

AC VOLTAGE FREQUENCY CONVERTER FOR GRID DISTRIBUTION SYSTEMS

- industrial frequency measurement
- auxiliary power supply: 230V 50Hz or 24V DC
- nominal frequencies: 50 or 60 Hz
- input-to-output-to-power supply isolation: 4000Vr.m.s.
- input signal range: within 20 to 120% of rated input
- conversion accuracy: < 0.5%
- compact design
- designed for DIN 35 rail mounting

The converter has been designed to convert the frequency of an input voltage into a unified DC voltage or current. After the input voltage is shaped and its period compared with that of a precision single-shot trigger circuit, the output voltage is smoother out. It is fed via an isolating optocoupler into the output amplifier. Both the input and the output circuit are overload-protected.

This converter can be used for handling inputs whose waveforms are distorted. An analog filter is inserted into the converter input securing the converter response being limited to the fundamental frequency only.



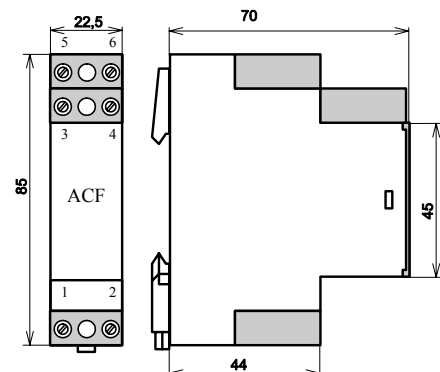
Electrical specifications:

- operating temperature range: -25...+80°C
- storage temperature range: -40...+80°C
- supply voltage: 24V DC \pm 30%
230V \pm 15%, 50 - 60Hz, max. 2VA
other options (80..300V DC, 60..250V AC) by arrangement
- protection: resettable thermal cut-out in primary circuit
- rated inputs: 57.7V, 100V, 110V, 220V, 230V
380V, 400V, 500V AC
- voltage input current load: 0.5mA
- voltage input overload capacity: 2 Unom – 1s
- standard measuring range: 45..55Hz
48..52Hz
55..65Hz
58..62Hz
other ranges by arrangement
- output: 4-20mA, 0-20mA, 0-10V, \pm 10V,
 \pm 5mA, \pm 20mA
typically 28mA (electronic cut-out)
- output current limit: 15 / Iout (ohm)
- current output maximum load: 10mA
- voltage output maximum load: linear
- transfer function: < 0.5%
- transfer function maximum error: < 0.02%/°C
- temperature induced error: 4000Vr.m.s.
- test voltage: 300ms
- output signal settling time: 120g
- weight: 120g
- enclosure: casing: IP40
terminal board: IP10

Type tests:

- Standard type test: to ČSN EN 60688
EMC: to ČSN EN 61326-1
Safety: assessed acc. to ČSN EN 61010-1

Dimension sketch:



Terminal designation:

- 1, 2 ... input voltage to be measured
- 3, 4 ... output terminals (4 is +)
- 5, 6... power supply terminals, polarity insensitive

Ordering instructions:

- Your order should include:
- converter type
 - supply voltage
 - rated input voltage
 - measuring range (frequency)
 - output range
 - quantity (No. of pieces)