



circuit breaker 3VA1 IEC frame 160 breaking capacity class N Icu=25kA @ 240V
1-pole, line protection TM210, FTFM, In=80A overload protection Ir=80A fixed
short-circuit protection li=10 x In clamp connection

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	1
General technical data	
insulation voltage / rated value	500 V
operating voltage / at DC / rated value	125 V
operating voltage / at AC / rated value	415 V
power loss [W] / maximum	6.4 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	6.4 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	9 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	6 300
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	398 g
Current	
operational current	
• at 40 °C	80 A
• at 45 °C	80 A
• at 50 °C	80 A
• at 55 °C	78 A
• at 60 °C	77 A
• at 65 °C	75 A
• at 70 °C	74 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	25 kA
• at 415 V	5 kA
operating short-circuit current breaking capacity (Ics)	
• at 240 V	25 kA
• at 415 V	5 kA

short-circuit current making capacity (Icm)	• at 240 V52.5 kA • at 415 V7.5 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	80 A	
• maximum	80 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	800 A	
• maximum	800 A	
adjustable setting current (InN) / for N-tripping		
• minimum	0 A	
• maximum	0 A	
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	
width [in]	1 in	
type of connectable conductor cross-sections / of the round conductor terminal / stranded	1 x (1,5 - 70 mm²)	
width	25.4 mm	
depth [in]	2.76 in	
depth	70 mm	
Connections		
arrangement of electrical connectors / for main current circuit	Front terminal	
type of electrical connection / for main current circuit	box terminal on both sides	
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)	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 / maximum	70 °C	
• during storage / minimum	-40 °C	
• during storage / maximum	80 °C	
Certificates		
reference code / according to IEC 81346-2	Q	
General Product Approval		EMC



[Confirmation](#)



[Miscellaneous](#)



Declaration of Conformity	Test Certificates			Marine / Shipping	
		Type Test Certificates/Test Report	Special Test Certificate	Miscellaneous	
Marine / Shipping	other	Confirmation	Miscellaneous	Miscellaneous	Environmental Confirmations
	CCS / China Classification Society				

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)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1180-3ED16-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1180-3ED16-0AA0>

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

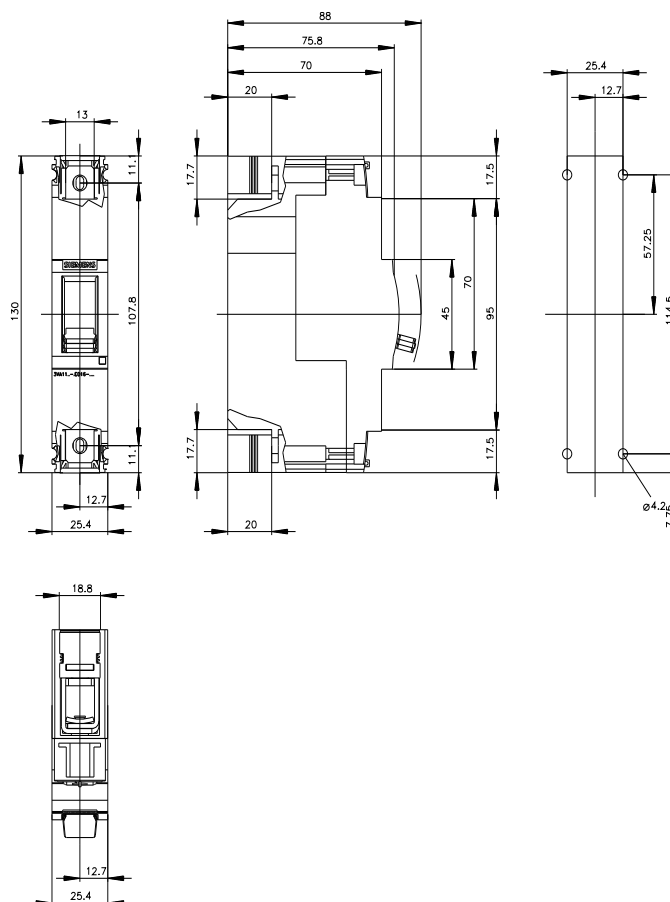
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1180-3ED16-0AA0

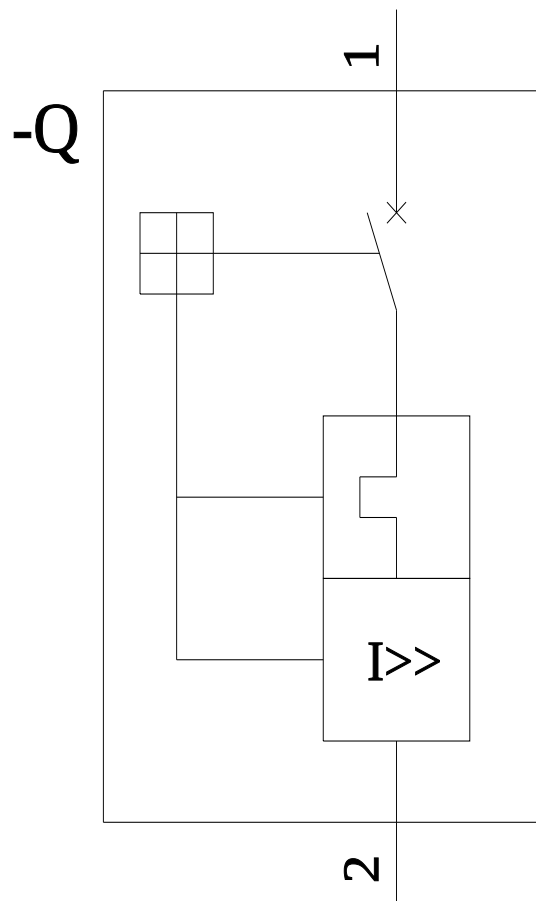
CAX-Online-Generator

<http://www.siemens.com/cax>

Tender specifications

<http://www.siemens.com/specifications>





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[3VA11803ED160AA0](#)