

Voltage – Frequency Guard SFW-7 protective function according to DIN V VDE V 0126-1-1



The SFW-7 is a device for the monitoring of a three-phase mains system on frequency, voltage and vector surge (vector jump). The configuration of all settings is done conveniently by use of our parameterisation software 'device manager'. Values, but not texts, alternatively can be entered directly at the device. The input to the device can be protected by use of a PIN.

The measurement can be done either with or without neutral conductor. A separate frequency measuring is available for each of the 3 phases. The detection of vector surge can be assigned to a single phase or all phases. The triggering values are stored and the last 38 triggering events may be retrieved from the device at least. Due to a special internal wiring of the terminals, the loss of the neutral conductor can be detected in a 3-wire + N – system. A separate variant of the SFW-7 is available for measuring voltages ≤ 100 V.

The SFW-7 combines the approved SFW-6 technology with the modern ways of microcontrollers and PC database technology. The output of display-texts takes place in 2 languages, default is German and English. Switching between the two languages is possible at any time during operation via DIL-S3 or one of the digital inputs. Additional languages, suitable to the customers requirements, can be configured and made available, by means of the device management.

The monitoring of nominal voltage and frequency in accordance to DIN V VDE 0126-1-1 can be enabled by the corresponding parameter setting (requires firmware version V1.04 and later).

Technical Data

Auxiliary Voltage

24V DC (18 ... 36 V)
optionally 230V AC / 12 V DC

Power Consumption

approx. 4 W at 24 V DC,
approx. 6 VA at 230 V AC

Digital Inputs

LowActive
(Contact Voltage 12 V DC, 5 mA,
opto-decoupled),
cables no longer than 3 m

Relay Outputs

230 V / 50 Hz / 2 A (potential-free)

Analogue Outputs

0 ... 10 V DC +/- 0.05 V max. 10,5 V

Measuring Range

approx. 50 up to 230 / 400 V AC,
tolerance < 0,5 % of full scale
(270 / 480 V AC)

Frequency Measurement

35.0 Hz up to 65.0 Hz
about approx. 60 V L-N +/- 0.05 Hz

Ambient Temperature

-20 ... 55 °C

Housing Dimensions

W / H / D 100 x 75 x 110 mm
DIN top-hat rail mounting 35 mm

Ordering Information:

SFW-7 / 400 V / 24V DC:	E2085
SFW-7 / 400 V / 230V AC:	E2086
SFW-7 / 100 V / 24V DC:	E1573
SFW-7 / 100 V / 230V AC:	E1574