

The given failure rates refer to more than one article. For the valid articles please refer to the article list.

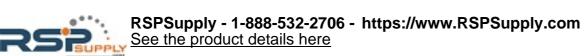
Device category 1 - relay

Prediction done by: pykp03

MTTF values and failure rates - relay contact -, details according to SN 29500-7

ambient temperature in °C	type of load	type of voltage	voltage in V	current in A	operating cycles per h	failure criteria	failure rate in FIT (λ contact)	MTTF in h	MTTF in a
40	resistive	DC	>0,5	<0,1	360	normal	360	2777777,78	317,1
40	resistive	AC	>13	>0,1	360	normal	36	27777777,78	3170,98
40	resistive	DC	>13	>0,1	360	normal	180	5555555,56	634,2
40	inductive	AC	>13	>0,1	360	normal	360	2777777,78	317,1
40	inductive	DC	>13	>0,1	360	normal	900	1111111,11	126,84
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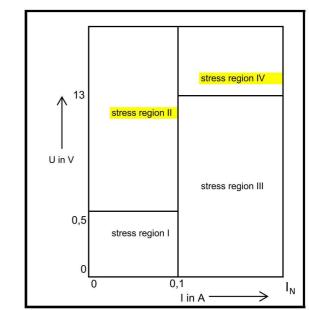
Reliability Prediction Assessment

Diagram

Notes for device category 1 (relay)

- failure rates (λ) respectively MTTF values (rounded) - One changeover contact counts as two contacts - One double contact counts as one contact - Optional spark-extinguished contacts behave like contacts on ohm resistive load at the same current load - Standardized load characteristic diagrams are shown in diagramm The failure rate respectively the MTTF value of the relay can be calculated with the following formula Only used contacts have to be considered! Calculation of total failure rate, λ relay (FIT) λ relay = Σ λ contact Calculation of total MTTF value, MTTF relay (h)

$$MTTF \ relay = \frac{10^{\circ} h}{\lambda \ relay}$$



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Reliability Prediction Assessment

Article list

Article	from revision	Designati
2912947	00	REL-MR-
2912950	00	REL-MR-
2912930		
2912963	00	REL-MR-
2961105	02	REL-MR-
2301103		
2961118	02	REL-MR-
2961150	02	REL-MR-
2961231		
2901231	00	REL-MR-
2961367	02	REL-MR-
2961383	01	REL-MR-
501000	01	
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Designation REL-MR: 12DC/21-ECH REL-MR: 60DC/21-ECH REL-MR: 60DC/21 REL-MR: 40DC/21 REL-MR: 40DC/21 REL-MR: 4.5DC/21 REL-MR: 4.5DC/21 REL-MR: 4.5DC/21 REL-MR: 4.5DC/21 REL-MR: 4.5DC/21 REL-MR: 18DC/21 REL-MR: 18DC/21 <tr< th=""><th>Designation</th></tr<>	Designation
REL-MR- 24DC/21-ECH REL-MR- 60DC/21-ECH REL-MR- 24DC/21 REL-MR- 60DC/21 REL-MR- 12DC/21 REL-MR- 48DC/21 REL-MR- 4,5DC/21	REL-MR- 12DC/21-ECH
REL-MR- 60DC/21-ECH REL-MR- 24DC/21 REL-MR- 60DC/21 REL-MR- 12DC/21 REL-MR- 48DC/21 REL-MR- 4,5DC/21	REL-MR- 24DC/21-ECH
REL-MR- 24DC/21 REL-MR- 60DC/21 REL-MR- 12DC/21 REL-MR- 48DC/21 REL-MR- 4,5DC/21	REL-MR- 60DC/21-ECH
REL-MR- 60DC/21 REL-MR- 12DC/21 REL-MR- 48DC/21 REL-MR- 4,5DC/21	REL-MR- 24DC/21
REL-MR- 12DC/21 REL-MR- 48DC/21 REL-MR- 4,5DC/21	REL-MR- 60DC/21
REL-MR- 48DC/21 REL-MR- 4,5DC/21	REL-MR- 12DC/21
REL-MR- 4,5DC/21	REL-MR- 48DC/21
REL-MR-18DC/21	REL-MR- 4,5DC/21
	REL-MR- 18DC/21

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