FREQUENCY MONITORING RELAY FOR SINGLE AND THREE-PHASE SYSTEMS, MINIMUM AND MAXIMUM FREQUENCY, 380...415VAC 50/60HZ



Product designation			Frequency monitoring relays
Product type designation			PMF20
General characteristics			
Description			Minimum and maximum frequency control
Type of system			Single-phase
Power supply			
Auxiliary supply voltage Us			Self powered
Operating voltage range			0.851.1 Ue
Rated frequency		Hz	50 or 60 Hz selectable
Power consumption Max		VA	17
Power dissipation Max		W	1.5
Control circut			
Rated voltage to control (Ue)			
	min	VAC	380
	Max	VAC	415
Frequency set-point (% rated frequency)			_
	min	%	9099
	Max	%	101110
Tripping delay		S	0.120
Resetting time		S	0.120
Resetting hysteresis		%	0.5
Type of reset			Automatic
Repeat accuracy		%	<±0.1
Voltage inputs			
Frequency range		Hz	4070
Relay outputs			
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 Ith		Α	8
UL/CSA and IEC/EN 60947-5-1 designation			B300
Electrical life (with rated load)		cycles	100000
Mechanical life		cycles	30000000
Functions			
Modular version			2U
Minimum AC voltage			Yes





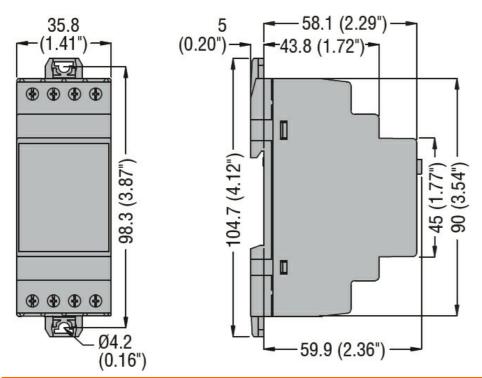
ENERGY AND AUTOMATION

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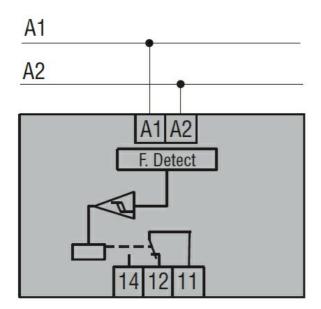
Minimum frequency Maximum frequency No Indications Indication Indication Indication Connections Terminals type No No Indication Indication Sometimes type No Indication In	Maximum AC voltage			Yes
Maximum frequency Indications 1 green LED for power on and tripping and 2 red LEDs for min/max tripping Connections Terminals type No 1 green LED for power on and tripping and 2 red LEDs for min/max tripping				
Indications Indication Indic				
Indication Indication Indication Indication Indication Indication Indication Indication Indication Itripping and 2 red LEDs for min/max tripping Connections Terminals type Screw				110
Connections Terminals type Screw				power on and tripping and 2 red LEDs for
Terminals type Screw	Connections			·····y····g
				Screw
LIGNTENING TOTALIE TOT TERMINAIS	Tightening torque for terminals			
max Nm 0.8	rightening torque for terminals	may	Nm	0.8
max Ibin 7				
Conductor cross section	Conductor gross section	IIIAA	IDIII	
AWG/Kcmil				
min AWG 24	AWG/KCIIII	min	۸\ <i>۸</i> (۲	24
Max AWG 12	150	IVIAX	AWG	12
IEC	IEC		2	0.0
min mm² 0.2				
Max mm² 4		Max	mm²	4
Insulations				
Rated insulation voltage Ui V 575				
Rated impulse withstand voltage Uimp kV 6				
Operating frequency withstand voltage kV 4			kV	4
Ambient conditions	Ambient conditions			
Temperature	Temperature			
Operating temperature	Operating temperature			
min °C -20		min	°C	-20
max °C +60		max	°C	+60
Storage temperature	Storage temperature			
min °C -30		min	°C	-30
max °C +80		max	°C	+80
Housing	Housing			
Execution (n° of modules) 2				2
Material Self-extinguishing polyamide				
Mounting 35mm DIN rail (IEC/EN 60715)	Mounting			35mm DIN rail
IEC degree of protection IP40 on front; IP20 at terminals	IEC degree of protection			
Dimensions (W x H x D) mm 35.8 x 104.7 x 64.9	Dimensions (W x H x D)		mm	
Weight g 125			g	125
Dimensions	Dimensions			

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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



PMF20A415

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ETIM 8.0

EC001442 -Frequency monitoring relay