2.5kW ESS - Embedded IEEE

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- **2U Package – CE Mark Standard**
- **Constant Voltage/Constant Current**
- **Programmable Switchmode Power Supplies**
- **Embedded RS232/IEEE**

FEATURES

- Digital meters standard
- Series or parallel operation
- Remote sense of voltage at load
- Isolated outputs
- Voltage & current pots are 10 turn
- "Zero Stacking" in mounting rack
- IEEE/RS232 is embedded in 2U package (CE Mark to 400VDC Output)
- Both analog and digital programming is functional on units with embedded IEEE (CE marked to 400 VDC output only)
- Remote voltage & current programming & monitoring is user selectable 0-5 V or 0-10 V

SPECIFICATIONS

Standard input voltage

230 VAC, single phase, 50/60 Hz
Softstart limits AC inrush

Output characteristics

Regulation: 0.1%
Stability: 0.05%
Transient response: 650 microseconds for 30% load change (models up to 20 VDC)
Operating temperature: 0-50°C full output, derate current above

Protective features

Adjustable Overvoltage (up to 300 VDC outputs)
OVP Inhibit & Slave Output
Overtemperature
Output terminal covers standard

Programming

Front panel controls and remote analog resistance, voltage and current programming (standard); 0-5 V and 0-10 V user selectable
Embedded RS232/IEEE488.2 (SCPI)

Mechanical
(all models 19" rack mount)

2.5 kW: 3.5 H (89mm), " 17.9D (447mm)(excluding connecting hardware), 30 lbs. (13 kg)

OUTPUT RATINGS			RIPPLE (mV) P-P CARRIER	MODEL NUMBER
WATTS	DC VOLTS	AMPS		
2500	0-7.5	0-300	75	ESS 7.5-300
2500	0-10	0-250	75	ESS 10-250
2500	0-20	0-125	75	ESS 20-125
2500	0-30	0-80	75	ESS 30-80
2500	0-40	0-60	75	ESS 40-60
2500	0-60	0-40	75	ESS 60-40
2500	0-80	0-30	100	ESS 80-30
2500	0-100	0-25	100	ESS 100-25
2500	0-150	0-16	120	ESS 150-16
2500	0-300	0-8	150	ESS 300-8
2500	0-400	0-6	200	ESS 400-6
2500	0-600	0-4	250	ESS 600-4

Typical ordering code

ESS 10-250-15-D-TC-IEEE-CE

UL & CE Safety Marks 5 YEAR WARRANTY

Programming Connections

The ESS-IEEE 2.5kW Series has many common programming connections with standard ESS 10 & 15kW.

In addition, the Standard “0806” and “0806-1” options are unnecessary because 0-5 V and 0-10 V program and monitor are user selectable (pins 1, 2, 6, 13 on J1).

J18 Pin	Description
1	POS Output +
2	Remote V Sense + (includes Voltmeter and IEEE)

J1 Pin	Description
1	V monitor select: open 5 volt monitor, connect to pin 8 for 10 volt meter
2	I monitor select: open 5 volt monitor, connect to pin 8 to 10 volt meter
3	1 mA source for external resistor Voltage programming
4	V Program: 0 to 5 (10) V controls output voltage from zero to max output
5	0 to 5V from front panel (indicates position of Voltage Pot)
6	V program select, open 0 to 5V, connect to pin 8 for 0 – 10V input
7	-V Rem, NEG output voltage sense used for remote sense
8	-V (From NEG output bus)
9	1 mA source for external resistor Current programming
10	I Program: 0 to 5 (10) V controls output current from zero to max output
11	0 to 5V from front panel (indicates position of Current Pot)
12	From internal shunt NEG side 0 to –100 mV (typ) current sense
13	I program select, open 0 to 5V, connect to pin 8 for 0 – 10V input
14	Remote Enable V in (Option: Enable supply output when 12-24 VDC or 24-48 VAC applied)
15	Interlock common (optocoupler low side of interlock, return connection point of internal or external V in, isolated DC source) Connects to pin 16
16	Internal remote interlock return (used as interlock switch, returns to pin 15)
17	OVP inhibit input (Gnd inhibits OVP; +12V fires OVP)
18	I program voltage (0-5 or 0-10V) being sent to slave (output of differential amplifier)
19	Voltage monitor, 0 to 5 (10) V as voltage goes 0 to max output
20	Current monitor, 0-5 (10)V as current goes 0 to max output
21	Ground reference for pins 19, 20. Tied to Pin 8 (output - of the power supply)
22	-Vin from Master (output negative of master power supply)
23	Slave current control input from Master
24	OVP m/s out to slave, +12V Signal indicates OVP has activated
25	+ Shunt (from internal shunt, POS side, connects to NEG output bus bar)