Data sheet



circuit breaker 3VT1 standard breaking capacity Icu=25kA, 415V AC 3-pole, motor protection trip unit TM, LI In=20A rated current IR=16...20A overload protection II=200A, short-circuit prot. without auxiliary release without auxiliary/alarm switch with front terminals

Madal	
Model	
Product brand name	SENTRON
Product designation	3VT1_5 molded case circuit breakers
Design of the operating mechanism	toggle handle
Type of the driving mechanism / motor drive	No
Design of the overcurrent release	ТМ
General technical data	
Number of poles	3
Size of the circuit-breaker	3VT1
Electrical endurance (switching cycles) / typical	6 000
Usage category	Α
Performance class for circuit breaker	N
Mechanical service life (switching cycles) / typical	20 000
Operating frequency / maximum	120 1/h
Voltage	
Insulation voltage / rated value	690 V
Surge voltage resistance / rated value	8 kV
Protection class	

Protective function of the overcurrent release Dissipation Power loss [W] / for rated value of the current / at AC	Protection class IP	IP40
Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole Current Operating current / at 45 °C / rated value	Protective function of the overcurrent release	LI
Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole Current Operating current / at 45 °C / rated value	Dissipation	
Current Operating current/ at 45 °C / rated value Continuous current / rated value Derating temperature / for the rated value of the continuous current Adjustable pick-up value current • of the current-dependent overload release / Eul-scale value • of instantaneous short-circuit trip unit / initial value • of instantaneous short-circuit trip unit / Full-scale value • of instantaneous short-circuit trip unit / Full-scale value • of instantaneous short-circuit trip unit / Full-scale value • of instantaneous short-circuit trip unit / Full-scale value • of instantaneous value • of instanta	<u>`</u>	1.33 W
Operating current / at 45 °C / rated value 20 A Continuous current / rated value 20 A Derating temperature / for the rated value of the continuous current Adjustable pick-up value current • of the current-dependent overload release / Full-scale value • of instantaneous short-circuit trip unit / initial value • of instantaneous short-circuit trip unit / Full-scale value • of instantaneous short-circuit trip unit / Full-scale value • of instantaneous short-circuit trip unit / Full-scale value • of instantaneous short-circuit trip unit / Full-scale value • 1 / rated value • 20 A Main circuit Operating frequency • 1 / rated value • 2 / rated value • 2 / rated value • 2 / rated value • 20 A • at 230 V / rated value Operating current • at 40 °C / rated value • at 50 °C / rated value • at 60 °C / rated value • at		1.00 **
Continuous current / rated value 20 A Derating temperature / for the rated value of the continuous current Adjustable pick-up value current • of the current-dependent overload release / Full-scale value • of instantaneous short-circuit trip unit / initial value • of instantaneous short-circuit trip unit / Full-scale value • of instantaneous short-circuit trip unit / Full-scale value • of instantaneous short-circuit trip unit / Full-scale value • of instantaneous short-circuit trip unit / Full-scale value • 1 / rated value • 2 / rated value • 3.7 kW Operating current • at 40 °C / rated value • at 50 °C / rated value • at 60 °C /	Current	
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of the current-dependent overload release / Full-scale value of instantaneous short-circuit trip unit / initial value of instantaneous short-circuit trip unit / Full-scale value of instantaneous short-circuit trip unit / Full-scale value of instantaneous short-circuit trip unit / Full-scale value of instantaneous short-circuit trip unit / Full-scale value of instantaneous short-circuit rip unit / Full-scale value of instantaneous short-circuit rip unit / Full-scale value of instantaneous short-circuit rip unit / Full-scale value of instantaneous short-circuit rip unit / Full-scale value of instantaneous short-circuit rip unit / Full-scale value of instantaneous release / Initial value of instantaneous short-circuit rip unit / Full-scale value of instantaneous short-circuit rip unit / Full-scale value of instantaneous short-circuit rip unit / Full-scale value of instantaneous short-circuit rip unit / Full-scale value of instantaneous short-circuit rip unit / Full-scale value of instantaneous short-circuit rip unit / Full-scale value of instantaneous short-circuit rip unit / Full-scale value of instantaneous short-circuit rip unit / Full-scale value of instantaneous short-circuit rip unit / Full-scale value of instantaneous short-circuit release / instantaneous short-cir		40 °C
Full-scale value of instantaneous short-circuit trip unit / initial value of instantaneous short-circuit trip unit / Full-scale value of instantaneous short-circuit trip unit / Full-scale value Main circuit Operating frequency of 1 / rated value of 0 Hz Operating power / at AC-3 of at 230 V / rated value Operating current of at 40 °C / rated value of 0 Hz Operating current of 150 °C / rated value of 0 Hz Auxiliary circuit Number of CO contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts Outper of NO contacts / for auxiliary contacts Outper of NO contacts / for auxiliary contacts Outper of NO contacts / for auxiliary contacts Adjustable parameters	Adjustable pick-up value current	
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Operating power / at AC-3 • at 230 V / rated value Operating current • at 40 °C / rated value • at 50 °C / rated value 19 A Auxiliary circuit Number of CO contacts / for auxiliary contacts Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 Suitability Suitability Suitability for use • Disconnecting means Adjustable parameters Adjustable pick-up value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • Auxiliary switch No	• 1 / rated value	50 Hz
at 230 V / rated value Operating current at 40 °C / rated value at 50 °C / rated value 19 A Auxiliary circuit Number of CO contacts / for auxiliary contacts Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Number of NO contacts / for auxiliary contacts Unumber of NO contacts / for auxiliary contacts O Suitability Suitability Suitability for use Disconnecting means Adjustable parameters Adjustable pick-up value current / of the current-dependent overload release / initial value Product details Product component Trip indicator Auxiliary switch No	• 2 / rated value	60 Hz
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Auxiliary circuit Number of CO contacts / for auxiliary contacts Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 Suitability Suitability for use • Disconnecting means Adjustable parameters Adjustable pick-up value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • Auxiliary switch No	• at 40 °C / rated value	20 A
Number of CO contacts / for auxiliary contacts Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts Suitability Suitability Suitability for use Disconnecting means Adjustable parameters Adjustable pick-up value current / of the current-dependent overload release / initial value Product details Product component Trip indicator Auxiliary switch No No	• at 50 °C / rated value	19 A
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Suitability for use • Disconnecting means Adjustable parameters Adjustable pick-up value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • Auxiliary switch System protection Yes In A No	Number of NO contacts / for auxiliary contacts	0
Suitability for use • Disconnecting means Adjustable parameters Adjustable pick-up value current / of the current-dependent overload release / initial value Product details Product component • Trip indicator • Auxiliary switch System protection Yes In A No	Suitability	
Adjustable parameters Adjustable pick-up value current / of the current- dependent overload release / initial value Product details Product component • Trip indicator • Auxiliary switch No		system protection
Adjustable pick-up value current / of the current- dependent overload release / initial value Product details Product component • Trip indicator • Auxiliary switch No	Disconnecting means	Yes
Product details Product component • Trip indicator • Auxiliary switch No		
Product details Product component • Trip indicator • Auxiliary switch No		16 A
Product component • Trip indicator • Auxiliary switch No	dependent overload release / initial value	
 Trip indicator Auxiliary switch No 		
• Auxiliary switch No	Product component	
, terminally entitled	Trip indicator	No
Voltage trigger No	Auxiliary switch	No
	Voltage trigger	No

undervoltage release	No
 undervoltage release with leading contact 	No
Product extension / optional / motor drive	Yes

Product function	
Product function	
 of thermal overload trip unit 	adjustable
 Ground fault protection 	No

• for neutral conductors / Short-circuit and No overload proof

Phase failure detectionOverload protectionYes

Short circuit	
Operational short-circuit current breaking capacity	
(Ics)	
• at 240 V / rated value	20 kA
• at 415 V / rated value	13 kA
• at 500 V / rated value	6 kA
• at 690 V / rated value	3 kA
Maximum short-circuit current breaking capacity (Icu)	
• at 240 V / rated value	40 kA
• at 415 V / rated value	25 kA
• at 500 V / rated value	12 kA
• at 690 V / rated value	6 kA

Connections	
Arrangement of electrical connectors / for main	front side
current circuit	
Type of electrical connection / for main current circuit	screw-type terminals

Mechanical Design	
Height	130 mm
Width	75 mm
Depth	80 mm
Mounting type	fixed mounting
Mounting position	with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back
Net weight	1.048 kg
during operation	-40 +55 °C
during storage	-40 +55 °C

Certificates	
Reference code	
• acc. to DIN EN 61346-2	Q
● acc. to DIN EN 81346-2	Q

Test Certificates other

Type Test Certificates/Test Report

Miscellaneous

Manufacturer Declaration

Further information

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=3VT1702-2DM35-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VT1702-2DM35-0AA0

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VT1702-2DM35-0AA0

CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications



