



FSP018M Series

FEATURES

- Wide Input voltage range 85~264Vac
- High altitude 5000M operation
- Meet EN55011 \ FCC Class B
- High efficiency compliant with DOE Level VI and CoC EPS V5 Tier 2 requirements
 - * No load power consumption less than 0.075 W
 - * Average active efficiency greater than 85% @ 18W

SAFETY STANDARD APPROVAL



DESCRIPTION

This series of AC/DC wall mount switching power supplies can deliver 15watts or 18watts continuous output power. Product is with fixed North America AC plug or fixed European AC plug. High efficiency complies with Energy Star requirement. All models meet IEC60601-1-2 \ EN55011 and FCC class B emission limits.

INPUT SPECIFICATIONS

Input voltage:	85-264 VAC
Input frequency:	47-63 Hz
Input current:	0.1A(rms,240Vac) to 0.8A (rms,100 VAC) @100% Loading
Touch current:	100 μ A max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output voltage /current:	See rating chart.
Maximum output power:	See rating chart.
Ripple and noise:	1% peak to peak maximum(except 100 mVp-p max. for lower than output 10 V)
Protection:	Latch off
OVP	Auto-recovery
OCP & Shorted	Latch off
OTP	Latch off
Temperature coefficient:	$\pm 0.04\%$ / $^{\circ}$ C maximum
Transient response:	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 μ s after a 25% step load change

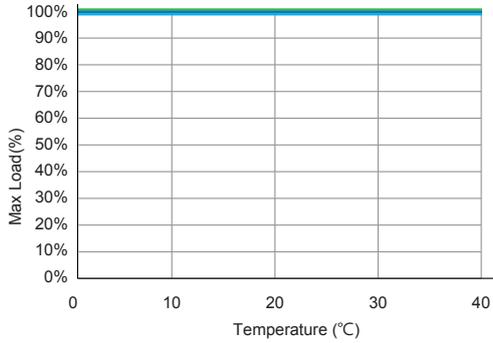
ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	0 $^{\circ}$ C to +40 $^{\circ}$ C
Storage temperature:	-20 $^{\circ}$ C to +80 $^{\circ}$ C
Relative humidity:	10% to 90% non-condensing

GENERAL SPECIFICATIONS

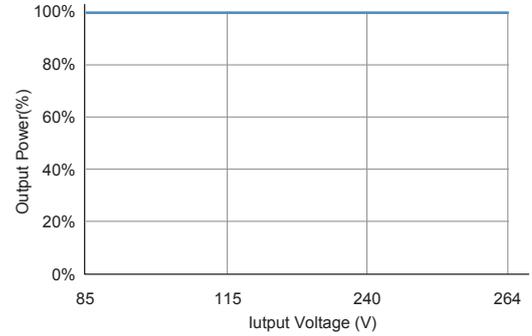
Hold-up time:	10 ms minimum at 115 VAC								
Turn on delay time:	2 s maximum at 115 VAC								
Efficiency:	<table border="1"> <thead> <tr> <th>Standard</th> <th>No Load</th> <th>Efficiency</th> </tr> </thead> <tbody> <tr> <td>DOE level VI</td> <td>< 0.1W</td> <td rowspan="2">87%@115Vac/230Vac</td> </tr> <tr> <td>CoC V5 Tier 2</td> <td>< 0.075W</td> </tr> </tbody> </table>	Standard	No Load	Efficiency	DOE level VI	< 0.1W	87%@115Vac/230Vac	CoC V5 Tier 2	< 0.075W
Standard	No Load	Efficiency							
DOE level VI	< 0.1W	87%@115Vac/230Vac							
CoC V5 Tier 2	< 0.075W								
Line regulation:	$\pm 0.5\%$ maximum at full load								
Inrush current:	The cold inrush current must not cause the input fuse to open or cause damage to components.								
Operation Altitude	5000 meters								
Withstand voltage:	4000 VAC from input to output (2 MOPP) 1500 VAC from input to ground								
MTBF:	300,000 hours at full load at 25 $^{\circ}$ C ambient, calculated per MIL-HDBK-217F								
EMC Performance (IEC60601-1-2)									
EN55011:	Class B conducted, Class B radiated								
FCC:	Class B conducted, Class B radiated								
VCCI:	Class B conducted, Class B radiated								
EN61000-3-2:	Harmonic distortion, Class A								
EN61000-3-3:	Line flicker								
EN61000-4-2:	ESD, ± 15 KV air and ± 8 KV contact								
EN61000-4-3:	Radiated immunity, 3 V/m								
EN61000-4-4:	Fast transient/burst, ± 2 KV								
EN61000-4-5:	Surge, ± 1 KV diff., ± 2 KV com.								
EN61000-4-6:	Conducted immunity, 6 Vrms								
EN61000-4-8:	Magnetic field immunity, 30 A/m								
EN61000-4-11:	Voltage dip immunity, 30% reduction for 500 ms, 60% reduction for 200 ms, and 100% reduction for 10 ms								

OUTPUT POWER DERATING CURVE



Derating Curve of 240Vac/50Hz

— OUTPUT 12V — OUTPUT 9V — OUTPUT 5V



OUTPUT VOLTAGE/CURRENT RATING CHART

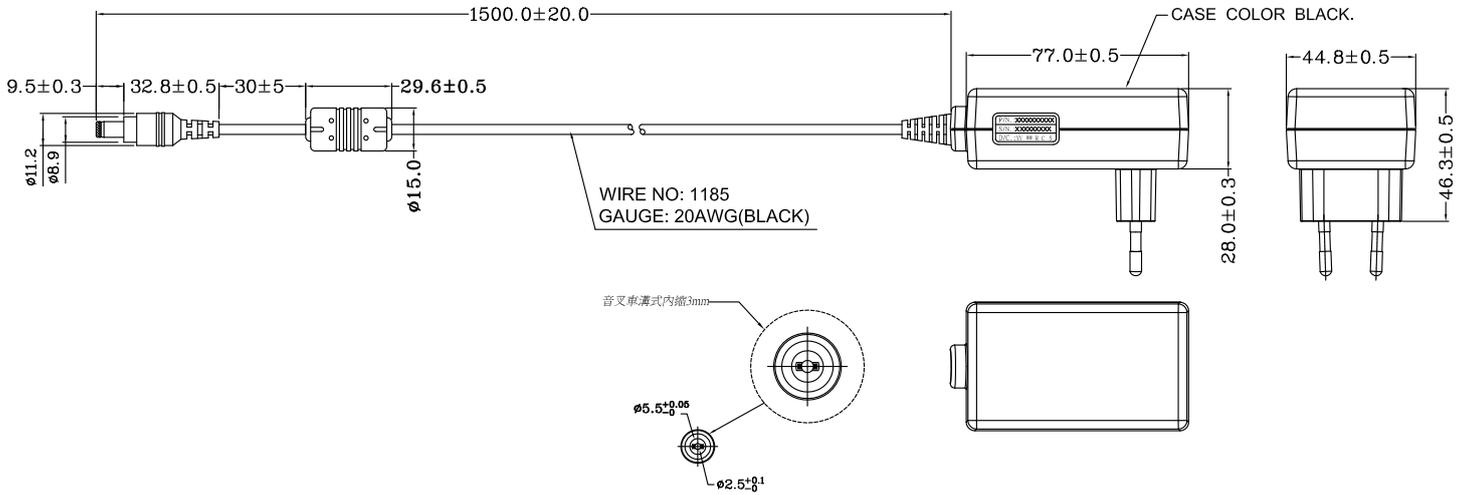
Model	Output						Average Active Efficiency (typical) @ 115 / 230 Vac
	V1	Min. Current	Max. Current	Tol.	Ripple & Noise(2)	Max. Output Power	
FSP018M-DHE	12 V	0 A	1.5 A	±5%	100 mV	18 W	85 /85%
FSP018M-DRE	9 V	0 A	2 A	±5%	100 mV	18 W	87 /87%
FSP015M-DPE	5 V	0 A	3 A	±5%	100 mV	15 W	84 /83%
FSP018M-DHU	12 V	0 A	1.5 A	±5%	100 mV	18 W	85 /85%
FSP018M-DRU	9 V	0 A	2 A	±5%	100 mV	18 W	87 /87%
FSP015M-DPU	5 V	0 A	3 A	±5%	100 mV	15 W	84 /83%

NOTES:

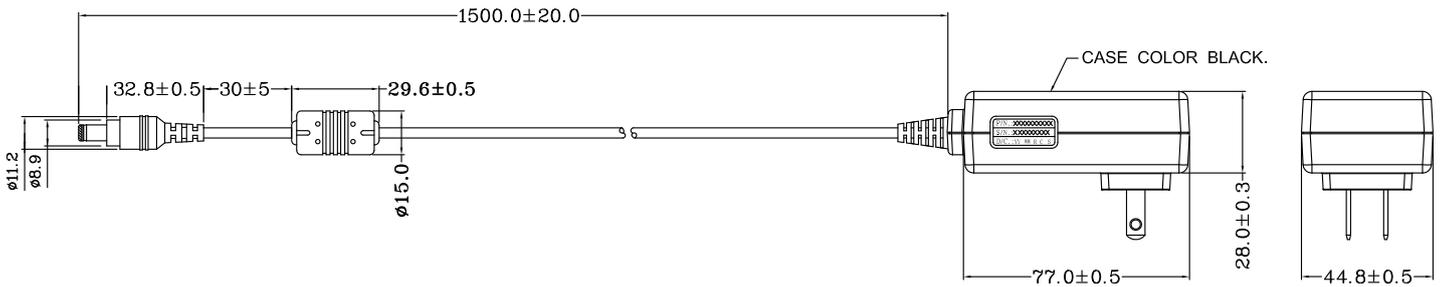
- FSP018M-DxU models are with fixed North American AC plug for safety approval cULus only, and FSP018M-DxE models with fixed European AC plug for safety approval TÜV & CE only.
- Ripple and noise is maximum peak to peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 10 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

MECHANICAL SPECIFICATIONS

1. FSP018M-DXE Series models



2. FSP018M-DXU models



NOTES:

1. Dimensions shown in mm
2. Tolerance 1 maximum

Weight: 150 grams (0.33 lbs.) approx.