



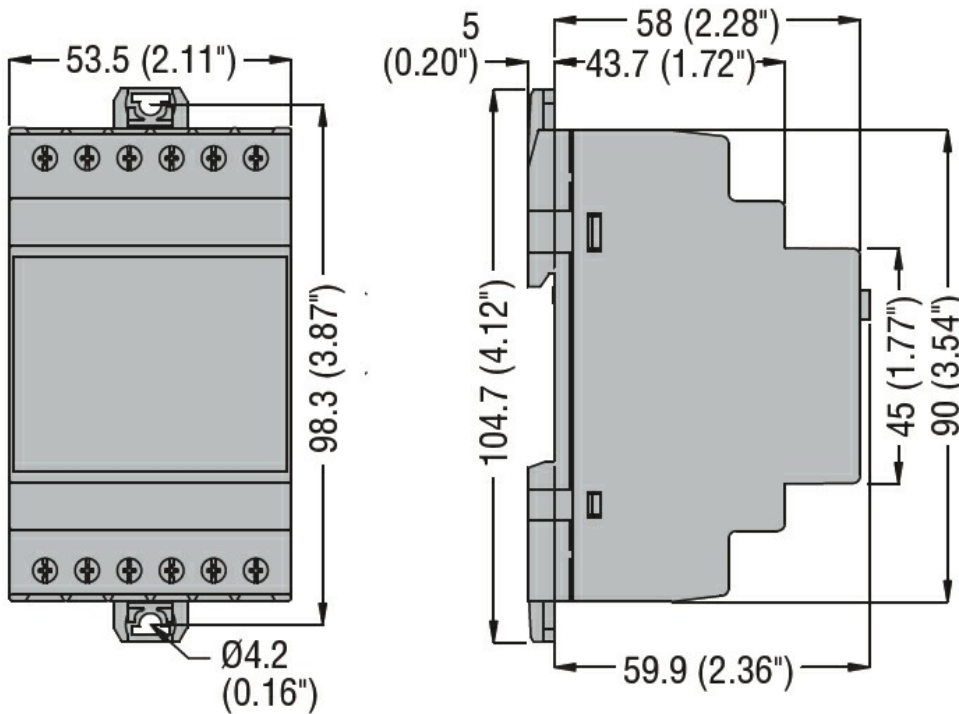
### General characteristics

Description	Pump protection relay (motor under-load and over-current control) monitoring for max AC current, min $\cos\phi$ , phase loss and incorrect phase sequence		
Type of system	Single-phase and three-phase		
<b>Power supply</b>			
Auxiliary supply voltage $U_s$	440...480VAC		
Operating voltage range	0.85...1.1 $U_s$		
Rated frequency	Hz	50/60 $\pm 5\%$	
Power consumption Max	VA	4.5	
Power dissipation Max	W	2.3	
<b>Control circuit</b>			
Rated current ( $I_e$ )	A	5 or 16	
Overload capacity	5 $I_e$ for 1s - 160A for 10ms - Constant 16A		
Connection	Direct or by current transformer		
Current set-point (% $I_e$ )	Max	%	10...100
Minimum $\cos\phi$ set-point			0.1...0.99
Tripping delay		s	0.1...10
Automatic resetting delay		min	OFF...100
Resetting hysteresis		%	3% for overcurrent, 0.03 for $\cos\phi$
Inhibition time		s	1...60
Type of reset	Automatic or manual		
External input	Consent input for running/resetting		
Repeat accuracy		%	$\pm 1$ (with constant parameters)
Tripping time for phase loss		ms	60
<b>Voltage inputs</b>			
Measurement range	V	80...660VAC	
Frequency range	Hz	50/60 $\pm 5\%$	
<b>Relay outputs</b>			

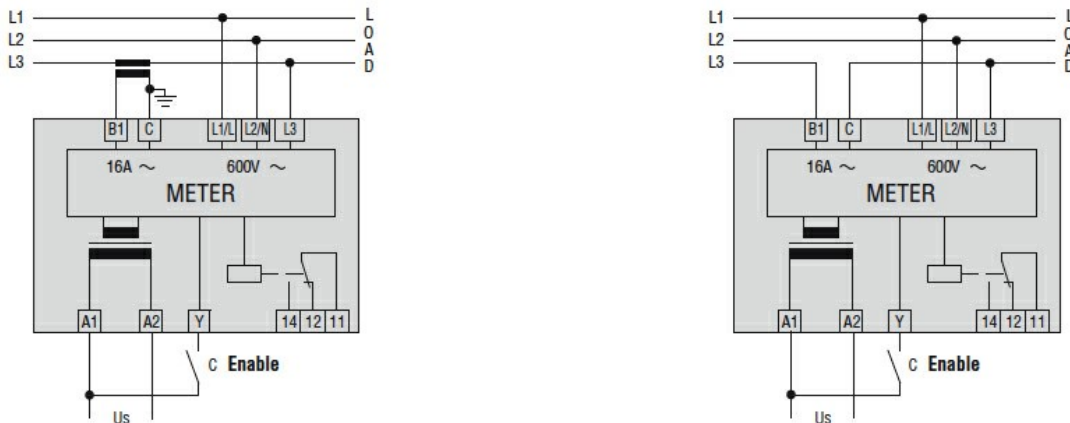
Number of relays	Nr.	1
Relay state		Normally energised De-energises at tripping
Contact arrangement		1 changeover SPDT each
Rated operational voltage AC (IEC)	VAC	250
Maximum switching voltage	VAC	400
IEC Conventional free air thermal current $I_{th} \leq 40^{\circ}\text{C}$	A	8
UL/CSA and IEC/EN 60947-5-1 designation		B300
Electrical life (with rated load)	cycles	100000
Mechanical life	cycles	30000000
<b>Functions</b>		
Modular version		3U
Maximum AC current		Yes
Minimum $\cos\phi$ for dry running pump protection		Yes
Phase loss		Yes
Incorrect phase sequence		Yes
<b>Indications</b>		
Indication		1 green LED for power on / Inhibition and 2 red LEDs for tripping
<b>Connections</b>		
Tightening torque for terminals	max Nm	0.8
	max lbin	7
Conductor cross section		
AWG/Kcmil	min AWG	24
	Max AWG	12
IEC	min $\text{mm}^2$	0.2
	Max $\text{mm}^2$	4
<b>Insulations</b>		
Rated insulation voltage $U_i$	V	600
Rated impulse withstand voltage $U_{imp}$	kV	6
Operating frequency withstand voltage	kV	2.5
<b>Ambient conditions</b>		
Temperature		
Operating temperature	min $^{\circ}\text{C}$	-20
	max $^{\circ}\text{C}$	+60
Storage temperature	min $^{\circ}\text{C}$	-30
	max $^{\circ}\text{C}$	+80
<b>Housing</b>		
Execution (n° of modules)		3
Material		Self-extinguishing polyamide
Mounting		Modular DIN 43880 housing

IEC degree of protection		IP40 on front; IP20 at terminals
Dimensions (W x H x D)	mm	53.5 x 104.7 x 64.9
Weight	g	251

**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

EC001440 -  
Current  
monitoring relay