SIEMENS

Data sheet 4RB8331-3EE10

POWER CAPACITOR PhaseCap Energy+ MKK 440V 33,1KVAR 3-phase

Model	
type of internal interconnection	D (Delta)
type of certification	CE, UKCA, UL Recognized Component
standard	IEC 60831-1 / -2, UL 810 5th edition
General technical data	
capacitor voltage (rms value) rated value	440 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
capacity rated value	181.4 µF
relative negative tolerance of the capacity rated value	5 %
relative positive tolerance of the capacity rated value	5 %
reactive power of the capacitor at 50 Hz rated value	33.1 kvar
clearance minimum	9.6 mm
creepage distance minimum	12.7 mm
type of dielectric	Self-healing metallized polypropylene film
filler	Dry type, non PCB, filled with non-flammable nitrogen gas
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	3600 V AC / 50Hz, 2s
Current	
inrush current peak of the capacitor	500 x In
short-circuit current maximum	10 kA
capacitor current at 50 Hz rated value	43.4 A
capacitor current at 60 Hz rated value	52.1 A
terminal current maximum	80 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 aliuminum can with stud
type of mechanical safety	Overpressure disconnector (3-phase)
product component external discharge resistor	Yes
Connections	
type of connecting terminal	B
tightening torque maximum	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	25 mm²
Mechanical Design	
length of the capacitor	224 mm
length of the capacitor with connections maximum	264 mm
total length of the capacitor with mounting and connections maximum	281 mm
fastening method	Threaded bolt M12
diameter of the capacitor	116 mm
diameter of the capacitor maximum	121.5 mm

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mounting position	Upright/Horizontal
Net Weight	903 g
Environmental conditions	
installation altitude maximum	4 000 m
MTBF at temperature class -40/D maximum	220 h
MTBF at temperature class -40/60 maximum	200 h
relative humidity without condensation maximum	95 %
temperature classes of the capacitors	Class -40/60: Max. short time: +60 °C, max. mean 24 h: +50 °C; max mean 1 year: +40 °C; lowest temperature: -40 °C
ambient temperature during operation	
● minimum	-40 °C
● maximum	60 °C
ambient temperature during storage	
● minimum	-40 °C
● maximum	85 °C

Approvals Certificates

General Product Approval	other	Environment
  	Confirmation	Environmental Confirmations

Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/lowvoltage/catalogs
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=4RB8331-3EE10
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/4RB8331-3EE10
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=4RB8331-3EE10
CAx-Online-Generator
https://www.siemens.com/cax
Tender specifications
https://www.siemens.com/specifications

last modified: 6/15/2025

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