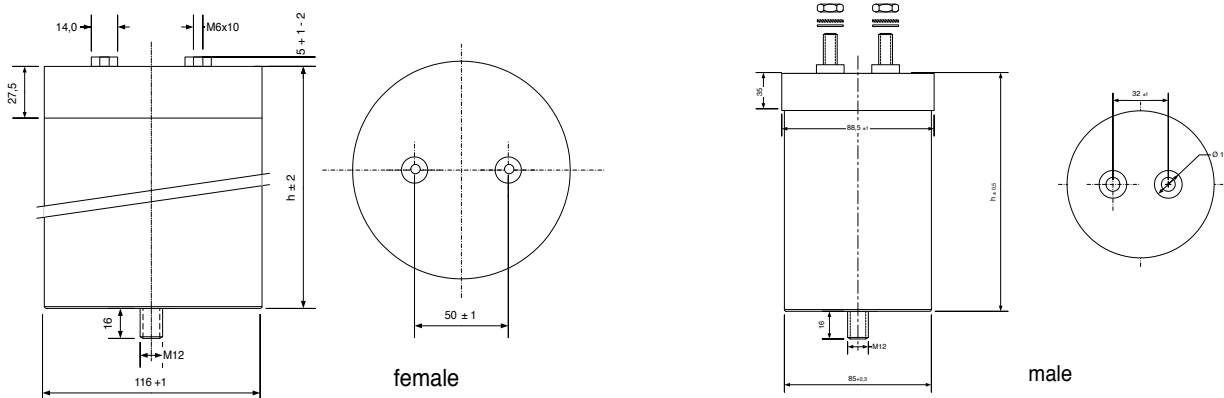
EC

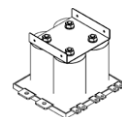
ELECTRICAL DATA FOR SERIES ENERGY CAP

| U_R | C_R | \varnothing | Height | Max. ESR @1kHz | dU/dt | Max. I_{RMS} @1 kHz 30°C | I_{Peak} | Energy | R_{in} | Weight (approx) | Part No. plus (...)= tol. and terminals |
|--------------------|------------|---------------|--------|----------------|--------------|----------------------------|------------|--------|----------|-----------------|---|
| [V _{DC}] | [μ F] | [mm] | [mm] | [m Ω] | [V/ μ s] | [A] | [kA] | [Ws] | [K/W] | [kg] | |
| 700 | 850 | 85 | 136 | 4 | 4,3 | 64 | 3,7 | 208 | 2,2 | 1 | EC850 μ 700d085136... |
| | 1400 | 85 | 230 | 2 | 5,2 | 100 | 7,3 | 343 | 1,4 | 1,7 | EC1400 μ 700d085230... |
| | 1500 | 116 | 136 | 2,6 | 4,3 | 64 | 6,5 | 368 | 1,4 | 1,8 | EC1500 μ 700d116136... |
| | 1700 | 116 | 165 | 1 | 8 | 100 | 14 | 417 | 1,3 | 2,3 | EC1700 μ 700d116165... |
| | 2100 | 116 | 200 | 1,3 | 6,3 | 100 | 13 | 515 | 1,1 | 2,6 | EC2100 μ 700d116200... |
| | 2600 | 116 | 230 | 0,8 | 7,6 | 100 | 20 | 637 | 1 | 3,1 | EC2600 μ 700d116230... |
| | 3300 | 116 | 295 | 1 | 6,3 | 100 | 21 | 809 | 0,8 | 3,4 | EC3300 μ 700d116295... |
| 900 | 550 | 85 | 136 | 4,5 | 5,6 | 64 | 3 | 223 | 2,2 | 1 | EC550 μ 900d085136... |
| | 920 | 85 | 230 | 2,2 | 13 | 100 | 12 | 373 | 1,4 | 1,7 | EC920 μ 900d085230... |
| | 1000 | 116 | 136 | 3 | 11 | 64 | 11 | 405 | 1,4 | 1,8 | EC1000 μ 900d116136... |
| | 1150 | 116 | 165 | 1,2 | 10 | 100 | 12 | 466 | 1,3 | 2,3 | EC1150 μ 900d116165... |
| | 1500 | 116 | 200 | 1,3 | 8 | 100 | 12 | 608 | 1,1 | 2,6 | EC1500 μ 900d116200... |
| | 1700 | 116 | 230 | 0,8 | 9,8 | 100 | 17 | 689 | 1 | 3,1 | EC1700 μ 900d116230... |
| | 2200 | 116 | 295 | 1 | 8 | 100 | 18 | 891 | 0,8 | 3,4 | EC2200 μ 900d116295... |
| 1100 | 420 | 85 | 136 | 4 | 5,9 | 64 | 2,5 | 254 | 2,2 | 1 | EC420 μ 1100d085136... |
| | 610 | 85 | 230 | 2,5 | 8,3 | 100 | 5 | 369 | 1,4 | 1,7 | EC610 μ 1100d085230... |
| | 680 | 116 | 136 | 3,5 | 6,8 | 64 | 4,6 | 411 | 1,4 | 1,8 | EC680 μ 1100d116136... |
| | 770 | 116 | 165 | 1,4 | 12 | 100 | 9,5 | 466 | 1,3 | 2,3 | EC770 μ 1100d116165... |
| | 1000 | 116 | 200 | 1,5 | 9,2 | 100 | 9,2 | 605 | 1,1 | 2,6 | EC1000 μ 1100d116200... |
| | 1150 | 116 | 230 | 1 | 12 | 100 | 14 | 696 | 1 | 3,1 | EC1150 μ 1100d116230... |
| | 1400 | 116 | 295 | 1,2 | 9,5 | 100 | 13 | 847 | 0,8 | 3,4 | EC1400 μ 1100d116295... |
| 1300 | 260 | 85 | 136 | 6,5 | 8,1 | 64 | 2,1 | 220 | 2,2 | 1 | EC260 μ 1300d085136... |
| | 430 | 85 | 230 | 3 | 9,8 | 100 | 4,2 | 363 | 1,4 | 1,7 | EC430 μ 1300d085230... |
| | 480 | 116 | 136 | 4 | 8,1 | 64 | 3,9 | 406 | 1,4 | 1,8 | EC480 μ 1300d116136... |
| | 540 | 116 | 165 | 1,4 | 15 | 100 | 8 | 456 | 1,3 | 2,3 | EC540 μ 1300d116165... |
| | 670 | 116 | 200 | 1,7 | 12 | 100 | 7,5 | 566 | 1,1 | 2,6 | EC670 μ 1300d116200... |
| | 820 | 116 | 230 | 1 | 14 | 100 | 12 | 693 | 1 | 3,1 | EC820 μ 1300d116230... |
| | 1000 | 116 | 295 | 1,2 | 12 | 100 | 12 | 845 | 0,8 | 3,4 | EC1000 μ 1300d116295... |
| 1500 | 190 | 85 | 136 | 8 | 9,3 | 64 | 1,7 | 214 | 2,2 | 1 | EC190 μ 1500d085136... |
| | 320 | 85 | 230 | 3,5 | 11 | 100 | 3,5 | 360 | 1,4 | 1,7 | EC320 μ 1500d085230... |
| | 360 | 116 | 136 | 4,5 | 9,3 | 64 | 3,3 | 405 | 1,4 | 1,8 | EC360 μ 1500d116136... |
| | 400 | 116 | 165 | 1,5 | 17 | 100 | 6,8 | 450 | 1,3 | 2,3 | EC400 μ 1500d116165... |
| | 500 | 116 | 200 | 1,8 | 13 | 100 | 6,7 | 563 | 1,1 | 2,6 | EC500 μ 1500d116200... |
| | 610 | 116 | 230 | 1,1 | 17 | 100 | 10 | 686 | 1 | 3,1 | EC610 μ 1500d116230... |
| | 750 | 116 | 295 | 1,5 | 13 | 100 | 10 | 844 | 0,8 | 3,4 | EC750 μ 1500d116295... |

EXAMPLE OF DRAWINGS FOR SERIES ENERGY CAP

Mixed high terminals are possible for easy busbar assembly





FL

FISCHER LINK



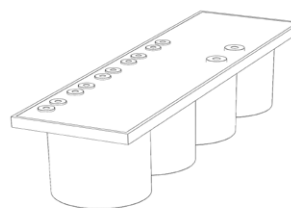
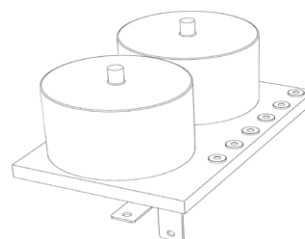
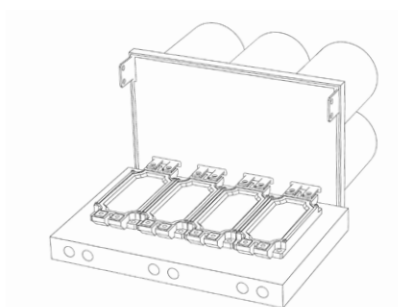
RoHS compliant
REACH compliant

FEATURES

- Design of complete modules according to the customers request
- Extremely low inductance through compact designs
- 10 % more capacitance in the same volume
- Easy installation, easy replacement
- Corrosion-free terminal contacts
- Sturdy and reliable component
- Very long lifetime because of direct connections to the busbar
- Self-healing PP dielectric

APPLICATIONS

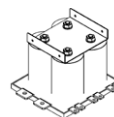
- Inverters
- High voltage power supplies
- Renewable energy



GENERAL SPECIFICATIONS

| Items | Characteristics |
|-------------------------------------|--|
| Capacitance range | according to application |
| Rated voltage DC | 700 - 1300 V |
| Available tolerance | ± 5 (J); ± 10 % (K); others on request |
| Rated RMS current | up to 500 A _{RMS} |
| Operating ambient temperature range | -40 °C ... +85 °C |
| Climatic category DIN IEC 68/1 | 40/085/21 |
| Connectors | according to application |
| Lifetime | 250 000 h |
| Inductance | < 9 nH |

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

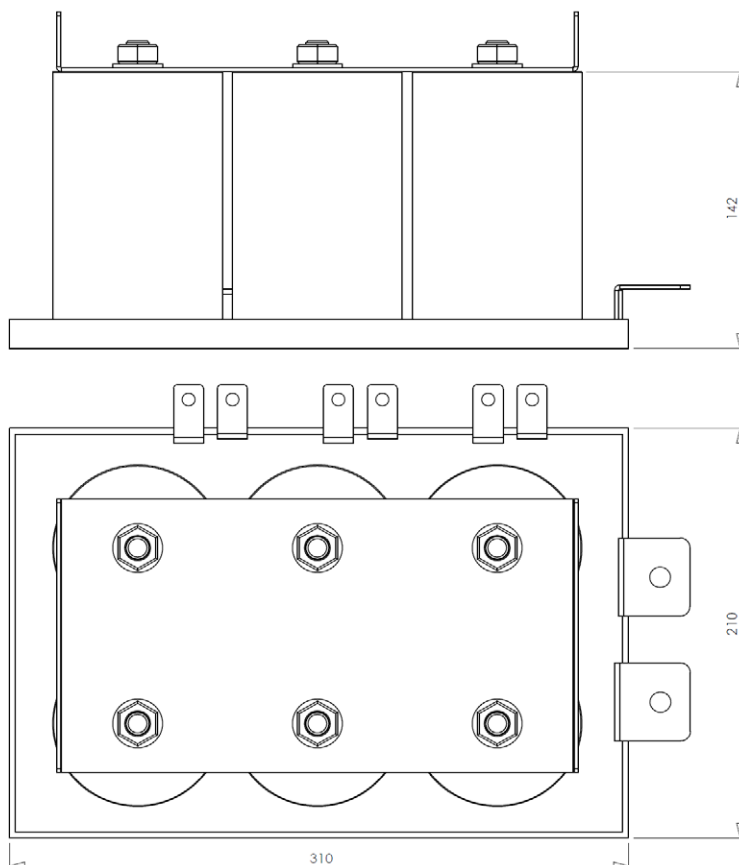


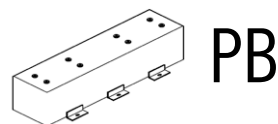
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ELECTRICAL DATA FOR SERIES FISCHERLINK

| Units per assembly | 700 V | | | 900 V | | | 1100 V | | | 1300 V | | |
|--------------------|------------|--------------------|-----------------------------------|------------|--------------------|-----------------------------------|------------|--------------------|-----------------------------------|------------|--------------------|-----------------------------------|
| | C_R | I_{AC} @ 1kHz | dim. | C_R | I_{AC} @ 1kHz | dim. | C_R | I_{AC} @ 1kHz | dim. | C_R | I_{AC} @ 1kHz | dim. |
| | [μ F] | [A] | [mm] length width height | [μ F] | [A] | [mm] length width height | [μ F] | [A] | [mm] length width height | [μ F] | [A] | [mm] length width height |
| 2 | 1700 | 132 | 200 100 150 | 1100 | 122 | 200 100 150 | 840 | 114 | 200 100 150 | 520 | 102 | 200 100 150 |
| 4 | 3400 | 364 | 200 200 150 | 2200 | 244 | 200 100 150 | 1680 | 228 | 200 100 150 | 1040 | 204 | 200 100 150 |
| 6 | 5100 | 396 | 300 200 150 | 3300 | 366 | 300 200 150 | 2520 | 342 | 300 200 150 | 1560 | 306 | 300 200 150 |
| 8 | 6800 | 528 | 400 200 150 | 4400 | 488 | 400 200 150 | 3360 | 456 | 400 200 150 | 2080 | 408 | 400 200 150 |
| 9 | 7650 | 594 | 300 300 150 | 4950 | 549 | 300 300 150 | 3780 | 513 | 300 300 150 | 2340 | 459 | 300 300 150 |

EXAMPLE OF DRAWINGS FOR SERIES FISCHERLINK





POWER BOX



RoHS compliant
REACH compliant

■ FEATURES

- Intermediate-circuit Film Capacitor
- Very high current
- Robust and compact design
- Customized design
- Low ESR
- Vibration proofed
- Self-healing PP dielectric

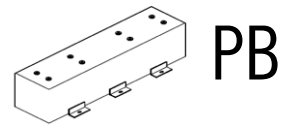
■ APPLICATIONS

- DC-Link
- High voltage power supplies
- Drilling and mining machinery
- Traction and welding

■ GENERAL SPECIFICATIONS

| General specifications | Characteristics |
|--------------------------------|-------------------------------------|
| Capacitance range | 2600 μ F ... 22800 μ F |
| Rated voltage DC | 500 V ... 1800 V, others on request |
| Rated current | up to 850 A |
| Available tolerance | \pm 10 % |
| Operating temperature range | -40 °C ... +85 °C |
| Climatic category DIN IEC 68/1 | 40/085/21 |

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



■ ELECTRICAL DATA FOR SERIES POWER BOX

| U_R | C_R | I_{Peak} | Energy | I_{max} |
|-------|-------------|------------|--------|-----------|
| [DC] | [μF] | [kA] | [Ws] | [A] |
| 1800 | 2600 | 22,3 | 4212 | 500 |
| 1600 | 3200 | 24,4 | 4096 | 520 |
| 1400 | 4200 | 27,8 | 4116 | 560 |
| 1200 | 5800 | 33,0 | 4176 | 600 |
| 1100 | 6800 | 35,4 | 4114 | 620 |
| 1000 | 8200 | 38,6 | 4100 | 650 |
| 900 | 10200 | 43,2 | 4131 | 700 |
| 800 | 13000 | 48,9 | 4160 | 740 |
| 650 | 16800 | 55,3 | 3549 | 790 |
| 500 | 22800 | 64,4 | 2850 | 850 |

■ EXAMPLE OF DRAWINGS FOR SERIES POWER BOX

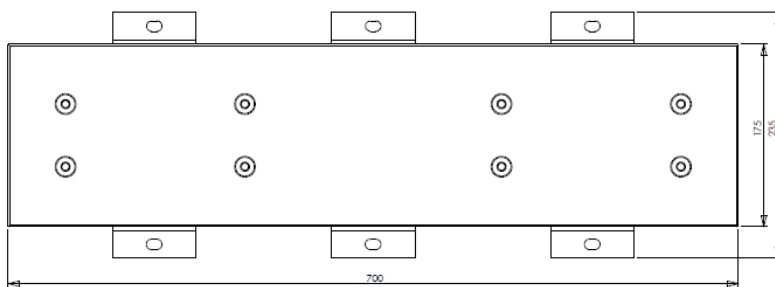
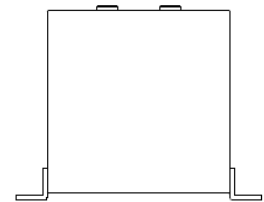
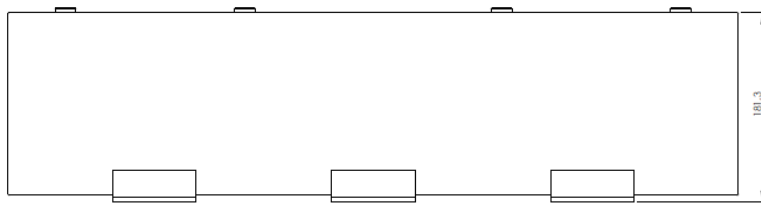


Illustration of Custom-made Film Capacitors

Intermediate-circuit Film Capacitor
for direct busbar connection



| Items | Characteristics |
|--------------------------------|---------------------|
| Capacitance | 1000 μ F |
| Rated voltage DC | 800 V |
| Available tolerance | $\pm 10 \%$ |
| Rated RMS current | 60 A _{RMS} |
| Pulse rise time | 10,2 V/ μ s |
| Operating temperature range | -40 °C ... +70 °C |
| Climatic category DIN IEC 68/1 | 40/070/21 |

High voltage Film Capacitor
with terminals on ceramic bushing



| Items | Characteristics |
|--------------------------------|--------------------|
| Capacitance | 0,1 μ F |
| Rated voltage DC | 14 kV |
| Rated voltage AC | 4,6 kV |
| Available tolerance | $\pm 10 \%$ |
| Rated RMS current | 8 A _{RMS} |
| Pulse rise time | 1108 V/ μ s |
| Operating temperature range | -25 °C ... +85 °C |
| Climatic category DIN IEC 68/1 | 25/085/21 |

Intermediate-circuit Film Capacitor
with robust and compact design



| Items | Characteristics |
|--------------------------------|----------------------|
| Capacitance | 1000 μ F |
| Rated voltage DC | 1800 V |
| Available tolerance | $\pm 10 \%$ |
| Rated RMS current | 130 A _{RMS} |
| Pulse rise time | 25 V/ μ s |
| Operating temperature range | -40 °C ... +70 °C |
| Climatic category DIN IEC 68/1 | 40/070/21 |

Illustration of Custom-made Film Capacitors

Film Capacitor for DC-link applications with mounting clamps for bottom side cooling



| Items | Characteristics |
|--------------------------------|-------------------|
| Capacitance | 550 µF |
| Rated voltage DC | 1100 V |
| Available tolerance | ± 10 % |
| Max. peak periodic current | 3270 A |
| Pulse rise time | 5,95 V/µs |
| Operating temperature range | -40 °C ... +85 °C |
| Climatic category DIN IEC 68/1 | 40/085/21 |

Film Capacitor for DC filters subject to high vibrations



| Items | Characteristics |
|--------------------------------|---------------------|
| Capacitance | 125 µF |
| Rated voltage DC | 450 V |
| Available tolerance | ± 5 % |
| Rated RMS current | 24 A _{RMS} |
| Pulse rise time | 5,22 V/µs |
| Operating temperature range | -25 °C ... +85 °C |
| Climatic category DIN IEC 68/1 | 25/085/21 |

Film Capacitors with internal temperature sensor and ring-form constructions



| Items | Characteristics |
|--------------------------------|-------------------|
| Capacitance | 140 µF |
| Rated voltage DC | 400 V |
| Available tolerance | 10 % |
| Operating temperature range | -40 °C ... +85 °C |
| Climatic category DIN IEC 68/1 | 40/085/21 |

Illustration of Custom-made Film Capacitors

High voltage Film Capacitor
with low ESR and flat construction



| Items | Characteristics |
|--------------------------------|-------------------|
| Capacitance | 100 pF |
| Rated voltage DC | 25 kV |
| Rated voltage AC | 12 kV |
| Available tolerance | ± 10 % |
| Operating temperature range | -25 °C ... +50 °C |
| Climatic category DIN IEC 68/1 | 25/050/21 |

Component assembly
Film Capacitors

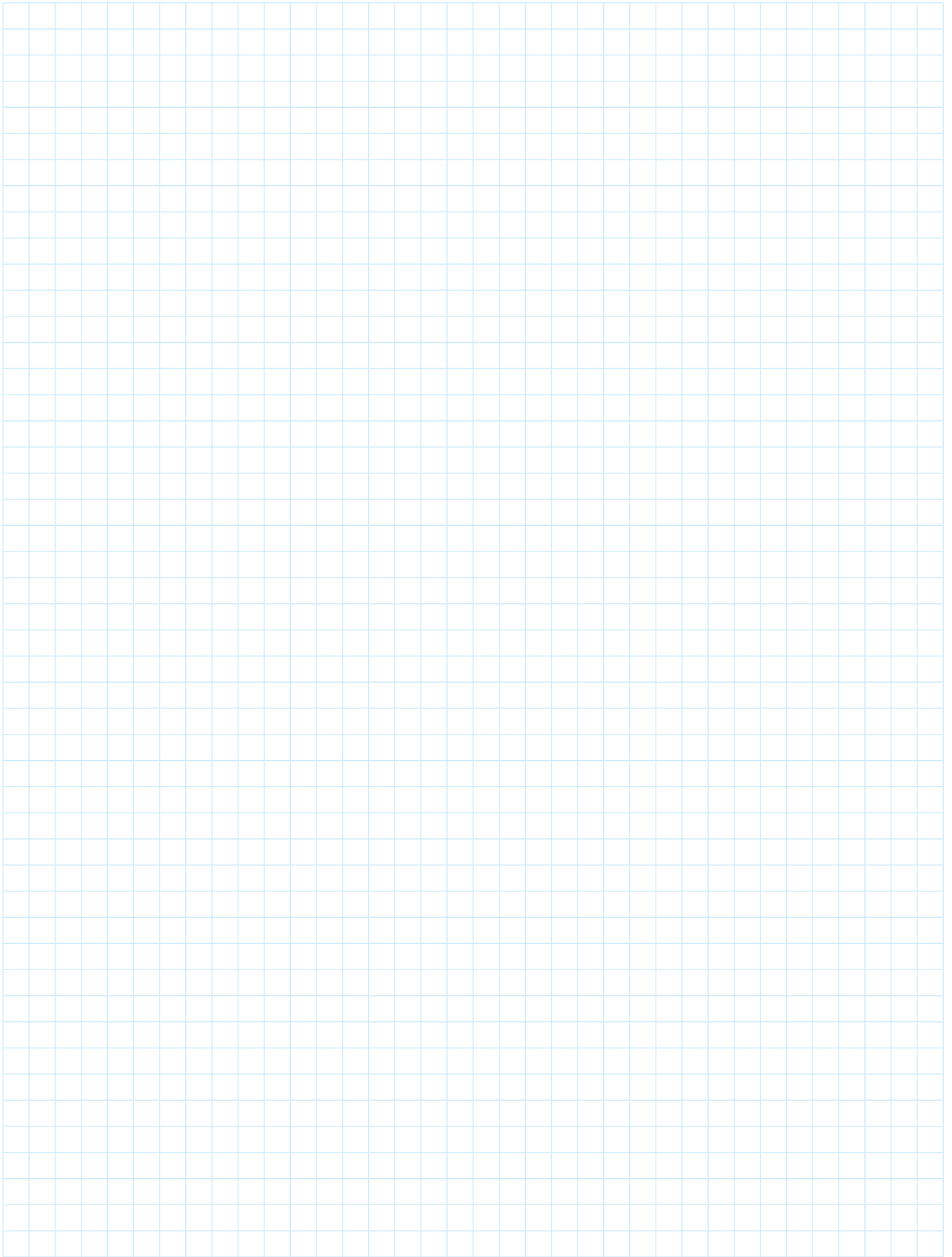


| Items | Characteristics |
|--------------------------------|-------------------|
| Capacitance | 1200 µF |
| Rated voltage DC | 63 V |
| Available tolerance | ± 10 % |
| Max. peak periodic current | 9100 A |
| Pulse rise time | 7,6 V/µs |
| Operating temperature range | -40 °C ... +85 °C |
| Climatic category DIN IEC 68/1 | 40/085/21 |

Very low inductive Film Capacitor
for IGBT application



| Items | Characteristics |
|--------------------------------|-------------------|
| Capacitance | 1800 µF |
| Rated voltage DC | 850 V |
| Available tolerance | ± 10 % |
| Max. peak periodic current | 14760 A |
| Pulse rise time | 8,2 V/µs |
| Operating temperature range | -40 °C ... +85 °C |
| Climatic category DIN IEC 68/1 | 40/085/21 |





FTCAP
FISCHER & TAUSCHE
CAPACITORS

Headquarters

FTCAP GmbH

Carl-Benz-Straße 1
25813 Husum
Germany

Tel. +49 (0) 4841- 8957-0
Fax +49 (0) 4841- 8957-45

info@ftcap.de
www.ftcap.de

Subsidiary

Leclanché Capacitors

Av. de Grandson 48
1400 Yverdons-les-Bains
Switzerland

Tel. +41 (0) 24 445 66 88
Fax +41 (0) 24 445 66 89

capinfo@Lcap.ch
www.Lcap.ch

