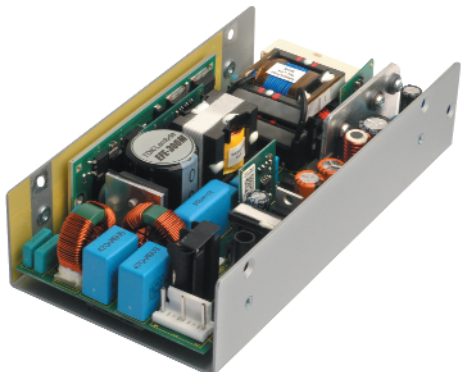


EFE300M Series



300W 3 x 6" Power Supplies

- ◆ Medical Safety Certifications (BF Rated)
- ◆ Fully Featured - including ORing Diode
- ◆ Universal Input (90 - 264VAC)
- ◆ 400W Peak Loading (10s)
- ◆ Suitable for 1U applications

RoHS

Key Market Segments & Applications

Medical
Instrumentation
Network servers and routers

Features and Benefits

Feature	Benefit
◆ Full Digital Control	◆ Improved product performance
◆ High Efficiency	◆ Less heat dissipated in system
◆ Low Profile	◆ Fits in 1U enclosures
◆ Reinforced Isolation (4kVAC input to output)	◆ Suitable for medical applications

Specifications

ITEMS		EFE300M
Input Voltage range	-	90 - 264VAC, 120 - 350VDC
Input Frequency	-	45 - 63Hz, 440Hz with reduced PFC
Inrush Current	A	<40A at 25C and 230VAC input, Cold Start
Power Factor Harmonics	-	EN61000-3-2 Compliant (0.97 typical)
Voltage Setting	-	Setting: -5% to +10% (Chosen at time of ordering), Accuracy: +/-1% at 50% Load
Total Regulation	-	< 4% with 90 - 264VAC input change and 0-100% load change
Ripple & Noise	mV	<1.5% pk-pk
Efficiency	-	90% typical
Overcurrent Protection	-	Automatic recovery upon overload removal
Overvoltage Protection	V	Cycle AC line to reset
Overtemperature Protection	-	Yes
Hold Up Time (Typ)	ms	>16ms at 90VAC input, 75% load
Leakage Current (max)	µA	123µA 120VAC 60Hz, 257µA 240VAC 60Hz, <300µA 264VAC 63Hz (Type Test results)
Fan Supply	-	12V 1A (Available if no fan option selected)
Standby Voltage	-	5V 2A or 12V 1A (chosen at time of ordering)
Remote Sense	-	None
Signals & Features	-	Remote on/off - Inhibit or Enable operation (chosen at time of ordering) Power Good - High indicates supply is good. ORing FET - Allows redundant connection of supplies
Operating Temperature (2)	-	0 to +70°C. Derate linearly to 50% load from 50°C to 70°C
Storage Temperature	-	-40 to +85°C
Humidity (non condensing)	-	5 - 95% RH
Cooling	-	Forced air, 2m/s from input to output (approximately 10CFM)
Isolation	-	Input to Ground 2.3kVDC, Input to Output 4kVAC, Output to Ground 1500VAC
Vibration (non operating)	-	2G, 10-500Hz (sweep & endurance at resonance) in all 3 planes. MIL-STD-810E, Method 516.5, Pro I, IV, V
Shock	-	30G per IEC68-2-27, MIL-STD-810E, Method 514.4, Pro I, Cat 1, 9
Safety Agency Approvals*	-	IEC60601-1, UL60950-1, CSA22.2 No 60950-1, EN60950-1, EN61010-1, IEC61010-1, CE for LVD
Immunity	-	EN61000-4-2, -3, -4, -5, -6, -8, -11, -12, -14
Conducted Emissions and Flicker	-	EN55011, EN55022 Class B (per CISPR.11/22), EN61000-3-3
Radiated Emissions	-	EN55011, EN55022 Class B (per CISPR.11/22)
Weight (open frame or enclosed)	g	405g or 635g
Size (Open frame style) (1)	mm	3 x 6 x 1.34"
Warranty	yrs	Three Years

(1) Including underside component leads

(2) -20°C cold start

EFE300M Series

Model Selector

Product Code	Part Description	Style	Output Voltage (V)	Output Current (A)	Average Output Power (W)	Peak Output Current (A)(3)	Peak Output Power (W)(3)
U5Y0031	EFE300M12-5-ECMDL-YT	With Fan	12	25.00	300	33.30	400
U5Y0020	EFE300M12-5-HNMDL-YT	Open Frame	12	25.00	300	33.30	400
U5Y0064	EFE300M24-5-ECMDL-YT	With Fan	24	12.50	300	16.70	400
U5Y0053	EFE300M24-5-HNMDL-YT	Open Frame	24	12.50	300	16.70	400
U5Y0166 ⁽⁴⁾	EFE300M-48-5-ECMDL-YT	With Fan	48	6.25	300	8.33	400
U5Y0201 ⁽⁴⁾	EFE300M-48-5-HNMDL-YT	Open Frame	48	6.25	300	8.33	400

(3) For up to 10s without exceeding Average Output Power rating

(4) Safety Agency certification pending

Options

Part Description Suffix	Standby "5" or "12"	L Bracket	Cover	Internal Fan	Enable or Inhibit "E" or "T"
-5-ECMDL-YT	5V 2A	Y	Y	Y	Inhibit
-5-HNMDL-YT	5V 2A	N	N	N	Inhibit

Outline Drawing

'L' CHANNEL

OPEN FRAME

PIN	CONNECTION
1	EARTH
2	NOT CONNECTED
3	LIVE
4	NOT CONNECTED
5	NEUTRAL

PIN	CONNECTION	PIN	CONNECTION
10	0V STANDBY	1	+V STANDBY
11	POWER GOOD	2	REMOTE ON/OFF
12	0V CH1	3	+V CH1
13	0V CH1	4	+V CH1
14	0V CH1	5	+V CH1
15	0V CH1	6	+V CH1
16	0V CH1	7	+V CH1
17	0V CH1	8	+V CH1
18	+12V FAN	9	N/C

MATING PARTS (MOLEX OR EQUIVALENT)

CONNECTOR	HOUSING	CRIMP PIN
J1	09-50-8051	08-52-0113
J2	39-01-2185	44476-3112

Other Lambda Industrial Products

EFE300-400	300 to 400W 1U single output power supply
NV Series	175 to 900W 1U power supply 1-6 outputs
ZPSA	40 to 60W 2 x 4" single output power supplies
ZWS/ZWSPAF	5 to 240W single output power supplies

For Additional Information, please visit us.tdk-lambda.com/lp/products/efe-series.htm