Product Description

Synchronizing Check Relay DSP300

Application

The Synchronizing Check Relay DSP300 is used for the manual synchronization of an aggregate with the network of an electricity supply company or as an additional safeguard for the synchronization process. The unit assesses the mains voltages applied and switches on the output relay SY if both systems are in phase. The control Phi adjusts the phase difference between both systems within which the relay is operated. 20° means that the relay switches on if there is a phase difference of less than 20° between the two systems.

The electronic evaluation logic ensures that clearance can only take place during a certain defined period. Operation stops if the adjustable voltage difference dU between both networks is exceeded by 2-10%. Efficient filters in the inputs ensure secure zero crossing recognition even in the case of seriously disturbed networks. Optionally, the DSP300 can be connected to 231V or 400V networks.

Technical Data

Type
Synchronizing Check Relay DSP300

Material of housing
Bayblend FR 1439/0240 modified ABS with burning protection UL 94 VO

Rated voltage generator
231V (L1-N) or 400V (L-L) for generator and mains, other values on request

Rated frequency
50 Hz (60 Hz on request)

Phase Setting
5°-20° between Generator and Mains

Voltage Difference
2%-10% between Generator and Mains

Repeat accuracy
+/-.0,5% (0-60°C)

Power consumption
2,5 VA from generator voltage

Contact ratings
3A/250VAC, 3A/30VDC, 0.03 Ohms, 1.5 switchings

Isolating voltage
2000V (coil-contact), 1000V (open contact)

Connecting terminals
Potentialfree, for wire connections up to 2.5 mm²

Type of protection
Housing IP 40, Terminals IP 20 (VDE 0106T100/VBG4)

Ambient temperatures
-10°C bis +55°C, 95% Hum

Mains isolating acc. to
EN 60 742 (save transformers)

General regulations
EN 50 178 (electrical units in power current installation)

Radio interference
EN 55 022/B

EMV acc. to
EN 61000 und EN V 50 140

Maintenance
None
Safety note:
When installing the unit or taking it into operation, please check for correct assignment of the mains and generator voltage terminals. The wrong polarity can cause considerable damage to equipment and injury to persons.

Note: This unit is not suitable as a replacement for an automatic synchronizing device as it does not meet the requirements for leading time, differential frequency and other characteristics.