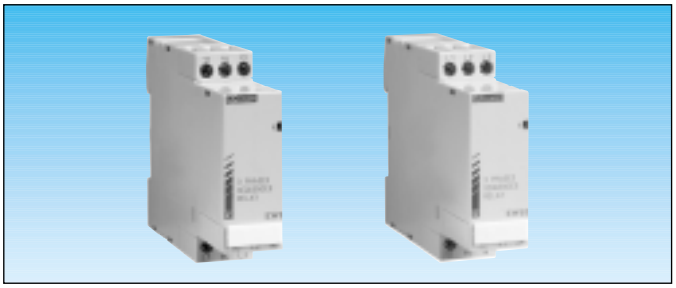
- **Space savings, accurate measurement and optimized functions (22,5 mm).**
- **Control : You simply install your EWS/EWS2 phase control relay and without any adjustment you can monitor the loss or inversion of one of the phases.**
- **Safety : The EWS/EWS2 range enables you to choose the level of safety for your installation by using versions with 1 or 2 output changeovers.**
- **Self-powered : Simple to install, EWS/EWS2 control relays use the controlled mains supply for their own power supply voltage.**

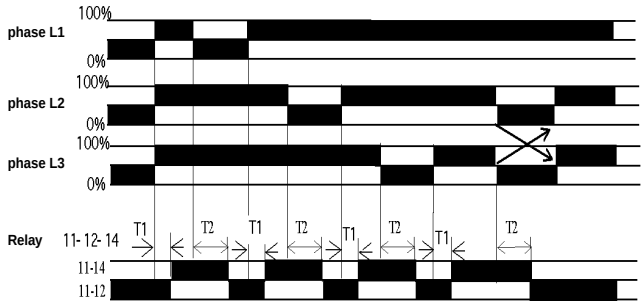


Operating principle

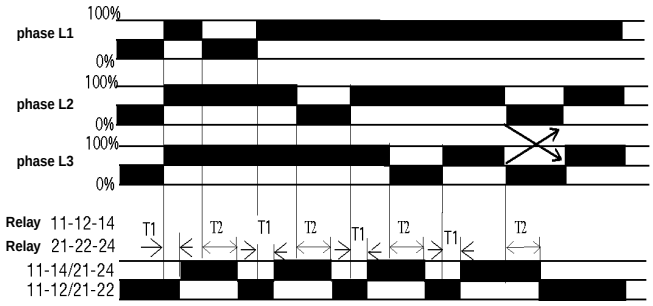
EWS/EWS2 relays monitor the correct sequencing of phases L1, L2 and L3 as well as the loss of one of these phases.
When the phase sequence is correct, the output relay is energised, indicated by a yellow LED.
The relay de-energises (LED off) if one of the following faults occurs:
Incorrect sequence of phases at terminals L1, L2 and L3
Total loss of one phase or all three phases (loss of phase detection threshold < 50 VAC)

Timing diagrams

EWS



EWS2



For connections, see page 3/30
For dimensions, see page 3/36

Technical specifications

	EWS 1 changeover	EWS2 2 changeovers
Part numbers		
	84 892 299	**84 873 004**
Input		
Operating range	3 AC 230...440 V.	
Supply voltage range	200...500 V	
Frequency	50 / 60 Hz +/-1 Hz	
Maximum consumption	25 VA	
Output		
Output relay	no Cadmium	
Nominal current	8 A.	
Maximum breaking voltage	250 VAC / 440 VAC.	
Nominal breaking capacity	2000 VA.	
Minimum breaking current	10 mA / 5V.	
Electrical life	AC12: 10^5 operations at 8A/250 VAC.	
Maximum rate	360 operations/hour at full load.	
Mechanical life	2 x 10^7 operations	
Pick-up delay T1	< 200 ms.	
Turn-off delay T2	< 300 ms in the event of phase failure.	
Other characteristics		
Insulation coordination	Overvoltage category III, degree of pollution 3	
Terminal capacity :	2x2.5mm² without ferrule 2x1.5mm² with ferrule 1x4mm² without ferrule	
Maximum tightening torque :	1 Nm (screw M3 / IEC 947-1).	
Operating temperature	-20 °C to + 50 °C.	
Storage temperature	-30 °C to + 70 °C	
Casing materia:	Self-extinguishing	
Protection	terminal block : IP20 - casing : IP40	
Dielectric strength	2.5 KV / 1 mn / 1 mA / 50 Hz (IEC 255.5)	
Weight	100 g	

1

3

To order, specify :

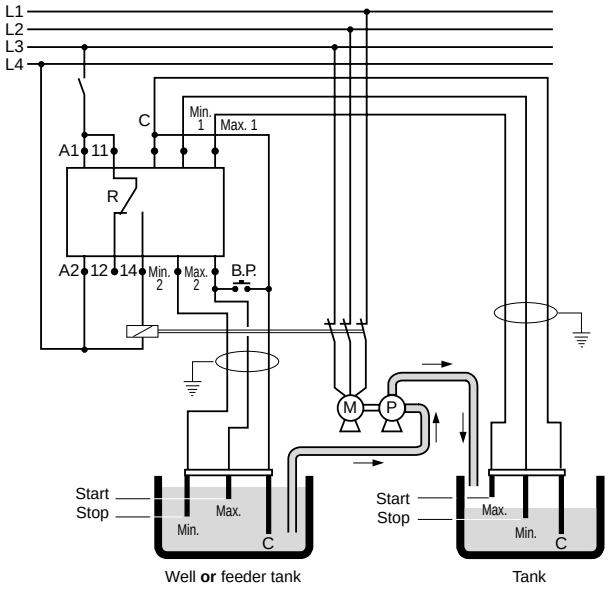
Standard products 1 Part number

Example : Self-powered phase asymmetry control relay - EWS - 84 892 299

Crouzet

Wiring diagrams and applications

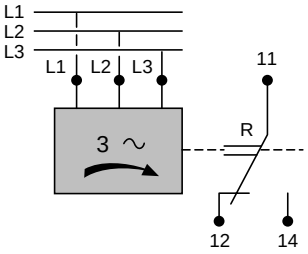
F2N



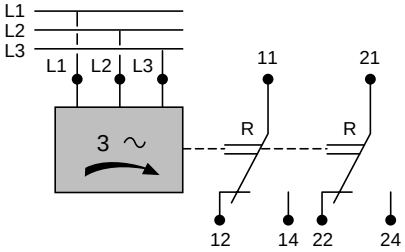
Use of terminals

A1 - A2 : Supply voltage
11 - 12 - 14 : Output relay (R)
C - Min1 - Max1 : Tank probe inputs
C - Min2 - Max2 : Well or feeder tank probe inputs

EWS

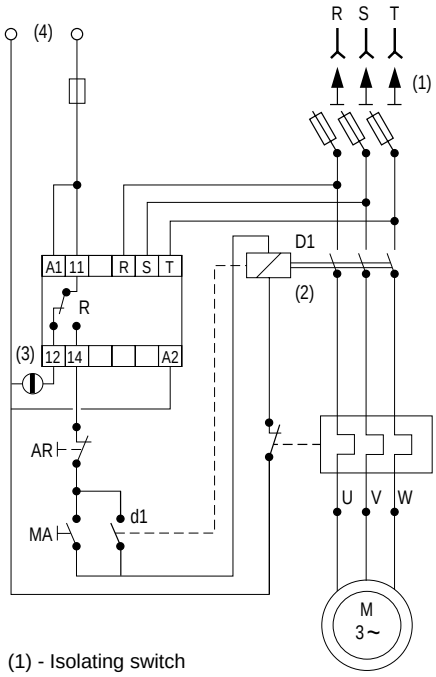


EWS2

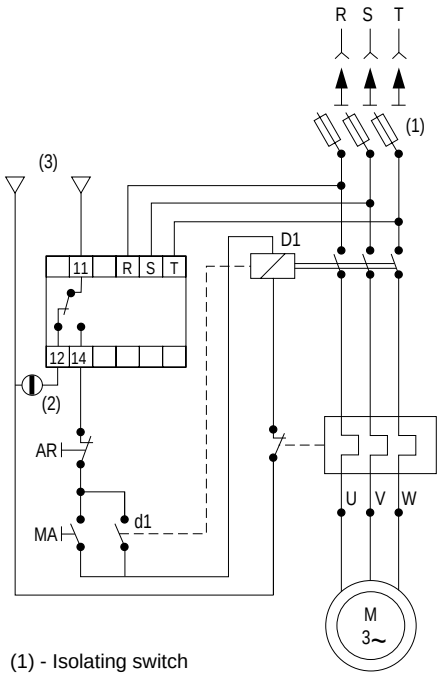


EWS / FW / FWA

Monitoring of three-phase motor.
Manual re-engage after disappearance of the fault.

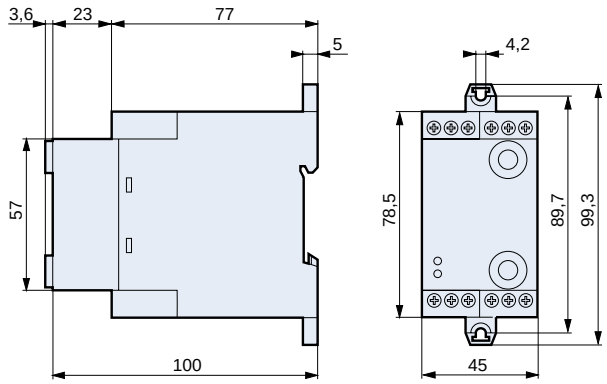


(1) - Isolating switch
(2) - Contactor
(3) - Alarm
(4) - Auxiliary power supply

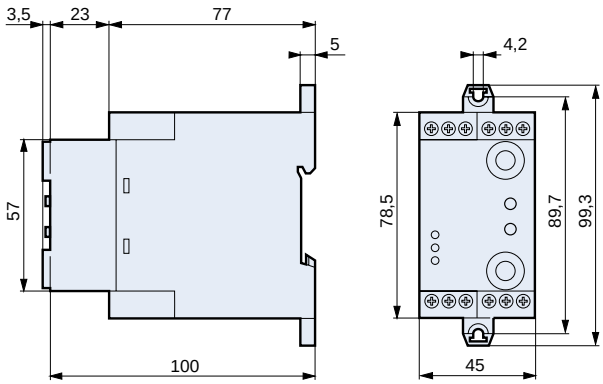


(1) - Isolating switch
D1 - Contactor
(2) - Alarm
(3) - Auxiliary power supply for contactor coil and signalling

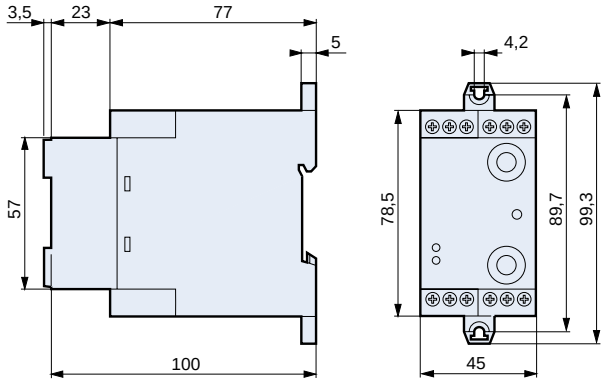
FWA - F3US / F3USN



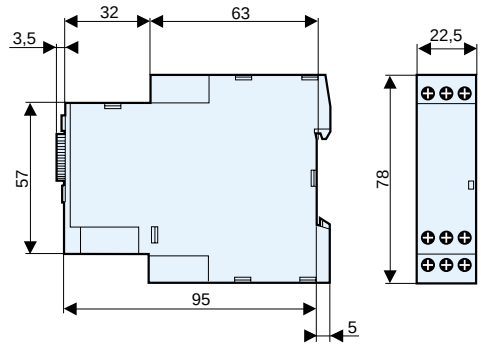
FFP



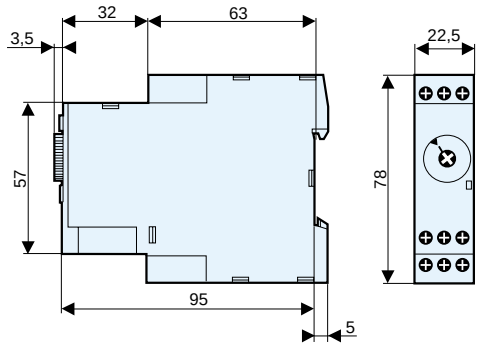
FRL



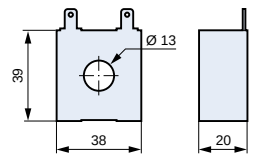
EWS / EWS2 / EW2



EWA2



Accessory



Transformer
part number 26 852 304