

Construction

- Dielectric: Polypropylene film
- Gas-impregnated / dry type
- Concentric winding
- Wave cut
- Extruded round aluminum can with stud
- Provided with ceramic discharge module
- Triple safety system

Features

- Three phase, delta connected
- Self-healing technology
- Naturally air cooled (or forced air cooling)
- Indoor mounting

Typical applications

- For Power Factor Correction

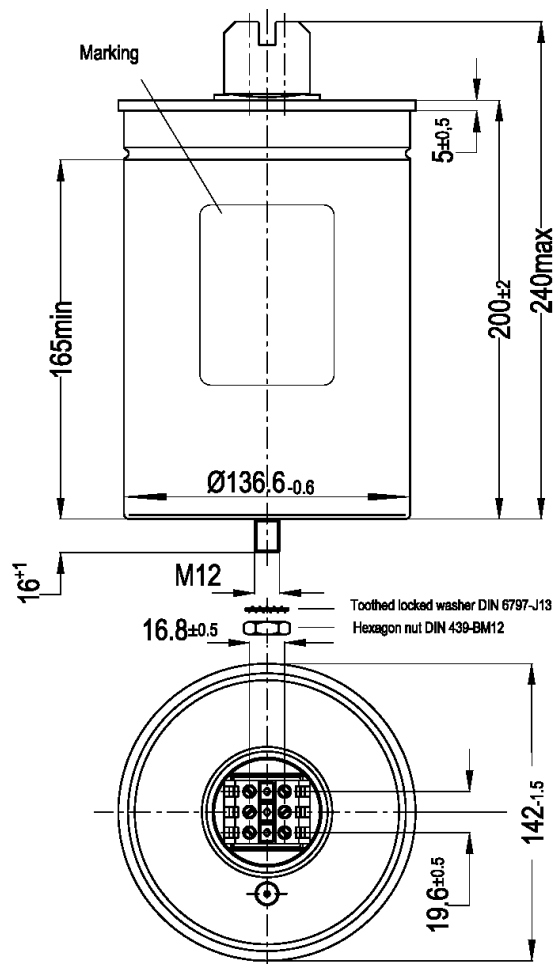
Terminals

- SIGUT terminals

Mounting parts

- Threaded stud at bottom of can
(max. torque = 10 Nm for M12)

Dimensional drawing



All dimensions in mm

Technical data and specifications

| Characteristics | MKK415-D-25-01 | | MKK440-D-28.1-01 | |
|---------------------------|-----------------|-------|------------------|-------|
| Rated capacitance C_R | 3 x 154 μ F | | 3 x 154 μ F | |
| Tolerance | -5 / +10% | | -5 / +10% | |
| Connection | D (Delta) | | D (Delta) | |
| Rated voltage V_R | 415 VAC | | 440 VAC | |
| Rated frequency f_R | 50 Hz | 60 Hz | 50 Hz | 60 Hz |
| Output | 25 kvar | -- | 28.1 kvar | -- |
| Rated current I_R | 35 A | -- | 37 A | -- |
| $\tan\delta$ (dielectric) | 0.2 W / kvar | | 0.2 W / kvar | |



| | |
|---|--|
| Power Capacitors | B25667B4467A375 |
| Power Factor Correction PhaseCap | MKK415-D-25-01/MKK440-D-28.1-01 |

| Maximum ratings | |
|------------------------------|----------------------|
| U_{\max} (up to 8 h daily) | 480 VAC |
| U_{\max} (up to 1 min) | 570 VAC |
| I_{\max} | $1.3 \times I_R$ (A) |
| I_S | $200 \times I_R$ (A) |


| Test data | |
|----------------------|-------------------------------|
| U_{TT} | 950 VAC / 50 Hz during 10 s |
| U_{TC} | 3,000 VAC / 50 Hz during 10 s |
| $\tan\delta$ (50 Hz) | ≤ 0.7 W / kvar |

| Climatic category / -40/D | |
|---------------------------|----------------|
| T_{\min} (-) | 40 °C |
| T_{\max} (+) | 55 °C |
| Humidity | av. rel. < 95% |
| Maximum altitude | 4,000 m |


| Mean life expectancy | |
|---|---------------------|
| t_{LD} | Up to 100,000 hours |
| Max. 5000 switchings per year acc. to IEC 60831 | |

| Design data | |
|---------------------------------------|--|
| Dimensions ($\varnothing \times l$) | 142 x 200 mm |
| Weight approx | 2.1 kg |
| Impregnation | Dry, inert gas |
| Fixing | Threaded bolt M12 |
| Max. torque (Al can stud) | 10 Nm |
| Mounting position | Any mounting position possible. See "Maintenance and Installation Manual" for further details. |

Label design





EPCOS
PhaseCap™
MKK440-D-28,1-01



SIEMENS
Power Quality
4RB5 281-5 AB 45

B25667B4467A375
 $C_N = 3 \times 154 \mu F + 10/-5\% \Delta$ SH
 U_N / V $Q_N / 50$ Hz $Q_N / 60$ Hz
 MKK440 28,1 kvar ---
 MKK415 25,0 kvar 30,0 kvar *)

$U_i = 3/-$ kV -40/D *) valid for -40/C
 Overpressure disconnectors Dry, inert gas
 IEC 60831 (96) 
 AFC 10 kA -40...+55°C
 Internally protected
 CSA C22.2 No.190 
 Made by EPCOS E 10/05

**Power Capacitors****B25667B4467A375****Power Factor Correction PhaseCap****MKK415-D-25-01/MKK440-D-28.1-01****Terminals**

| | |
|--------------------------|----------------------------|
| Degree of protection | Isolated terminals, IP20 |
| Max. torque | 1.2 Nm |
| Terminal cross section | 16 mm ² (5 AWG) |
| Maximum terminal current | 50 A |
| Creepage distance | 12.7 mm |
| Clearance | 9.6 mm |

Safety

| | |
|----------------------------|---------------------------|
| Mechanical safety | Overpressure disconnecter |
| Max. short circuit current | (AFC: 10 kA) |
| Discharge resistor time | ≤ 1 min (75 V) |

Reference Standards

IEC 60831-1/2, UL 810-5th edition

Certification: cUL file E238746

△ Please read information about PFC capacitors and cautions as well as installation and maintenance instructions (Power Factor Correction Product Profile, actual version, and Installation and Maintenance Instructions for PFC-capacitors, available in the Internet) to ensure optimum performance and prevent products from failing, and in worst case, bursting and fire.
Information given in the PFC-product profile and values given in the data sheet reflect typical specifications. You are kindly requested to approve our product specifications or request our approval for your specification before ordering.

© EPCOS AG 2005. All Rights reserved. Reproduction, publication and dissemination of this data sheet, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited. The information contained in this data sheet describes the type of component and shall not be considered as guaranteed characteristics. Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.