



CIRCUIT BREAKER 3VA5 UL Frame 600 3POLE, MOTOR STARTER PROTECTION TM120M, AM, In=500A WITHOUT OVERLOAD PROTECTION SHORT CIRCUIT PROTECTION Ii=3...6 x In W/O CONNECTION

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	HLAP
Product version	Starter protection
design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
design of the overcurrent release	TM120M
protection function of the overcurrent release	I
number of poles	3
General technical data	
Tension assignée d'isolement Ui	800 V
mechanical service life (switching cycles) / typical	15 000
electrical endurance (switching cycles) / at 480 V	3 000
electrical endurance (switching cycles) / at 600 V	2 700
Neutral conductors / upgradeable/retrofitable	No
ground-fault monitoring version	Without
product function	
• communication function	No
• phase failure detection	No
• other measurement function	No
Current	
marking / acc. to UL 489 / 100%-rated breaker	No
Max. rated operational current of the frame size	600 A
Courant permanent assigné Iu	500 A
operational current	
• at 45 °C	488 A
• at 50 °C	476 A
• at 55 °C	464 A
• at 60 °C	451 A
• at 65 °C	439 A
• at 70 °C	427 A
Switching capacity according to IEC 60947	
breaking capacity maximum short-circuit current (Icu)	
• at 240 V	150 kA
• at 415 V	110 kA
• at 690 V	10 kA

breaking capacity operating short-circuit current (Ics)	
<ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>	150 kA 110 kA 6 kA
<b>Adjustable parameters</b>	
Adjustable response value current / li min.	1 500 A
Adjustable response value current / li max.	3 000 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No
<b>Mechanical Design</b>	
height [in]	9.8 in
Height	248 mm
width [in]	5.4 in
Width	138 mm
depth [in]	4.3 in
depth	110 mm
<b>Connections</b>	
arrangement of electrical connectors / for main current circuit	Without connection
type of electrical connection / for main current circuit	Without
<b>Auxiliary circuit</b>	
number of CO contacts / for auxiliary contacts	0
<b>Accessories</b>	
product extension / optional / motor drive	Yes
<b>Environmental conditions</b>	
protection class IP / on the front	IP40
ambient temperature	
<ul style="list-style-type: none"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> <li>• during storage / maximum</li> </ul>	-25 °C 70 °C -40 °C 80 °C
<b>Certificates</b>	
reference code / acc. to IEC 81346-2	Q
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	No
<b>General Product Approval</b>	



[Miscellaneous](#)



EMC	Declaration of Conformity	other
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[Miscellaneous](#)

**Further information**

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

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

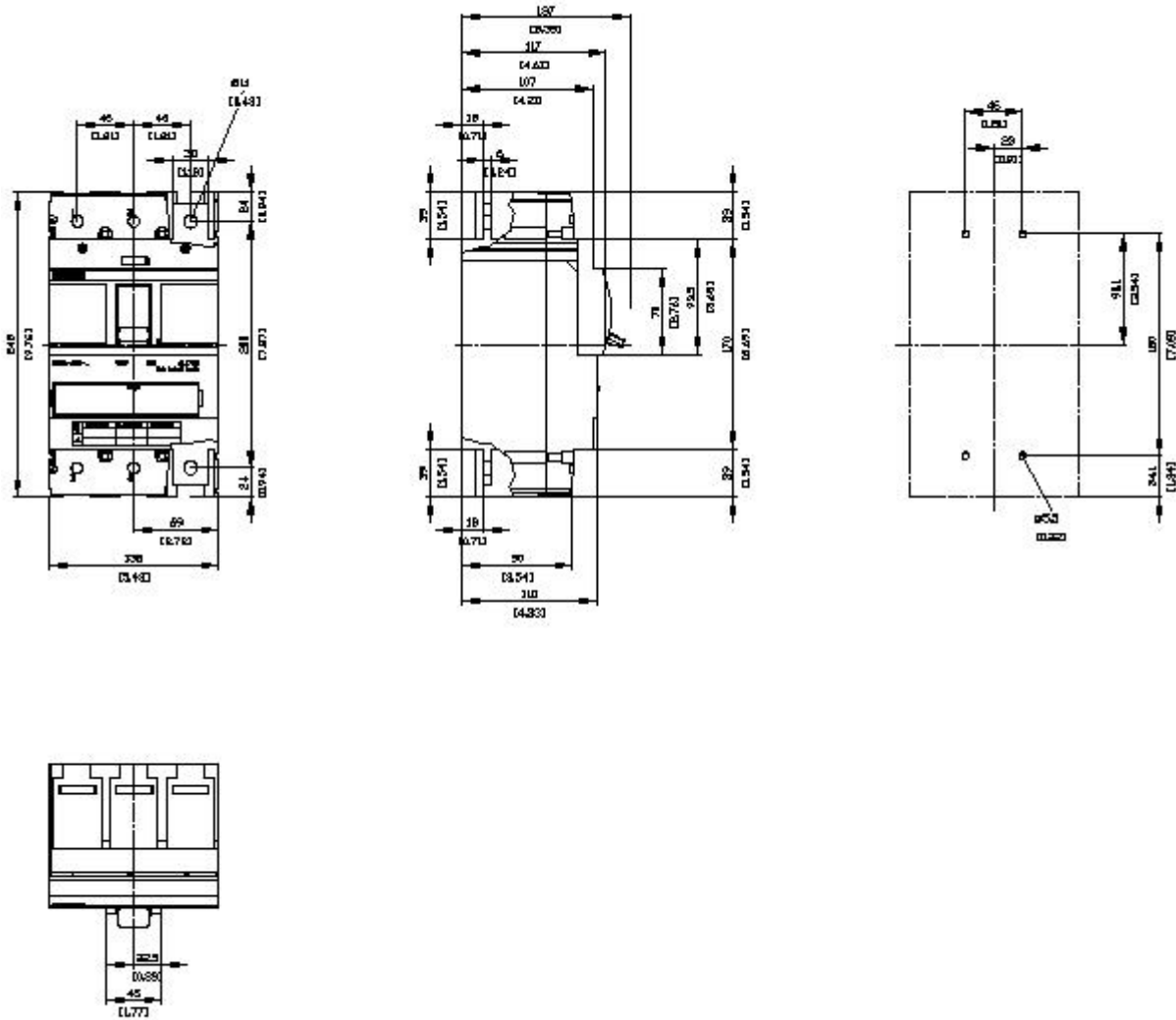
<https://mall.industry.siemens.com/mall/en/Catalog/product?mlfb=3VA5450-1MU31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5450-1MU31-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5450-1MU31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5450-1MU31-0AA0)



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