

IEC Technical data

AE9 – AE110

TAE – TAE110

Across the line
contactors

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Magnet System Characteristics for AE... Contactors

Contactor types: AE...		9	12	16	26	30	40	45	50	63	75	95	110
Rated control circuit voltage U_c	V d.c.	12 ... 250											
Coil operating limits according to IEC 60947-4-1		$\vartheta \leq 55^\circ\text{C}$ 0.85 ... 1.1 x U_c										$\vartheta \leq 70^\circ\text{C}$	
Drop-out voltage in % of U_c		roughly 10 ... 30 %						roughly 15 ... 40 %					
Coil consumption - Average values													
– pull-in value	W	90			110			200			400		
– holding value	W	2			2.5			4			2.4		
Coil time constant													
– open	L/R ms	2			3			3			6		
– closed	L/R ms	9			16			15			30 ... 40		
Operating time													
between coil energization and:													
– N.O. contact closing	ms	10 ... 16			13 ... 21			13 ... 30			15 ... 25		
– N.C. contact opening	ms	8 ... 12			11 ... 16			10 ... 27			12 ... 22		
between coil de-energization and													
– N.O. contact opening	ms	5 ... 14 ①			6 ... 12 ①			5 ... 15 ①			15 ... 20 ①		
– N.C. contact closing	ms	11 ... 17 ①			8 ... 16 ①			8 ... 18 ①			18 ... 23 ①		

Magnet System Characteristics for TAE... Contactors

Contactor types: TAE...		–	–	–	–	–	–	45	50	–	75	95	110
Rated control circuit voltage U_c	V d.c.	17 ... 264											
Coil operating limits according to IEC 60947-4-1		$\vartheta \leq 55^\circ\text{C}$ U_c min. ... U_c max.											
Drop-out voltage in % of U_c max.		roughly 20 ... 35 %											
Coil consumption values for U_c min. ... U_c max.													
– pull-in value	W							120 ... 250			300 ... 1000		
– holding value	W							1.7 ... 6.5			2 ... 7		
Coil time constant													
– open	L/R ms							3			6		
– closed	L/R ms							15			40		
Operating time													
between coil energization and:													
– N.O. contact closing	ms							13 ... 30			15 ... 25		
– N.C. contact opening	ms							10 ... 27			12 ... 22		
between coil de-energization and													
– N.O. contact opening	ms							5 ... 15 ②			15 ... 20 ②		
– N.C. contact closing	ms							8 ... 18 ②			18 ... 23 ②		

① The use of surge suppressors increases the opening time on a scale of 1.1 to 1.5 for a varistor suppressor and on a scale of 4 to 8 for a diode suppressor. AE 9 ... AE 40 contactors and $U_c \geq 110$ V: table values for contactors with RV 5 surge suppressor (factory mounted).

② The use of surge suppressors increases the opening time on a scale of 1.1 to 1.5 for a varistor suppressor and on a scale of 4 to 8 for a diode suppressor.