3VA5210-5GD41-0AA0

Data sheet



circuit breaker 3VA5 UL frame 250 breaking capacity class M 35kA @ 480 V 4-pole, line protection TM210, FTFM, In=100A overload protection Ir=100A fixed short-circuit protection Ii=10 x In N conductor protection 100% without connection

product designation Molded-case circuit breaker product designation / according to UL file MFAS Product version System protection design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) design of the overcurrent release TM210 protection function of the overcurrent release LI number of poles 4 General technical data Tension assignée d'isolement Ui 800 V Max. rated operational voltage Ue with AC 50/60Hz 690 V Max. rated operational voltage Ue with DC 1 000 V power loss [W] / maximum 31.6 W Active power loss / for rated value of the current / at AC / in hot operating state / per pole mechanical service life (switching cycles) / typical Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz Electrical endurance (switching cycles) / at AC-1 / at 690 V Solfo Hz electrical endurance (switching cycles) / at 600 V Nourtal conductors / upgradeable/retrofittable No ground-fault monitoring version No e other measurement function No Ourrent marking / acc. to UL 489 / 100%-rated breaker No	Model		
product designation / according to UL file Product version design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) design of the overcurrent release protection function of the overcurrent release Inumber of poles General technical data Tension assignée d'isolement Ui Max. rated operational voltage Ue with AC 50/60Hz Max. rated operational voltage Ue with DC 1000 V power loss [M] / maximum Active power loss / for rated value of the current / at AC / in hot operating state / per pole mechanical service life (switching cycles) / typical Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz electrical endurance (switching cycles) / at 480 V electrical endurance (switching cycles) / at 600 V Neutral conductors / upgradeable/retrofittable ground-fault monitoring version product function e communication function e other measurement function No Current	product brand name	SENTRON	
Product version design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) design of the overcurrent release protection function of the overcurrent release number of poles Tension assignée d'isolement Ui Max. rated operational voltage Ue with AC 50/60Hz Max. rated operational voltage Ue with DC power loss [W] / maximum Active power loss / for rated value of the current / at AC / in hot operating state / per pole mechanical service life (switching cycles) / typical Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz electrical endurance (switching cycles) / at 600 V Neutral conductors / upgradeable/retrofittable ground-fault monitoring version product function e communication function other measurement function No Current	product designation	Molded-case circuit breaker	
design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) design of the overcurrent release TM210 protection function of the overcurrent release LI number of poles 4 General technical data Tension assignée d'isolement Ui 800 V Max. rated operational voltage Ue with AC 50/60Hz 690 V Max. rated operational voltage Ue with DC 1000 V power loss [W] / maximum 31.6 W Active power loss / for rated value of the current / at AC / in hot operating state / per pole mechanical service life (switching cycles) / typical Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz Electrical endurance (switching cycles) / at 480 V 8 000 electrical endurance (switching cycles) / at 600 V 4 000 Neutral conductors / upgradeable/retrofittable No ground-fault monitoring version Without product function No other measurement function No No Current	product designation / according to UL file	MFAS	
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number of poles General technical data Tension assignée d'isolement Ui 800 V Max. rated operational voltage Ue with AC 50/60Hz 690 V Max. rated operational voltage Ue with DC 1000 V power loss [W] / maximum 31.6 W Active power loss / for rated value of the current / at AC / in hot operating state / per pole mechanical service life (switching cycles) / typical 20 000 Electrical endurance (switching cycles) / at AC-1 / at 8000 380/415 V 50/60 Hz Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz Electrical endurance (switching cycles) / at 480 V 8 000 electrical endurance (switching cycles) / at 480 V 8 000 electrical endurance (switching cycles) / at 600 V 4 000 Neutral conductors / upgradeable/retrofittable No ground-fault monitoring version Without product function • communication function No ocurrent	design of the overcurrent release		
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Max. rated operational voltage Ue with DC power loss [W] / maximum 31.6 W Active power loss / for rated value of the current / at AC / in hot operating state / per pole mechanical service life (switching cycles) / typical Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz Electrical endurance (switching cycles) / at 480 V 8 000 electrical endurance (switching cycles) / at 600 V 4 000 Neutral conductors / upgradeable/retrofittable No ground-fault monitoring version Without product function	Tension assignée d'isolement Ui	800 V	
power loss [W] / maximum Active power loss / for rated value of the current / at AC / in hot operating state / per pole mechanical service life (switching cycles) / typical Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz electrical endurance (switching cycles) / at 480 V 8 000 electrical endurance (switching cycles) / at 600 V 4 000 Neutral conductors / upgradeable/retrofittable No ground-fault monitoring version Product function o communication function o ther measurement function No Current	Max. rated operational voltage Ue with AC 50/60Hz	690 V	
Active power loss / for rated value of the current / at AC / in hot operating state / per pole mechanical service life (switching cycles) / typical 20 000 Electrical endurance (switching cycles) / at AC-1 / at 8 000 380/415 V 50/60 Hz Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz electrical endurance (switching cycles) / at 480 V 8 000 electrical endurance (switching cycles) / at 600 V 4 000 Neutral conductors / upgradeable/retrofittable No ground-fault monitoring version Without product function • communication function No • other measurement function No Current	Max. rated operational voltage Ue with DC	1 000 V	
in hot operating state / per pole mechanical service life (switching cycles) / typical 20 000 Electrical endurance (switching cycles) / at AC-1 / at 8 000 380/415 V 50/60 Hz Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz electrical endurance (switching cycles) / at 480 V 8 000 electrical endurance (switching cycles) / at 600 V 4 000 Neutral conductors / upgradeable/retrofittable No ground-fault monitoring version Without product function • communication function • other measurement function No Current	power loss [W] / maximum	31.6 W	
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz electrical endurance (switching cycles) / at 480 V 8 000 electrical endurance (switching cycles) / at 600 V 4 000 Neutral conductors / upgradeable/retrofittable No ground-fault monitoring version o communication function o other measurement function No Current	·	10.53 W	
Blectrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz electrical endurance (switching cycles) / at 480 V 8 000 electrical endurance (switching cycles) / at 600 V 4 000 Neutral conductors / upgradeable/retrofittable No ground-fault monitoring version Without product function • communication function No • other measurement function No Current	mechanical service life (switching cycles) / typical	20 000	
electrical endurance (switching cycles) / at 480 V 8 000 electrical endurance (switching cycles) / at 600 V 4 000 Neutral conductors / upgradeable/retrofittable No ground-fault monitoring version Without product function		8 000	
electrical endurance (switching cycles) / at 600 V 4 000 Neutral conductors / upgradeable/retrofittable No ground-fault monitoring version Without product function		4 000	
Neutral conductors / upgradeable/retrofittable ground-fault monitoring version Product function communication function other measurement function No Current	electrical endurance (switching cycles) / at 480 V	8 000	
ground-fault monitoring version product function communication function other measurement function No Current	electrical endurance (switching cycles) / at 600 V	4 000	
product function	Neutral conductors / upgradeable/retrofittable	No	
 communication function other measurement function Current 	ground-fault monitoring version	Without	
• other measurement function No Current	product function		
Current	 communication function 	No	
	 other measurement function 	No	
marking / acc. to UL 489 / 100%-rated breaker No	Current		
	marking / acc. to UL 489 / 100%-rated breaker	No	
Max. rated operational current of the frame size 250 A	Max. rated operational current of the frame size	250 A	
Courant permanent assigné lu 100 A	Courant permanent assigné lu	100 A	
operational current	operational current		
• at 40 °C 100 A	● at 40 °C	100 A	
• at 45 °C 100 A	● at 45 °C	100 A	
• at 50 °C 100 A	• at 50 °C	100 A	
• at 55 °C 97 A	● at 55 °C	97 A	

-1 00 00	05.4
• at 60 °C	95 A
at 65 °C at 70 °C	92 A
200.10	88 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
breaking capacity maximum short-circuit current (Icu)	0.714
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	7 kA
breaking capacity operating short-circuit current (Ics)	OF ItA
• at 240 V	85 kA
at 415 V at 690 V	55 kA 7 kA
short-circuit current making capacity (lcm)	/ NA
• 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
design of orion chodic protection	circuit breaker device manual; link to be found under Service & Support in the last chapter
Switching capacity according to UL 489	
breaking capacity current	
• at 240 V	85 kA
● at 480 V	35 kA
● at 600 Y/347 V	18 kA
Adjustable parameters	
Adjustable response value current / lg min.	100 A
Adjustable response value current / lg min.	100 A
Adjustable response value current / li min.	1 000 A
Adjustable response value current / li max.	1 000 A
design of the N-conductor protection	100%
Ground fault protection / tripping switchable / I2t=ON/OFF	No
Mechanical Design	
height [in]	7.3 in
Height	185 mm
width [in]	5.5 in
Width	140 mm
depth [in]	3.3 in
depth	83 mm
Connections	
arrangement of electrical connectors / for main current circuit	Without connection
type of electrical connection / for main current circuit	Without
Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0
Accessories	
product extension / optional / motor drive	Yes
Environmental conditions	
protection class IP / on the front	IP40
ambient temperature	
during operation / minimum	-25 °C
during operation / maximum	70 °C
during storage / minimum	-40 °C
during storage / maximum	80 °C
Certificates	
reference code / acc. to IEC 81346-2	Q
certificate of suitability / as approval for NAVAL (no	No
combat vessels) / supplement SB	





Miscellaneous

EAC

EAC



Declaration of Conformity

Shipping Approval

other







Miscellaneous

Further information

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=3VA5210-5GD41-0AA0

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

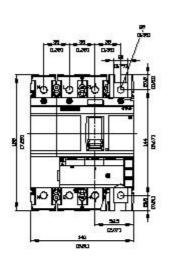
https://support.industry.siemens.com/cs/ww/en/ps/3VA5210-5GD41-0AA0

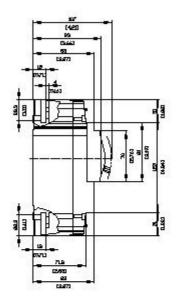
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

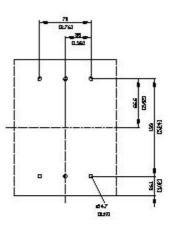
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5210-5GD41-0AA0

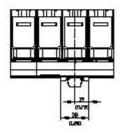
Tender specifications

http://www.siemens.com/specifications









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