



KONČAR

Končar - Electronics and Informatics Inc.

Rectifier type KONIS-T 220

The rectifier type KONIS-T is a three-phase thyristor rectifier intended for the uninterruptible supply of industrial electric power facilities with constant voltage of 220 VDC as well as for charging and maintaining of the stationary batteries

RECTIFIERS MAIN FEATURES ARE:

High power supply reliability

High efficiency

Minimal maintenance of the unit

Easy and intuitive overview of measurements, signals from the system and chronological list of events

Chronological list of events with up to 4000 entries and 1 ms time resolution

Automatic periodical testing of battery circuit integrity and capacity testing

Easy access to measurements, alarms, and chronological events list from the remote service centre

Earth-fault supervision

Natural air cooling

Wide adaptation possibilities to every facility



Rectifier type KONIS-T 220 V, 200 A



The user interface of the control unit

Rectifier type KONIS-T 220 has been designed as a simple source of stable DC voltage, and it can be also applied as a vital component of uninterruptible power supply systems for specific DC power consumers whose reliable operation is of particular significance. Except for supplying of the load, rectifier also provides automatic battery charging and keeps batteries fully charged with precise DC voltage without ripple.

Rectifier's main circuit consists of a robust and very reliable three-phase thyristor bridge for full wave rectification of mains voltage. Three-phase input transformer enables galvanic isolation and mains voltage adjustment.

The output filter reduces the output ripple voltage according to batteries and load requirements.

Rectifiers cooling is done by natural air flow, which, by avoiding fans further increases its reliability and availability.

Modern microprocessor control unit KONLOG supervises the operation of the rectifier.

It enables real time supervision, parametering, accurate diagnosis, measuring and signalling, both locally and remotely, as well as communication with the station computer, remote service or dispatch centre.

Besides maintaining ideal output voltage for supplying of the load and for battery charging, rectifier also measures battery voltage, current and capacity, protects the battery from high / low charging voltage, protects the battery against deep discharge, signals increased temperature, etc.

Rectifier additionally monitors the output supply voltage for the connected load and signals deviation from declared limits. It particularly monitors the insulation level of positive and negative poles to the ground and signals the earth faults. It also detects the occurrence of a short circuit and activation of the circuit breakers.

TECHNICAL DATA

	100 A	160 A	200 A	400 A	600 A
Input					
Voltage	400 VAC + 10 %, - 15 %				
Nominal frequency	50/60 Hz				
Permitted frequency deviation	± 5 %				
Current, nominal	50 A	80 A	100 A	200 A	300 A
Output					
Nominal voltage	220 V				
Static tolerance	± 1%				
Adjustable output voltage range	198 to 255 V				
Voltage ripple (RMS)	< 1 %				
Charging characteristic	IU according to DIN41773				
Voltage compensation	according to battery temperature				
Nominal current	100 A	160 A	200 A	400 A	600 A
Adjustable current limit	from 0,5 to 1 In				
Efficiency	≥ 0.93	≥ 0.94	≥ 0.94	≥ 0.95	≥ 0.96
Battery					
Type	lead acid, VRLA, maintenance free (also possible: open vent or NiCd batteries)				
Nominal block voltage (lead acid battery)	2, 4, 6 or 12 V				
Charging and float voltage	constant voltage, boost charging, automatic charging				
Battery protection from	short circuits, deep discharging and high charging voltage				
General data					
Remote communication	MODBUS protocol via RS485 or optical interface option: protocol IEC 60870-5-104 via ethernet interface				
Cooling	naturally by air				
Ambient temperature	0 to + 40 °C				
Storage temperature	- 20 to + 70 °C				
Relative humidity, non condensing	up to 90 %				
Compliance with standards	IEC 60950, IEC 60529, IEC 60146				
Protection (mechanical)	IP 20				
Color	grey, RAL 7035				
Dimensions:					
▪ Width	800 mm	1000 mm	1000 mm	1200 mm	1800 mm
▪ Depth	600 mm	600 mm	600 mm	800 mm	800 mm
▪ Height	2100 mm	2100 mm	2100 mm	2100 mm	2100 mm
Weight	650 kg	750 kg	800 kg	1200 kg	1600 kg



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