

EFE300 & EFE400

300W / 400W, 3 x 5" / 3 x 6" Power Supplies



- ◆ High Efficiency
- ◆ Active Power Factor Correction
- ◆ Universal Input (90 - 265VAC)
- ◆ High peak loading capability
- ◆ Suitable for 1U applications

RoHS

Key Market Segments & Applications

Broadcast
 Test & Measurement
 Network servers and routers

Features and Benefits

Feature

- ◆ Full Digital Control
- ◆ High Efficiency
- ◆ Low Profile
- ◆ Power Factor Corrected

Benefit

- ◆ Improved product performance
- ◆ Less heat dissipated in system
- ◆ Fits in 1U enclosures
- ◆ Supports Global Use

Specifications

ITEMS		EFE300	EFE400
Input Voltage range		90 - 264VAC, 120 - 350VDC	
Input Frequency		47 - 63Hz, 440Hz with reduced PFC	
Inrush Current	(3) A	<20A	<30A
Power Factor Harmonics		EN61000-3-2 Compliant (0.97 typical)	
Voltage Setting Range		-5% to +10% (Chosen at time of ordering)	
Voltage Setting 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	
Minimum Load	A	None	
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)	mA	1.5mA at 264VAC, 63Hz	
Fan Supply		12V 0.25A (Available if no fan option selected)	
Remote Sense		None	
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 4.3kVDC, Output to Ground 200VDC	
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 1, Cat 1, 9.	
Safety Agency Approvals*	-	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 & 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	317g or 540g	405g or 635g
Size (Open frame style) (1)	mm	3 x 5 x 1.34"	3 x 6 x 1.34"
Warranty	yrs	Three Years	

(1) Including underside component leads

(2) -20°C cold start

(3) At 25°C, 230VAC and cold start

EFE300 & EFE400

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)
U2Y002G	EFE300-12-CNMD5	Open Frame	12	25.0	300	33.30	400
U2Y003H	EFE300-12-ECMDS	With Fan	12	25.0	300	33.30	400
U4Y002H	EFE400-12-CNMD5	Open Frame	12	33.3	400	44.17	530
U4Y003J	EFE400-12-ECMDS	With Fan	12	33.3	400	44.17	530
U2Y005K	EFE300-24-CNMD5	Open Frame	24	12.5	300	16.70	400
U2Y006L	EFE300-24-ECMDS	With Fan	24	12.5	300	16.70	400
U4Y005L	EFE400-24-CNMD5	Open Frame	24	16.7	400	22.08	530
U4Y006M	EFE400-24-ECMDS	With Fan	24	16.7	400	22.08	530

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

Options

Part Description Suffix	L Bracket	Cover	Internal Fan
-CNMDS	N	N	N
-CLMDS	Y	N	N
-CCMDS	Y	Y	N
-ECMDS	Y	Y	Y

Other Lambda Industrial Products

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

Outline Drawing (EFE300 & EFE400)

Dimensions for EFE300 and EFE400:

- Top width: 127.00/152.40 (EFE300/EFE400)
- Bottom width: 115.57/140.97 (EFE300/EFE400)
- Left side height: 76.20
- Right side height: 65.02
- Top offset: 5.72
- Right offset: 10.40
- Bottom offset: 5.59
- Bottom height: 34.00
- Bottom offset: 29.00
- Bottom offset: 3.40
- Mounting hole diameter: $\varnothing 4.05$

Connectors and Labels:

- J1: 5-pin connector (PIN 1, PIN 1)
- J2: 6-pin connector (BOTTOM ROW, TOP ROW)
- J3: 3-pin connector (PIN 1)

OPEN FRAME

J1 CONNECTION TABLE:

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

J2 CONNECTION TABLE:

J2 TOP ROW: 0V
 J2 BOTTOM ROW: +V

PIN	CONNECTION
1	0V
2	+V
3	TEMP CONTROL

J3 CONNECTION TABLE:

PIN	CONNECTION
1	0V
2	+V
3	TEMP CONTROL

MATING PARTS (MOLEX OR EQUIVALENT)

CONNECTOR	HOUSING	CRIMP PIN
J1	09-50-8051	08-52-0113
J2	(EFE300) 39-01-2105 (EFE400) 39-01-2145	44476-3112
J3	02201-3037	08-50-0032