

Siemens
EcoTech



circuit breaker 3VA6 UL Frame 250 breaking capacity class M 35 kA @ 480 V 3-pole, line protection ETU830, LIG, In=100 A overload protection Ir=40 A ...100 A short-circuit protection Ii=1.5...12 x In ground-fault protection Ig=0.2... 1 x In, tg=0.05-0.8s cable connection on two sides



Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MFAE
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	ETU830
protection function of the overcurrent release	LIG
number of poles	3
General technical data	
insulation voltage / rated value	800 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	6.7 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	2.23 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-conductor
product function	
• communication function	Yes
• other measurement function	Yes
Net Weight	2.709 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
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 • at 415 V • at 690 V	85 kA 55 kA 3 kA
operating short-circuit current breaking capacity (I _{cs}) • at 240 V • at 415 V • at 690 V	85 kA 55 kA 3 kA
short-circuit current making capacity (I _{cm}) • at 240 V • at 415 V • at 690 V	187 kA 121 kA 4.5 kA

Switching capacity according to UL 489

current breaking capacity • at 240 V • at 480 V • at 600 V	100 kA 35 kA 18 kA
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Adjustable parameters

adjustable response value setting current (I _r) / of the L-trip / with I _{2t} characteristic • minimum • maximum	40 A 100 A
adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic • minimum • maximum	0.5 s 25 s
adjustable response value setting current (I _i) / for I-tripping • minimum • maximum	150 A 1 200 A
adjustable current response value current / for G-tripping / with standard characteristic • initial value • full-scale value	20 A 100 A
adjustable response value delay time (t _g) / for G-tripping / with I _{0t} characteristic • minimum • maximum	0.05 s 0.8 s
adjustable response value setting current (I _g) / for G-tripping / with I _{2t} characteristic • minimum • maximum	20 A 100 A
adjustable response value delay time (t _g) / for G-tripping / with I _{2t} characteristic • minimum • maximum	0.05 s 0.8 s
adjustable setting current (I _n) / for N-tripping • minimum • maximum	0 A 0 A
product function / grounding protection	Yes

Mechanical Design

product component • undervoltage release • voltage trigger • trip indicator	No No No
height [in]	7.8 in
height	198 mm
width [in]	4.13 in
type of connectable conductor cross-sections / of the round conductor terminal / stranded	1 x (6 AWG - 350 kcmil)
width	105 mm
depth [in]	3.39 in

depth	86 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front connection
type of electrical connection / for main current circuit	circular conductor terminal on both sides
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	
• during operation / minimum	-25 °C
• during operation / maximum	70 °C
• during storage / minimum	-40 °C
• during storage / maximum	80 °C
Environmental footprint	
Environmental Product Declaration (EPD)	Yes
global warming potential [CO2 eq] / total	61.814 kg
global warming potential [CO2 eq] / during manufacturing	14.6 kg
global warming potential [CO2 eq] / during operation	48.9 kg
global warming potential [CO2 eq] / after end of life	-2.2 kg
Siemens Eco Profile (SEP)	Siemens EcoTech
reference code / according to IEC 81346-2	Q
Approvals / Certificates	
General Product Approval	

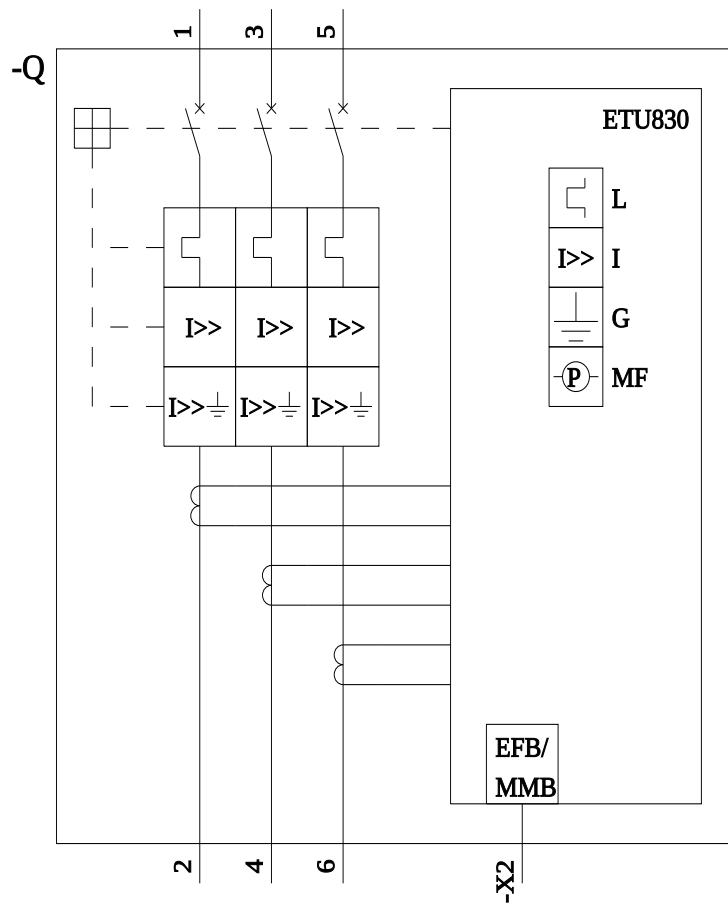
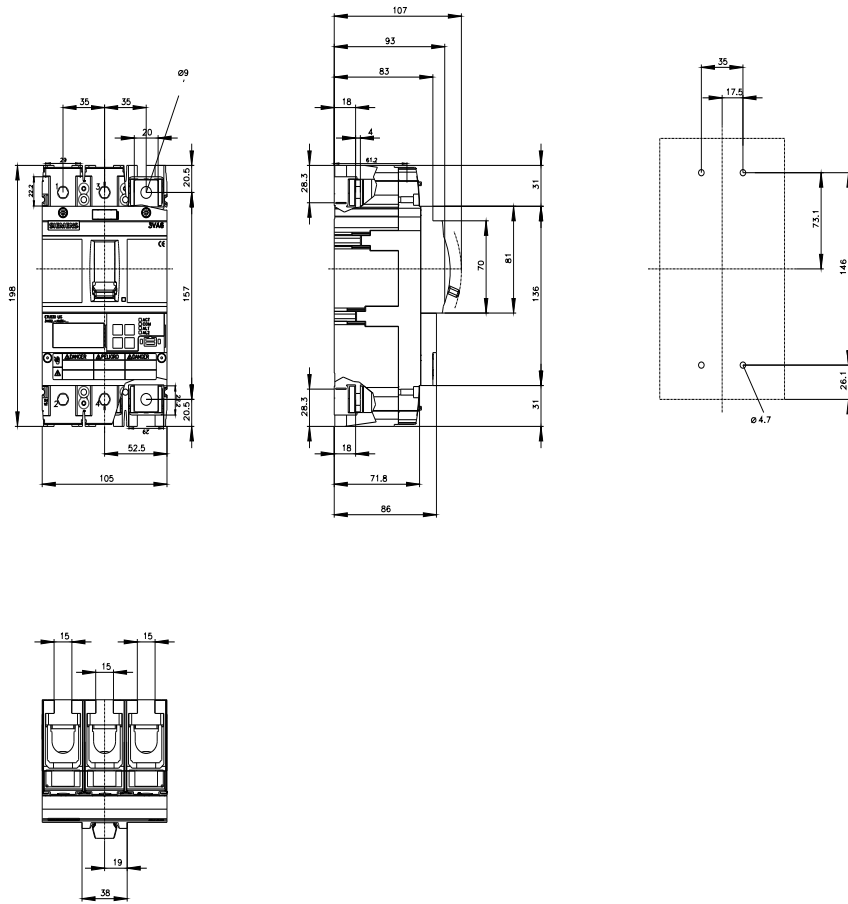


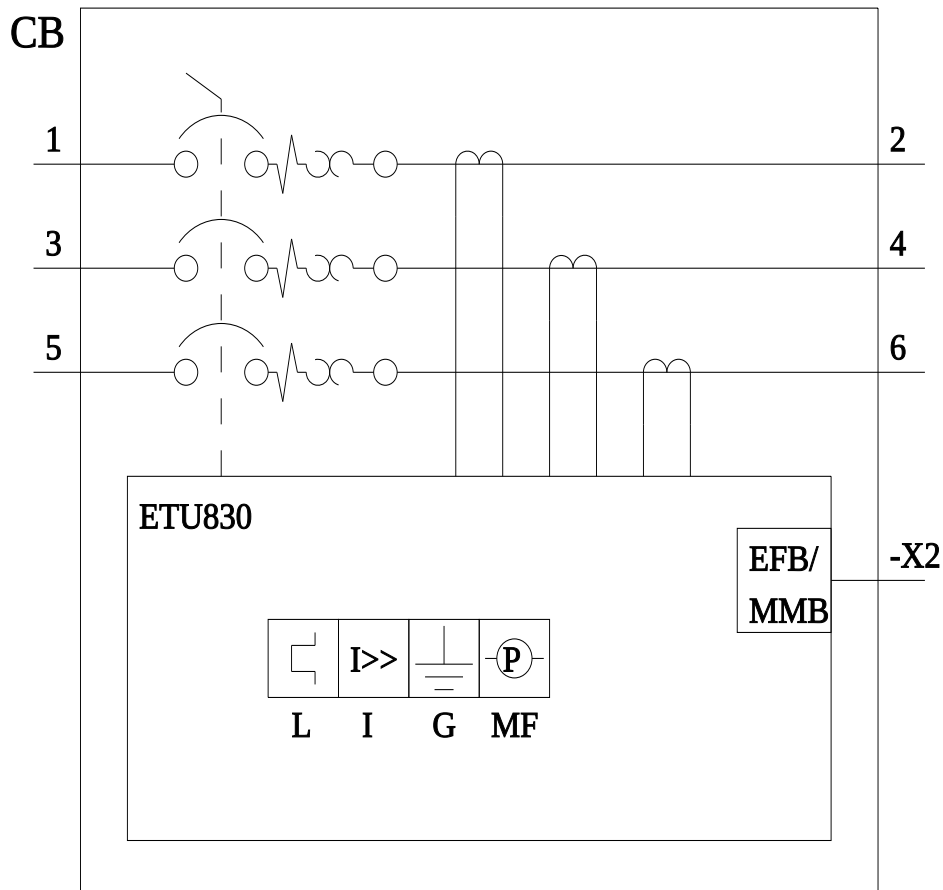
[Miscellaneous](#)

General Product Approval	EMV	other	Dangerous goods		
			Confirmation	Miscellaneous	Transport Information

Environment		
	Siemens EcoTech	Environmental Confirmations

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,...)	http://www.siemens.com/lowvoltage/catalogs
Industry Mall (Online ordering system)	https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA6210-5KM36-0AA0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)	https://support.industry.siemens.com/cs/ww/en/ps/3VA6210-5KM36-0AA0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)	http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6210-5KM36-0AA0
CAX-Online-Generator	http://www.siemens.com/cax
Tender specifications	http://www.siemens.com/specifications





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