

## GRB motor overheat protection module

The GRB motor overheat protection module is specially designed for being used with MSF PTC Thermistors. If the electric motor (or some place on the electric motor) is overheating, the PTC Thermistors becomes highly resistive and the motor protector switches off. The device will reset after the motor cooled down.

The relay contact inside the protection apparatus transforms to push the control circuit (electromagnetic switch etc.) to switch off the main power source, and further to protect the electro motor.

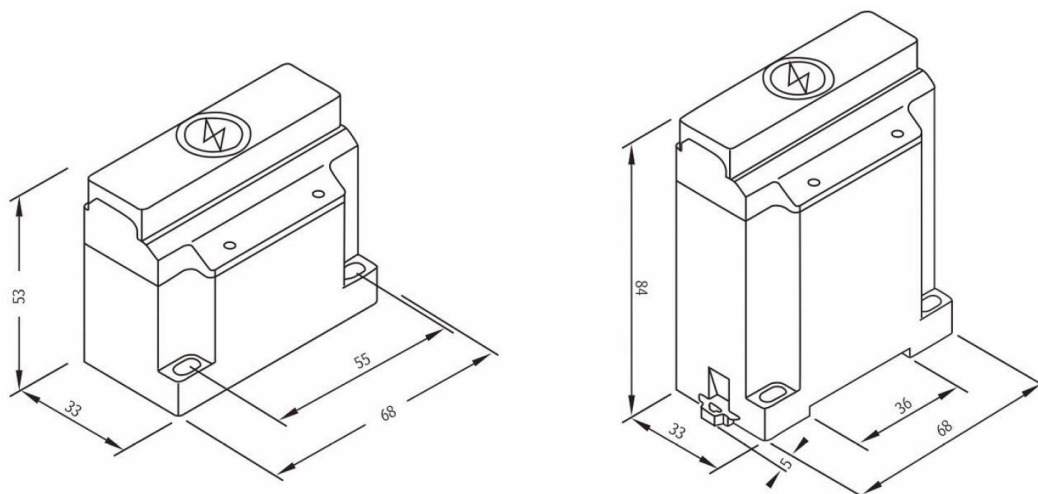


### Key Features

- Advanced technology
- Safety and steady
- High reliability
- Energy conservation (self-consumption power is 0.8VA)
- The shutdown temperature can be precisely worked out

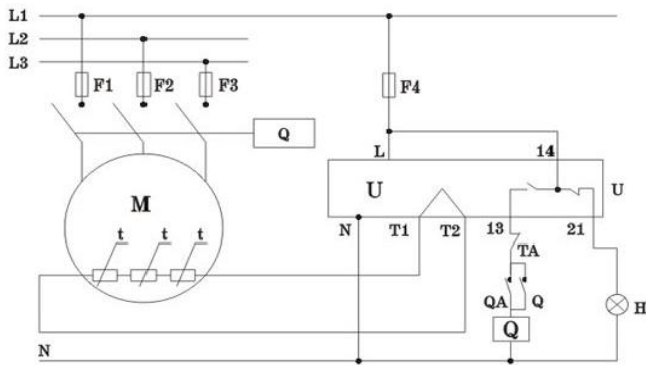
### Technical Specification

Power supply	(AC/DC) 24V	AC 110V	AC 220V
Allowable volt tolerance	±20%		
Frequency	50Hz...60Hz		
Self-consuming power	<0.8VA		
Permitted ambient temperature	-30°C...70°C		
Relay	AC250V 6A, 300VA		
Operating resistance	Single	Triple	
	1kΩ ±10%	3kΩ ±10%	
Reset resistance	Single	Triple	
	500Ω...600Ω	1.500Ω...1.800Ω	
No. of PTC thermistors in series	1...9		
Weight	~0,20kg		



Changes and errors excepted

## Connection reference diagram



M = Electric machine  
 Q = Electromagnetic switch  
 U = GRB motor overhear protection module  
 H = Break down signal  
 TA = Switch off button  
 QA = Switch on button

T1 / T2	L	N	13	14	21
PTC connected terminal	Power supply terminal		Normally closed contact	Common connection contact	Normally open contact

Note:

- The connection reference diagram shows the GRB module after switching (The electro motor is off).
- If the GRB module is in non-operation modus, contact 13 is closed and contact 21 is open.

## Oder Code

	GRB	-	2	B	-	220	-	3
<b>Motor overhear protection device:</b> GRB								
<b>Case size:</b> 2 = high case (84mm) 3 = short case (53mm)								
<b>Relay type:</b> B = normally open (NO) C = normally close (NC)								
<b>Supply voltage</b> AC / DC 24V AC 110V AC 220V								
<b>No. of PTC thermistors in series:</b> 1...9 PTCs								

**Example:** GRB-2B-220-3  
 GRB-3B-220-1