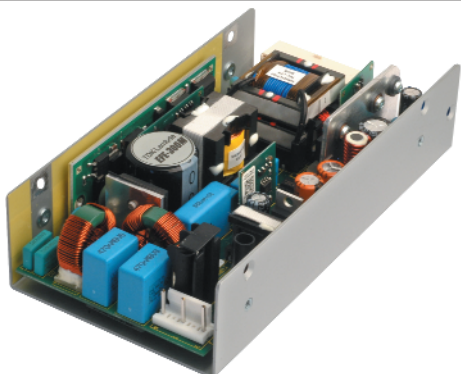


# EFE300M Series



## 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% peak-peak
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)	uA	123uA 120VAC 60Hz, 257uA 240VAC 60Hz, <300uA 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
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 CISPR11/.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

## Model Selector

Product Code	Part Description (Open Frame Version)	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	12	25	300	33.3	400
U5Y0020	EFE300M12-5-HNMDL-YT	12	25	300	33.3	400
U5Y0064	EFE300M24-5-ECMDL-YT	24	12.5	300	16.7	400
U5Y0053	EFE300M24-5-HNMDL-YT	24	12.5	300	16.7	400

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

## 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

**OPEN FRAME**

**'L' CHANNEL**

Dimensions: 152.4, 115.6, 18.4, 11.4, 76.2, 65.0, 5.6, 28.0, 3.4, 163.4 TYP 6 POSITIONS, 5.0, 19.5, 28.4, 115.6 TYP 6 POSITIONS,  $\phi 3.5$

**PIN CONNECTION**

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

**J2**

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

M3 CLEARANCE FIXINGS ACCESS FROM INTERIOR  
M3 FIXINGS ACCESS FROM EXTERIOR

## 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](http://us.tdk-lambda.com/lp/products/efe-series.htm)