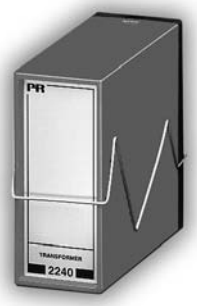
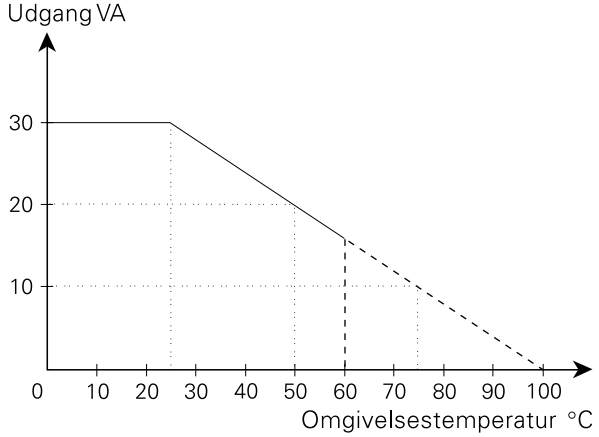


2240 Трансформатор 30 Ватт

Руководство по эксплуатации

BELASTNINGSSKEMA FOR MAX. EFFEKTUDGANG:



TRANSFORMER

Type 2240

CONTENTS

WARNING!

GENERAL

This module is designed for connection to hazardous electric voltages. Ignoring this warning can result in severe personal injury or mechanical damage.
To avoid the risk of electric shock and fire, the safety instructions of this manual must be observed and the guidelines followed. The electrical specifications must not be exceeded, and the module must only be applied as described in the following.
Prior to the commissioning of the module, this manual must be examined carefully.
Only qualified personnel (technicians) should install this module. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

WARNING!

HAZARD-OUS VOLTAGE

Until the module is fixed, do not connect hazardous voltages to the module. The following operations should only be carried out on a disconnected module and under ESD safe conditions:

- Dismantlement of the module for setting of DIP-switches and jumpers.
- General mounting, connection and disconnection of wires.
- Troubleshooting the module.

Repair of the module and replacement of circuit breakers must be done by PR electronics A/S only.

WARNING!

INSTAL-LATION

To keep the safety distances, modules with two built-in relays must not be connected to both hazardous and non-hazardous voltages on the same module's relay contacts.
SYSTEM 2200 must be mounted in socket type S3B Releco (order no 7023).

SYMBOL IDENTIFICATION

Triangle with an exclamation mark: Warning / demand. Potentially lethal situations.

The CE mark proves the compliance of the module with the requirements of the directives.

The double insulation symbol shows that the module is protected by double or reinforced insulation.

SAFETY INSTRUCTIONS

DEFINITIONS:
Hazardous voltages have been defined as the ranges: 75 to 1500 Volt DC, and 50 to 1000 Volt AC.
Technicians are qualified persons educated or trained to mount, operate, and also troubleshoot technically correct and in accordance with safety regulations.
Operators, being familiar with the contents of this manual, adjust and operate the knobs or potentiometers during normal operation.

RECEIPT AND UNPACKING:
Unpack the module without damaging it and make sure that the manual always follows the module and is always available. The packing should always follow the module until this has been permanently mounted.
Check at the receipt of the module whether the type corresponds to the one ordered.

ENVIRONMENT:
Avoid direct sunlight, dust, high temperatures, mechanical vibrations and shock, as well as rain and heavy moisture. If necessary, heating in excess of the stated limits for ambient temperatures should be avoided by way of ventilation.
All modules fall under Installation Category II, Pollution Degree 1, and Insulation Class II.

MOUNTING:
Only technicians who are familiar with the technical terms, warnings, and instructions in the manual and who are able to follow these should connect the module.
Should there be any doubt as to the correct handling of the module, please contact your local distributor or, alternatively,

PR electronics A/S

Mounting and connection of the module should comply with national legislation for mounting of electric materials, i.e. wire cross section, protective fuse, and location. Descriptions of Input / Output and supply connections are shown in the block diagram and side label.

The following apply to fixed hazardous voltages-connected modules:
The max. size of the protective fuse is 10 A and, together with a power switch, it should be easily accessible and close to the module. The power switch should be marked with a label telling it will switch off the voltage to the module.

CALIBRATION AND ADJUSTMENT:
During calibration and adjustment, the measuring and connection of external voltages must be carried out according to the specifications of this manual. The technician must use tools and instruments that are safe to use.

NORMAL OPERATION:
Operators are only allowed to adjust and operate modules that are safely fixed in panels, etc., thus avoiding the danger of personal injury and damage. This means there is no electrical shock hazard, and the module is easily accessible.

CLEANING:
When disconnected, the module may be cleaned with a cloth moistened with distilled water.

LIABILITY:
To the extent the instructions in this manual are not strictly observed, the customer cannot advance a demand against PR electronics A/S that would otherwise exist according to the concluded sales agreement.

DECLARATION OF CONFORMITY

As manufacturer

PR electronics A/S

hereby declares that the following product:

Type: 2240

Name: Transformer

is in conformity with the following directives and standards:

The EMC Directive 2004/108/EC and later amendments

EN 61326-1

For specification of the acceptable EMC performance level, refer to the electrical specifications for the module.

The Low Voltage Directive 2006/95/EC and later amendments

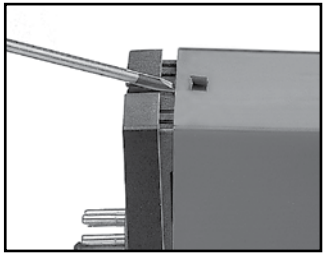
EN 61010-1

The CE mark for compliance with the Low Voltage directive was affixed in the year: **1997**

Kim Rasmussen
Manufacturer's signature

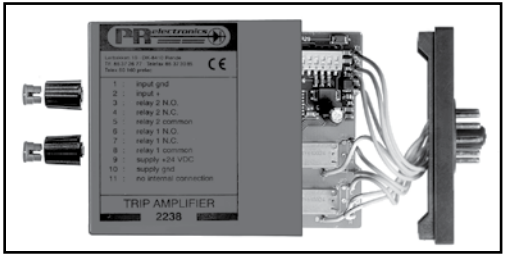
HOW TO DISMANTLE SYSTEM 2200

The back panel of the module is detached from the housing by way of a screwdriver as shown in picture 1.
On a module with knobs, these may have to be removed before the PCB can be taken out as shown in picture 2.
After this, the back panel can be pulled out together with the PCB, but please notice the position of the PCB as there is a number of different positions in the house. Do not pull the wires unnecessarily, instead pull the PCB, see picture 3.
Switches and jumpers can now be moved.
When assembling the back plate and housing, please make sure no wires are stuck.



Picture 1: Dismantlement of back plate and housing

Picture 2: Removal of knobs



Picture 3: Removal of PCBs for adjustment of DIP-switches and replacement of jumpers.

TRANSFORMER 2240

- Double-isolated transformer
- 3.75 kVAC isolation voltage
- 30 VA ring core transformer
- Thermal overload protection
- 12 or 24 VAC secondary voltage
- Standard 11-pole relay socket

APPLICATIONS:
Transformer for supply of components with 12 or 24 VAC supply voltage.
Transformer for stabilised DC power supplies, e.g. type 2229.

TECHNICAL CHARACTERISTICS:
Ring core transformer with separate 3.75 kVAC isolation voltage between primary and secondary windings. The transformer is fitted with a thermal 100°C fuse. Two transformers may be paralleled for higher output power. The transformer is molded into the cassette and should be mounted with 10 mm distance to the adjacent cassette for optimal cooling.
The load diagram shows the relation between the ambient temperature and maximum VA output. The module is supplied with a retention clip for a safe attachment to the relay socket.

MOUNTING:
The 2240 is for standard 11-pole socket mounting in all positions. To achieve maximum cooling of the module, mounting in a vertical position at a distance of 10 mm between neighbouring units is recommended.

INPUT:
Standard primary voltages of 115 or 230 VAC. Special primary voltages may be delivered, but are not kept in stock.

OUTPUT:
Standard secondary voltages of 12 or 24 VAC. Max DC power after rectification and stabilisation: 20 W. Special secondary voltages may be delivered, but are not kept in stock.

ELECTRICAL SPECIFICATIONS:

Specifications range:
-20°C to +60°C

Common specifications:

Isolation, test / operation	3.75 kVAC / 250 VAC
Power derating	$T_{amb.}$ > 25°C, 0.4 VA/°C
EMC immunity influence	< ±0.5% of span
Relative air humidity	< 95% RH (non-cond.)
Dimensions (HxWxD)	80.5 x 35.5 x 84.5 mm
Protection degree	IP50
Weight	600 g

Input:

Primary voltage	207...253 VAC
	97.75...132.25 VAC
Frequency	50...60 Hz

Output:

Secondary voltage (loaded)	24 VAC / 1.25 A
Secondary voltage (unloaded)	28 VAC
Secondary voltage (loaded)	12 VAC / 2.50 A
Secondary voltage (unloaded)	14 VAC

GOST R approval:
VNIIM

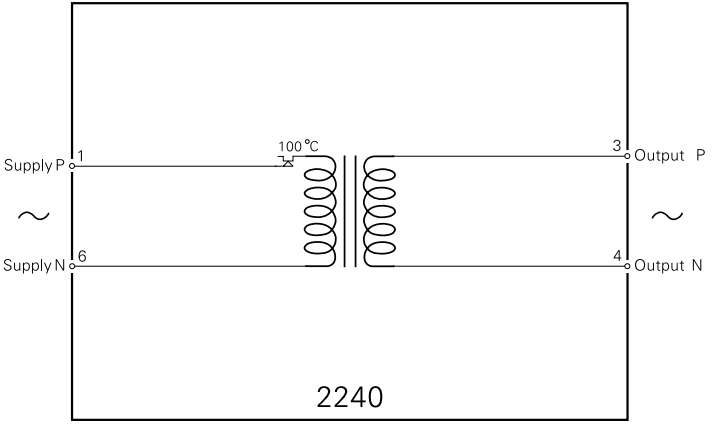
Observed authority requirements:	**Standard:**
EMC 2004/108/EC	EN 61326-1
LVD 2006/95/EC	EN 61010-1
PELV/SELV	IEC 364-4-41 and EN 60742

Of span = Of the presently selected range

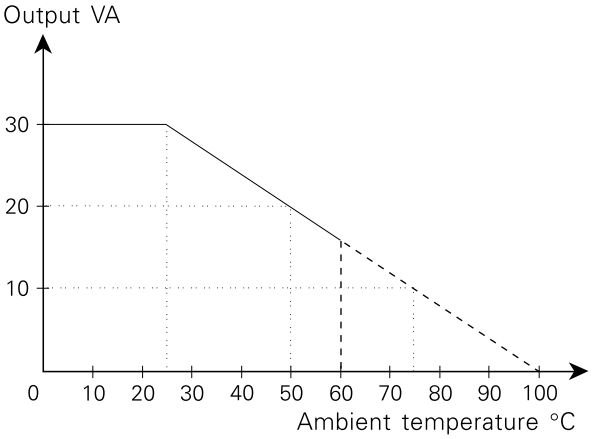
ORDER:

Type	Input		Output	
2240	115 VAC	: A	Special	: 0
	230 VAC	: B	24 VAC	: 1
	Special	: X	12 VAC	: 2

BLOCK DIAGRAM:



LOAD DIAGRAM FOR MAX. POWER OUTPUT



По вопросам продажи и поддержки обращайтесь:

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