



Power capacitor PHICAP MKP 480 V 16.7 kVAr

| Model | |
|---|---|
| type of internal interconnection | D (Delta) |
| type of certification | CE |
| standard | IEC 60831-1 / -2 |
| General technical data | |
| capacitor voltage (rms value) rated value | 480 V |
| capacitor voltage (rms value) maximum | VN +10% (up to 8 h daily), VN +15% (up to 30 min daily), VN +20% (up to 5 min daily), VN +30% (up to 1 min daily) |
| operating frequency 1 rated value | 50 Hz |
| operating frequency 2 rated value | 60 Hz |
| capacity rated value | 77 µF |
| relative negative tolerance of the capacity rated value | 5 % |
| relative positive tolerance of the capacity rated value | 10 % |
| reactive power of the capacitor at 50 Hz rated value | 16.7 kvar |
| reactive power of the capacitor at 60 Hz rated value | 20 kvar |
| clearance minimum | 9.6 mm |
| creepage distance minimum | 12.7 mm |
| type of dielectric | Self-healing metallized polypropylene film |
| filler | filled with Non PCB, Soft biodegradable resin |
| safety features of the integrated discharge resistors | Discharge time ≤ 180 s to 75 V or less for safe discharging |
| voltage test between the terminals | 2.15 x VN at 50Hz / 2 s |
| voltage test between the terminals and housing | 3000 V AC / 50Hz, 10s |
| Current | |
| inrush current peak of the capacitor | 200 x In |
| Short-circuit current maximum | 10 kA |
| capacitor current at 50 Hz rated value | 20.1 A |
| capacitor current at 60 Hz rated value | 24.1 A |
| terminal current maximum | 50 A |
| Protection class | |
| protection class IP of the terminal | IP20 |
| Dissipation | |
| capacitor losses [W] in dielectric per kvar | 0.2 W |
| capacitor losses [W] per kvar total | 0.45 W |
| Product details | |
| type of cooling | natural or forced air cooling |
| type of enclosure material | Extruded round aluminum can with stud |
| type of mechanical safety | Overpressure disconnecter (3-phase) |
| product component external discharge resistor | Yes |
| Connections | |
| type of connecting terminal | PhiCap_SIGUT |

| | |
|---|--------------------|
| tightening torque maximum | 1.2 N·m |
| tightening torque of the screw for securing the equipment maximum | 10 N·m |
| connectable conductor cross-section of the terminal for copper conductor stranded without cable lug | 16 mm ² |

Mechanical Design

| | |
|---|-------------------|
| length of the capacitor | |
| • | 273 mm |
| • with connections maximum | 313 mm |
| total length of the capacitor with mounting and connections maximum | 330 mm |
| fastening method | Threaded bolt M12 |
| diameter of the capacitor | 85 mm |
| diameter of the capacitor maximum | 89 mm |
| mounting position | Upright |
| net weight | 1.2 kg |

Environmental conditions

| | |
|--|--|
| installation altitude maximum | 4 000 m |
| MTBF at temperature class -40/C maximum | 135 h |
| MTBF at temperature class -40/D maximum | 100 h |
| relative humidity without condensation maximum | 95 % |
| temperature classes of the capacitors | Class -40/D: Max. short time: +55 °C, max. mean 24h: +45 °C; max mean 1 year: +35 °C; lowest temperature: -40 °C |
| ambient temperature during operation | |
| • minimum | -40 °C |
| • maximum | 55 °C |
| ambient temperature during storage | |
| • minimum | -40 °C |
| • maximum | 85 °C |

Approvals Certificates

| | | |
|--------------------------|-------|-------------|
| General Product Approval | other | Environment |
|--------------------------|-------|-------------|



[Confirmation](#)

[Confirmation](#)

[Miscellaneous](#)

[Environmental Confirmations](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=4RB2167-3EJ50>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/4RB2167-3EJ50>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=4RB2167-3EJ50

CAX-Online-Generator

<http://www.siemens.com/cax>

Tender specifications

<http://www.siemens.com/specifications>

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