Module and Application Description

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Application

Module 89NG15 – E/R0100 generates, from an input voltage of +24 V the two output voltages +15 V and −15 V at a power output of 37.5 W each. It is intended to be installed on a sub-rack of the turbine control system.

PROCONTROL P
Modules of the Turbine Control System

DC/DC Converter Module
24 V/+15 V/−15 V

89NG15 – E/R0100

Features

The upper connector is not wired. All module connections are established via the bottom plug-type connector.

The two output voltages have a common zero point, but are isolated from the input voltage.

Annunciation function

Both output voltages of the module are monitored and are indicated on the front by light-emitting diodes. A general signal for both voltages (0-signal = disturbance) is lead to the connector of the module. This floating contact can either be supplied via two soldering jumpers or by an external voltage (see "Jumper setting").
Function diagram

Terminal designations

The module consists of a printed-circuit board (see "Mechanical design"). The printed-circuit board is provided with connectors X11 and X21. All input and output signals are connected to X21; X11 is not used.
Mechanical design

Board size: 6 units, 1 division, 160 mm deep
Connector: to DIN 41 612
  1 x unwired 96–pole edge connector, type C (connector X11)
  1 x for inputs/outputs 48–pole edge connector, type F (connector X21)
Weight: approx. 0.35 kg

Contact assignments of connector X21

View of the contact side:

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View of module front and module side
Technical data

In addition to the system data, the following values apply:

**Input values**

Input voltage 19.5 ... 30 V
Input current at full load 4.3 A

**Output values**

Output voltages +15 V and −15 V, ±2 %
Output current per voltage max. 2.5 A
Insulation voltage, input/output 500 V AC, 700 V DC
Supply of disturbance signal +24 V, ±20 %
Output voltage MSP: no disturbance > 12 V, Ia max. 7.5 mA
Output voltage MSP: disturbance < 3 V, Ia max. −20 mA
Power dissipation approx. 20 W
Mains buffering none

**ORDERING DATA**

Type designation: 89NG15–E/R0100
Order number: GKWN000312R0100

Technical data subject to change without notice!

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