

TITANIUM ECO 1R-CH RACK SERIES

DC POWER SUPPLY SYSTEMS

single branch Rectifier - IGBT type



TITANIUM ECO 1R-CH RACK rectifier series belongs to the Single Branch category thus provided with a single AC/DC converter that powers the direct current loads and simultaneously charges a battery. Rackmount 19" execution and combined with vented/sealed Lead Acid and Ni/Cd batteries. An input insulation transformer is present while the AC / DC power converter is of the removable type and made with Chopper IGBT technology, step down, in order to improve the efficiency and contain the ripple at the output. In this way the MTBF is high and MTTR extremely low.

APPLICATIONS

- Oil & Gas
- Energy production and distribution
- Process controls
- Transportation
- Safety
- Telecommunications
- Tertiary

PRODUCT PLUS

- An input insulation transformer at mains frequency, with an electrostatic shield (supply separately)
- IGBT Power converter
- Control type: High Frequency PWM
- Digital control Microprocessor
- Charge curve for each type of battery
- Digital control panel with backlit alphanumeric display
- High efficiency and reliability
- Extended frequency range accepted as input
- Low residual ripple as output and on batteries (RIPPLE)
- Automatic and manual battery test (performing a true discharge battery test) (OPTIONAL)
- Earth fault sensor with POLE+ and POLE- LED indications (OPTIONAL)
- Field Bus communication available with various protocols (OPTIONAL)
- **Forced cooling (according to the temperature)**



DATA SHEET

MODEL		TITANIUM ECO 1R-CH RACK		
GENERAL	BATTERY TYPE	SUITABLE FOR SEALED (VRLA) LEAD ACID - VENTED LEAD ACID - NI/CD		
	CHARGING CHARACTERISTICS	IU (ACCORDING TO DIN 41773)		
OUTPUT	NOMINAL VOLTAGE (V)	24	48	110
	CURRENT RANGE	10 ÷ 60A		
	MAXIMUM POWER (W)	1720	3456	7920
	RIPPLE NOISE (RMS)	≤ 0.5% Vn		
	Vout SETTING RANGE	+/- 5%		
	STABILITY	+/- 1%		
	Vin VARIATION SETTING	+/- 1%		
	LOAD VARIATION SETTING	+/- 1%		
	START-UP TIME	2 sec.		
INPUT	VOLTAGE RANGE	1PH 230Vac+/- 10% or 3PH 400Vac+/- 10%		
	INPUT FREQUENCY	50 ÷ 60 +/-7%		
	EFFICIENCY (Typ.)	≥ 90 %		
	I/O INSULATION	4KV BY TRANSFORMER		
PROTECTIONS	OVERLOAD	"2In x 5mS Shut down per 250mS - restart aut."		
	CURRENT CURVE	COSTANTE		
	OVERVOLTAGE	+ 10% Vn		
	UNDERVOLTAGE	- 50% Vn		
	OVERTEMPERATURE	SHUT DOWN; Automatic restart after temperature reset		
SPDT ALARMS 5A/230Vac	MAINS OK *			
	GENERAL FAULT *			
	LOW VOLTAGE BATTERY			
ENVIRONMENTAL DATA	OPERATING TEMPERATURE	-10+40°C		
	OPERATING HUMIDITY	2090% (NO COND.)		
	STORAGE TEMPERATURE	-20+50°C		
STANDARDS	MARKING	CE		
	DEGREE OF PROTECTION	IEC 60529		
	EMC	EN 61000-6-2 EN 61000-6-4		
	STATIC CONVERTERS	EN 60146-1-2		
DIMENSIONS (LxHxP)mm		RACK 19" 5U 482x221x458		
DEGREE OF PROTECTION		IP20		
COLOUR		RAL 7035		
WEIGHT		15 Kg		

* = Relay normally operating in positive safety

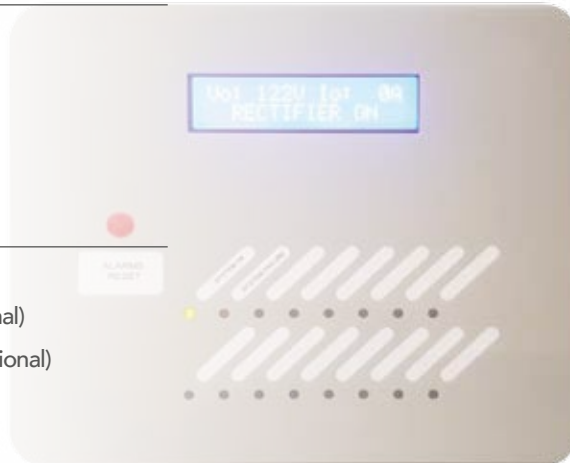
** = handles excluded

LED INDICATORS

SYSTEM OK
SYSTEM FAILURE

STATUS MESSAGE

RECTIFIER ON
BOOST CHARGE ON (Optional)
MANUAL CHARGE ON (Optional)
OUTPUT OVERLOAD
BATTERY MODE
LOW VOLT. BATT.
END BATT. AUT.
VOUT RECT. MAX

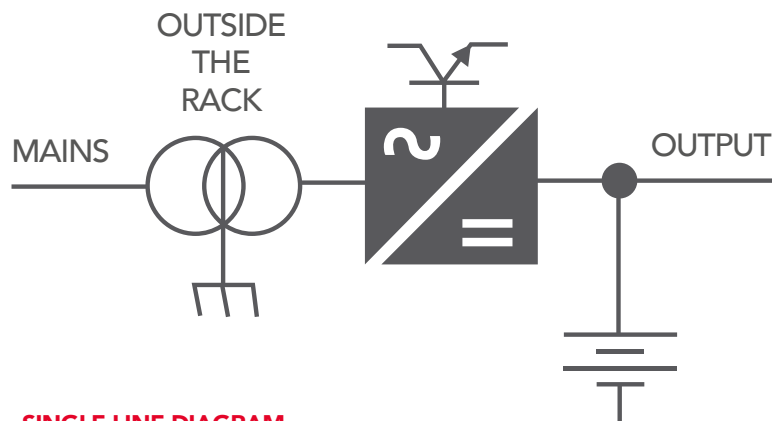


ELECTRICAL MEASURES ON LCD

OUTPUT VOLTAGE
OUTPUT CURRENT

MULTIPURPOSE BUTTON

BUZZER OFF



SINGLE-LINE DIAGRAM

AVAILABLE ACCESSORIES (OPTIONAL)

- uP card for function: AUT/MAN BATTERY TEST
- uP card for function: BOOST & MANUAL CHARGE
- uP card for function: TEMPERATURE COMPENSATION
- External Temp. Probe (3mt. cables max)
- uP card for function: DC EARTHED PROBE (with polarity discrimination +/-)
- END DISCHARGE POWER CONTACTOR



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