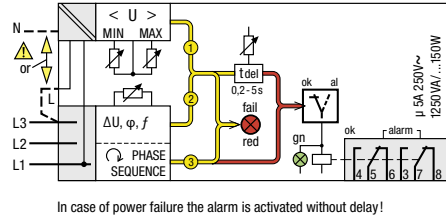


Type: SSU34/... V

Monitoring relay for under / over voltage, phase sequence, phase loss, phase angle, frequency, asymmetry. Star or delta operation. 2 change over alarm contacts 6 A 250V

Monitoring function



The SSU34 (50Hz) provide comprehensive monitoring of three-phase mains supplies with or without neutral.

The following mains faults are monitored:

Error signal ① U (V_{Δ} , V_{λ}):

Exceeding or dropping below the set voltage values U_{min}/U_{max} for L1-N or L1-L3,L (no differential voltage, phase position or frequency fault).

Error signal ② ΔU , $\Delta\phi$, Δf :

One or more of the three voltages, phase positions, or the mains frequency are diverging from the required value. Depending on the nature of their occurrence Δ -errors are evaluated cumulatively.

Error signal ③:

Connection polarity reversal (wrong phase-sequence). Any error is signalled by the red LED "fail" and is reported after expiry of the set alarm-delay time (for error signal ③ undelayed) via 5-6 and 7-8.

In the correct status (ok) the green LED is illuminated (5-6 and 7-8 open, 5-4 and 7-3 closed).

Measuring circuit data

Nominal mains voltage	100 V	400 V	500 V
Under voltage adj. range [V] ¹⁾	40 ... 55	160 ... 225	200 ... 280
Over voltage adj. range [V] ¹⁾	61 ... 70	235 ... 275	300 ... 350
Δ voltage adj. range [V] ²⁾	5 ... 25	20 ... 100	20 ... 100
$\Delta\phi$ adjustment range [°] ²⁾	3 ... 15	3 ... 15	3 ... 15
Δf adjustment range [Hz] ²⁾	3 ... 15	3 ... 15	3 ... 15

¹⁾ L - N ²⁾ adjustment with the same rotary knob

Time data

Alarm delay adjustment range	0.2 ... 5 s
Reset time	100 ... 400 ms

Contacts

Type / material	2 CO, micro disconnection / AgNi
Rated operational current	5 A
Max. inrush current (20 ms)	15 A
Max. AC switching voltage AC-1	250 V
Max. AC load AC-1 (Fig.1)	1250 VA
Max. DC load 30 V / 250 V DC-1	150 W / 60 W
Recommended min. contact load	10 mA / 12 V

Power supply data

Nominal mains voltage	100 V	400 V	500 V
Operating voltage range [V] ¹⁾	35 ... 70	140 ... 285	180 ... 360
Power consumption [W]	≤ 1.5	≤ 1.5	≤ 1.5
Input current [mA]	150	30	25
Frequency [Hz]	50	50	50

Insulation

Test voltage between contacts and supply	3 kVrms 1 minute (basic insulation)
--	-------------------------------------

General specifications

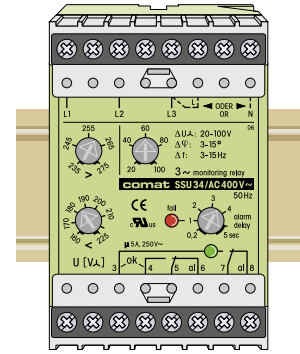
Ambient temperature storage /operation	-40 ... +85 °C/-10 ... +60 °C
Mechanical life of contacts	30 x 10 ⁶ operations
Ingress protection degree	Housing: IP 40, terminals: IP 20
Max. screw torque	0.5 Nm
Housing material / Weight	Lexan / 350 g

Standard types

50 Hz, AC 100, 400, 500

"..." enter the voltage for full type designation

SSU34/AC...V



Connection diagram

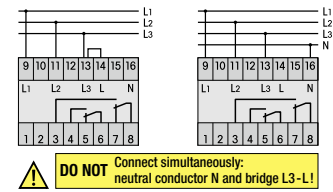


Fig. 1 AC electrical endurance

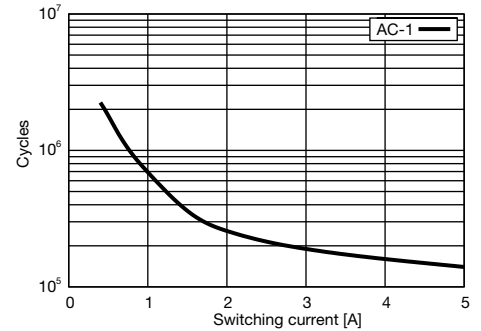
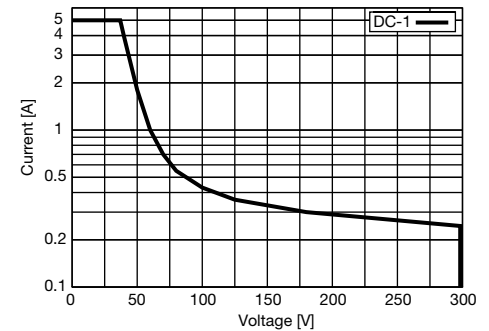
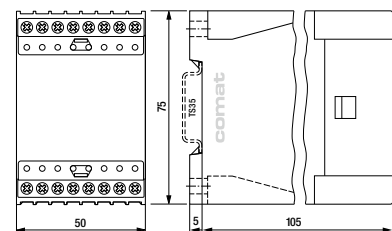


Fig. 2 DC load limit curve



Dimensions [mm]



Technical approvals, conformities

EN 60947

