



HMPB7



- TRMS 3-phase over and under voltage, phase sequence and phase loss monitoring relay.
- Detects when all 3-phase are present and have the correct phase sequence.
- Detects if all the 3-phase-phase or phase-neutral voltages are within the set limits.
- Upper and lower limits separately adjustable.
- Measures its own power supply.
- Selection of measuring range by DIP-switches.
- Adjustable voltage on relative scale.
- Adjustable delay function (0.1 to 30 s).
- Output: 5 A SPDT relay N.E.
- For mounting on DIN-rail in accordance with DIN/EN 50 022.
- 35.5 mm DIN-rail housing.
- LED indicator for relay, alarm and power supply ON.

Model Description

HMPB7348

H	CHORDN Factory Code
M	Monitoring relays
P	3-Phase
B	Function
7	Item number
3	Output, SPDT relay
48	Power supply 380 - 480VAC; 23 208 - 240VAC



Input Specifications

Input	L1, L2, L3, N	Terminals L1, L2, L3, N, Measures its own supply
Measuring range	208 to 240 Δ VAC ($\pm 15\%$)	177 to 275 Δ VAC
	380 to 480 Δ VAC ($\pm 15\%$)	323 to 550 Δ VAC
Hysteresis	Set points from 2 to 5%	1%
	Set points from 5 to 22%	2%
Range	Upper level	+2 to +22% of the nominal voltage
	Lower level	-22 to -2% of the nominal voltage

Note: The input voltage must not exceed the maximum rated voltage or drop below the minimum rated voltage reported above.

Output Specifications

Output		SPDT relay
Rated insulation voltage		250 VAC
Contact ratings (AgSnO ₂) μ		
Resistive loads	AC 1	5 A @ 250 VAC
	DC 12	5 A @ 24 VDC
Small inductive loads	AC 15	2.5 A @ 250 VAC
	DC 13	2.5 A @ 24 VDC
Mechanical life		30 x 10 ⁶ operations
Electrical life		10 ⁵ operations (at 5 A, 250 V, $\cos \varphi = 1$)
Operating frequency		7200 operations/h
Dielectric strength	Dielectric voltage	2 kVAC (rms)
	Rated impulse withstand volt	4 kV (1.2/50 μ s)

Supply Specifications

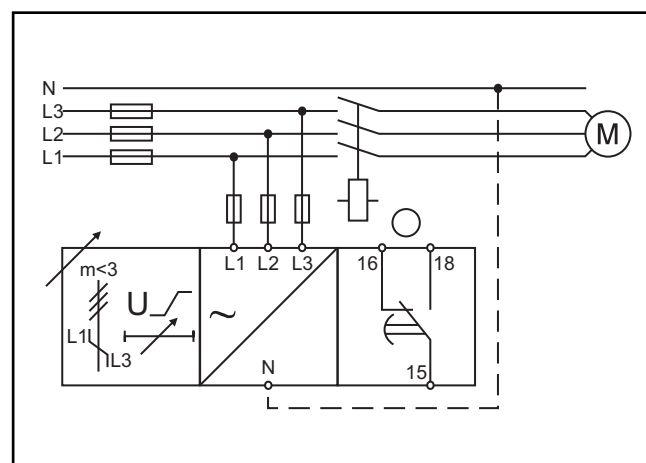
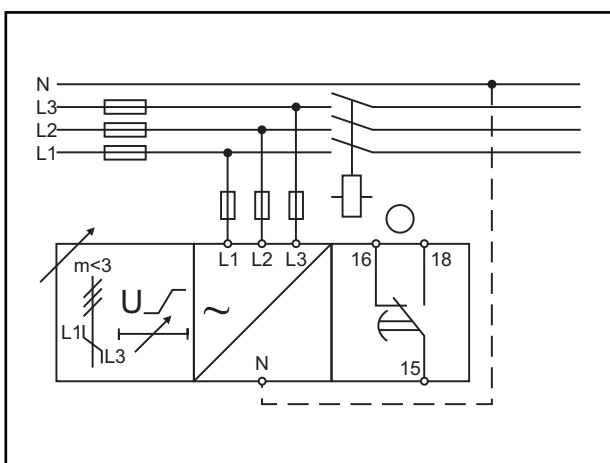
Rated operational power	HMPB7323	13 VA @ 230 Δ VAC, 50 Hz, Supplied by L1 and L3
	HMPB7348	13 VA @ 400 Δ VAC, 50 Hz, Supplied by L1 and L3
Overvoltage cat. (IEC 60664, IEC 60038)		III
Rated operational voltage through terminals		L1, L2, L3, N
Delta Voltage range - 23		208 to 240 VAC $\pm 15\%$, 45 to 65 Hz
Delta Voltage range - 48		380 to 480 VAC $\pm 15\%$, 45 to 65 Hz
Star Voltage range - 48		220 to 277 VAC $\pm 15\%$, 45 to 65 Hz



General Specifications

Power ON delay		1 s ± 0.5 s or 6 s ± 0.5 s
Incorrect phase sequence or total phase loss time		< 200 ms (input signal variation from -20% to +20% or from +20% to -20% of set value)
Alarm ON delay		< 200 ms (delay < 0.1 s)
Alarm OFF delay		< 200 ms (delay < 0.1 s)
Accuracy (15 min warm-up time)	Temperature drift	± 1000 ppm/°C
	Delay ON alarm	± 10% on set value ± 50 ms
	Repeatability	± 0.5% on full-scale
Power supply ON		LED, green
Alarm ON		LED, red (flashing 2 Hz during delay time)
Output relay ON		LED, yellow
Degree of protection		IP 20
Pollution degree		3
Operating temperature		-20 to 60°C, R.H. < 95%
Storage temperature		-30 to 80°C, R.H. < 95%
Dimension		35.5 x 81.5 x 67.2 mm
Material		PA66 or Noryl
Weight		Approx. 100 g
Tightening torque		Max. 0.5 Nm according to IEC 60947
Product standard		EN60947-5-1
Conform		UL, CSA
CE Marking		L.V. Directive 2014/35/EU
EMC		EMC Directive 2014/30/EU
Immunity		According to EN 61000-6-2
Emissions		According to EN 61000-6-3

Wiring Diagrams





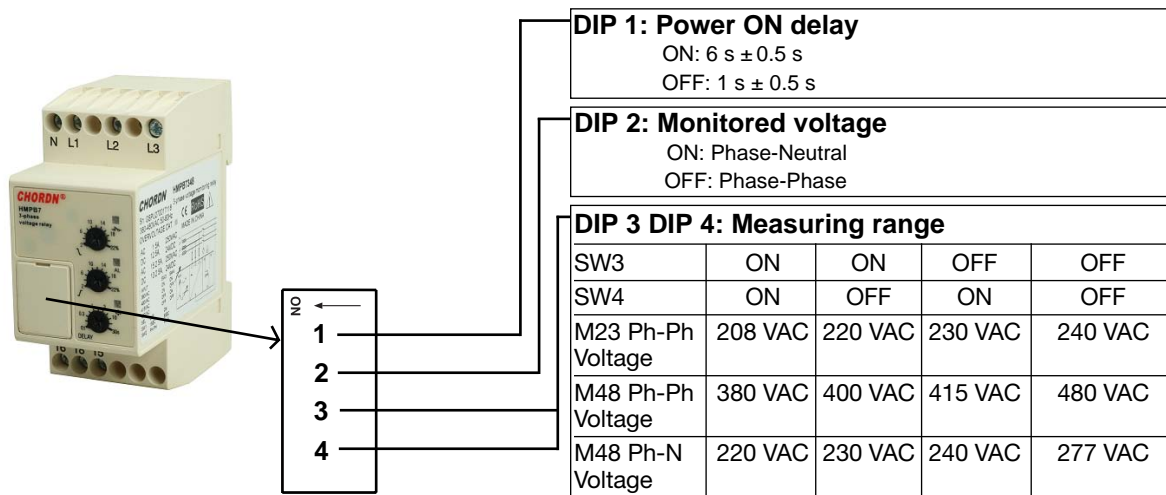
Function/Range/Level and Time Delay Setting

Selection of level and time delay :

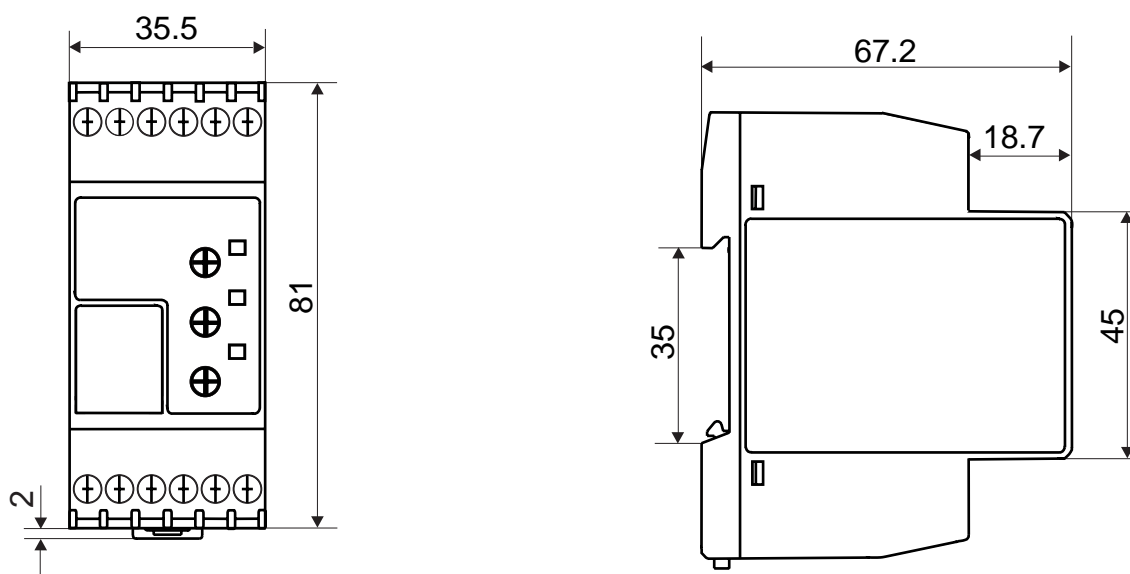
Upper knob : Setting of lower level on relative scale.

Centre knob : Setting of upper level on relative scale.

Lower knob : Setting of delay on alarm time on absolute scale (0.1 to 30 s).



Dimensions (mm)



Operation Diagrams

