EMHP Series

EMHP - 20kW to 90kW, up to 3000A

The EMHP series of power supplies is the highest power line of DC regulated high power units available in the range of 20-90 kW. Based on a regulated SCR phase control topology the EMHP series is ideally suited to applications where raw bulk power is required in a robust reliable package.

All models are fully programmable sources of constant voltage and or constant current with automatic crossover and fully metered.

In an SCR phase-controlled DC Power Supply, output is controlled by modulating the conduction angle of the controlling SCRs.

The EMHP Series, input ac is applied to pairs of bi-directionally connected SCRs placed within the primary circuit of this transformer is rectified and L/C filtered to provide a low ripple DC output. Both output voltage and current are sensed and compared against internal references or externally applied control levels so the supply provides either constant voltage or constant current regulation with automatic crossover depending on control level. Additional circuitry provides bias levels, circuit protection and metering functions.

Specification

AC Input
440/480 VAC, three phase 60 Hz - optional inputs available
Softstart AC inrush

Output Characteristics
Regulation: 0.1%
Stability: 0.05%
Operating temperature: 0-50 deg C, derate above 50 deg C

Protection Features
Overvoltage
Overtemperature
OverCurrent

Programming
Front panel controls and remote analog resistance, voltage and current programming (standard);
0-5V and 0-10V optional)
RS232 and IEEE-488 (optional)

Options
Overvoltage protection
Casters or I beam base
Analog or digital meters
Digital programming interface

Mechanical
Size 1: 30" H x 22 1/4" W x 27 3/4" D, 500-750 lbs. (227-341 kg)
Size 2: 34 5/8" H x 27 1/2" W x 29 1/4" D, 750-900 lbs. (341-409 kg)
Size 3: 44 1/2" H x 27 1/2" W x 33 1/4" D, 1000-1500 lbs. (454-682 kg)
Size 3.5: 44 1/2" H x 27 1/2" W x 39" D, 1500 lbs. (682 kg)

Standard Model Listing

Model	Output Voltage (Volts)	Output Current (Amps)	Output Ripple (mV) RMS	Model	Output Voltage (Volts)	Output Current (Amps)	Output Ripple (mV) RMS
Size 1 (20 kW Maximum)				Size 3 (60 kW Maximum)			
EMHP 10-1000	0-10	0-1000	50	EMHP 10-3000	0-10	0-3000	50
EMHP 20-750	0-20	0-750	60	EMHP 20-1500	0-20	0-1500	60
EMHP 30-600	0-30	0-600	70	EMHP 20-2500	0-20	0-2500	60
EMHP 40-450	0-40	0-450	80	EMHP 30-1250	0-30	0-1250	70
EMHP 40-500	0-40	0-500	80	EMHP 30-1800	0-30	0-1800	70
EMHP 60-300	0-60	0-300	100	EMHP 40-1000	0-40	0-1000	80
EMHP 60-330	0-60	0-330	100	EMHP 40-1500	0-40	0-1500	80
EMHP 80-250	0-80	0-250	120	EMHP 60-750	0-60	0-750	100
EMHP 150-130	0-150	0-130	180	EMHP 60-1000	0-60	0-1000	100
EMHP 300-60	0-300	0-60	300	EMHP 80-600	0-80	0-600	120
EMHP 600-30	0-600	0-30	400	EMHP 80-750	0-80	0-750	120
				EMHP 150-350	0-150	0-350	180
				EMHP 150-400	0-150	0-400	180
				EMHP 300-200	0-300	0-200	300
				EMHP 600-100	0-600	0-100	400
Size 2 (30 kW Maximum)				Size 31/2 (90 kW Maximum)			
EMHP 10-1500	0-10	0-1500	50	EMHP 30-3000	0-30	0-3000	70
EMHP 20-1000	0-20	0-1000	60	EMHP 60-1500	0-60	0-1500	100
EMHP 20-1250	0-20	0-1250	60	EMHP 80-1125	0-80	0-1125	120
EMHP 30-800	0-30	0-800	70	EMHP 150-600	0-150	0-600	180
EMHP 30-950	0-30	0-950	70	EMHP 300-300	0-300	0-300	300
EMHP 40-600	0-40	0-600	80				
EMHP 40-750	0-40	0-750	80				
EMHP 60-500	0-60	0-500	100				
EMHP 80-375	0-80	0-375	120				
EMHP 150-200	0-150	0-200	180				
EMHP 300-100	0-300	0-100	300				
EMHP 600-50	0-600	0-50	400				