

# Motor protection relays

## Thermal overload relays for BF series contactors

### Non phase failure / non single phase sensitive Three poles (three phase)



RFN38...

Order code	Adjustment range	Protection fuses			Qty per pkg	Wt [kg]
		IEC aM	gG	UL ①		
	[A]	[A]	[A]	[A]	n°	[kg]

MANUAL OR AUTOMATIC RESETTING.  
Direct mounting on BF09 - BF38 contactors.  
Independent mounting with RFX38 04 base.

RFN38 0016	0.1-0.16	0.25	—	1	1	0.160
RFN38 0025	0.16-0.25	0.5	—	1	1	0.160
RFN38 0040	0.25-0.4	0.5	1	3	1	0.160
RFN38 0063	0.4-0.63	1	2	3	1	0.160
RFN38 0100	0.63-1	2	4	3	1	0.160
RFN38 0160	1-1.6	2	4	6	1	0.160
RFN38 0250	1.6-2.5	4	6	10	1	0.160
RFN38 0400	2.5-4	4	6	15	1	0.160
RFN38 0650	4-6.5	8	16	25	1	0.160
RFN38 1000	6.3-10	10	20	40	1	0.160
RFN38 1400	9-14	16	32	50	1	0.160
RFN38 1800	13-18	25	40	70	1	0.160
RFN38 2300	17-23	25	50	90	1	0.160
RFN38 2500	20-25	32	50	100	1	0.160
RFN38 3200	24-32	40	63	125	1	0.160
RFN38 3800	32-38	40	63	150	1	0.160

MANUAL RESETTING.  
Direct mounting on BF50-BF110 contactors.  
Complete with G261 links.  
Independent mounting with G270 base.

11 RFN95 3 42	28 - 42	50	80	150	1	0.365
11 RFN95 3 50	35 - 50	50	100	175	1	0.365
11 RFN95 3 65	46 - 65	80	125	200	1	0.365
11 RFN95 3 82	60 - 82	100	200	250	1	0.365
11 RFN95 3 95	70 - 95	100	200	350	1	0.365
11 RFN95 3 110	90 - 110	125	200	350	1	0.365

AUTOMATIC RESETTING.  
Direct mounting on BF50-BF110 contactors.  
Complete with G261 links.  
Independent mounting with G270 base.

11 RFNA95 3 42	28 - 42	50	80	150	1	0.365
11 RFNA95 3 50	35 - 50	50	100	175	1	0.365
11 RFNA95 3 65	46 - 65	80	125	200	1	0.365
11 RFNA95 3 82	60 - 82	100	200	250	1	0.365
11 RFNA95 3 95	70 - 95	100	200	350	1	0.365
11 RFNA95 3 110	90 - 110	125	200	350	1	0.365

① UL RK5 fuse class for RFN38 types and UL K5 fuse class for RF...95 types.

NOTE: The appropriate adjustment range of the overload relay should be selected on the basis of the motor nameplate full-load current when direct, across the line starting is considered.



11 RFN95 3...



11 RFNA95 3...

### Three-phase IEC motor powers ②

230V	400V	415V	440V	550V	690V
[kW]	[kW]	[kW]	[kW]	[kW]	[kW]

0.06	0.06	0.06	0.06-0.09	0.06-0.09	0.09-0.12
0.06	0.09	0.09	0.12	0.12	0.18
0.09	0.12-0.18	0.12-0.18	0.18	0.18	0.25
0.12	0.25	0.25	0.37	0.25-0.37	0.37-0.55
0.18-0.25	0.37-0.55	0.37-0.55	0.55	0.55-0.75	0.75
0.37	0.75	0.75	0.75-1.1	1.1	1.1-1.5
0.55-0.75	1.1-1.5	1.1-1.5	1.1	1.5-2.2	2.2-3
1.1-1.5	2.2	2.2	2.2-3	3	4
1.5-2.2	3-4	4	4	4-5.5	5.5-7.5
3	5.5	5.5	5.5-7.5	5.5-7.5	11
4	7.5	7.5-9	9	11	15
5.5	11	9-11	11	11	18.5
5.5	11	11	11	15	22
7.5	15	15	15	18.5	30
11	18.5	18.5	18.5	22	30

9-10	15-18.5	18.5-22	18.5-22	22-25	30-33
10-11	22	25	25	30	37-40
15-18.5	25-30	30-33	30-33	33-40	45-55
22	33-40	37-45	37-45	45-55	59-75
22-25	40-45	45-51	45-55	55-63	75-80
30	55	55	55	75	90

9-10	15-18.5	18.5-22	18.5-22	22-25	30-33
10-11	22	25	25	30	37-40
15-18.5	25-30	30-33	30-33	33-40	45-55
22	33-40	37-45	37-45	45-55	59-75
22-25	40-45	45-51	45-55	55-63	75-80
30	55	55	55	75	90

② No standard power ratings exist; select relay according to current consumption.

③ The indicated powers apply to 4-pole motors; it is advisable to always check that the nameplate motor current is within the relay adjustment range.

### Certifications and compliance

Certifications obtained:

Type	cULus	CSA	EAC	CCC
RFN38	●	—	●	●
RFN95	●	●	●	●
RFNA95	●	●	●	●

● Certified products.

cULus – UL Listed for USA and Canada (cULus - File E93601) as Auxiliary Devices – Thermal Overload Relays, 600VAC, open type, ambient compensated, 5000 Amps RMS symmetrical short circuit rating up to 82A FLA range and 10000 Amps RMS for 95A and 110A FLA range; the trip current is 120% FLA.  
CSA – CSA certified for Canada only (File 54332) as Auxiliary Devices for use with magnetic contactors.

Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-4-1, UL508, CSA C22.2 n° 14.