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
Product version	Line protection
Design of the overcurrent release	TM210
Protective function of the overcurrent release	LI
Number of poles	4

General technical data	
Rated insulation voltage Ui	690 V
Max. rated operational voltage Ue with AC 50/60Hz	500 V
Max. rated operational voltage Ue with DC	500 V
Power loss [W] / maximum	38 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	12.67 W
Mechanical service life (switching cycles) / typical	12 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	6 000
Neutral conductors / upgradeable/retrofittable	No
Ground fault monitoring version	Without

Product function	
• communication function	No
• other measurement function	No
Net weight	1.2 kg

Current	
Max. rated operational current of the frame size	160 A
Rated continuous current Iu	160 A
Operating 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	N
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
Operational short-circuit current breaking capacity (Ics)	
• 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	11.9 kA

Adjustable parameters	
Adjustable response value current / Ir min.	160 A
Adjustable response value current / Ir max.	160 A
Short-term delayed / tripping switchable / I2t=ON/OFF	No
Adjustable response value current / Ii min.	1 600 A
Adjustable response value current / Ii max.	1 600 A
Design of the N-conductor protection	Without

Ground fault protection / tripping switchable / I2t=ON/OFF	No

Mechanical Design	
Height [in]	5.1 in
Height	130 mm
Width [in]	4 in
Width	101.6 mm
Depth [in]	2.8 in
Depth	70 mm

Connections	
Arrangement of electrical connectors / for main current circuit	Front connection
Type of connectable conductor cross-section, connection screw, width x thickness , min.	12 x 0
Type of connectable conductor cross-section, connection screw, width x thickness , max.	17 x 6,5

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 / maximum	70 °C
• during storage / minimum	-40 °C
• during storage / maximum	80 °C

Certificates	
Reference code / acc. to DIN EN 81346-2	Q

General Product Approval				Declaration of Conformity	Test Certificates
 CCC	 VDE	Miscellaneous		 EG-Konf.	Miscellaneous

Shipping Approval


LRS

Further information

Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/lowvoltage/catalogs

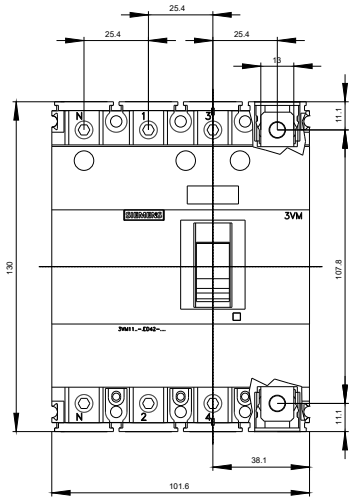
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VM1116-3ED42-0AA0

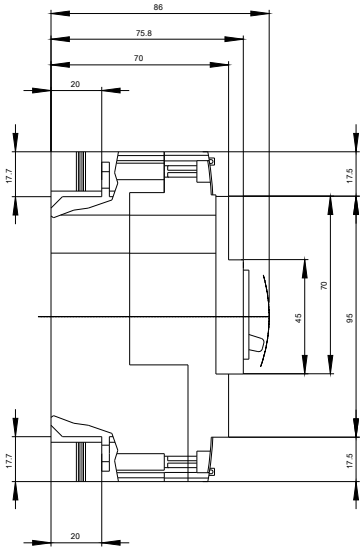
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3VM1116-3ED42-0AA0

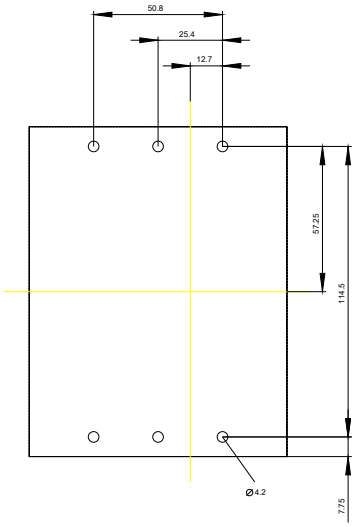
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VM1116-3ED42-0AA0

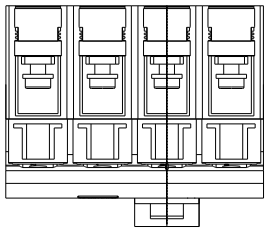
CAx-Online-Generator
http://www.siemens.com/cax

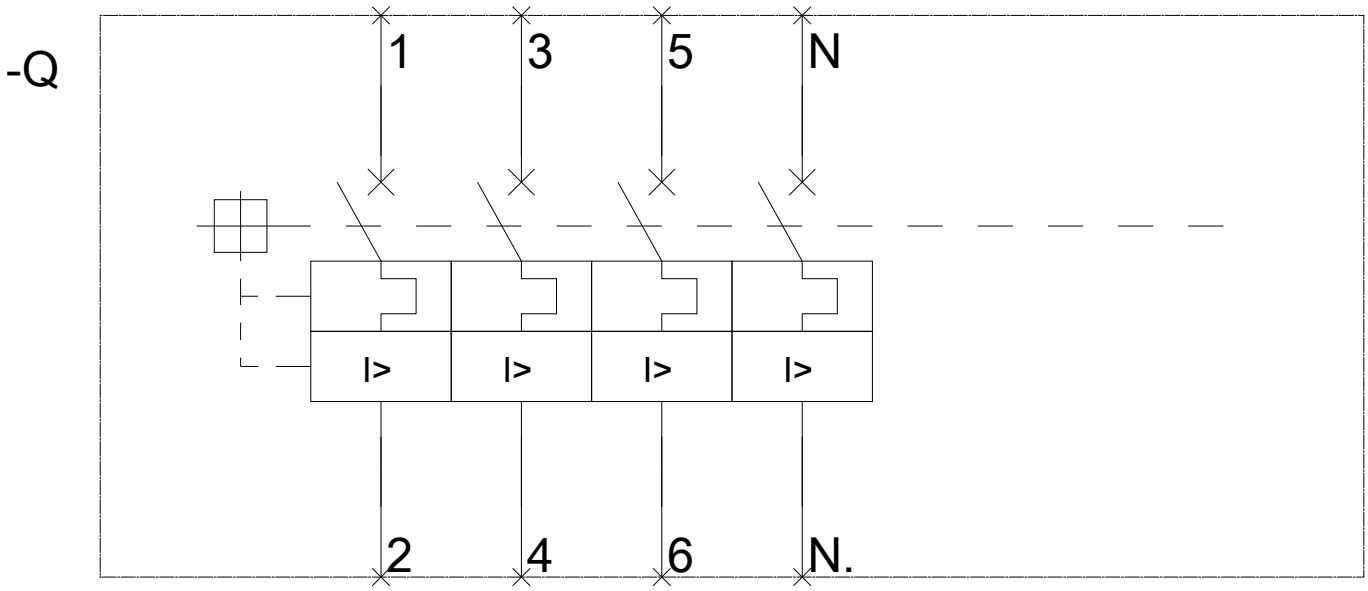
Tender specifications
http://www.siemens.com/specifications











last modified: 03/21/2020