

circuit breaker 3VA1 IEC Frame 160 breaking capacity class N Icu=25 kA @ 415 V  
4-pole, line protection TM220, ATFM, In=80 A overload protection Ir=56 A...80 A  
short-circuit protection Ii=10 x In N conductor unprotected nut keeper kit for DC  
power OEM in China

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	TM220
protection function of the overcurrent release	LI
number of poles	4
General technical data	
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	1.197 kg
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	N
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
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
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	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)	Tin
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

## Environmental footprint

Environmental Product Declaration(EPD)	Yes
reference code / according to IEC 81346-2	Q

## Approvals / Certificates

General Product Approval	EMV	Test Certificates
--------------------------	-----	-------------------

[Miscellaneous](#)



[Confirmation](#)



[Miscellaneous](#)

[Special Test Certificate](#)

## Maritime application

[other](#)



ABS



BUREAU VERITAS



DNV



LRS

[CCS \(China Classification Society\)](#)

[Miscellaneous](#)

## other

**Environment**

[Confirmation](#)



[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=3VA1180-3EE42-0AA0-Z D00>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1180-3EE42-0AA0-Z D00>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1180-3EE42-0AA0-Z D00](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1180-3EE42-0AA0-Z D00)

CAX-Online-Generator

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

Tender specifications

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

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP='HAUPT'></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP='HAUPT'></mmp_prod_no>)

last modified:

4/3/2025

