SIEMENS

Data sheet



circuit breaker 3VA5 UL frame 250 breaking capacity class M 35kA @ 480 V 4-pole, line protection TM230, FTAM, In=90A without overload protection Ir=90A fixed short circuit protection Ii=5...10 x In neutral protection 1 w/o connection

Model	
product designation / according to UL file	MFAS
design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HID Type)	No
design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)	No
design of the overcurrent release	TM230
protection function of the overcurrent release	LI
number of poles	4
General technical data	
insulation voltage / rated value	800 V
operating voltage / at DC / rated value	1 000 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	25 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	8.2 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	8 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	4 000
electrical endurance (operating cycles) / at 480 V	8 000
electrical endurance (operating cycles) / at 600 V	4 000
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof	No
product function	
 communication function 	No
 other measurement function 	No
Net Weight	2800 g
Current	
marking / according to UL 489 / 100%-rated breaker	Yes
operational current	
• at 40 °C	90 A
• at 45 °C	87.6 A
• at 50 °C	85.3 A
• at 55 °C	82.9 A
• at 60 °C	80.5 A
• at 65 °C	78.2 A
• at 70 °C	75.8 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity (Icu)	

101011	
• at 240 V	85 kA
• at 415 V	55 kA
● at 690 V	7 kA
operating short-circuit current breaking capacity (lcs)	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	7 kA
short-circuit current making capacity (Icm)	
• at 240 V	187 kA
• at 415 V	121 kA
• at 690 V	11.9 kA
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter
Switching capacity according to UL 489	
current breaking capacity	
• at 240 V	85 kA
● at 480 V	35 kA
• at 600 V	18 kA
Adjustable parameters	
adjustable response value setting current (Ir) / of the L-trip / with	
12t characteristic	
• minimum	90 A
• maximum	90 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	1 s
• maximum	1 s
adjustable response value setting current (li) / for I-tripping	
• minimum	450 A
• maximum	900 A
adjustable absolute value setting current (InN) / for N-tripping	
• minimum	90 A
• maximum	90 A
design of the N-conductor protection	100%
product function / grounding protection	No
Mechanical Design	
product component	
undervoltage release	No
voltage trigger	No
• trip indicator	No
height [in]	7.28 in
height	185 mm
width [in]	5.51 in
width	140 mm
depth [in]	3.27 in
depth	83 mm
Connections	
arrangement of electrical connectors / for main current circuit	Without connection
type of electrical connection / for main current circuit	Without
design of the surface / of the connections / on the bottom of the	silver
switch (N, 2, 4, 6)	
Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0
Accessories	
product extension / optional / motor drive	Yes
manufacturer's article number	
of the supplied basic switch	3VA52905GC412AA0
Environmental conditions	<u> </u>
protection class IP / on the front	IP40
ambient temperature	II 70
•	25 °C
during operation / minimum	-25 °C

• during operation / maximum

• during storage / minimum

• during storage / maximum

70 °C

-40 °C 80 °C

Certificates

reference code / according to IEC 81346-2

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Declaration of Conformity

Confirmation

General Product Approval



Miscellaneous







Marine / Shipping

other



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)

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5290-5GC41-2AA0

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

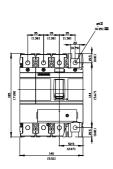
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5290-5GC41-2AA0

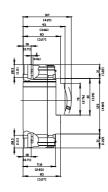
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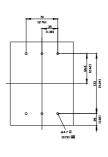
http://www.siemens.com/cax

Tender specifications

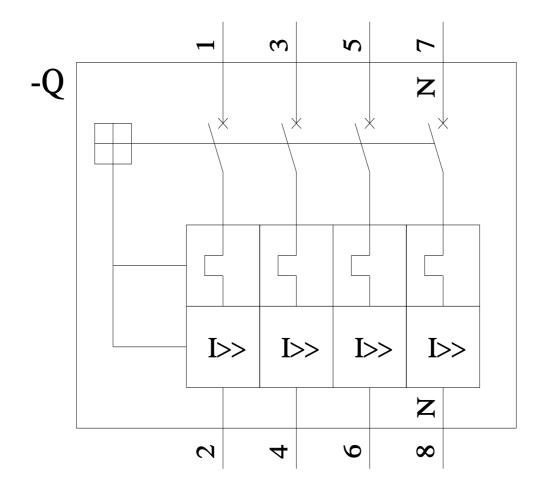
http://www.siemens.com/specifications

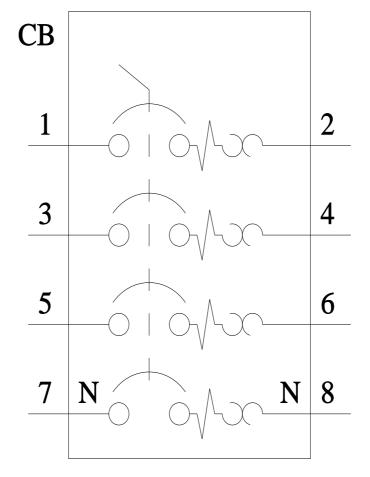












last modified: 1/13/2023 🖸