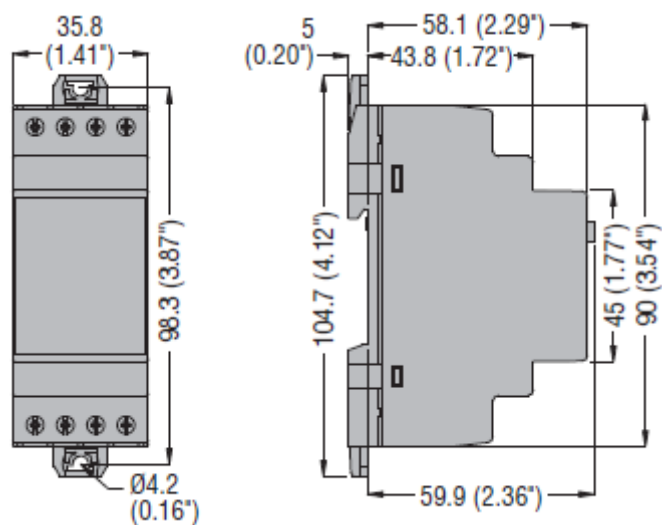


Order code	Rated voltage Ue	Qty per pkg	Wt
	[V] 50/60Hz	n°	[kg]

Single and three-phase systems.
Minimum and maximum frequency. Delayed trip.
Automatic reset.

PMF20 A240	220-240VAC	1	0.125
PMF20 A415	380-415VAC	1	0.125



General characteristics

- Frequency monitoring relay, self powered, for minimum and maximum control
- Rated frequency selection: 50 or 60Hz
- Tripping threshold for minimum and maximum frequency
- Excellent tripping accuracy
- 1 relay output, configurable, with 1 changeover contact (SPDT)
- Modular DIN 43880 housing, 2 module
- IEC protection degree: IP40 on front (only when placed in IP40 enclosure or control board); IP20 at terminals.

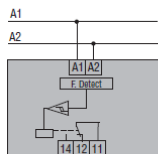
ADJUSTMENTS

- "Hz max" Maximum frequency tripping threshold +1 to +10%
- "Delay" Tripping time 0.1-20s
- "Hz min" Minimum frequency tripping threshold -1 to -10%
- "Delay" Tripping time 0.1-20s
- "Reset delay" Resetting time 0.1-20s
- "Mode"
 - Minimum and maximum frequency
 - Output relay energised at maximum frequency
 - Output relay energised at minimum frequency
 - Output relay de-energised at maximum frequency.

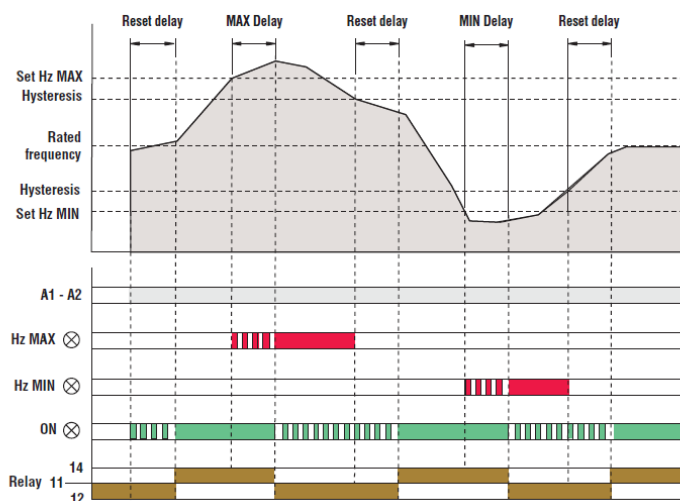
Certifications and compliance

Certifications obtained: EAC; UL Listed, for USA and Canada (cULus - File E93601), as Auxiliary Devices - Modular ampere monitoring relays.
Compliant with standards: IEC/EN 60255-5, IEC/EN 61000-6-2, IEC/EN 61000-6-3, UL 508, CSA C22.2 n° 14.

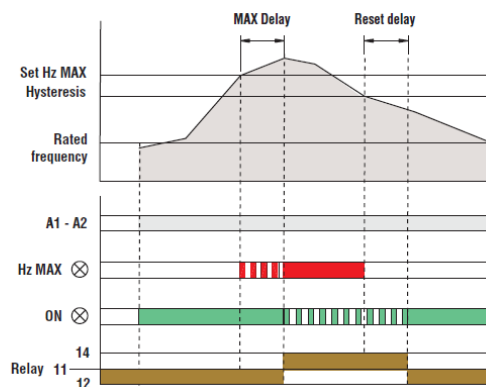
Frequency monitoring relay PMF20



MAX-MIN, MAX or MIN function



MAX function



TYPE	PMF20
DESCRIPTION	Single-phase minimum and maximum frequency control
FREQUENCY CONTROL CIRCUIT	
Rated frequency	50 or 60Hz selectable
Operating frequency range	40-70Hz
Adjustment	MAX tripping 101-110% operating frequency
	MIN tripping 90-99% operating frequency
	Resetting hysteresys 0.5%
	Inhibition time 0.1-20s
	Reset delay 0.1-20s
Resetting	Automatic
Repeat accuracy	< ±0.1%
AUXILIARY SUPPLY	
Auxiliary supply voltage Us	220-240VAC 380-415VAC
Operating range	0.85-1.1 Us
Rated frequency	50/60Hz
Power consumption (maximum)	10VA (220-240VAC); 17VA (380-415VAC)
Power dissipation (maximum)	1.5W
RELAY OUTPUTS	
Number of relays	1
Relay state	Normally energised, de-energises at tripping❶
Contact arrangement	1 changeover contact SPDT
Rated operational voltage	250VAC
Maximum switching voltage	400VAC
IEC conventional free air thermal current I _{th}	8A
UL/CSA and IEC/EN 60947-5-1 designation	B300
Electrical life (with rated load)	10 ⁵ cycles
Mechanical life	30x10 ⁶ cycles
Indications	1 green LED for power on/tripping 2 red LEDs for min-max tripping
CONNECTIONS	
Tightening torque maximum	0.8Nm (7lbin; 7-9lbin per UL/CSA)
Conductor section min-max	0.2-4.0mm ² (24-12AWG; 18-12 AWG per UL/CSA)
INSULATION (input - output)	
IEC rated insulation voltage U _i	575V
IEC rated impulse withstand voltage U _{imp}	6kV
IEC power frequency withstand voltage	4kV
AMBIENT CONDITIONS	
Operating temperature	-20...+60°C
Storage temperature	-30...+80°C
HOUSING	
Material	Self-extinguishing polyamide

❶ Normally de-energised, energises at tripping with MAX function configured.