SIEMENS

Data sheet

3VM1116-3ED42-0AA0



circuit breaker 3VM1 IEC frame 160 breaking capacity class N Icu=25kA @ 415V 4-pole, line protection TM210, FTFM, In=160A overload protection Ir=160A, not adjustable short-circuit protection Ii=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	TM210
protection function of the overcurrent release	LI
number of poles	4
General technical data	
insulation voltage / rated value	800 V
operating voltage / at AC / at 50/60 Hz / rated value	500 V
operating voltage / at DC / rated value	500 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	38 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	12.67 W
mechanical service life (operating cycles) / typical	15 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	6 000
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	1.253 kg
Current	
operational current	
• at 40 °C	160 A
● at 45 °C	160 A
● at 50 °C	160 A
● at 55 °C	158 A
● at 60 °C	155 A
● at 65 °C	153 A
• at 70 °C	150 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	Ν
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA
• at 500 V	7 kA
operating short-circuit current breaking capacity (lcs)	

• at 240 V	27 kA
• at 415 V	18 kA
• at 440 V	12 kA
• at 500 V	5 kA
short-circuit current making capacity (Icm)	
• at 240 V	76 kA
• at 415 V	53 kA
• at 440 V	32 kA
• at 500 V	12 kA
design of short-circuit protection	For switching capacity values in DC power systems, see the 3VA Molded Case Circuit Breaker Manual; link available 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	160 A
• maximum	160 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	1 600 A
• maximum	1 600 A
adjustable setting current (InN) / for N-tripping	
• minimum	0 A
• maximum	0 A
adjustable current response value current / of instantaneous short-circuit trip unit	
• maximum	1 600 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]	5.12 in
height	130 mm 4 in
width [in]	101.6 mm
depth [in]	2.76 in
depth	70 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front connection
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	12 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	17 x 6.5 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) $% \left(1, 2, 2, 3, 6 \right)$	Tin
Auxiliary circuit	
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		70 °C			
during storage / r		-40 °			
 during storage / r 		80 °C	;		
Approvals / Certificates	·				
General Product App	roval				
	C C EG-Konf.	<u>Confirmation</u>	UK CA	UDE VDE	Miscellaneous
General Product Approval	Test Certificates	Marine / Shipping			
EHC	<u>Miscellaneous</u>	ABS	BUREAU VERITAS		Lloyds Register us
Marine / Shipping	other		Environment		
KMRS	<u>Miscellaneous</u>	<u>Confirmation</u>	Environmental Con- firmations	Environmental Con- firmations	

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/lowvoltage/ atalo

Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VM1116-3ED42-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VM1116-3ED42-0AA0

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

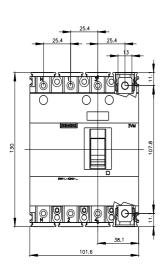
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb =3VM1116-3ED42-0AA0

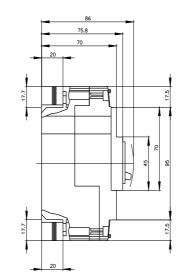
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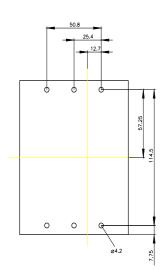
http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications







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