Technical specifications

			5TT3 400 5TT3 401 5TT3 402 5TT3 403	5TT3 404 5TT3 405	5TT3 406	5TT3 194	5TT3 195
Standards			IEC 60255; DIN VDE 0435-110, -303				
Rated control voltage U_c		V AC	230/400				400
Operating range (overload capability)		× U_c	1.1			1.35	
Rated frequency		Hz	50/60				
Response values	ON-switching OFF-switching	× U_c	0.9/0.95 0.7/0.85		4 % hysteresis 0.7 ... 0.95	0.9 ... 1.3	
Minimum contact load		V; mA	10; 100				
Phase asymmetry	Setting accuracy Repeat accuracy	% %	-- --	Approx. 5 ... 10 1		-- --	Approx. 5 ... 10 1
Phase failure detection	At L1 or L2 or L3	ms	100			--	
N-conductor monitoring			--	Yes		--	
Rated insulation voltage U_i	Between coil/contact	kV	4				
Contacts	µ contact (AC-11)	A	4				
Electrical isolation	Creepage distances and clearances Actuator/contact	mm	3	5.5			
Rated impulse withstand voltage U_{imp}	Actuator/contact	kV	> 2.5	> 4			
Terminals	± screw (Pozidriv)		1				
Conductor cross-sections • Rigid, max. • Flexible, with end sleeve, min.		 mm^2 mm^2	 2 × 2.5 0.5				
Permissible ambient temperature		°C	-20 ... +60				
Resistance to climate	Acc. to EN 60068-1		20/60/4				

			5TT3 196
Standards			IEC 60255; DIN VDE 0435
Rated control voltage U_c		V AC	24
Rated power dissipation P_v • Coil/drive • Contact[1] per pole		 VA VA	 0.6 0.8
Hysteresis		%	4
Response values × U_c • Undervoltage • Overvoltage	 Undervoltage Overvoltage		 0.82 1.18
Residual ripple tripping ΔU_c	Infinitely variable	%	0 ... 15
Overload capability	33 V DC 35 V DC 45 V DC	 ms ms	Continuous 500 10
Creepage distances and clearances		mm	4
Rated impulse withstand voltage U_{imp}	Input/output	kV	> 2.5
Minimum contact load		V/mA	24/300
Rated operational current I_e	AC-11 AC-1	A A	1 4
Contacts			µ contact
Electrical service life	In switching cycles at I_e		5×10^5
Terminals	± screw (Pozidriv)		1
Conductor cross-sections • Rigid, max. • Flexible with sleeve, min.		 mm^2 mm^2	 2 × 2.5 1 × 0.5
Permissible ambient temperature		°C	-20 ... +60
Resistance to climate	Acc. to EN 60068-1		20/60/4

[1] For rated operational current.

5TT3 voltage relays

			5TT3 407	5TT3 408	5TT3 410
Standards			IEC 60255; DIN VDE 0435-110		
Rated control voltage U_c		V AC	230/400		
Operating range (overload capability)		× U_c	1.1	1.35	1.2
Rated frequency		Hz	50/60		
Back-up fuse	Terminals L1/L2/L3	A	2		
Response values	Overvoltage: OFF-switching ON-switching	× U_c	-- --	0.9 ... 1.3 4 % Hysteresis	-- --
	Undervoltage: OFF-switching ON-switching	× U_c	0.8 0.85	0.7 ... 1.1 4 % Hysteresis	-- --
Minimum contact load		V; mA	10; 100		
Phase asymmetry	Setting accuracy	%	Approx. 5 ... 10		
	Repeat accuracy	%	1		
Phase failure detection	At L1, L2 or L3	ms	≥ 20	100	--
OFF delay		s	--	0.1 ... 20	--
Automatic reclosing delay		s	0.2 ... 20	--	--
Rated insulation voltage U_i	Between coil/contact	kV	4		
Contacts	µ contact (AC-11)	A	3	1	4
Electrical isolation	Creepage distances and clearances Contact/contact Actuator/contact	 mm mm	 -- 4	 4	 -- 5.5
Rated impulse withstand voltage U_{imp}	Actuator/contact	kV	> 4		
Rated operational power P_s	AC operation: 230 V and p.f. = 1 230 V and p.f. = 0.4	 VA VA	 2000 1250	 -- --	 -- --
	DC operation: U_e = 24 V and I_e = 6 A U_e = 60 V and I_e = 1 A U_e = 110 V and I_e = 0.6 A U_e = 220 V and I_e = 0.5 A	 W W W W	 max. 100 max. 100 max. 100 max. 100	 -- -- -- --	 -- -- -- --
Terminals	± screw (Pozidriv)		1		
Conductor cross-sections • Rigid, max. • Flexible, with end sleeve, min.		 mm^2 mm^2	 2 × 2.5 0.5		
Permissible ambient temperature		°C	-20 ... +60		
Humidity class	Acc. to IEC 60068-2-30		F		

			Voltage relays	
			5TT3 411	5TT3 412
Rated control voltage U_c		V AC	230	230/400
Overload capability		× U_c	1.15	1.1
Rated frequency		Hz	50/60	
Response values	ON-switching		2 % hysteresis	4 % hysteresis
	OFF-switching	× U_c	0.9	0.9
Minimum contact load		V/mA	10/100	
Phase failure detection	At L1, L2 or L3	ms	--	100
N-conductor monitoring			--	Yes
Rated insulation voltage U_i	Between coil/contact	kV	4	
Contacts	AC 15 NO contacts		3	3
	AC 15 NC contacts		2	1
Electrical service life in switching cycles	AC 15, 1 A, 230 V AC		5×10^5	
Rated impulse withstand voltage	Acc. to IEC 60664-1	kV	4	
Degree of pollution			2	
Terminals	± screw (Pozidriv)		2	
Conductor cross-sections				
• Rigid		mm^2	2 × 2.5	
• Flexible, with end sleeve		mm^2	2 × 1.5	
Permissible ambient temperature		°C	-20 … +60	
Resistance to climate	Acc. to EN 60068-1		20/060/04	