Data sheet



circuit breaker 3VT1 standard breaking capacity Icu=25kA, 415V AC 3-pole, line protection trip unit TM, LI In=40A rated current IR=32...40A overload protection II=200...400A, short-circuit protection without auxiliary release without auxiliary/alarm switch with front terminals

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	A			
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				

Protection class IP	IP40
protection function of the overcurrent release	u
Dissipation	
Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	1.33 W
Current	
Operating current / at 45 °C / rated value	38 A
Continuous current / rated value	40 A
Derating temperature / for the rated value of the continuous current	40 °C
adjustable pick-up value current	
 of the current-dependent overload release / Full-scale value 	40 A
 of instantaneous short-circuit trip unit / initial value 	200 A
• of instantaneous short-circuit trip unit / Full-scale value	400 A
Main circuit	
Operating frequency	
• 1 / rated value	50 Hz
• 2 / rated value	60 Hz
Operating current	
• at 40 °C / rated value	40 A
• at 50 °C / rated value	38 A
Auxiliary circuit	
Number of CO contacts / for auxiliary contacts	0
Number of NC contacts / for auxiliary contacts	0
Number of NO contacts / for auxiliary contacts	0
Suitability	
Suitability for use	system protection
Disconnecting means	Yes
Adjustable parameters	
adjustable pick-up value current / of the current- dependent overload release / initial value	32 A
Product details	
Product component	
Trip indicator	No
Auxiliary switch	No
Voltage trigger	No
undervoltage release	No

undervoltage release with leading contact	No			
Product extension / optional / motor drive	Yes			
Deadust function				
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 detection	No			
Overload protection	Yes			
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				
Connections				
Connections Arrangement of electrical connectors / for main	front side			
	front side			
Arrangement of electrical connectors / for main	front side screw-type terminals			
Arrangement of electrical connectors / for main current circuit	screw-type terminals			
Arrangement of electrical connectors / for main current circuit Type of electrical connection / for main current circuit Mechanical Design Height	screw-type terminals 130 mm			
Arrangement of electrical connectors / for main current circuit Type of electrical connection / for main current circuit Mechanical Design Height Width	screw-type terminals 130 mm 75 mm			
Arrangement of electrical connectors / for main current circuit Type of electrical connection / for main current circuit Mechanical Design Height Width Depth	screw-type terminals 130 mm 75 mm 80 mm			
Arrangement of electrical connectors / for main current circuit Type of electrical connection / for main current circuit Mechanical Design Height Width Depth Mounting type	screw-type terminals 130 mm 75 mm 80 mm fixed mounting			
Arrangement of electrical connectors / for main current circuit Type of electrical connection / for main current circuit Mechanical Design Height Width Depth	screw-type terminals 130 mm 75 mm 80 mm			
Arrangement of electrical connectors / for main current circuit Type of electrical connection / for main current circuit Mechanical Design Height Width Depth Mounting type	screw-type terminals 130 mm 75 mm 80 mm fixed mounting with vertical mounting surface +/-180° rotatable, with vertical			
Arrangement of electrical connectors / for main current circuit Type of electrical connection / for main current circuit Mechanical Design Height Width Depth Mounting type Mounting position	screw-type terminals 130 mm 75 mm 80 mm fixed mounting with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back			
Arrangement of electrical connectors / for main current circuit Type of electrical connection / for main current circuit Mechanical Design Height Width Depth Mounting type Mounting position Net weight	screw-type terminals 130 mm 75 mm 80 mm fixed mounting with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back			
Arrangement of electrical connectors / for main current circuit Type of electrical connection / for main current circuit Mechanical Design Height Width Depth Mounting type Mounting position Net weight Environmental conditions	screw-type terminals 130 mm 75 mm 80 mm fixed mounting with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back			
Arrangement of electrical connectors / for main current circuit Type of electrical connection / for main current circuit Mechanical Design Height Width Depth Mounting type Mounting position Net weight Environmental conditions Ambient temperature / during operation	screw-type terminals 130 mm 75 mm 80 mm fixed mounting with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back 1.038 kg			
Arrangement of electrical connectors / for main current circuit Type of electrical connection / for main current circuit Mechanical Design Height Width Depth Mounting type Mounting position Net weight Environmental conditions Ambient temperature / during operation • minimum	screw-type terminals 130 mm 75 mm 80 mm fixed mounting with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back 1.038 kg -40 °C			
Arrangement of electrical connectors / for main current circuit Type of electrical connection / for main current circuit Mechanical Design Height Width Depth Mounting type Mounting position Net weight Environmental conditions Ambient temperature / during operation • minimum • maximum	screw-type terminals 130 mm 75 mm 80 mm fixed mounting with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back 1.038 kg -40 °C			
Arrangement of electrical connectors / for main current circuit Type of electrical connection / for main current circuit Mechanical Design Height Width Depth Mounting type Mounting position Net weight Environmental conditions Ambient temperature / during operation • maximum Ambient temperature / during storage	screw-type terminals 130 mm 75 mm 80 mm fixed mounting with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back 1.038 kg -40 °C 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 Re-	Miscellaneous		Manufacturer Declaration

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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=3VT1704-2DC35-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VT1704-2DC35-0AA0

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VT1704-2DC35-0AA0

CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications



