

- High efficiency 89% @ 3.3V (SR topology)
- Save up to 40% board space
- Standard pin out; **Fully replaceable** with 2"x1.6" standard case
- 1500V **Basic Insulation** (input to output)
- **Built-in EMC filter** meets **EN 55022 class B** and **FCC Level B** without external components
- MTBF ≥ 1,989,000 hours @ 50°C GB (BellCore TR-332)

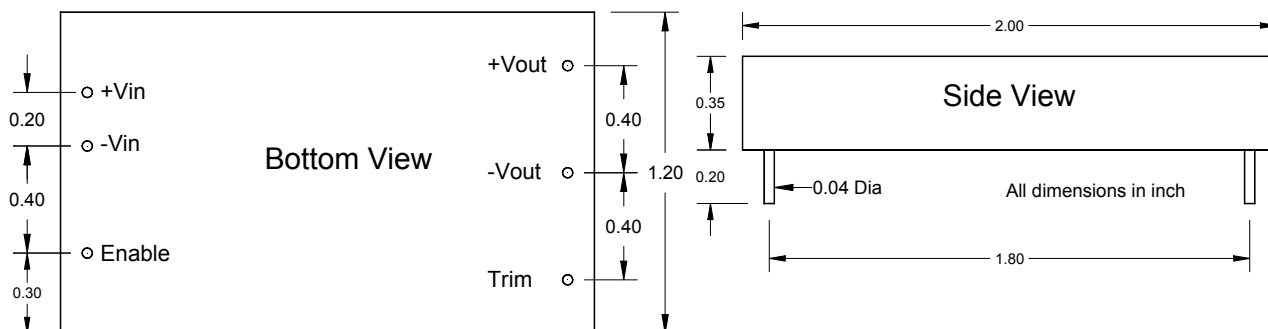


**Model Selection Guide**

Typical @ Ta=+25°C under nominal line voltage and full load conditions unless noted.

Model	Input				Output			Efficiency @FL
	Voltage (Volts)		Current (A)		Voltage (Volts)	Current (A)	Power (W)	
	Nominal	Range	No load	Full load				Typ.
ESC4850-7-X	48	36-75	0.05	0.82	5.0	7	35	89%
ESC4833-10-X	48	36-75	0.05	0.79	3.3	10	33	88%
ESC4825-10-X	48	36-75	0.05	0.6	2.5	10	25	87%
ESC4818-10-X	48	36-75	0.05	0.44	1.8	10	18	85%
ESC4815-10-X	48	36-75	0.05	0.37	1.5	10	15	84%
ESC2450-7-X	24	18-36	0.1	1.64	5.0	7	35	88%
ESC2433-10-X	24	18-36	0.1	1.56	3.3	10	33	87%
ESC2425-10-X	24	18-36	0.1	1.2	2.5	10	25	86%
ESC2418-10-X	24	18-36	0.1	0.88	1.8	10	18	85%
ESC2415-10-X	24	18-36	0.1	0.74	1.5	10	15	84%
ESC4850-6-X	48	36-75	0.05	0.69	5.0	6	30	90%
ESC4833-8-X	48	36-75	0.05	0.62	3.3	8	26.4	89%
ESC4825-8-X	48	36-75	0.05	0.48	2.5	8	20	87%
ESC4818-8-X	48	36-75	0.05	0.35	1.8	8	14.4	85%
ESC4815-8-X	48	36-75	0.05	0.30	1.5	8	12	84%
ESC2450-6-X	24	18-36	0.1	1.4	5.0	6	30	89%
ESC2433-8-X	24	18-36	0.1	1.25	3.3	8	26.4	88%
ESC2425-8-X	24	18-36	0.1	0.96	2.5	8	20	87%
ESC2418-8-X	24	18-36	0.1	0.71	1.8	8	14.4	85%
ESC2415-8-X	24	18-36	0.1	0.60	1.5	8	12	84%
ESC4850-5-X	48	36-75	0.05	0.59	5.0	5	25	88%
ESC4833-7-X	48	36-75	0.05	0.56	3.3	7	23.1	87%
ESC4825-7-X	48	36-75	0.05	0.43	2.5	7	17.5	86%
ESC2450-5-X	24	18-36	0.1	1.18	5.0	5	25	88%
ESC2433-7-X	24	18-36	0.1	1.11	3.3	7	23.1	87%
ESC2425-7-X	24	18-36	0.1	0.85	2.5	7	17.5	86%

Enable Polarity : "-1" for positive logic Built-In EMC Input Filter, "-P" for positive logic PI Input Filter  
"-0" for negative logic Built-In EMC Input Filter, "-N" for negative logic PI Input Filter



**Electrical Specifications**

Typical @ Ta=+25°C under nominal line voltage and full load conditions unless noted.

**Input**

Parameter	Notes and Conditions	Min.	Typ	Max.	Unit
Operating Input Voltage ranges	ESC24 models ESC48 models	18 36	24 48	36 75	VDC VDC
Under-Voltage Lockout Turn-ON Threshold	ESC24 models ESC48 models	17.5 35			VDC VDC
Under-Voltage Lockout Turn-OFF Threshold	ESC24 models ESC48 models			17 34	VDC VDC
Input Current	See model selection guide, Standby mode ( <b>OFF, UVLO</b> ) 5mA				
High Input Level	Enable Function Input	3		5.5	VDC
Low Input Level		0		1.2	VDC
Input Filter	All models	Built-in EMC Filter			

**Output**

Parameter	Notes and Conditions	Min.	Typ	Max.	Unit
Output Voltage Accuracy	50% Load			±1.5	%
Line Regulation	Low line to High line			±0.3	%
Load Regulation	10% to 100% load			±0.5	%
Ripple & Noise (20MHz bandwidth)	Over Line, Load & Temp.		50	100 30	mV pk-pk mV RMS
Temperature Coefficient				±0.04	% / °C
Transient Recovery Time	25% load step change			800	µSec.
Transient Peck Deviation	25% load step change			2	%Vo
Start-Up Time			50	100	mSec.
Output Power Protection		100	120	140	%

**General Specifications**

Parameter	Notes and Conditions	Min.	Typ	Max.	Unit
Switching Frequency		270	300	330	KHz
Storage Temperature range	All models	-55		125	°C
Operating Case Temperature	All models	-40		100	°C
Isolation Voltage	All models, 1 Minute			1500	VDC
Isolation Resistance	All models, 500VDC	10			MΩ
Isolation Capacitance	All models			3000	pF
Humidity	All models			95	%
Calculated <b>MTBF</b>	BellCore TR-332 @ 50°C G.B.		1,989,000		Hours
Weight				34(1.3)	g (oz.)
Efficiency	See model selection guide				
Dimensions	2.0" x 1.2" x 0.35" (50.8 x 30.5 x 8.9mm)				

**It is recommended to protect the input by fuses or other protection devices.**

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