



circuit breaker 3VA2 IEC Frame 100 breaking capacity class M $I_{cu}=55 \text{ kA @ } 415 \text{ V}$
 3-pole, line protection ETU850, LSI, $I_n=100 \text{ A}$ overload protection $I_r=40 \text{ A} \dots 100 \text{ A}$
 short-circuit protection $I_{sd}=0.6 \dots 10 \times I_n$, $I_i=1.5 \dots 12 \times I_n$ neutral conductor protection
 optionally with external current transformer nut keeper kit undervoltage release
 (UVR) 208-230 V AC 50/60 Hz 2 auxiliary switches HQ 1 trip alarm switch HQ 1
 electrical alarm switch

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	ETU850
protection function of the overcurrent release	LSI
number of poles	3
design of the auxiliary release	undervoltage release (UVR)
design of the auxiliary switch	2 auxiliary switches + 1 trip alarm switch + 1 electrical alarm switch HQ
General technical data	
insulation voltage / rated value	800 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	16 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	5.33 W
mechanical service life (operating cycles) / typical	25 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	15 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	10 500
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	Yes
ground-fault monitoring version	Without
product function	
• communication function	Yes
• other measurement function	Yes
Net Weight	2.54 kg
Current	
operational current	
• at 40 °C	100 A
• at 45 °C	100 A
• at 50 °C	100 A
• at 55 °C	100 A
• at 60 °C	100 A
• at 65 °C	100 A
• at 70 °C	100 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity (I_{cu})	
• at 240 V	85 kA
• at 415 V	55 kA

<ul style="list-style-type: none"> • at 440 V • at 500 V • at 690 V 	55 kA 36 kA 2 kA
operating short-circuit current breaking capacity (Ics) <ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V 	85 kA 55 kA 55 kA 36 kA 2 kA
short-circuit current making capacity (Icm) <ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V 	187 kA 121 kA 121 kA 75.5 kA 3 kA
Adjustable parameters	
product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (I _r) / of the L-trip / with I _{2t} characteristic <ul style="list-style-type: none"> • minimum • maximum 	40 A 100 A
adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic <ul style="list-style-type: none"> • minimum • maximum 	0.5 s 25 s
adjustable response value setting current (I _{sd}) / of S-trip / with I _{0t} characteristic <ul style="list-style-type: none"> • minimum • maximum 	60 A 1 000 A
adjustable response value setting current (I _{sd}) / of S-trip / with I _{2t} characteristic <ul style="list-style-type: none"> • minimum • maximum 	60 A 1 000 A
adjustable response value delay time (t _{sd}) / for S-tripping / with I _{0t} characteristic <ul style="list-style-type: none"> • minimum • maximum 	0.05 s 0.5 s
adjustable response value delay time (t _{sd}) / for S-tripping / with I _{2t} characteristic <ul style="list-style-type: none"> • minimum • maximum 	0.05 s 0.5 s
adjustable response value setting current (I _i) / for I-tripping <ul style="list-style-type: none"> • minimum • maximum 	150 A 1 200 A
adjustable setting current (I _{nN}) / for N-tripping <ul style="list-style-type: none"> • minimum • maximum 	20 A 160 A
design of the N-conductor protection	adjustable OFF; 20% to 160%
product function / grounding protection	No
Mechanical Design	
product component <ul style="list-style-type: none"> • undervoltage release • voltage trigger • trip indicator 	Yes No Yes
height [in]	7.13 in
height	181 mm
width [in]	4.13 in
width	105 mm
depth [in]	3.39 in
depth	86 mm

Connections	
arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	on both sides nut keeper kit
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	13 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	25 x 8 mm
design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	tin
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	4




Accessories	
product extension / optional / motor drive	Yes
manufacturer's article number	
<ul style="list-style-type: none"> of the supplied basic switch of the integrated auxiliary switch/alarm switch of the integrated auxiliary switch/alarm switch of the integrated auxiliary switch/alarm switch of the integrated auxiliary switch/alarm switch of the integrated auxiliary trip unit 	3VA20105KP320AA0 3VA9988-0AA12 3VA9988-0AB12 3VA9988-0AB22 3VA9608-0BB25

Environmental conditions	
protection class IP / on the front	IP40
ambient temperature	
<ul style="list-style-type: none"> during operation / minimum during operation / maximum during storage / minimum during storage / maximum 	-25 °C 70 °C -40 °C 80 °C
reference code / according to IEC 81346-2	Q

Approvals / Certificates

General Product Approval



[Miscellaneous](#)


[Confirmation](#)


General Product Approval	EMV	Test Certificates
  	Miscellaneous	Special Test Certificate Type Test Certificates/Test Report

Maritime application






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

other	Dangerous goods	Environment
Miscellaneous Miscellaneous Confirmation		Transport Information Environmental Confirmations

Environment

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=3VA2010-5KP32-ODL0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2010-5KP32-ODL0>

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

https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2010-5KP32-ODL0

CAx-Online-Generator

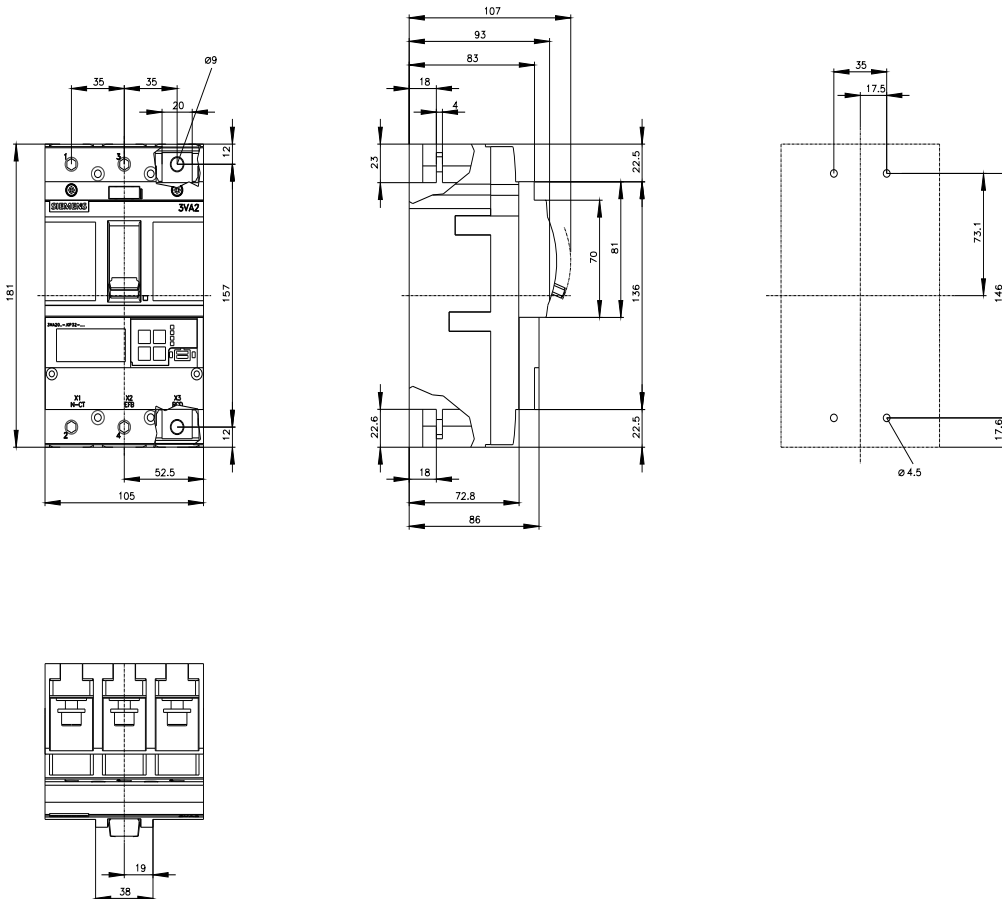
<https://www.siemens.com/cax>

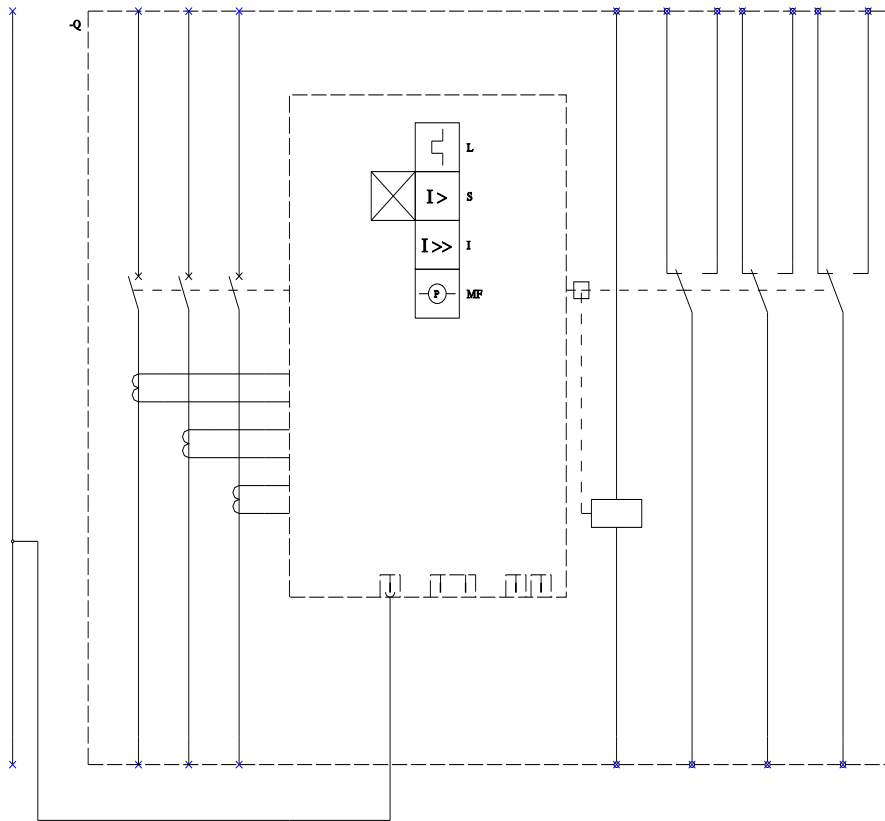
Tender specifications

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

Characteristic curves

https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP='HAUPT'></mmp_prod_no>





L (Long Time Delay / Überlastschutz); S (Short Time Delay / Kurzschlusschutz, kurzzeilverzögert);
 I (Instantaneous / Kurzschlusschutz, unverzögert); MF (Metering function / Messfunktion);

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