



Frequency monitoring relays  
PMF20

Product designation			
Product type designation			
<b>General characteristics</b>			
Description	Minimum and maximum frequency control		
Type of system	Single-phase		
<b>Power supply</b>			
Auxiliary supply voltage $U_s$	Self powered		
Operating voltage range	0.85...1.1 $U_e$		
Rated frequency	Hz	50 or 60 Hz selectable	
Power consumption Max	VA	17	
Power dissipation Max	W	1.5	
<b>Control circuit</b>			
Rated voltage to control ( $U_e$ )	min	VAC	380
	Max	VAC	415
Frequency set-point (% rated frequency)	min	%	90...99
	Max	%	101...110
Tripping delay		s	0.1...20
Resetting time		s	0.1...20
Resetting hysteresis		%	0.5
Type of reset	Automatic		
Repeat accuracy		%	< $\pm$ 0.1
<b>Voltage inputs</b>			
Frequency range	Hz	40...70	
<b>Relay outputs</b>			
Number of relays	Nr.	1	
Relay state	Normally energised De-energises at tripping		
Contact arrangement	1 changeover SPDT		
Rated operational voltage AC (IEC)	VAC	250	
Maximum switching voltage	VAC	400	
IEC Conventional free air thermal current $I_{th}$	A	8	
UL/CSA and IEC/EN 60947-5-1 designation	B300		
Electrical life (with rated load)	cycles	100000	
Mechanical life	cycles	30000000	
<b>Functions</b>			
Modular version	2U		
Minimum AC voltage	Yes		

Maximum AC voltage	Yes
Minimum frequency	No
Maximum frequency	No

#### Indications

Indication	1 green LED for power on and tripping and 2 red LEDs for min/max tripping
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#### Connections

Terminals type	Screw
Tightening torque for terminals	max Nm 0.8 max lbin 7

Conductor cross section				
	AWG/Kcmil	min	AWG	24
		Max	AWG	12
	IEC	min	mm <sup>2</sup>	0.2
		Max	mm <sup>2</sup>	4

#### Insulations

Rated insulation voltage Ui	V	575
Rated impulse withstand voltage Uimp	kV	6
Operating frequency withstand voltage	kV	4

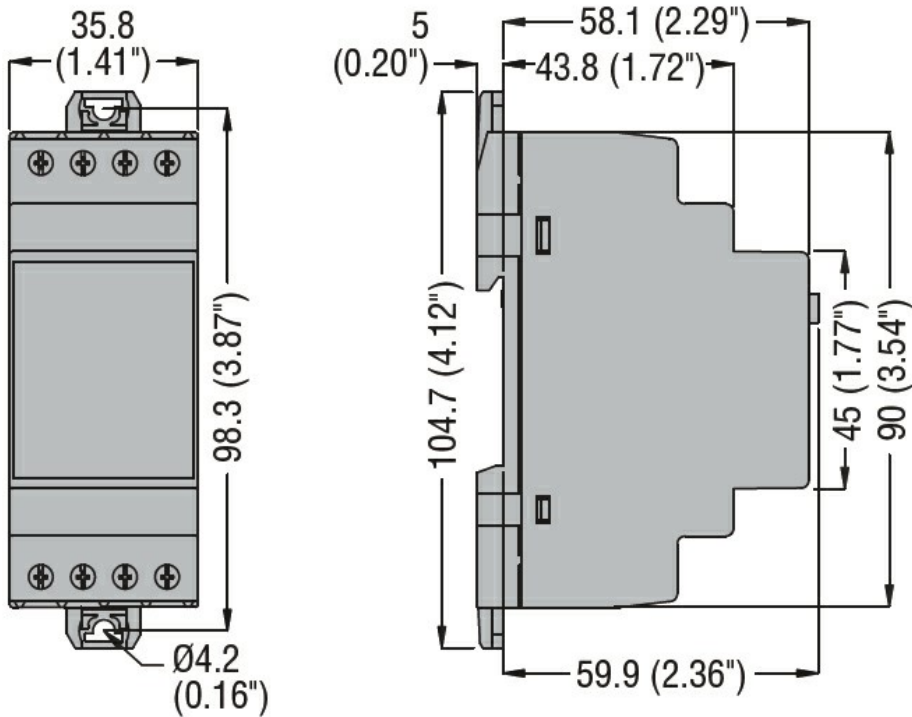
#### Ambient conditions

Temperature				
	Operating temperature	min	°C	-20
		max	°C	+60
	Storage temperature	min	°C	-30
		max	°C	+80

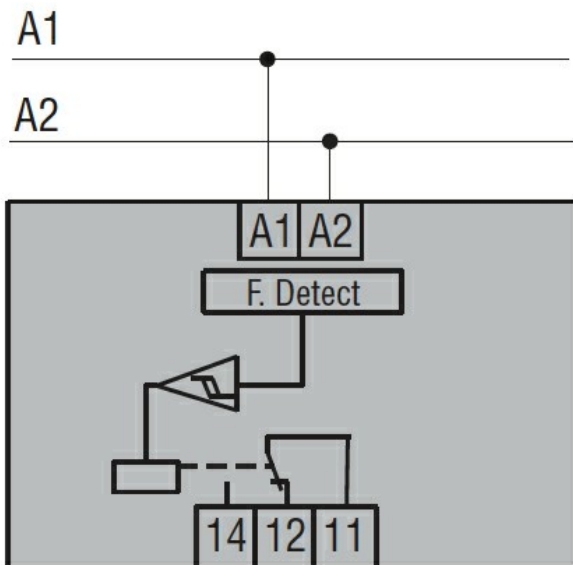
#### Housing

Execution (n° of modules)	2
Material	Self-extinguishing polyamide
Mounting	35mm DIN rail (IEC/EN 60715)
IEC degree of protection	IP40 on front; IP20 at terminals
Dimensions (W x H x D)	mm 35.8 x 104.7 x 64.9
Weight	g 125

#### Dimensions



### Wiring diagrams



### Certifications and compliance

#### Compliance

CSA C22.2 n° 14  
IEC/EN 60255-5  
IEC/EN 61000-6-2  
IEC/EN 61000-6-3  
UL 508

#### Certificates

cULus  
EAC

### ETIM classification

ETIM 8.0

EC001442 -  
Frequency  
monitoring relay