

Technical specifications

			7KT1 300	7KT1 301	7KT1 302
Standards			DIN 43751-1, DIN 43751-2 and EN 61010-1		
Supply					
• Rated control supply voltage U_c		V AC	230		
• Operating range		x U_c	0.8 ... 1.2		
• Rated frequency		Hz	50		
• Frequency range		Hz	45 ... 65		
• Rated power dissipation P_v		VA	≤ 10		
Overload capability					
• Voltage	continuous: phase/phase	V	480		
	1 second: phase/phase	V	800		
	continuous: phase/N	V	276		
	1 second: phase/N	V	460		
	continuous	A	76	6	
	0.5 s	A	--	110	
• Current	10 ms	A	1000	--	
Measuring inputs					
• Connection type			Direct	Transformer /5 A	
• Voltage U_e	phase/phase	V	400		
	phase/N	V	230		
• Operating range voltage	phase/phase	V	87 ... 400		
	phase/N	V	50 ... 230		
• Current I_e		A	63	5	
• Operating range current		A	0.1 ... 63	0.01 ... 5	
• Transformer current	primary current of the transformer smallest input step	A	--	5 ... 5000	
		A	--	5	
• Frequency		Hz	50		
• Frequency ranges		Hz	45 ... 65		
Display					
• Connection errors	inverted phases		Err		
• Voltage: 3 displays, 3-digit	delta L1 – L2, L2 – L3, L3 – L1	V	87 ... 480		
	star L1/N – L2/N – L3/N	V	50 ... 276		
	voltage > 480/276 V		H H H		
	voltage < 87/50 V		-- --		
• Current: 3 displays, 3-digit	L1 – L2 – L3		0.3 ... 76 A	0.1 A ... 1.2 kA	
	for current > 76 A or 6 A x transformer conversion ratio		H H H		
	for current < 0.1 A or 0.01 A x transformer conversion ratio		O O O		
• Frequency: 1 display, 3-digit	ΣL	Hz	45.0 ... 65.0		
• Active power: 3 displays, 3-digit or 1 display, 3 of 7 digits	L1 – L2 – L3, ΣL display with floating decimal point	W, kW or MW	0 ... 999		
• Reactive power: 1 display, 3-digit	ΣL, with capacitive or inductive indication; display with floating decimal point	var, kvar or Mvar	0 ... 999		
• Apparent power: 3 displays, 3-digit or 1 display, 3-digit	L1 – L2 – L3, ΣL display with floating decimal point	W, kW or MW	0 ... 999		
• p.f.: 3 displays, 3-digit or 1 display, 3-digit	L1 – L2 – L3, ΣL display with floating decimal point		0.01 ... 1.00		
• Transformer primary current	only if set	A	--	5 ... 5000	
• Transformer secondary current	only if set	A	--	5	
• Display period		/s	2		
• Storage of setting			EEPROM		

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Measuring accuracy					
• Voltage		%	2		
• Current		%	2		
• Power		%	4		
• p.f.		%	4		
• Frequency		%	2		
Safety according to EN 61010-1					
• Degree of pollution			2		
• Overvoltage category			II		
• Operating voltage category		V	600		
• Clearances		mm	≥ 3.0		
• Creepage distances	in device	mm	≥ 4.3		
	on printed boards (not installed)	mm	≥ 3.0		
• Test pulse voltage	1.2/50 µs	kV	4		
• Test voltage	50 Hz, 1 min	kV	2.2		
Terminals					
• Main current paths	± screw (Pozidriv)		2	1	
• Supply terminals	blade for slotted screw	mm × mm	0.4 × 2.5		
• Conductor cross-sections, main current paths	rigid, maximum	mm ²	1 × 25 or 2 × 16	1 × 6 or 2 × 4	
	rigid, minimum	mm ²	1 × 1.5		
• Conductor cross-sections for supply terminals	rigid, maximum	mm ²	1 × 2.5 or 2 × 1.5		
	flexible, with end sleeve, minimum	mm ²	1 × 0.75		
Ambient conditions					
• Temperature		°C	0 ... +55		
• Relative humidity		%	≤ 80		
• Vibrations	sinus amplitude at 50 Hz	mm	± 0.25		
• Degree of protection	acc. to EN 60529		IP20, with connected conductors		
- front panel, 96 mm × 96 mm			--		IP54
• Safety class	acc. to EN 61010-1		II		