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Data sheet 3VA1580-5EF42-0AA0



circuit breaker 3VA1 IEC Frame 1000 breaking capacity class M Icu=55 kA @ 415 V 4-pole, line protection TM240, ATAM, In=800 A overload protection Ir=560 A...800 A short-circuit protection Ii=5...10 x In N conductor unprotected nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	TM240
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	240 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	80 W
mechanical service life (operating cycles) / typical	10 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	4 600
electrical endurance (operating cycles) / at AC-1 / at 690 V	3 200
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
● communication function	No
● other measurement function	No
Net Weight	17.18 kg
Current	
operational current	
● at 40 °C	800 A
● at 45 °C	800 A
● at 50 °C	800 A
● at 55 °C	780 A
● at 60 °C	761 A
● at 65 °C	741 A
● at 70 °C	722 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity (Icu)	

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● at 240 V	85 kA
● at 415 V	55 kA
● at 440 V	55 kA
● at 500 V	36 kA
● at 690 V	25 kA
operating short-circuit current breaking capacity (Ics)	
● at 240 V	85 kA
● at 415 V	55 kA
● at 440 V	55 kA
● at 500 V	36 kA
● at 690 V	19 kA
short-circuit current making capacity (Icm)	
● at 240 V	187 kA
● at 415 V	121 kA
● at 440 V	121 kA
● at 500 V	75.6 kA
● at 690 V	52.5 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
Adjustable parameters	
product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic	
● minimum	560 A
● maximum	800 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
● minimum	1 s
● maximum	1 s
adjustable response value setting current (Ii) / for I-tripping	
● minimum	4 000 A
● maximum	8 000 A
adjustable setting current (InN) / for N-tripping	
● minimum	0 A
● maximum	0 A
design of the N-conductor protection	without
product function / grounding protection	No
Mechanical Design	
product component	
● undervoltage release	No
● voltage trigger	No
● trip indicator	No
height [in]	12.6 in
height	320 mm
width [in]	11.02 in
width	280 mm
depth [in]	4.72 in
depth	120 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	nut keeper kit on both ends
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	20 x 4 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	50 x 28 mm
design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	Silver
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	Silver
Auxiliary circuit	

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number of CO contacts / for auxiliary contacts	0
Accessories	
product extension / optional / motor drive	No
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
reference code / according to IEC 81346-2	Q

Approvals / Certificates

General Product Approval

Miscellaneous | Confirmation

General Product Approval | EMV | Test Certificates

Type Test Certificates/Test Report | Miscellaneous | Special Test Certificate

Maritime application | other

Miscellaneous | Confirmation

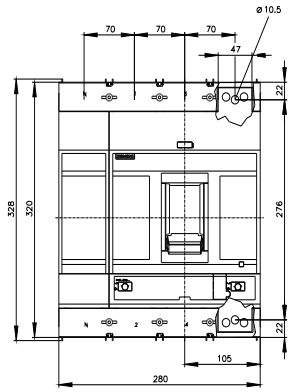
other | Environment

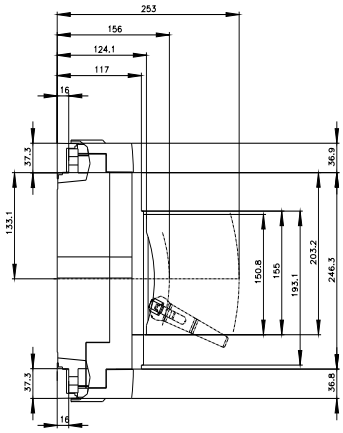
Environmental Confirmations | Environmental Confirmations

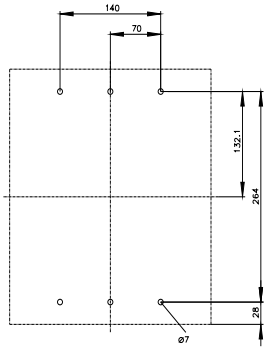
Further information

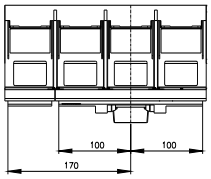
Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/lowvoltage/catalogs
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1580-5EF42-0AA0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3VA1580-5EF42-0AA0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1580-5EF42-0AA0
CAx-Online-Generator
https://www.siemens.com/cax
Tender specifications
https://www.siemens.com/specifications
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https://curves.simaris.siemens.com/curves/3VA1580-5EF42-0AA0

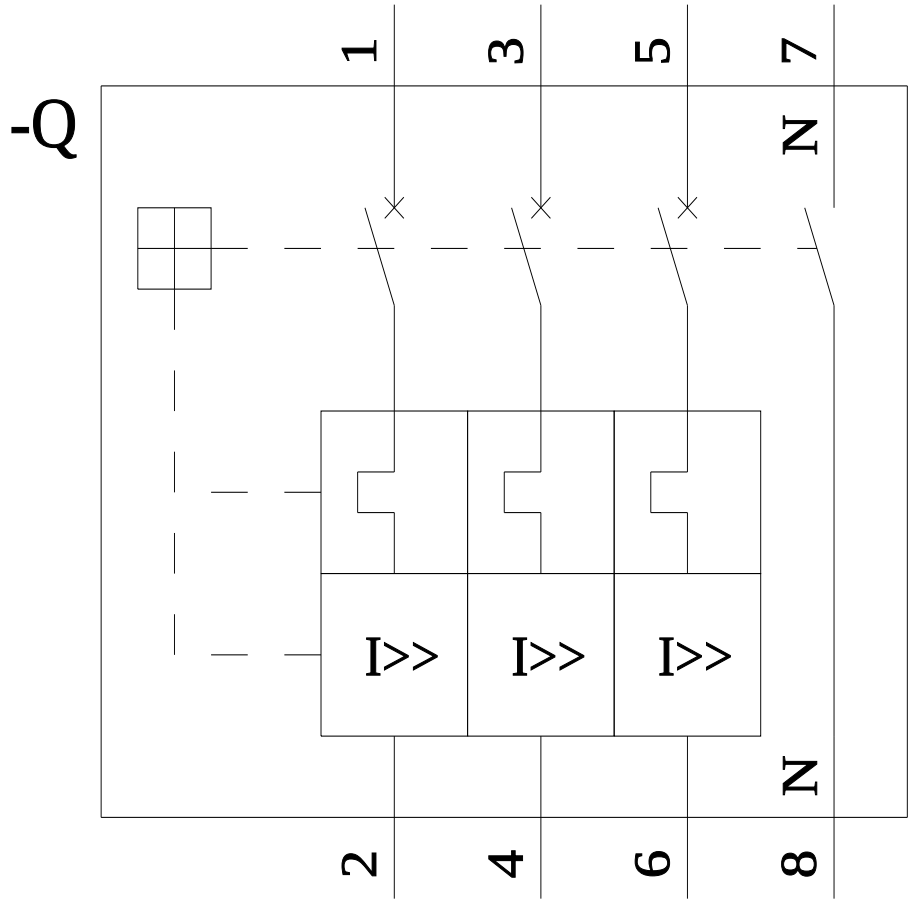
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