

3VT4 Molded Case Circuit Breakers up to 1000 A

Circuit breakers, Switch disconnectors

Technical specifications

Specifications		3VT4 circuit breakers	Switch disconnectors
Type			
Standards		EN 60 947-2, IEC 947-2	EN 60 947-3, IEC 947-3
Approval marks		CE	
Number of poles		3	
Rated current I_n	A	315, 630, 800, 1000	--
Rated normal current I_U	A	1000	
Rated operational current I_e	A	--	1000
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		--	AC-23 B
	DC 440 V	--	DC-23 B
Rated short-time withstand current $U_e=AC\ 690\ V\ I_{cw}/t$		15 kA/1 s	15 kA/1 s
Rated ultimate short-circuit breaking capacity (rms value) ¹⁾ I_{cu}/U_e		AC 85 kA/230V AC 65 kA/415V AC 45 kA/500V AC 20 kA/690V	--
Off-time at I_{cu}		30 ms	
Rated short-circuit service breaking capacity (rms value) I_{cs}/U_e		AC 45 kA/230V AC 36 kA/415V AC 30 kA/500V AC 20 kA/690V	--
Rated short-circuit making capacity (peak value) I_{cm}/U_e		140 kA/AC 415 V	30 kA/AC 415 V 30 kA/DC 440 V
Losses per pole at $I_n = 250\ A$	W	100	
Mechanical endurance	cycles	10000	
Electrical endurance ($U_e = AC\ 415\ V$)	cycles	4000	
Switching frequency	cycles /hr	120	
Operating force	N	230	
Front-side device protection		IP40	
Terminal protection		IP20	
Operating conditions			
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)	
Design modifications			
Front/rear connection		✓/✓	
Plug-in design		--	
Withdrawable design		✓	
Accessories			
Switches-auxiliary/relative/signal/early		✓/✓/--/--	
Shunt trip/with signal switch		✓	
Undervoltage release/with early switch with signal switch		✓/--	
Manual front 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 inset/additional cover for overcurrent release		✓/--	

✓ available,
-- unavailable

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