SIEMENS

Data sheet 4RB2040-3GA50



Power capacitor PHICAP MKP 600 V 4.0 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	600 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	12 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	4 kvar
reactive power of the capacitor at 60 Hz rated value	5 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
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
Current	
inrush current peak of the capacitor	200 x In
Short-circuit current maximum	10 kA
capacitor current at 50 Hz rated value	3.9 A
capacitor current at 60 Hz rated value	4.7 A
terminal current maximum	50 A
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	PhiCap_SIGUT

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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 mm²
Mechanical Design	
length	
● of the capacitor	198 mm
● of the capacitor with connections maximum	238 mm
total length of the capacitor with mounting and connections maximum	255 mm
fastening method	Threaded bolt M12
diameter of the capacitor	75 mm
diameter of the capacitor maximum	79 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	
● minimum	-40 °C
● maximum	55 °C
ambient temperature during storage	
● minimum	-40 °C
● maximum	85 °C

General Product Approval	Declaration of Conformity	other	
Confirmation	EG-Konf.	Confirmation	Miscellaneous

Further information

Siemens has decided to exit the Russian market (see here).
https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business
Siemens is working on the renewal of the current EAC certificates.
Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).
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=4RB2040-3GA50
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/4RB2040-3GA50
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=4RB2040-3GA50
CAx-Online-Generator
http://www.siemens.com/cax
Tender specifications
http://www.siemens.com/specifications

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