AEG

POWER
SOLUTIONS

PROTECT 8 R

Industrial digitally controlled thyristor charger and power solution

Protect 8 R is a rectifier and charger designed for non clean office environments combining robustness with high availability. The rectifier has been developed integrating decades of experience (HW components, cabinet design) and is based on the technology platform of the Protect 8 UPS range which has a proven track record for securing power for critical applications. Protect 8 R converts the mains alternating voltage into high-quality direct voltage with battery charge and monitoring controls. An Isolating transformer at the input decouples the DC load and increases immunity against failure. The full digital control architecture of the system includes intelligent SW features which fuurther secures the critical load supply from any possible disruption.

Typical applications

- Power generation
- Oil & Gas
- Petrochemical and Chemical
- Transportation and Signaling

FEATURES

- Potential free output voltage
- Isolation input transformer
- Earth fault monitoring (optional)
- Display operating unit for unit control, battery adjustment and monitoring signaling
- Low voltage ripple to prolong battery life time
- Intelligent battery charge and monitoring control
- Self-overload monitoring
- Single or common battery configuration
- Remote monitoring control system with programmable signaling
- Communication – options RS232, RS485 / Ethernet, Profibus DP, Modbus RTU, Modbus TCP and much more
- Redundant fan control with monitoring
- Parallel operation up to 8 units

BENEFITS

- **High availability** thanks to proven thyristor technology in combination with digital control
- **Simple adaption** to any type of requirement thanks to its building block design
- **Provides secured DC power** to critical loads with high availability over a large DC voltage and power range
- **Compatible with multiple battery types** with a wide range of configurations possible
- **Can be used as a direct power supply** without batteries in parallel or as a stand-alone unit
- **Flexible adjustment of parameters** thanks to full digital control
- **Wide range of variants** are made possible by the building block concept

Specifications

INPUT	
Nominal voltage (V)	3 phase: 380 / 400 / 415 VAC
Input voltage	3 x 400 V ± 10 % (+15 % - 20 % functional)
Input frequency range	50 Hz / 60 Hz ± 10 %
Power factor	0.8
Inrush current	< 10 In
OUTPUT	
Available ratings	See rating table
Nominal DC voltage (V)	24, 60, 108, 216 VDC
Nominal output	24 VDC; 400 – 2500 A 60 VDC; 200 – 630 A 108 VDC; 100 – 630 A 216 VDC; 100 – 1250 A
Static regulation	± 0.5 %
Voltage ripple	≤ 5 % (peak – peak) without battery
Charge characteristic	IU according DIN 41772
BATTERY	
Type	Vented lead acid, Sealed lead acid, Nickel Cadmium, (Li-Ion upon request)
Autonomy	From a few minutes to several hours as required
GENERAL	
Degree of protection	IP 20 (other upon request) according to standard EN60529/IEC 529
Input cabling	Front bottom access
Color	RAL 7035
Dimensions (H x W x D)	All ratings with 1810 mm high and 860 mm deep, see rating table
Operating temperature	From 0 °C to 40 °C (without derating)
Storage temperature	From -25 °C to 70 °C
Reality humidity	< 95 % non-condensing at 20 °C
Humidity in operation	20 % – 90 % (without condensing)
Storage humidity	15 % – 90 % (without condensing)
Operating altitude	Up to 1000 m above sea level at nominal load
Cooling	Forced air cooling with redundant and monitored fans
STANDARDS	
Safety	IEC 60146
EMC	IEC 61000-6-2 IEC 61000-6-4
Performance	IEC 60146
Environment	RoHS (2011/65/EU) WEEE (2012/19/EU)

RATING TABLE

NOMINAL OUTPUT VOLTAGE (VDC)		24		60		108		216	
		Stack	Width [mm]	Stack	Width [mm]	Stack	Width [mm]	Stack	Width [mm]
Nominal output current (A)	100	-	-	-	-	6 or filter	600	6 or filter	600
	200	-	-	6 or filter	600	6 or filter	600	6 or filter	600
	400	6 or 12 pulse	900	6 or 12 pulse	900	6 or 12 pulse	900	6 or 12 pulse	900
	630	6 or 12 pulse	900	6 or 12 pulse	900	6 or 12 pulse	900	6 or 12 pulse	900
	1250	12 pulse	1800	-	-	12 pulse	2000	12 pulse	2000
	2500*	12 pulse	2500	-	-	-	-	-	-

* upon request

AEG Power Solutions

Approach your local AEG Power Solutions representative for further support. Contact details can be found on: www.aegps.com