

Data sheet

4RB2050-3EE50



Power capacitor PHICAP MKP 440 V 5.0 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	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
operating frequency 2 rated value	60 Hz
capacity rated value	27.5 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	5 kvar
reactive power of the capacitor at 60 Hz rated value	6 kvar
clearance minimum	10.4 mm
creepage distance minimum	15.4 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	6.6 A
capacitor current at 60 Hz rated value	7.9 A
Protection class	
protection class IP of the terminal	IP00
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_Fast-On
tightening torque of the screw for securing the equipment	10 N·m

maximum		
Mechanical Design		
length of the capacitor		
<ul style="list-style-type: none">		154 mm
<ul style="list-style-type: none">with connections maximum		168.3 mm
total length of the capacitor with mounting and connections maximum		184.3 mm
fastening method		Threaded bolt M12
diameter of the capacitor		63.5 mm
diameter of the capacitor maximum		63.5 mm
mounting position		Upright
net weight		0.5 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		
<ul style="list-style-type: none">minimum		-40 °C
<ul style="list-style-type: none">maximum		55 °C
ambient temperature during storage		
<ul style="list-style-type: none">minimum		-40 °C
<ul style="list-style-type: none">maximum		85 °C
Approvals Certificates		
General Product Approval		other
		Environment



[Confirmation](#)

[Miscellaneous](#)

[Confirmation](#)

[Environmental Con-
firmations](#)

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=4RB2050-3EE50>

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

<https://support.industry.siemens.com/cs/ww/en/ps/4RB2050-3EE50>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=4RB2050-3EE50

CAX-Online-Generator

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

Tender specifications

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

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