3VA5215-6EC31-1AA0

## **Data sheet**



circuit breaker 3VA5 UL frame 250 breaking capacity class H 65kA @ 480V 3-pole, line protection TM230, FTAM, In=150A overload protection Ir=150A fixed short-circuit protection Ii=5...10 x In UL 489 SB (naval), 50° C without connection

Model		
product brand name	SENTRON	
product designation	Molded-case circuit breaker	
product designation / according to UL file	HFAM	
Product version	System 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	TM230	
protection function of the overcurrent release	Ш	
number of poles	3	
General technical data		
power loss [W] / maximum	29.9 W	
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	9.97 W	
mechanical service life (switching cycles) / typical	20 000	
electrical endurance (switching cycles) / at 480 V	8 000	
electrical endurance (switching cycles) / at 600 V	4 000	
Neutral conductors / upgradeable/retrofittable	No	
ground-fault monitoring version	Without	
product function		
<ul> <li>communication function</li> </ul>	No	
<ul> <li>other measurement function</li> </ul>	No	
Current		
marking / acc. to UL 489 / 100%-rated breaker	No	
Max. rated operational current of the frame size	250 A	
Courant permanent assigné lu	150 A	
operational current		
• at 40 °C	150 A	
● at 45 °C	150 A	
● at 50 °C	150 A	
● at 55 °C	143 A	
• at 60 °C	139 A	
● at 65 °C	135 A	
● at 70 °C	130 A	
Switching capacity according to IEC 60947		
switching capacity class of the circuit breaker	Н	
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case	

in the last chapter  witching capacity according to UL 489  breaking capacity current  • at 240 V		
breaking capacity current  at 240 V at 480 V 565 kA 25 kA  djustable persponse value current / Ig min. Adjustable response value current / Ig min. Adjustable response value current / Il min. 750 A Adjustable response value current / Il min. 750 A Adjustable response value current / Il min. 750 A Adjustable response value current / Il min. 750 A Adjustable response value current / Il min. 750 A Adjustable response value current / Il max. 1500 A Ground fault protection / tripping switchable / I2t=ON/OFF No  techanical Design height [in] 7.3 in Height 185 mm width [in] 4.1 in Width 105 mm depth 105 mm depth 105 mm depth 107 main current current circuit without connection circuit with yep of electrical connectors / for main current circuit without connection circuit number of CO contacts / for auxiliary contacts 0 ccessories  product extension / optional / motor drive Yes nvironmental conditions protection class IP / on the front IP40 ambient temperature  • during operation / maximum 70 °C • during operation / maximum 70 °C • during operation / maximum 40 °C • during storage / minimum 40 °C • certificates  reference code / acc. to IEC 81346-2 Q certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB		circuit breaker device manual; link to be found under Service & Support in the last chapter
	Switching capacity according to UL 489	
• at 480 V • at 600 V 25 kA  djustable parameters  Adjustable response value current / Ig min.  Adjustable response value current / Il min.  Adjustable response value current / 1500 A  No  Adjustable response value current / 1500 A  No  Adjustabl	breaking capacity current	
Adjustable parameters  Adjustable response value current / Ig min.  Adjustable response value current / Ig min.  Adjustable response value current / Ig min.  Adjustable response value current / Ii min.  Adjustable response value current / Ii min.  Adjustable response value current / Ii max.  Adjustable response value current / Ii min.  Adjustable response value current / Ii max.  Adjustable response value current / Ii max	● at 240 V	100 kA
Adjustable parameters  Adjustable response value current / Ig min.  Adjustable response value current / Ig min.  Adjustable response value current / Ig min.  Adjustable response value current / Il min.  Adjustable response value current / Il min.  Adjustable response value current / Il max.  1 500 A  Adjustable response value current / Il max.  1 500 A  Ground fault protection / tripping switchable / I2t=ON/OFF  No  Idechanical Dosign  Height 185 mm  width [in] 2,3 in  Height 105 mm  depth [in] 3,3 in  depth 3 in  depth 8 in min min min min min min min min min	● at 480 V	65 kA
Adjustable response value current / Ig min. Adjustable response value current / Ig min. Adjustable response value current / Il mon. Adjustable response value current / Il min. Adjustable response value current / Il mon. Adjustable response value current / Il min. Adjustable value response value current / Il min. Adjustable response value current / Il min. Adjustable value response value response value val	● at 600 V	25 kA
Adjustable response value current / lg min. Adjustable response value current / li min. Adjustable response value valu	Adjustable parameters	
Adjustable response value current / li min. Adjustable response value current / li max. 1500 A Ground fault protection / tripping switchable / I2t=ON/OFF No  Reight [in] Reight	Adjustable response value current / lg min.	150 A
Adjustable response value current / li max.  Ground fault protection / tripping switchable / I2t=ON/OFF No    Insert	Adjustable response value current / lg min.	150 A
Ground fault protection / tripping switchable / I2t=ON/OFF No  lechanical Design  height [in] 7.3 in  Height 185 mm  width [in] 4.1 in  Width 105 mm  depth [in] 3.3 in  depth 83 mm  connections  arrangement of electrical connectors / for main current circuit without connection circuit vaxiliary circuit  number of CO contacts / for auxiliary contacts 0  cccssories  product extension / optional / motor drive Yes  nivironmental conditions  protection class IP / on the front ambient temperature  • during operation / maximum -2.5 °C • during operation / maximum -40 °C • during storage / minimum -40 °C • during storage / maximum -40 °C	Adjustable response value current / li min.	750 A
height [in] 7.3 in  Height 185 mm  width [in] 4.1 in  Width 205 mm  depth [in] 3.3 in  depth 3.3 in  depth 83 mm  connections  arrangement of electrical connectors / for main current circuit without connection circuit  type of electrical connection / for main current circuit without   uxiliary circuit  number of CO contacts / for auxiliary contacts 0  ccessories  product extension / optional / motor drive Yes  nvironmental conditions  protection class IP / on the front ambient temperature  • during operation / minimum -25 °C  • during operation / maximum 70 °C  • during storage / minimum 40 °C  • during storage / maximum 80 °C  ertificates  reference code / acc. to IEC 81346-2  certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Adjustable response value current / li max.	1 500 A
height [in] 7.3 in  Height 185 mm  width [in] 4.1 in  Width 105 mm  depth [in] 3.3 in  depth [in] 3.3 in  depth [in] 3.3 in  depth connections  arrangement of electrical connectors / for main current circuit without connection circuit vype of electrical connection / for main current circuit without connection connection / for auxiliary contacts 0  ccessories  product extension / optional / motor drive Yes  nvironmental conditions  protection class IP / on the front IP40  ambient temperature  • during operation / maximum - 25 °C • during storage / minimum - 40 °C • during storage / minimum - 40 °C • during storage / maximum - 40 °C • durin	Ground fault protection / tripping switchable / I2t=ON/OFF	No
Height 185 mm  width [in] 4.1 in  Width 105 mm  depth 105 mm  depth 107 mm  depth 108 mm  depth 108 mm  depth 109	Mechanical Design	
width [in]  Width  105 mm  depth [in]  3.3 in  depth  83 mm  connections  arrangement of electrical connectors / for main current circuit  type of electrical connection / for main current circuit  williary circuit  number of CO contacts / for auxiliary contacts  product extension / optional / motor drive  route extension / optional / motor drive  protection class IP / on the front  ambient temperature  during operation / minimum  during operation / maximum  during storage / minimum  during storage / minimum  during storage / maximum  during storage / maximum	height [in]	7.3 in
Width 105 mm  depth [in] 3.3 in  depth 83 mm  connections  arrangement of electrical connectors / for main current circuit Without connection circuit type of electrical connection / for main current circuit Without wxiliary circuit  number of CO contacts / for auxiliary contacts 0  ccessories  product extension / optional / motor drive Yes  nvironmental conditions  protection class IP / on the front IP40  ambient temperature  • during operation / maximum - 25 °C  • during operation / maximum - 40 °C  • during storage / minimum - 40 °C  • during storage / maximum - 80 °C  reference code / acc. to IEC 81346-2 Q  certificates  reference code / acc. to IEC 81346-2 Q  certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Height	185 mm
depth [in] 3.3 in depth 88 mm  connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit wxiliary circuit number of CO contacts / for auxiliary contacts  cccessories  product extension / optional / motor drive nvironmental conditions  protection class IP / on the front ambient temperature	width [in]	4.1 in
depth 83 mm  connections  arrangement of electrical connectors / for main current circuit without connection  type of electrical connection / for main current circuit without  uxiliary circuit  number of CO contacts / for auxiliary contacts 0  ccessories  product extension / optional / motor drive Yes  nvironmental conditions  protection class IP / on the front IP40  ambient temperature  • during operation / minimum • during operation / maximum • during storage / minimum • during storage / minimum • during storage / maximum 80 °C  ertificates  reference code / acc. to IEC 81346-2 Q  certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Width	105 mm
arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit without  uxiliary circuit number of CO contacts / for auxiliary contacts product extension / optional / motor drive nvironmental conditions protection class IP / on the front ambient temperature	depth [in]	3.3 in
arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit without wxiliary circuit  number of CO contacts / for auxiliary contacts 0  ccessories  product extension / optional / motor drive Yes  nvironmental conditions  protection class IP / on the front 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 IEC 81346-2 Q  certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	depth	83 mm
circuit type of electrical connection / for main current circuit  uxiliary circuit number of CO contacts / for auxiliary contacts  product extension / optional / motor drive  nvironmental conditions  protection class IP / on the front ambient temperature  • during operation / minimum  • during operation / maximum  • during storage / minimum  • during storage / maximum  • vectortificates  reference code / acc. to IEC 81346-2  Q  certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Connections	
number of CO contacts / for auxiliary contacts  ccessories  product extension / optional / motor drive  protection class IP / on the front ambient temperature  • during operation / maximum • during storage / minimum • during storage / maximum 80 °C  ertificates  reference code / acc. to IEC 81346-2 certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	arrangement of electrical connectors / for main current circuit	Without connection
number of CO contacts / for auxiliary contacts  ccessories  product extension / optional / motor drive  Yes  nvironmental conditions  protection class IP / on the front  ambient temperature  • during operation / minimum  • during operation / maximum  • during storage / minimum  • during storage / maximum  • during storage / maximum  • during storage / maximum  80 °C  certificates  reference code / acc. to IEC 81346-2  certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	type of electrical connection / for main current circuit	Without
product extension / optional / motor drive  Product extension / optional / motor drive  Noticonmental conditions  protection class IP / on the front  ambient temperature  olduring operation / minimum  during operation / maximum  olduring storage / minimum  during storage / minimum  olduring storage / maximum	Auxiliary circuit	
product extension / optional / motor drive  Notificates  Product extension / optional / motor drive  Yes  Protection class IP / on the front ambient temperature  • during operation / minimum -25 °C • during operation / maximum 70 °C • during storage / minimum -40 °C • during storage / maximum 80 °C  Pertificates  reference code / acc. to IEC 81346-2 certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	number of CO contacts / for auxiliary contacts	0
protection class IP / on the front ambient temperature  • during operation / minimum • during operation / maximum • during storage / minimum • during storage / minimum • during storage / maximum  • during storage / maximum  • during storage / maximum  Q  etrificates  reference code / acc. to IEC 81346-2  certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	accessories	
protection class IP / on the front ambient temperature  • during operation / minimum • during operation / maximum • during storage / minimum • during storage / minimum • during storage / maximum  80 °C  Pertificates  reference code / acc. to IEC 81346-2 certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	product extension / optional / motor drive	Yes
ambient temperature  • during operation / minimum  • during operation / maximum  • during storage / minimum  • during storage / minimum  • during storage / maximum  80 °C  Sertificates  reference code / acc. to IEC 81346-2  certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	invironmental conditions	
<ul> <li>during operation / minimum</li> <li>during operation / maximum</li> <li>70 °C</li> <li>during storage / minimum</li> <li>during storage / maximum</li> <li>80 °C</li> </ul> Fertificates reference code / acc. to IEC 81346-2 <ul> <li>certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB</li> </ul>	protection class IP / on the front	IP40
<ul> <li>during operation / maximum</li> <li>during storage / minimum</li> <li>during storage / maximum</li> <li>80 °C</li> </ul> Sertificates reference code / acc. to IEC 81346-2 <ul> <li>certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB</li> </ul>	ambient temperature	
during storage / minimum     during storage / maximum     80 °C      reference code / acc. to IEC 81346-2     certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB      during storage / minimum     80 °C  Q  Yes	<ul><li>during operation / minimum</li></ul>	-25 °C
• during storage / maximum     80 °C  Sertificates  reference code / acc. to IEC 81346-2  certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB  Policy (NAVAL)	<ul><li>during operation / maximum</li></ul>	70 °C
reference code / acc. to IEC 81346-2 Q certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	<ul><li>during storage / minimum</li></ul>	-40 °C
reference code / acc. to IEC 81346-2  certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	<ul><li>during storage / maximum</li></ul>	80 °C
certificate of suitability / as approval for NAVAL (no Yes combat vessels) / supplement SB	Certificates	
combat vessels) / supplement SB	reference code / acc. to IEC 81346-2	Q
General Product Approval EMC	certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes
	General Product Approval	EMC







**Miscellaneous** 





Shipping Approval

other



**Miscellaneous** 

## Further information

Information- and Downloadcenter (Catalogs, Brochures,...) <a href="http://www.siemens.com/lowvoltage/catalogs">http://www.siemens.com/lowvoltage/catalogs</a>

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5215-6EC31-1AA0

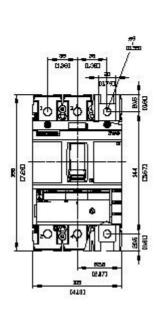
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

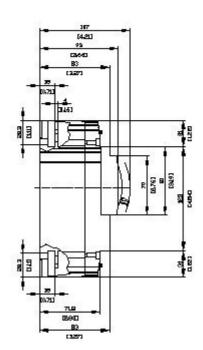
https://support.industry.siemens.com/cs/ww/en/ps/3VA5215-6EC31-1AA0

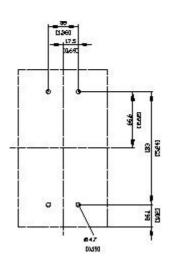
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) <a href="http://www.automation.siemens.com/bilddb/cax">http://www.automation.siemens.com/bilddb/cax</a> en.aspx?mlfb=3VA5215-6EC31-1AA0

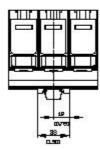
**Tender specifications** 

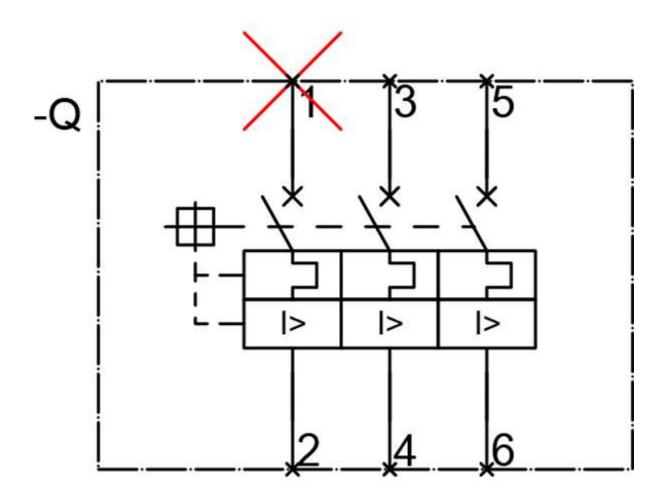
http://www.siemens.com/specifications

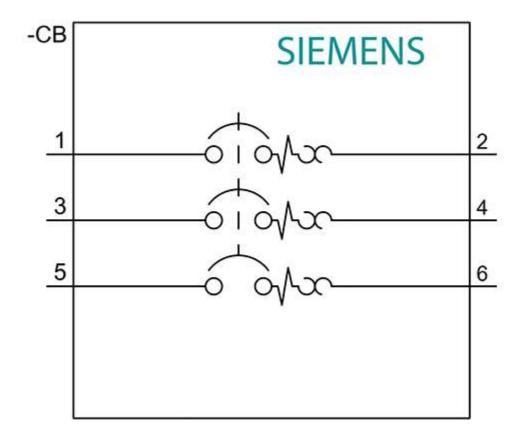












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