SIEMENS

Data sheet

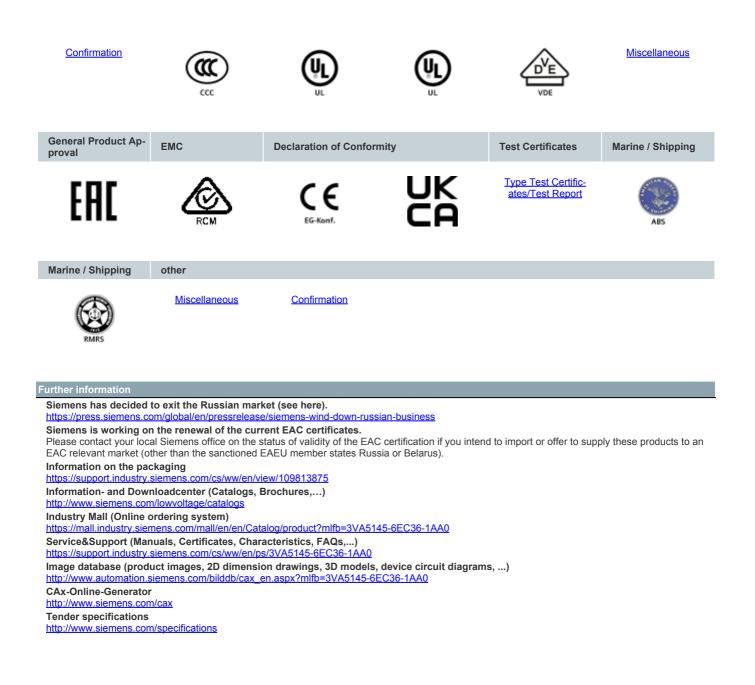
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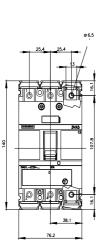


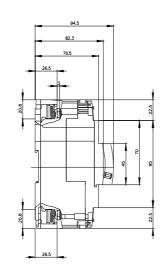
circuit breaker 3VA5 UL frame 125 breaking capacity class H 65kA @ 480 V 3-pole, line protection TM230, FTAM, In=45A overload protection Ir=45A fixed short-circuit protection Ii=5...10 x In UL489 SB (naval), 50 deg. cel. cable connection on both sides

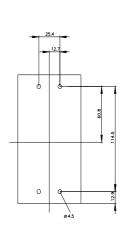
product designation SENTRON product designation / according to UL file HEAM design of the product System protection design of the product inclust breaker (HACR Type) Yes Discharge circuit breaker (HICR Type) Yes design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HICR Type) No design of the load switch / according to UL 489 / Switching Duty dread the overcurrent release TM230 design of the load switch / according to UL 489 / Switching Duty dread the overcurrent release TM230 operating voltage / at AC / rated value 690 V operating voltage / at AC / rated value 690 V operating voltage / at AC / rated value 690 V operating voltage / at AC / rated value 690 V operating voltage / at AC / rated value 690 V operating voltage / at AC / rated value 690 V operating voltage / at AC / rated value 690 V operating voltage / at AC / rated value 690 V operating voltage / at AC / rated value 690 V operating voltage / at AC / rated value 690 V operating voltage / at AC / rated value 690 V	Model	
product designation / according to UL file HEAM design of the product System protection design of the load switch / according to UL 489 / Heating, Atr Yes design of the load switch / according to UL 489 / High-Intensity- Discharge driver breaker (HIND Type) Yes design of the load switch / according to UL 489 / Switching Duty design of the load switch / according to UL 489 / Switching Duty design of the overcurrent release TM230 protection function of the overcurrent release TM230 protection function of the overcurrent release Ll number of poles 3 Central technical data 690 V operating voltage / at AC / rated value 690 V power loss [M] / for rated value of the current / at AC / in the V 3.8 W operating state / per pole 20 000 electrical endurance (operating cycles) / typical 20 000 electrical endurance (operating cycles) / typical 8 000 electrical endurance (operating cycles) / typical 8 000 electrical endurance (operating cycles) / typical 8 000 electrical endurance (operating cycles) / ta 60 V 4 000 yshort-forcut and overload proof 8 000 ground-fault m	product brand name	SENTRON
design of the product System protection design of the bad switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration licuit breaker (HACR Type) Yes design of the bad switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HACR Type) Yes design of the bad switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) No design of the core current release TM230 protection function of the overcurrent release Ll number of poles 3 General technical data 690 V power loss [W] / maximum 11.4 W power loss [W] / for rated value of the current / at AC / in hot operating voltage / at AC / rated value of the current / at AC / in hot operating state / per pole 20 000 electrical endurance (operating cycles) / typical 20 000 20 000 electrical endurance (operating cycles) / at 800 V 8 000 4 000 electrical endurance (operating cycles) / at 800 V 4 000 4 000 product feature / for neutral conductors / upgradable/retrofittable / short-ficuut and overload proof No No ogranud-fault monitoring version without No 14 80 orgerational current 4 40° 44A	product designation	Molded-case circuit breaker
design of the load switch / according to UL 489 / Hack Type) Yes Conditioning, and Reinforation arous breaker (HACR Type) Yes design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HID Type) No design of the load switch / according to UL 489 / Switching Duty drout breaker (SWD Type) No design of the load switch / according to UL 489 / Switching Duty drout breaker (SWD Type) No design of the overcurrent release TM230 protection function of the overcurrent release LI number of poles 3 General technical data 690 V operating voltage / at AC / rated value 690 V power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 38 W operating state / per pole 20 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AO V 8 000 operating dycles / at AO V	product designation / according to UL file	HEAM
Conditioning, and Refrigeration circuit breaker (HACR Type) Yes design of the load switch / according to UL 489 / High-Intensity- Discharge circuit breaker (HID Type) No design of the load switch / according to UL 489 / Switching Duty circuit breaker (WD Type) No design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) No design of the overcurrent release Ll number of poles 3 General technical data 690 V operating voltage / at AC / rated value 690 V operating voltage / at AC / rated value 690 V operating voltage / at AC / rated value of the current / at AC / in hot operating state / per pole 3.8 W mechanical service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / typical 20 000 electrical endurance (operating cycles) / typical 8 000 ground-fault monitoring version without product feature / for neutral conductors / upgradable/retrofitable No	design of the product	System protection
Discharge circuit breaker (HID Typé) No design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type) No design of the overcurrent release TM230 protection function of the overcurrent release LI number of poles 3 General technical data 680 V operating voltage / at AC / rated value 680 V power loss [W] / maximum 11.4 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 38 W electrical endurance (operating cycles) / typical 20 000 electrical endurance (operating cycles) / ta AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at ABO V 4 000 electrical endurance (operating cycles) / at ABO V 8 000 electrical endurance (operating cycles) / at ABO V 4 000 ground-faut monitoring version without product feature / for neutral conductors / upgradable/retrofittable / short-icruit and overload proof No e other measurement function No voermunication function 0.951 kg		Yes
circuit breaker (SWD Type) TM230 design of the overcurrent release TM230 protection function of the overcurrent release Ll number of poles 3 General technical data 690 V power loss [W] / maximum 11.4 W power loss [W] / for rated value of the current / at AC / in hot 58 W operating voltage / at AC / rated value 690 V power loss [W] / for rated value of the current / at AC / in hot 58 W operating state / per pole 3.8 W mechanical service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / ta AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC0 V 4 000 product feature / for neutral conductors / upgradable/retrofittable No / short-ficitual and overload proof without operating volces) / at AC0 N No outfut function No • communication function No • other measurement function No operating / according to UL 489 / 100%-rated breaker No operating / according to UL 489 / 100%-rated breaker A operational current 44 A • at 45 °C 43 A	0 0 ,	Yes
Decion function of the overcurrent release Ll number of poles 3 General tochnical data 690 V operating voltage / at AC / rated value 690 V power loss [W] / maximum 11.4 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 3.8 W mechanical service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / ta AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / ta AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / ta AD V 8 000 electrical endurance (operating cycles) / at AD V 8 000 electrical endurance (operating cycles) / at AD V 8 000 electrical endurance (operating cycles) / at AD V 8 000 electrical endurance (operating cycles) / at AD V 8 000 electrical endurance (operating cycles) / at AD V 8 000 ground-fault monitoring version without product function No other measurement function No other measurement function No operatinal current 45 A • at 40 °C </td <td></td> <td>No</td>		No
number of poles 3 General technical data 690 V power loss [W] / maximum 11.4 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 3.8 W mechanical service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / typical 20 000 electrical endurance (operating cycles) / ta AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 ground-fault monitoring version without product finature / for neutral conductors / upgradable/retrofittable No • other measurement function No • other measurement function No operational current 45 A • at 45 °C	design of the overcurrent release	TM230
General technical data 690 V power loss [W] / maximum 11.4 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 3.8 W mechanical service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof No ground-fault monitoring version without product function No • other measurement function No • other measurement function No • other durant or (Complexited breaker No operational current 45 A • at 40 °C 45 A • at 55 °C 42 A	protection function of the overcurrent release	Ц
operating voltage / at AC / rated value 690 V power loss [W] / maximum 11.4 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 3.8 W mechanical service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / ta AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 electrical endurance (operating cycles) / at ABO V 8 000 electrical endurance (operating cycles) / at ABO V 8 000 electrical endurance (operating cycles) / at ABO V 8 000 product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof No ground-fault monitoring version without product function No • communication function No • other measurement function No Not 0.951 kg Curront 45 A • at 40 °C 45 A • at 40 °C 44 A • at 45 °C 43 A • at 55 °C 43 A • at 60 °C 42 A <	number of poles	3
power loss [W] / maximum 11.4 W power loss [W] / for rated value of the current / at AC / in hot operating state / per pole 3.8 W mechanical service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 electrical endurance (operating cycles) / at AC 0 V 4 000 electrical endurance (operating cycles) / at 600 V 4 000 product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof No orgonunf-fault monitoring version without product function No • communication function No • other measurement function No Net Weight 0.951 kg Current 44 A • at 40 °C 44 A • at 40 °C 44 A • at 45 °C 43 A • at 45 °C 43 A • at 55 °C 43 A • at 60 °C 42 A	General technical data	
power loss [M] / for rated value of the current / at AC / in hot 3.8 W operating state / per pole 20 000 mechanical service life (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 electrical endurance (operating cycles) / at AC V 8 000 electrical endurance (operating cycles) / at AC V 8 000 electrical endurance (operating cycles) / at AC V 8 000 electrical endurance (operating cycles) / at 600 V 4 000 product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof No ground-fault monitoring version without product function No • other measurement function No • other measurement function No operational current V • at 40 °C 45 A • at 45 °C 44 A • at 45 °C 44 A • at 45 °C 43 A • at 60 °C 42 A • at 60 °C 42 A	operating voltage / at AC / rated value	690 V
operating state / per pole 20 000 mechanical service life (operating cycles) / typical 20 000 electrical endurance (operating cycles) / at AC-1 / at 800 V 8 000 electrical endurance (operating cycles) / at A60 V 8 000 electrical endurance (operating cycles) / at A80 V 8 000 electrical endurance (operating cycles) / at 600 V 4 000 product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof No ground-fault monitoring version without product function No • communication function No • other measurement function No • other measurement function 0.951 kg operational current 45 A • at 40 °C 45 A • at 40 °C 45 A • at 45 °C 45 A • at 45 °C 43 A • at 55 °C 43 A • at 60 °C 42 A	power loss [W] / maximum	11.4 W
electrical endurance (operating cycles) / at AC-1 / at 380/415 V 8 000 electrical endurance (operating cycles) / at AC-1 / at 690 V 4 000 electrical endurance (operating cycles) / at AC V 8 000 electrical endurance (operating cycles) / at AO V 8 000 electrical endurance (operating cycles) / at AO V 8 000 electrical endurance (operating cycles) / at 600 V 4 000 product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof No ground-fault monitoring version without product function No • communication function No • other measurement function No • other measurement function No operational current 45 A • at 40 °C 45 A • at 40 °C 44 A • at 50 °C 44 A • at 55 °C 43 A • at 60 °C 42 A • at 65 °C 42 A		3.8 W
electrical endurance (operating cycles) / at AC-1 / at 690 V4 000electrical endurance (operating cycles) / at 480 V8 000electrical endurance (operating cycles) / at 600 V4 000product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proofNoground-fault monitoring versionwithoutproduct functionNoother measurement functionNo• other measurement function0.951 kgCurrentV• at 40 °C45 A• at 40 °C44 A• at 50 °C43 A• at 60 °C42 A• at 60 °C42 A	mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at 480 V8 000electrical endurance (operating cycles) / at 600 V4 000product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proofNoground-fault monitoring versionwithoutproduct functionNo• communication functionNo• other measurement functionNoNet Weight0.951 kgCurrentmarking / according to UL 489 / 100%-rated breaker• at 40 °C45 A• at 40 °C44 A• at 50 °C43 A• at 60 °C42 A• at 65 °C42 A	electrical endurance (operating cycles) / at AC-1 / at 380/415 V	8 000
electrical endurance (operating cycles) / at 600 V 4 000 product feature / for neutral conductors / upgradable/retrofittable No / short-circuit and overload proof without ground-fault monitoring version without product function No • communication function No • other measurement function No • other measurement function No Outrent 0.951 kg Current No marking / according to UL 489 / 100%-rated breaker No operational current 45 A • at 40 °C 44 A • at 50 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	electrical endurance (operating cycles) / at AC-1 / at 690 V	4 000
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proofNoground-fault monitoring versionwithoutproduct functionNo• communication functionNo• other measurement functionNoNet Weight0.951 kgCurrentmarking / according to UL 489 / 100%-rated breaker• at 40 °C45 A• at 40 °C44 A• at 45 °C44 A• at 55 °C43 A• at 60 °C42 A• at 65 °C42 A	electrical endurance (operating cycles) / at 480 V	8 000
/ short-circuit and overload proofground-fault monitoring versionwithoutproduct functionNo• communication functionNo• other measurement function0.951 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational current45 A• at 40 °C44 A• at 50 °C44 A• at 55 °C43 A• at 60 °C42 A• at 65 °C42 A	electrical endurance (operating cycles) / at 600 V	4 000
ooproduct functionNo• other measurement functionNo• other measurement function0.951 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational current45 A• at 40 °C45 A• at 45 °C44 A• at 55 °C43 A• at 65 °C42 A		Νο
· communication function No · other measurement function No Net Weight 0.951 kg Current Current marking / according to UL 489 / 100%-rated breaker No operational current 45 A • at 40 °C 44 A • at 50 °C 44 A • at 50 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	ground-fault monitoring version	without
• other measurement functionNoNet Weight0.951 kgCurrentmarking / according to UL 489 / 100%-rated breakerNooperational current45 A• at 40 °C45 A• at 45 °C44 A• at 50 °C44 A• at 50 °C43 A• at 60 °C42 A• at 60 °C42 A	product function	
Net Weight 0.951 kg Current No marking / according to UL 489 / 100%-rated breaker No operational current No • at 40 °C 45 A • at 45 °C 44 A • at 50 °C 44 A • at 55 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	 communication function 	No
Current No marking / according to UL 489 / 100%-rated breaker No operational current 45 A • at 40 °C 45 A • at 45 °C 44 A • at 50 °C 44 A • at 55 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	 other measurement function 	No
marking / according to UL 489 / 100%-rated breaker No operational current - • at 40 °C 45 A • at 45 °C 44 A • at 50 °C 44 A • at 55 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	Net Weight	0.951 kg
operational current 45 A • at 40 °C 45 A • at 45 °C 44 A • at 50 °C 44 A • at 55 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	Current	
• at 40 °C 45 A • at 45 °C 44 A • at 50 °C 44 A • at 55 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	marking / according to UL 489 / 100%-rated breaker	No
• at 45 °C 44 A • at 50 °C 44 A • at 55 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	operational current	
• at 50 °C 44 A • at 55 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	• at 40 °C	45 A
• at 55 °C 43 A • at 60 °C 42 A • at 65 °C 42 A	● at 45 °C	44 A
• at 60 °C 42 A • at 65 °C 42 A	● at 50 °C	44 A
• at 65 °C 42 A	● at 55 °C	43 A
	• at 60 °C	42 A
• at 70 °C 41 A	● at 65 °C	42 A
	• at 70 °C	41 A

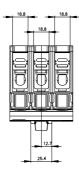
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	Н
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter
Switching capacity according to UL 489	· ·
current breaking capacity	
• at 240 V	150 kA
• at 480 V	65 kA
• at 600 Y/347 V	25 kA
Adjustable parameters	
adjustable response value setting current (Ir) / of the L-trip / with	
I2t characteristic	
• minimum	45 A
maximum	45 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	1 s
• maximum	1 s
adjustable response value setting current (li) / for I-tripping	
• minimum	225 A
• maximum	450 A
adjustable setting current (InN) / for N-tripping	
• minimum	0 A
• maximum	0 A
adjustable current response value current / of the current- dependent overload release	32 45 A
product function / grounding protection	No
Mechanical Design	
product component	
undervoltage release	No
 voltage trigger 	No
trip indicator	No
height [in]	5.51 in
height	140 mm
width [in]	3 in
type of connectable conductor cross-sections / of the round conductor terminal / stranded	1 x (8 AWG - 3/0)
width	76.2 mm
depth [in]	3.01 in
depth	76.5 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
Certificates certificate of suitability / as approval for NAVAL (no combat	Yes
vessels) / supplement SB	
General Product Approval	

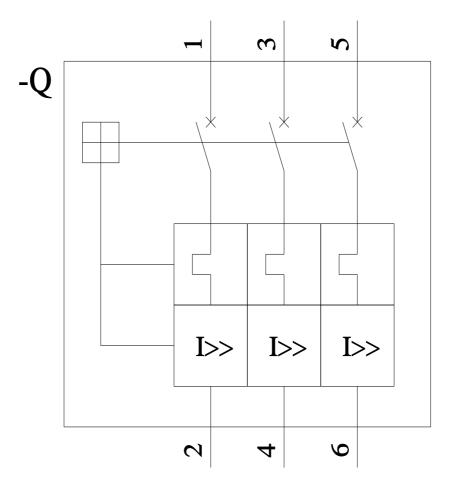


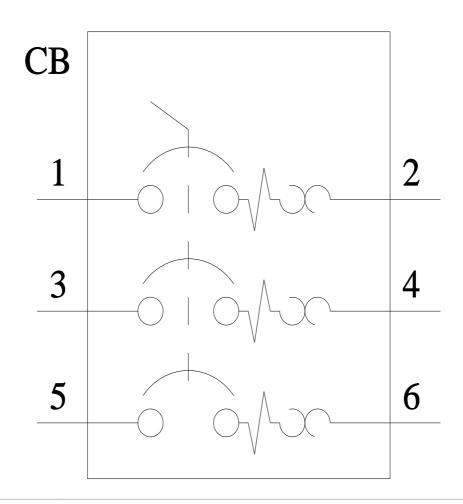












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