

Features

- 4:1 Wide Input Range
- Operating Temperature Range: -40°C~105°C
- Approved to UKCA, CE, cURus, TUV
- Safety Standards to IEC/UL/EN62368-1
- Efficiency up to 88%
- EMC meets EN 55022 class B and FCC Level B
- Single & Dual output 5~24V DC



Ideal Power's 28ESBvvvvv-x-1IP-RS 20W Encapsulated DC/DC PCB Mount Power Supply Series are certified to UKCA, CE, cURus, TUV & EN 62368-1/IEC 62368-1/UL 62368-1 Standards and comply with the relevant Efficiency Regulations. These are primarily used in ITE, Audio & Video Industries and customised solutions are available upon request.

Models

Model Number	Input		Output			Efficiency Typ.(%)
	Voltage (V) Range	Current (A) Full load	Voltage (V)	Current (A)	Power (W)	
28ESB1850-4-1IP	9-36	1.26	5.0	4	20W	88
28ESB18120-S-1IP	9-36	1.25	12	1.6		85
28ESB18120-D-1IP	9-36	±0.63	±12	±0.8		85
28ESB18150-D-1IP	9-36	±0.63	±15	±0.65		86
28ESB24240-D-1IP	18-36	±0.46	±24	±0.4		87
28ESB3633-6-1IP	18-75	0.63	3.3	6		87
28ESB3650-4-1IP	18-75	0.63	5.0	4		88
28ESB36120-S-1IP	18-75	0.63	12	1.6		85
28ESB36150-S-1IP	18-75	0.63	15	1.3		86
28ESB36120-D-1IP	18-75	±0.31	±12	±0.8		85
28ESB36150-D-1IP	18-75	±0.31	±15	±0.65		86
28ESB48240-D-1IP	36-75	±0.23	±24	±0.4		87

Note: 24/30/48VDC output can be obtained by series connecting the corresponding dual outputs with floating the Comm-Pin.

Input Specifications

Parameter	Conditions	Min	Typ	Max	Unit
Operating Input Voltage ranges	28ESB18 models	9	18	36	
	28ESB24 models	18	24	36	
	28ESB36 models	18	36	75	
	28ESB48 models	36	48	75	
Under-Voltage Lockout Turn-ON Threshold	28ESB18 models	8.5	--	--	VDC
	28ESB24 models / 28ESB36 models	17.5	--	--	
	28ESB48 models	35	--	--	
Under-Voltage Lockout Turn-OFF Threshold	28ESB18 models	--	--	8	
	28ESB24 models / 28ESB36 models	--	--	17	
	28ESB48 models	--	--	34	
Input Current	See model selection guide,	--	--	--	
High Input Level	Enable Function Input	3	--	5.5	
Low Input Level		0	--	1.2	
Input Filter	All models		EMC Filter		

Output Specifications

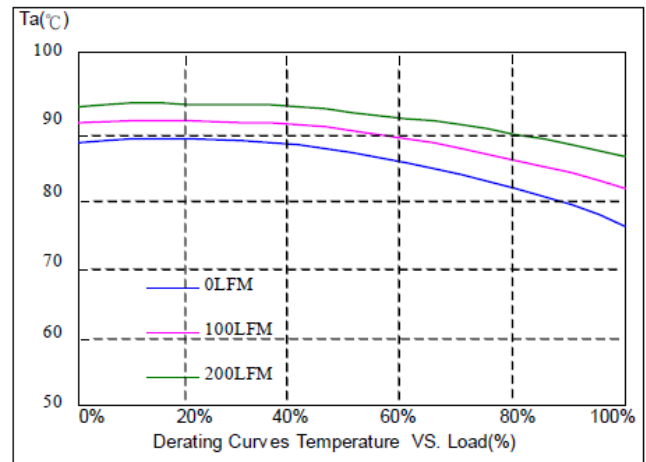
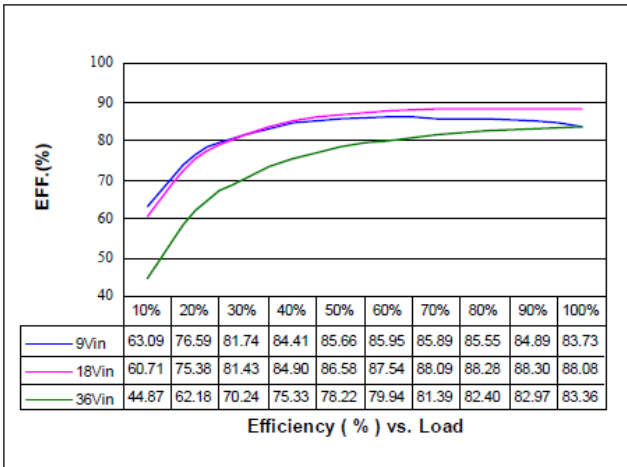
Parameter	Conditions	Min	Typ	Max	Unit
Output Voltage Accuracy	50% Load	--	--	±1.5	%
Line Regulation	Low Line to High Line	--	--	±0.3	
Load Regulation	10% to 100% Load	--	--	±0.5	
Ripple & Noise Voltage	Over Line, Load & Temp.	--	100	200 50	mVpk-pk mV RMS
Temperature Coefficient		--	--	±0.04	% / °C
Transient Recovery Time	25% load step change	--	--	800	µSec.
Transient Peak Deviation	25% load step change	--	--	2	%Vo
Start-Up Time		--	50	100	mSec.
Output Power Protection		100	120	140	%

General Specifications

Parameter	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	
Isolation Voltage	All models, 1 Minute	--	--	1500	VDC
Isolation Resistance	All models, 1500V DC	10	--	--	MΩ
Isolation Capacitance	All models	--	--	1000	pF
Humidity	All models	--	--	95	%
Calculated MTBF	BellCore-TR-332@ 50°C G.B		2,195,000		Hours
Weight			22(0.8)		g (oz.)
Efficiency	See model selection guide				
Dimensions	1.6" x 1.0" x 0.35" (40.6 x 25.4 x 8.9mm)				
Case Material	Aluminum				

Curves

28ESB1850-4-X



Mechanical Drawing

