CATHODIC PROTECTION

CE

BTH-50V20A (PFC)
Automatic Cathodic Protection Rectifier

High Efficiency POWER FACTOR CORRECTED CP Rectifier with Built-in GPS Interrupter and MODBUS Scada

BTH-50V20A (PFC) is a DSP controlled, fully programmable, high efficiency cathodic protection rectifier designed to keep up with the severe conditions faced in harsh working environment, equipped with all the nesceesary protective components and functions to protect itself under extreme conditions such as overcurrent and overheat or surges coming from any cable connection.

BTH-50V20A (PFC) has a high efficiency insulating step down transformer with an efficiency of greater than %90 and is designed to witstand an overload condition of %125 contiuously.

BTH-50V20A (PFC) Power Module consists of a Low output ripple High efficiency step down DC to DC converter operating at 50 KHz. High switching frequency allows fast output control and line voltage compensation. Utilisation of a DC to DC converter provides an overal efficiency of greater than %85.

The System is able to diagnose and report critical conditions such as Anode, Cathode or Referance electrode cable brakes and also logs the error codes with time stamp for future analyses (-420 model).

It's unique feature of being able to **synchronize multiple rectifiers through GPS satellites** (optional) makes it possible to conduct pipeline diagnostic works without using expensive external interrupters.

FORZE

İvedik OSB. 1468.cad. No:60 Yenimahalle/ANKARA
+90 312 386 04 04 / +90 312 386 04 02
info@4zelektronik.com www.4zelektronik.com / www.forze.com.tr
/4zelektronik

CATHODIC PROTECTION

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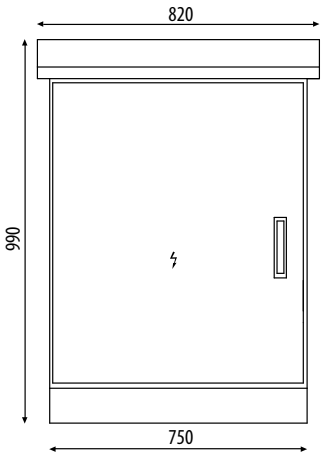
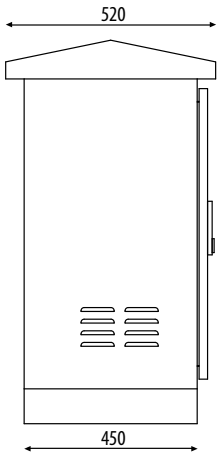
Reliable power topology,
precise output control
and lower input current

Technical Specifications

Input Voltage	230V 50/60 Hz (±%20) 1 Ph
Input Current	5,5A
Power Factor	>0,99
Output Voltage	0,25 – 50V DC
Output Current	0 – 20A DC
Output Fuse	32A Semiconductor Fuse
Short Circuit Protection	Electronic
Thermal Protection	90°C ± 5°C (Heat Sink Temperature)
Efficiency	>%85
Operating Temperature Range	-30, +60°C
Output Voltage Meter	0 - 81,92V DC (±%1 +0.25V)
Output Current Meter	0-25.5A DC (±%1 +0.1A)
Pipe to Soil Voltmeter	±10V DC (±%1 +20mV)
IP Protection	IP54
Dimensions	820 x 990 x 520 mm
Panel Material	3mm Hot Dip Galvanised TS EN ISO 1461
Power Control Method	High Frequency DC-DC Converter with MOSFET switch
High Voltage Protection	Protection over all inputs and outputs
Operating Modes	• Automatic, Adjustable Voltage Limit • Automatic, Adjustable Current limit • Manual, Constant Current, Interrupted • Manual, Constant Current, Continuous • Manual, Constant Voltage, Interrupted • Manual, Constant Voltage, Continuous
Interrupted Mode of Operation	
On Time Adjustment Range	0.1 – 99.9s (0.1 sec resolution)
Off Time Adjustment Range	0.1 – 99.9s (0.1 sec resolution)
Reference Electrode	1 true differential isolated input
İnput Voltage Range	±10V DC (±%1 +20mV)
Filtering	50-60Hz Notch Filter allows unaffected DC measurements with superimposed AC voltages up to 13V
SCADA Output 1	RS485-MODBUS RTU (Standard)
SCADA Output 2	3 Channels 4-20mA Self Powered • Anode - Cathode Current • Anode - Cathode Voltage • Reference Electrode Voltage
Contact Outputs	4 Pcs Dry Contact Outputs
	• Automatic / Manual Operation • Interrupted / Continuous Operation • Faulty / Healthy • Power On / Off
Warranty	2 years (componensts and workmanship)
Parts and Service Warranty	10 Years
Compliance	CE, EN 61204-3, EN61000-4-2, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN55011, EN61000-3-2, EN61000-3-3
Weight	120 kg

All measurement devices are integrated with user interface in system.
All measurements can be seen on LCD display.





* Please note that all products, product specifications and data presented in this datasheet or web site are believed to be free of errors and subject to change without prior notification for continued improvement. It is the users responsibility to ensure the suitability of the product for a specific application.

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