



## SIRIUS 3RT Interface Contactors

Any technical data not given in the table below is identical to that of the 3RT10 contactors from page 316–323.

The 3RT101 interface contactor does not accept additional auxiliary contact blocks. Two single-pole auxiliary contact

blocks can be mounted onto the **3RT102** interface contactor.

Contactor	Type	3RT101_-1HB4_	3RT101_-1JB4_	3RT101_-1KB4_	3RT102_-1KB40	
<b>Mechanical life</b>	operating cycles	30 million			10 million	
<b>Coil voltage tolerance</b>		17 to 30V: 0.7 to 1.25 x U <sub>s</sub>				
<b>Power consumption of the coils</b> (with cold coil) inrush = sealed	at U <sub>s</sub> 17V 24V 30V	1.2W 2.3W 3.6W			2.1W 4.2W 6.6W	
<b>Permissible residual current</b> of the electronics (with 0 signal)		$< 10\text{mA} \times \left(\frac{24\text{V}}{U_s}\right)$			$< 6\text{mA} \times \left(\frac{24\text{V}}{U_s}\right)$	
<b>Surge suppression of the coil</b>		without suppressor	with diode	with varistor	with varistor	
<b>Operating times of the interface contactors</b>						
<b>Closing</b>	at 17V	ON-delay NO	40 to 120 ms	40 to 120 ms	40 to 120 ms	93 to 270 ms
		OFF-delay NC	30 to 70 ms	30 to 70 ms	30 to 70 ms	83 to 250 ms
	at 24V	ON-delay NO	30 to 60 ms	30 to 60 ms	30 to 60 ms	64 to 87 ms
		OFF-delay NC	20 to 40 ms	20 to 40 ms	20 to 40 ms	55 to 78 ms
	at 30V	ON-delay NO	20 to 50 ms	20 to 50 ms	20 to 50 ms	53 to 64 ms
		OFF-delay NC	15 to 30 ms	15 to 30 ms	15 to 30 ms	45 to 56 ms
<b>Opening</b>	at 17 to 30V	ON-delay NO	7 to 17 ms	40 to 60 ms	7 to 17 ms	18 to 19 ms
		OFF-delay NC	22 to 30 ms	60 to 70 ms	22 to 30 ms	24 to 25 ms
<b>Safe isolation</b> according to DIN VDE 0106 Part 101 A1 (draft 02/89) between coil and contacts		400V				

### Electrical Life

#### Specifications

3RT contactors meet or exceed the requirements of NEMA, EEMAC, UL, CSA, IEC, VDE and other international standards.

#### Contact Life

The graphs on the next page depict the expected contact life of contactors as a function of the breaking current in AC applications. For normal applications (AC3) the contactor interrupts the motor full load current (FLA). In plugging and jogging applications (AC4) the contactor interrupts the Locked rotor current (LRA). If the LRA is not known assume 6 times the marked FLA.

To obtain the contactor's approximate electrical contact life, determine the breaking current and find this value on the horizontal axis. Move upward and locate the intersection with the black line of the appropriate contactor. Read the expected life on the left side of the graph.

The lines apply to standard 480V motors when interrupting FLA. If mixed applications are involved, such as normal switching (breaking FLA) with intermittent jogging/plugging (breaking LRA), the contact life can be calculated with the following formula:

$$X = \frac{A}{1 + \frac{C}{100} \left( \frac{A}{B} - 1 \right)}$$

Legend

- X Contact life for mixed applications
- A Contact life from AC3 chart for normal applications, breaking FLA
- B Contact life from AC4 chart for plugging/jogging application, breaking LRA
- C Percentage of plugging/jogging operation to total operation

#### Performance

Performance data should only be used as a guide to determine the suitability of the product for an application. The data may be the result of accelerated testing or elevated stress levels under controlled conditions. The user must take care in correlating this data to actual application or service conditions.