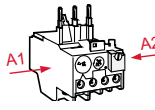


Technical data TA110DU – TA450DU

Thermal
Overload
relays

2

Types	TA110DU	TA200DU	TA450DU	
Standards: (international, European)	IEC 947-4-1, EN 60947-4-1			
Rated insulation voltage U_i according to IEC 947-4-1	V	690	1000	
Rated impulse withstand voltage U_{imp} according to IEC 947-4-1	kV	6	8	
Permissible ambient temperature – for storage	°C	–40 to +70		
– for operation	°C	–25 to +55 with temperature compensation (maximum values: see page 2.9)		
Climatic withstand DIN 50017	Humidity in alternate climate KFW, 30 cycles			
Mounting positions	On a support at an angle of $\pm 30^\circ$ in relation to the vertical plane (standard position). Other positions possible except mounting on a horizontal plane (in this case the tripping mechanism would be located above the bimetals).			
Shock withstand at nominal I_e	shock duration ms	15		
Critical direction of shocks A1, A2	multiples of g	12		
Resistance to vibrations (± 1 mm, 50 Hz)	multiples of g	8		
Mounting – on contactor – separate with DB - kit	4 x M5 screws			
Terminals and cross-sectional areas for main conductors (motor side)		–	–	
• screw terminal		–	–	
– with cable clamp		HC, M8	–	–
– via tunnel connector		–	M10	M10
– flat type for lug or bar		–	–	–
• conductor cross-sectional area	mm^2	16 – 35	25 – 120	
– rigid solid or rigid stranded	mm^2	16 – 35	25 – 95	
– flexible with cable end	mm	12 x 3	20 x 4	
– recommended bars			2 x 240 2 x 240 20 x 4...5	
Terminals and cross-sectional area for auxiliary conductors				
• screw terminal (screw size) – with cable clamp		M 3.5		
• conductor cross-sectional area	$2 \times \text{mm}^2$			
– rigid solid or rigid stranded	$2 \times \text{mm}^2$	0.75 - 4		
– flexible with cable end		0.75 - 2.5		
Degree of protection	All the terminals are protected against direct contact according to VDE 0106/Part. 100. (with additional terminal shrouds)			

Technical characteristics of auxiliary contacts for thermal O/L relays: TA25DU to TA450DU

Auxiliary contacts		normally closed N.C.	normally open N.O.
Terminal marking		95-96	97-98
Rated operational voltage U_e	VAC	500	500
Conventional thermal current (in free air) I_{th}	A	10	6
Rated operational current I_e , AC-15			
up to 240 V	A	3.0	1.5
up to 440 V	A	1.9	0.95
up to 500 V	A	1.0	0.75
Rated operational current I_e DC-13			
up to 250 V	A	0.12	0.04
Protection against short circuits			
gG (gI) fuses (according to IEC 269)	A	10	6
S 271/S 281 circuit-breaker	A	k3	k1
Maximum potential difference between N.C. and N.O. auxiliary contacts	VAC VDC	500 440	500 440