3VA6712-6HL31-0AA0

Data sheet



circuit breaker 3VA6 UL frame 1200 breaking capacity class H 65kA @ 480 V 3-pole, line protection ETU320, LI, In=1200A overload protection Ir=500A - 1200A short circuit protection Ii=1,5-10 x In w/o connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	HNAE
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	ETU320
protection function of the overcurrent release	LI
number of poles	3
General technical data	
insulation voltage / rated value	800 V
operating voltage / at AC / rated value	600 V
power loss [W] / maximum	243 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	243 W
mechanical service life (operating cycles) / typical	3 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	1 500
electrical endurance (operating cycles) / at AC-1 / at 690 V	500
electrical endurance (operating cycles) / at 480 V	1 500
electrical endurance (operating cycles) / at 600 V	500
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof	No
ground-fault monitoring version	without
product function	
 communication function 	No
other measurement function	No
Net Weight	25.86 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	1 200 A
• at 45 °C	1 200 A
• at 50 °C	1 200 A
• at 55 °C	1 200 A
• at 60 °C	1 200 A
• at 65 °C	1 200 A
• at 70 °C	1 200 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	Н
maximum short-circuit current breaking capacity (Icu)	

### 600 V Operating short-croud current breaking capacity (lost) ### 475 V #		110 kA
operating short-circuit current breaking capacity (lcs) • 1245 V • 1415 V • 1415 V • 1415 V • 1415 V • 14145 V • 14160 V Switching capacity according to UL 489 current breaking capacity • 11240 V • 11800 V •		
### ### #### #########################		30 kA
# 41 15 V		
### ### ### #### #####################	● at 240 V	55 kA
short-forcal current making capacity (lom) • at 240 V • at 415 V • at 415 V • at 415 V • at 630 V Shift-fine capacity according to UL 489 current breaking capacity • at 240 V • at 450 V • at 450 V • at 650 V Adjustable parameters adjustable response value setting current (ir) / of the L-trip / with 12 characterists • innimum • inaximum • inaximum • inaximum • inaximum • maximum • during sporation immimum • during sporation immimum • during sporation immimum • during storage / maximum • during storage / maximum • during storage / minimum • during	• at 415 V	35 kA
eal 240 V	• at 690 V	15 kA
e at 415 V 63 kA Switching sepacity according to UL-493 current breaking capacity e at 240 V 100 kA e at 800 V 65 kA Adjustable parameters adjustable response value setting current (Ir) / of the L-trip / with 21 characteristic e innimum 500 A e at 300 V 1200 A ediustable response value setting current (Ir) / of the L-trip / with 22 characteristic e innimum 2.5 s e maximum 30 s e maximum 30 s e maximum 1 1800 A e maximum 1 18	short-circuit current making capacity (Icm)	
e at 890 V current breaking capacity e at 240 V e at 480 V e at 800 V e at 80	• at 240 V	242 kA
Switching capacity according to UL 409 current breaking capacity at 240V at 480V at 65 kA Adjustable parameters adjustable response value setting current (Ir) / of the L-trip / with Izt characteristic niminum maximum adjustable response value delay time (Ir) / for L-tripping / with Izt characteristic niminum maximum adjustable response value delay time (Ir) / for I-tripping / with Izt characteristic niminum maximum adjustable response value setting current (II) / for I-tripping niminum naximum adjustable current response value current / of instantaneous short-circuit try nrit niminum naximum naximum 1 2000 A naximum 228 # mm depth [In] 1 8.14 in height 406 # mm connections ype of electrical connection / for main current circuit design of the surface / of the connections / on the top of the witch (N. 1, 3, 5) design of the surface / of the connections / on the top of the witch (N. 1, 3, 5) design of the surface / of the connections / on the bottom of the witch (N. 1, 3, 5) design of the surface / of the connections / on the bottom of the witch (N. 1, 3, 5) design of the surface / of the connections / on the bottom of the witch (N. 1, 3, 5) design of the surface / of the connections / on the bottom of the witch (N. 1, 3, 5) design of the surface / of the connections / on the bottom of the witch (N. 1, 3, 5) design of the surface / of the connections / on the bottom of the witch (N. 1, 3, 5) design of the surface / of the connections / on the bottom of the silver adving sporetion / maximum oduring storage / minimum during st	● at 415 V	154 kA
current breaking capacity • at 240 V • at 480 V • at 4	• at 690 V	63 kA
at 240 V 65 kA at 480 V 55 kA Afjectable parameters Adjustable response value setting current (Ir) / of the L-trip / with 12t characteristic minimum 500 A adjustable response value delay time (It) / for L-tripping / with 12t characteristic minimum 500 A adjustable response value delay time (It) / for L-tripping / with 12t characteristic minimum 30 s maximum 30 s adjustable response value setting current (II) / for L-tripping / with 12t characteristic minimum 1 1800 A maximum 1 12 000 A max	Switching capacity according to UL 489	
at 480 V at 500 V at 500 V at 500 V adjustable parameters adjustable response value setting current (ir) / of the L-trip / with 12t characteristic minimum maximum 1 200 A adjustable response value delay time (ir) / for L-tripping / with 12t characteristic minimum maximum maximum 1 200 A adjustable response value delay time (ir) / for L-tripping / with 12t characteristic minimum maximum 1 800 A minimum 1 800 A	current breaking capacity	
adjustable parameters adjustable response value setting current (Ir) / of the L-tir) / with Izt characteristic	• at 240 V	100 kA
Adjustable parameters adjustable response value setting current (ir) / of the L-trip / with 12t characteristic — minimum — maximum — 1 200 A adjustable response value delay time (tr) / for L-tripping / with 12t characteristic — minimum — maximum — adjustable response value setting current (ii) / for L-tripping / with 12t characteristic — minimum — maximum — maximum — maximum — maximum — 1 2000 A adjustable current response value setting current (ii) / for I-tripping — minimum — maximum — maximum — 1 800 A — maximum — 1 800 A — maximum — 1 800 A — maximum — vanimum —	• at 480 V	65 kA
adjustable response value setting current (ir) / of the L-trip / with 2r characteristic	• at 600 V	35 kA
12 characteristic minimum 500 A 1200 A	Adjustable parameters	
maximum 500 A 1.200 A	adjustable response value setting current (Ir) / of the L-trip / with	
e maximum adjustable response value delay time (tr) / for L-tripping / with 12t characteristic e minimum maximum adjustable response value setting current (ii) / for I-tripping e minimum maximum 1 800 A adjustable current response value current / of instantaneous short-circuit frip unit e minimum maximum 1 800 A adjustable current response value current / of instantaneous short-circuit frip unit e minimum maximum 1 800 A e maximum 1 2 000 A product function / grounding protection Mochanical Dosign product component e undervoltage release trip indicator No height [in] self in depth [in] depth [in] depth [in] depth [in] file in depth (in) depth (in) depth (in) destin of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts protection class IP / on the front e during operation / minimum e during storage / minimum e during stor	I2t characteristic	
adjustable response value delay time (tr) / for L-tripping / with 12t characteristic	• minimum	500 A
characteristic minimum maximum adjustable response value setting current (ii) / for I-tripping minimum maximum 1800 A maximum 1800 A maximum 1800 A minimum maximum 1800 A minimum maximum 1800 A minimum maximum 1800 A maximum 1900 A m	• maximum	1 200 A
maximum adjustable response value setting current (iii) / for I-tripping minimum maximum 1800 A maximum 1800 A adjustable current response value current / of instantaneous short-circuit ritip unit minimum 1800 A maximum 284 a ma maximum 288 a mm despin of the surface / of the connections / on the top of the surface / of the connections / on the bottom of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxitiary circuit number of CO contacts / for auxiliary contacts Dervironmental conditions protection class IP / on the front ambient temperature during operation / minimum during storage / maximum 80 °C certificate of suitability / as approval for NAVAL (no combat) No		
adjustable response value setting current (ii) / for I-tripping	• minimum	2.5 s
minimum adjustable current response value current / of instantaneous short-circuit trip unit minimum	• maximum	30 s
maximum adjustable current response value current / of instantaneous short-circuit trip unit minimum maximum product function / grounding protection Mechanical Design product component	adjustable response value setting current (Ii) / for I-tripping	
adjustable current response value current / of instantaneous short-cruit trip unit inimimum inimum	• minimum	1 800 A
shot-circuit trip unit minimum maximum modervoltage release modervoltage modervoltage release modervoltage release	• maximum	12 000 A
maximum product function / grounding protection No Mechanical Design product component undervoltage release No inj indicator No height [in] 8.14 in height 206.9 mm width [in] 8.99 in width [in] 8.99 in width 228.4 mm depth 16 in depth 406.4 mm Connections Type of electrical connection / for main current circuit without terminals design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxillary circuit number of CO contacts / for auxillary contacts Denvironmental conditions protection class IP / on the front		
product function / grounding protection No Mechanical Design product component • undervoltage release • trip indicator height [in] 8.14 in height [in] 8.99 in width [in] 8.99 in width [in] 406.4 mm Connections Type of electrical connection / for main current circuit esign of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Design of the current on the front protection in the first protection class IP / on the front protection class IP / on the front protection in minimum of the current of the surface / minimum of CO contacts / minimum of CO contacts / on the front protection class IP / on the f	• minimum	1 800 A
## Decided the product component • undervoltage release	• maximum	12 000 A
product component • undervoltage release • trip indicator No height [in] 8.14 in height 206.9 mm width [in] 8.99 in width depth [in] depth depth [in] depth 406.4 mm Connections type of electrical connection / for main current circuit design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts protection class IP / on the front ambient temperature • during operation / miximum • during operation / maximum • during storage / minimum • during storage / minimum • during storage / maximum **Compaction of Compaction of the Silver **Compaction of the Silver **Silver **Silve	product function / grounding protection	No
undervoltage release trip indicator No height [in]	Mechanical Design	
trip indicator height [in]	product component	
height [in] 8.14 in height 206.9 mm width [in] 8.99 in width 228.4 mm depth [in] 16 in depth 406.4 mm Connections type of electrical connection / for main current circuit without terminals design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts 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 / minimum 80 °C Certificates reference code / according to IEC 81346-2	undervoltage release	No
height 206.9 mm width [in] 8.99 in width 228.4 mm depth [in] 16 in depth 406.4 mm Connections type of electrical connection / for main current circuit without terminals design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts protection class IP / on the front IP40 ambient temperature • during operation / maximum 70 °C • during storage / minimum -40 °C • during storage / maximum 80 °C Certificates reference code / according to IEC 81346-2 F certificate of suitability / as approval for NAVAL (no combat No	trip indicator	No
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 during operation / minimum during operation / maximum during storage / minimum during storage / maximum during storage / maximum Certificates reference code / according to IEC 81346-2 certificate of suitability / as approval for NAVAL (no combat No 	·	II 40
• during operation / maximum • during storage / minimum • during storage / maximum • during storage / maximum • 80 °C Certificates reference code / according to IEC 81346-2 certificate of suitability / as approval for NAVAL (no combat No	·	25 °C
• during storage / minimum • during storage / maximum 80 °C Certificates reference code / according to IEC 81346-2 certificate of suitability / as approval for NAVAL (no combat No		
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reference code / according to IEC 81346-2 F certificate of suitability / as approval for NAVAL (no combat No		80 °C
certificate of suitability / as approval for NAVAL (no combat		
	•	
		No



Confirmation





Miscellaneous



Declaration of Conformity

Test Certificates

other





Type Test Certificates/Test Report Confirmation

Miscellaneous

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=3VA6712-6HL31-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA6712-6HL31-0AA0

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

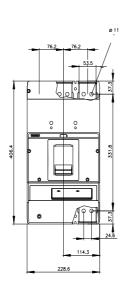
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6712-6HL31-0AA0

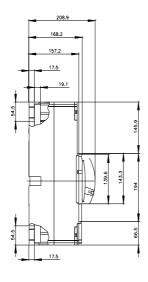
CAx-Online-Generator

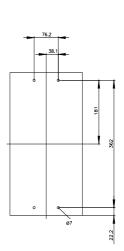
http://www.siemens.com/cax

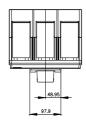
Tender specifications

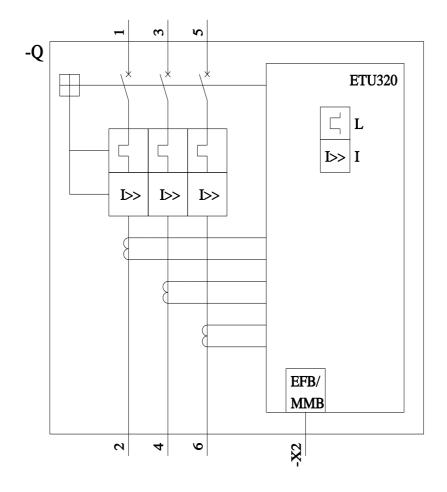
http://www.siemens.com/specifications

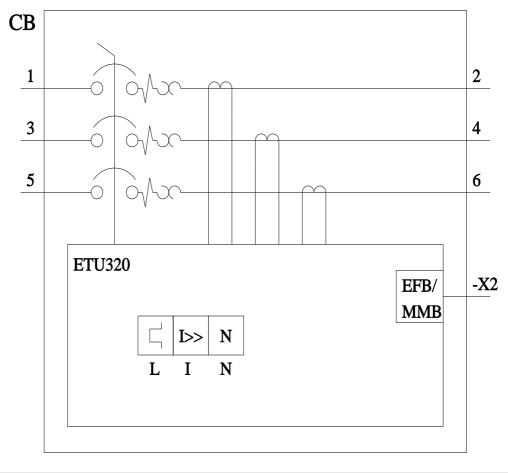












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