3VA6225-6HM41-2AA0

## **Data sheet**



Circuit breaker 3VA6 UL frame 250 breaking capacity class H 65kA @ 480V 4-pole, Line protection ETU330, LIG, In=250A overload protection, 100% rated Ir=100A...250A Short-circuit protection Ii=1.5...10 x In N conductor protection adjustable (OFF, 50%, 100%) Ground-fault protection Ig=0.2...1 x In= tg=0.1/0.3s without connection

Model		
product brand name	SENTRON	
product designation	Molded-case circuit breaker	
product designation / according to UL file	HFAE	
design of the product	System protection	
design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes	
design of the overcurrent release	ETU330	
protection function of the overcurrent release	LIG	
number of poles	4	
General technical data		
insulation voltage / rated value	800 V	
operating voltage / at AC / rated value	690 V	
power loss [W] / maximum	42 W	
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	14 W	
mechanical service life (operating cycles) / typical	25 000	
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	12 000	
electrical endurance (operating cycles) / at AC-1 / at 690 V	8 400	
electrical endurance (operating cycles) / at 480 V	12 000	
electrical endurance (operating cycles) / at 600 V	8 400	
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof	No	
ground-fault monitoring version	Summation current formation L + N-conductor	
product function		
• communication function	No	
other measurement function	No	
Net Weight	2.9 kg	
Current		
marking / according to UL 489 / 100%-rated breaker	Yes	
operational current		
• at 40 °C	250 A	
• at 45 °C	250 A	
• at 50 °C	250 A	
• at 55 °C	241 A	
• at 60 °C	232 A	
• at 65 °C	222 A	
• at 70 °C	213 A	
Switching capacity according to IEC 60947		
switching capacity class of the circuit breaker	Н	
maximum short-circuit current breaking capacity (Icu)		

* at 250 V * at 600 V 3 s k 4		
### 1690 V  operating short-circuit current breaking capacity (bcs)  ### 1750 V  ### 1750	• at 240 V	110 kA
operating bort-circuit current breaking capacity (trs)		
10 kA		3 kA
# 1415 V		
### 1600 V ### 1415 V		
### ### ##############################		
= 1240 V		3 kA
187 KA   187 KA   187 KA   187 KA   187 KA   1890 V   1		
### 1590 V  **It 240 V  **It 240 V  **It 240 V  **It 240 V  **It 250 V  **It 260 V  **It 260 V  **Adjustable parameters  **Adjustable parameters  **Adjustable response value setting current (Ir) / of the L-trip / with 12t characteristic  **Imimum		
Switching capacity according to UL 409		187 kA
Current breaking capacity		4.5 kA
all 240 V   all 480 V   65 kA   65 kA   65 kA   66 k	Switching capacity according to UL 489	
	current breaking capacity	
- at 600 Y/347 V 22 kA 22 kA 24 kA 24 kA 24 kA 24 kA 25 kA 26 kA 26 kB 27 kB 28 kA 26 kB 28 kA 26 kB 28 kB 2	• at 240 V	100 kA
adjustable parameters adjustable response value setting current (in) / of the L-trip / with 12t characteristic	● at 480 V	65 kA
adjustable parameters adjustable response value setting current (ir) / of the L-trip / with Izt characteristic	● at 600 Y/347 V	22 kA
adjustable response value setting current (ir) / of the L-trip / with Izt characteristic	● at 600 V	22 kA
10 A   250 A	Adjustable parameters	
adjustable response value delay time (tr) / for L-tripping / with 12t characteristic  minimum maximum 375 A  adjustable response value setting current (ii) / for I-tripping  minimum 375 A  adjustable current response value current / for G-tripping / with  maximum 375 A  adjustable current response value current / for G-tripping / with  standard characteristic  initial value 50 A  adjustable current vesponse value delay time (tg) / for G-tripping / with  standard characteristic  minimum 0.1 s  maximum 0.3 s  adjustable setting current (inN) / for N-tripping / with  minimum 125 A  maximum 250 A  adjustable setting current / of instantaneous  short-circuit frup unit  maximum 250 A  adjustable current response value current / of instantaneous  short-circuit frup unit  minimum 375 A  2 500 A  adjustable current response value current / of instantaneous  short-circuit frup unit  maximum 2 500 A   adjustable current response value current / of instantaneous  short-circuit frup unit  minimum 375 A  2 500 A   adjustable current response value current / of instantaneous  short-circuit frup unit  minimum 375 A  2 500 A   adjustable ourrent response value current / of instantaneous  short-circuit frup unit  minimum 2 500 A   adjustable ourrent response value current / of instantaneous  short-circuit frup unit  minimum 375 A  2 500 A   adjustable ourrent response value current / of instantaneous  short-circuit frup unit  9 0.1 s  9 0.0 A   4 0.1 s  9 0.1 s  9 0.1 s  9 0.0 A   4 0.1 s		
adjustable response value delay time (tr) / for L-tripping / with 12t characteristic	• minimum	100 A
characteristic  minimum  maximum  minimum  minimum  minimum  minimum  minimum  minimum  minimum  minital value  full-scale value  minimum	• maximum	
minimum minimum minitable response value setting current (li) / for I-tripping minimum minimum minimum minitable current response value current / for G-tripping / with standard characteristic initial value full-scale value minimum minimu		
adjustable response value setting current (III) / for I-tripping	• minimum	0.5 s
minimum maximum adjustable current response value current / for G-tripping / with standard characteristic initial value full-scale value adjustable response value delay time (tg) / for G-tripping / with l0t characteristic minimum maximum maximum adjustable setting current (inN) / for N-tripping minimum minimum maximum maxim	• maximum	13 s
maximum     adjustable current response value current / for G-tripping / with standard characteristic     initial value     full-scale value     adjustable response value delay time (tg) / for G-tripping / with 10t characteristic     minimum	adjustable response value setting current (li) / for I-tripping	
adjustable current response value current / for G-tripping / with standard characteristic  initial value  full-scale value  adjustable response value delay time (tg) / for G-tripping / with lot characteristic  minimum  nadjustable setting current (InN) / for N-tripping  minimum  nadjustable setting current (InN) / for N-tripping  minimum  nadjustable current response value current / of instantaneous short-circuit rip unit  minimum  nadjustable current response value current / of instantaneous short-circuit rip unit  minimum  nadjustable current response value current / of instantaneous short-circuit rip unit  minimum  nadjustable OFF; 50%; 100%  respondent function / grounding protection  response value current value  initial value  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-tripping / with standard characteristic  initial value  out of - G-trip	• minimum	375 A
standard characteristic  initial value  full-scale value adjustable response value delay time (tg) / for G-tripping / with fl0t characteristic  minimum  maximum  0.1 s  adjustable setting current (InN) / for N-tripping  minimum  maximum  250 A  adjustable setting current (InN) / for N-tripping  minimum  maximum  250 A  adjustable current response value current / of instantaneous short-circuit trip unit  minimum  minimum  375 A  maximum  2500 A  design of the N-conductor protection  design of the N-conductor protection  product function / grounding protection  total break time / for G-tripping / with standard characteristic  initial value  full-scale value  No  Mechanical Design  product component  undervoltage release  voltage trigger  No  trip indicator  No  height [in]  7.8 in  height  width [in]  width  full omm  deepth [in]  depth  68 mm  Connections	• maximum	2 500 A
full-scale value   250 A		
adjustable response value delay time (tg) / for G-tripping / with l0t characteristic  • minimum • maximum 0.3 s  adjustable setting current (lnN) / for N-tripping • minimum • maximum 250 A  adjustable current response value current / of instantaneous short-circuit trip unit • minimum • maximum 2500 A  design of the N-conductor protection product function / grounding protection yes  total break time / for G-tripping / with standard characteristic • initial value • full-scale value  10.3 s  Mechanical Design  product component • undervoltage release • voltage trigger • trip indicator height [in] height width 198 mm width 199 mm width 190 mm  depth 101 connections	• initial value	50 A
October   Octo		250 A
maximum minimum minim	10t characteristic	
adjustable setting current (InN) / for N-tripping		
minimum maximum maxim		0.3 s
maximum     adjustable current response value current / of instantaneous short-circuit trip unit     minimum     maximum     adjustable OFF; 50%; 100%  design of the N-conductor protection     product function / grounding protection     yes  total break time / for G-tripping / with standard characteristic     initial value     o.1 s     full-scale value     0.3 s  Mechanical Design  product component     undervoltage release     voltage trigger     No     trip indicator     No height [in]     initial value     198 mm width [in]     initial value     375 A     adjustable OFF; 50%; 100%     voltage trigger     No     initial value     1.8 in height     initial value     3.39 in depth     86 mm  Connections		
adjustable current response value current / of instantaneous short-circuit trip unit  • minimum  • minimum  • maximum  2 500 A  design of the N-conductor protection  product function / grounding protection  total break time / for G-tripping / with standard characteristic  • initial value  • full-scale value  0.1 s  • full-scale value  0.3 s  Mechanical Design  product component  • undervoltage release  • voltage trigger  • voltage trigger  • trip indicator  No  height [in]  midth  indidth  140 mm  depth [in]  3.39 in  depth  Connections		
<ul> <li>minimum</li> <li>maximum</li> <li>2 500 A</li> <li>design of the N-conductor protection</li> <li>product function / grounding protection</li> <li>Yes</li> <li>total break time / for G-tripping / with standard characteristic</li> <li>initial value</li> <li>full-scale value</li> <li>0.1 s</li> <li>full-scale value</li> <li>0.3 s</li> </ul> Mechanical Design product component <ul> <li>undervoltage release</li> <li>voltage trigger</li> <li>trip indicator</li> <li>height [in]</li> <li>ting</li> <l< td=""><td>adjustable current response value current / of instantaneous</td><td>250 A</td></l<></ul>	adjustable current response value current / of instantaneous	250 A
maximum  design of the N-conductor protection  product function / grounding protection  total break time / for G-tripping / with standard characteristic  initial value  full-scale value  0.1 s  full-scale value  0.3 s   Mechanical Design  product component  undervoltage release  voltage trigger  trip indicator  height [in]  height  width [in]  width  depth [in]  depth  Connections		
design of the N-conductor protection product function / grounding protection  yes  total break time / for G-tripping / with standard characteristic  initial value full-scale value  0.1 s  full-scale value  0.3 s  Mechanical Design  product component  undervoltage release No voltage trigger No trip indicator  height [in]  height  198 mm  width [in]  5.51 in  width  depth [in]  3.39 in  depth  Connections		
product function / grounding protection  total break time / for G-tripping / with standard characteristic  initial value  ofull-scale value  0.1 s  full-scale value  0.3 s  Mechanical Design  product component  undervoltage release  voltage trigger  trip indicator  height [in]  7.8 in  height  height  198 mm  width [in]  5.51 in  width  140 mm  depth [in]  3.39 in  depth  Connections		
total break time / for G-tripping / with standard characteristic  • initial value • full-scale value  0.1 s • full-scale value  0.3 s   Mechanical Design  product component • undervoltage release • voltage trigger • trip indicator  height [in]  height 198 mm  width [in]  width 140 mm  depth [in] 3.39 in  depth Connections	_ · ·	
initial value		Yes
● full-scale value         0.3 s           Mechanical Design           product component         • undervoltage release           ● voltage trigger         No           ● trip indicator         No           height [in]         7.8 in           height         198 mm           width [in]         5.51 in           width         140 mm           depth [in]         3.39 in           depth         86 mm           Connections		
Mechanical Design   product component   • undervoltage release No   • voltage trigger No   • trip indicator No   height [in] 7.8 in   height 198 mm   width [in] 5.51 in   width 140 mm   depth [in] 3.39 in   depth 86 mm   Connections		
product component  • undervoltage release  • voltage trigger  • trip indicator  height [in]  **read to the product of the prod		0.3 s
<ul> <li>undervoltage release</li> <li>voltage trigger</li> <li>trip indicator</li> <li>height [in]</li> <li>tight [in]</li> &lt;</ul>		
● trip indicator         No           height [in]         7.8 in           height         198 mm           width [in]         5.51 in           width         140 mm           depth [in]         3.39 in           depth         86 mm           Connections	-	
height [in]       7.8 in         height       198 mm         width [in]       5.51 in         width       140 mm         depth [in]       3.39 in         depth       86 mm         Connections		
height       198 mm         width [in]       5.51 in         width       140 mm         depth [in]       3.39 in         depth       86 mm    Connections	· · · · · · · · · · · · · · · · · · ·	
width [in]       5.51 in         width       140 mm         depth [in]       3.39 in         depth       86 mm         Connections		
width       140 mm         depth [in]       3.39 in         depth       86 mm         Connections		
depth [in]         3.39 in           depth         86 mm           Connections		
depth 86 mm  Connections		
Connections		
	·	86 mm
arrangement of electrical connectors / for main current circuit Without connection	Connections	
	arrangement of electrical connectors / for main current circuit	Without connection

type of electrical connection / for main current circuit	Without
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
ambient temperature	
<ul> <li>during operation / minimum</li> </ul>	-25 °C
<ul> <li>during operation / maximum</li> </ul>	70 °C
<ul> <li>during storage / minimum</li> </ul>	-40 °C
<ul> <li>during storage / maximum</li> </ul>	80 °C
Certificates	
reference code / according to IEC 81346-2	Q
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes
General Product Approval	



Confirmation





**Miscellaneous** 



EMC Declaration of Conformity

Marine / Shipping

other











Miscellaneous

other Dangerous Good

<u>Confirmation</u> <u>Miscellaneous</u> <u>Transport Information</u>

## **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=3VA6225-6HM41-2AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA6225-6HM41-2AA0

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

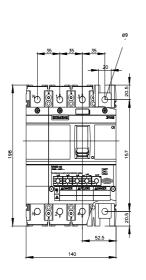
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA6225-6HM41-2AA0

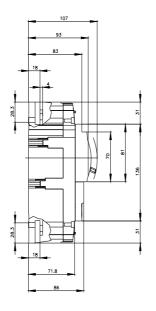
**CAx-Online-Generator** 

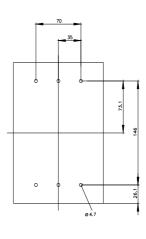
http://www.siemens.com/cax

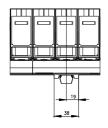
Tender specifications

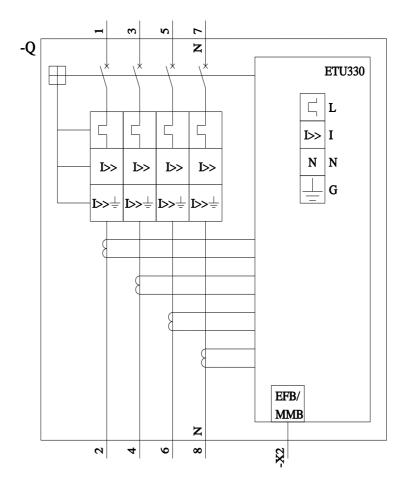
http://www.siemens.com/specifications

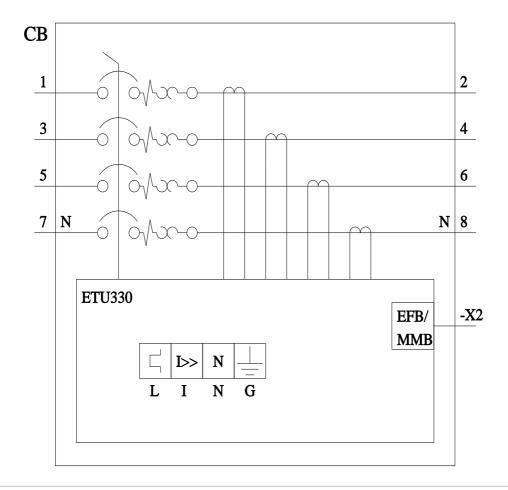












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**Authorized Distributor** 

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3VA62256HM412AA0