

EF 1 PPS Range



PROGRAMMABLE AC POWER SYSTEM

Effekta's all new EF1 series of Programmable AC Power Systems are compact in size and lightweight due to the use of the state-of-the art switch mode high frequency PWM technology. The EF 1 is supplied with input PFC providing a typical input power factor of 0.99 at full load allowing the EF 1 to be powered from almost any utility power outlet worldwide. The output AC is delivered in the voltage range of 135V AC or 270V AC, which is user selectable from the front panel.

The EF1 is provided with a 16x2 character VF display detailing output voltage, selected voltage range, current, frequency, power and mode of operation. The control of the output voltage and frequency is through a rotary encoder with push button switch. A separate output ON/OFF switch controls power to the load. The system is protected against over temperature, overload and short circuit.

The EF 1 PPS is available in three output power ratings of 500VA, 1500VA and 3000VA. However higher power models can be offered against specific requirements. The system is ideally suited for industrial product testing, power conversion, automatic test equipment, avionics and military applications for bench top or standard 19 inch rack mount applications.

FEATURES

- Compact size and light weight, standard 19" rack construction
- Step-less frequency setting from 45Hz to 450Hz
- Very low distortion sine wave output
- Output voltage range selectable 135V or 270V AC
- Galvanically isolated input/ output
- Independent on/off Switch for input and output
- 16x2 vacuum florescent display for parameter display
- Complete operation through push switches & a digital rotary encoder
- Automatic protection against overload, short circuit & over temperature
- Built in PFC to provide 0.99 input power factor and wide input range
- Conforms to EN55022, class A, safety standard EN60950

MODEL OPTIONS

Power Output

- 500VA
- 1500VA
- 3000VA

Optional Features

- Factory-fitted Rack Mounting Kit

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TECHNICAL DATA

EF1 PPS Range	500	1500	3000
INPUT			
Voltage	90V – 265V AC, single phase		185V – 264V AC, single phase
Frequency	47Hz to 63Hz		
Power Factor	0.99 typical @ full load		
Efficiency	85% typical		
AC OUTPUT			
Power	500VA (400W)	1500VA (1200W)	3000VA (2400W)
Voltage Range	0-135V rms AC or 0-270V rms AC selectable		
Resolution	0.1V		
Accuracy	1% of full scale		
Frequency	45Hz to 450Hz		
Accuracy	0.2% of full scale		
Resolution	0.01Hz		
Current – Maximum:			
a) at 0-135V Range	4.0 Amps	12.0 Amps	24.0 Amps
b) at 0-270V Range	2.0 Amps	6.0 Amps	12.0 Amps
Crest Factor	3: 1		
Distortion	<2% THD @ 220VAC, 50Hz		
Load Power Factor	0.8 Lag to 0.8 Lead		
Line Regulation	±0.1%		
Load Regulation	±1%		
PROTECTIONS			
Overload/Short-circuit	Output trip and indication		
Over Temperature	Output trip and indication		
Input Side	Fast acting fuse		
CONTROLS AND INDICATIONS			
Input Power ON/OFF	Rocker switch with indicator		
Read Out Display	Programmable: 2x16 character vacuum fluorescent display for output voltage, current, frequency, power, range & mode		
Voltage: Accuracy	±1% of full scale		
Resolution	0.1V		
Current: Accuracy	±1% of full scale		
Resolution	0.01A		
Power: Accuracy	±2% of full scale		
Resolution	1W		
Controls	Digital rotary encoder for voltage & frequency setting 5 push button switches for voltage, frequency, mode, range and output , ON/OFF selection		
Fault Alarm	Common LED alarm for fault conditions (over load and over temperature)		
Interface	RS232 as standard	RS485 or GPIB as optional.	0 – 5V isolated analog control for output voltage setting as an option.
Baud Rate	9600		
Command Protocol	SCPI compliant		
MECHANICAL & ENVIRONMENTAL			
Dimensions in mm	88H x 482.6W x 500D		132H x 482.6W x 520D
Weight in Kgs	20	23	35
Operating Temperature	0-45°C, peak 50°C		
Input Connection	Terminal block with safety cover or universal receptacle		
Output Connection	Universal socket		Terminal block with safety cover
Safety	EN60950		
EMC	EN55022 class A		

Note: Specifications are subject to change without notice. Specifications are warranted over an ambient temperature range of 25± 5°C, unless otherwise noted; specifications are for a sine wave with a resistive load and apply after a 15-minute warm-up period. The unit will operate with input voltage range of 90V–265V AC. However for continuous operation, the voltage required will be 100V and above.