

MTTF values for Delcon EX-relays

September 2013

Input relays	MTTF		Expected life for products which have electrolytic capacitor.	
	[hours]	[years]	[hours]	[years]
EXI 12CH	4300000	490,9		
EXI 120CH	2500000	285,4	320000	36,5
EXI 120CHI	1900000	216,9	320000	36,5
EXI 120CHP	2100000	239,7	170000	19,4
EXI 125CH	2800000	319,6		
EXI 230CH	2400000	274,0	149000	17,0
EXI 230CHI	1900000	216,9	149000	17,0
EXI 230CHP	2100000	239,7	149000	17,0
EXI 230CHR	2200000	251,1	113000	12,9
EXI 24CH	4300000	490,9		
EXI 24CHF	4300000	490,9		
EXI 24CHL	4200000	479,5		
EXI 25CH	3800000	433,8	360000	41,1
EXI 250CH	2700000	308,2		
EXI 48CH	4100000	468,0		
EXI 49CH	3700000	422,4	270000	30,8

Output relays	MTTF	
	[hours]	[years]
EXO 12CH	1100000	125,6
EXO 12CHA	620000	70,8
EXO 12CHX	300000	34,2
EXO 12TH	3200000	365,3
EXO 24CH	1100000	125,6
EXO 24CHA	620000	70,8
EXO 24CHA4	620000	70,8
EXO 24CHX	300000	34,2
EXO 24IHA	300000	34,2
EXO 24TH	3100000	353,9
EXO 24TR	3500000	399,5
EXO 5CH	1100000	125,6
EXO 5CHA	620000	70,8
EXO 5CHX	300000	34,2
EXO 5IHA	300000	34,2
EXO 5TH	3200000	365,3
EXO 48CHA	590000	67,4
EXO 48CHA4	590000	67,4
EXO 48CHX	290000	33,1
EXO 120CHA	270000	30,8
EXO 120CHA4	270000	30,8
EXO 220CHA	230000	26,3
EXO 220CHA4	230000	26,3
EXO P120TH	2300000	262,6
EXO P230TH	2100000	239,7

Notes:

MTTF = Mean Time To Failure

MTBF = Mean Time Between Failures (includes repairing)

MTTF value can be used in practise for relays because repairing time is short.

MTTF value is used to predict the reliability of the system.

Expected life for relays depends on the life of the electrolytic capacitor or other components which have limited life.

MTTF values for input relays are calculated in conditions, which the relays are assembled in the mounting base side by side, all relays in on-state, the input voltage is nominal and ambient temperature is 25 °C.

MTTF values for output relays are calculated in conditions, which the relays are assembled in the mounting base side by side, all relays in on-state, the input voltage is nominal, the ambient temperature is 25 °C and the load is 50 % of maximum and resistive.

MTTF values are calculated adapting MIL-HDBK-217F standard.

GB (Ground, Benign)