

# 3VT5 Molded Case Circuit Breakers up to 1600 A

## Standard circuit breakers - Releases

### Technical specifications

Specifications		3VT5 circuit breakers	Switch disconnectors
<b>Type</b>			
Standards		EN 60 947-2, IEC 947-2	EN 60 947-3, IEC 947-3
Approval marks		<b>CE</b>	
Number of poles		3	
Rated current $I_n$	A	630, 1000, 1250, 1600	--
Rated normal current $I_U$	A	1600	
Rated operational current $I_e$	A	--	1600
Rated operational voltage $U_e$	V	AC max. 690	AC max. 690 DC max. 440
Rated frequency $f_n$	Hz	50/60	
Rated impulse withstand voltage $U_{imp}$	kV	8	
Rated insulation voltage $U_i$	V	690	
Utilization category (selectivity) AC 690 V		A, B	--
Utilization category (switching mode) AC 690 V DC 440 V		-- --	AC-23 B DC-23 B
Rated short-time withstand current $U_e = AC 690 V I_{cw}/t$		20 kA/1 s	
Rated ultimate short-circuit breaking capacity (rms value) <sup>1)</sup> $I_{cu}$		85 kA/AC 230 V 55 kA/AC 415 V 45 kA/AC 415 V 20 kA/AC 690 V	--
Off-time at $I_{cu}$	ms	30	--
Rated short-circuit service breaking capacity (rms value) $I_{cs}/U_e$		45 kA/AC 230 V 36 kA/AC 415 V 30 kA/AC 500 V 20 kA/AC 690 V	--
Rated short-circuit making capacity (peak value) $I_{cm}/U_e$		140 kA/AC 415 V	40 kA/AC 415 V 40 kA/AC 440 V
Losses per pole at $I_n = 250 A$	W	120	
Mechanical endurance	cycles	10000	
Electrical endurance ( $U_e = AC 415 V$ )		4000	
Switching frequency	cycles/ hr	120	
Operating force	N	230	
Front-side device protection		IP40	
Terminal protection		IP20	
<b>Operating conditions</b>			
Reference ambient temperature	°C	40	
Ambient temperature range		-40 ... +55	
Working environment		dry and tropical climate	
Degree of pollution		3	
Max. elevation	m	2000	
Seismic resistance	Hz	3g (8 ... 50)	
<b>Design modifications</b>			
Front/rear connection		✓/✓	
Plug-in version		--	
Withdrawable version		✓	
<b>Accessories</b>			
Switches-auxiliary/relative/signal/leading		✓/✓/--/--	
Shunt release/with signal switch		✓	
Undervoltage release/with leading switch, with signal switch		✓/--	
Front manual operating mechanism/lateral operating mechanism right/left		✓/✓	
Mechanical interlocking to the manual operating mechanism by Bowden wire		✓/✓	
Motorized operating mechanism/with operations counter		✓/✓	
Locking-type lever		✓	
Bolt sealing insert/additional cover for overcurrent release		✓/--	

✓ available,  
-- unavailable,  
+ in preparation

2) In case, the circuit breaker connection is reversed (input terminals 2, 4, 6 output terminals 1, 3, 5),  $I_{cu}$  does not change.