Synchroniser – Relay SYN-7

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, 5 mA,
opto-decoupled), accord. to DIN

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

Analogue Outputs
0/2 ... 10 V +/- 0.05 V max. 10,5 V

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

Frequency Measurement
35.0 Hz up to 65.0 Hz
about approx. 50 V L-N +/- 0.05 Hz

Leading Time
adjustable 50 ... 500 ms

Adjustment Pulses
adjustable 0.1 s up to 100 s

Max. Frequency Difference
adjustable 0.1 ... 1.0 Hz

Max. Voltage Difference
adjustable 1 ... 15 %

Climatic Conditions
acc. to DIN EN 60204-1 (05-2010)

Ambient Temperature
operation: -20 ... +55 °C
transport / storage: -25 ... +55 °C

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

The synchroniser relay SYN-7 adjusts voltage and frequency of a generator to the mains, in order to connect it at a minimum difference of frequency and voltage, and at the same phase position. Depending on its configuration, the SYN-7 is monitoring sense of rotation, voltage difference and asymmetry. Voltage measurement is done as 2-, 3- or 4- wire measurement, according to the preset parameterisation. The frequency measurement generally is on L1 and L2. In island mode, the desired frequency and voltage are internally set by the device. A separate variant of the SYN-7 is available for measuring voltages <= 100 V.

Ordering Information:

SYN-7 / 230V AC :	E1348
SYN-7 / 24V DC :	E1349
SYN-7 / 100V / 230V AC :	E1650
SYN-7 / 100V / 24V DC :	E1651

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