60 Watt FYX Series

Shindengen America, Inc.

FEATURES

- Smallest, fully-featured 60-watt power supply available 2.76 x 5.00 x 1.18 inches
- High power density
- U channel with optional cover
- Universal input
- Power factor corrected to IEC 1000-3-2
- UL1950/CSA22.2 No.950-951/EN60950/CE
- FCC/VDE Class B EMI filter
- Quad output, various output combinations
- Molex pin connector
- MTBF - over 400,000 hours

SPECIFICATIONS

INPUT

Voltage	90-264 VAC (continuous range)
Frequency	47-63 Hz
Current	
Full Load	100 VAC - 0.75A (RMS) 200 VAC - 0.42A (RMS)
Inrush (cold start)	120 VAC - 20A 240 VAC - 40A
Power Factor	98% (typ) at 115 VAC

OUTPUT

Rated Power	60 watts (convection cooled)
Efficiency	82-85% (typ)
Voltage	See model selection table
Voltage Adjustment	All outputs are fixed
Total Regulation	Output 1 (main) ±5% Output 2 ±10% Output 3&4 ±5% These outputs are 3 terminal regulators.
Ripple & Noise (peak-to-peak)	Output 1 (5V) - 50mV Output 2 (12V, 15V, 24V) - 1.5% Output 3,4 (+/-12V, +/-15V, -5V) - 50mV (measured at 25°C with a bandwidth of 50 MHz)
Hold-up Time	10mS (measured with an input of 90-264 VAC and 100% rated output)
Converter Topology	Resonant Converter
Operating Frequency	80-110 KHz

PROTECTION

Overvoltage — Outputs1&2 are protected against over-voltage. The control circuit is preset so the output voltage does not exceed the following values:

Output Voltage	5	12	15	24
OVP Setpoint (max)	6	15	20	30

Outputs 3,4 which are three terminal regulated are not overvoltage protected

Overload	All models are protected against overload on the primary side. Protection begins at 80W. Recovery is automatic after removal of the fault.
Common Mode Noise	1.5V (peak-to-peak)
Electrical Fast Transient/ Burst	+/-2000V, 50nS to IEC 1000-4-4
ESD Tolerance	+/-8KV to IEC 1000-4-2
Surge Tolerance	Input-Input +/-1KV to IEC1000-4-5 Input-Chassis +/-2KV to IEC1000-4-5
Susceptibity to Radio Frequency, Electromagnetic Field	80-1000 MHz, 10V/m, 80%AM (1 KHz) to IEC1000-4-3
Susceptibity to Radio Frequency, Common Mode	0.15-80 MHz, 10V, 80%AM to IEC1000-4-6

INSULATION

All models meet the requirements of UL1950, CSA22.2 No. 950-951 and Leakage Current specifications.

Isolation Voltage	
Primary-Frame Ground	1500 VAC
Primary-Secondary	3000 VAC
Secondary-Frame Ground	500 VDC
Insulation Resistance	
Primary-Frame Ground	100 MΩ at 500 VDC
Primary-Secondary	100 MΩ at 500 VDC
Secondary-Frame Ground	100 MΩ at 500 VDC

ENVIRONMENT

Operating Temp.	0°C to + 60°C (derated linearly above 50°C at 1W/°C)
Cooling Method	Convection
Storage Temp.	-30°C to + 85°C
Shock	10G
Vibration X,Y, Z	4.5G, 10 - 55 Hz, 0.75mm amplitude, 2 hours (non-operating)

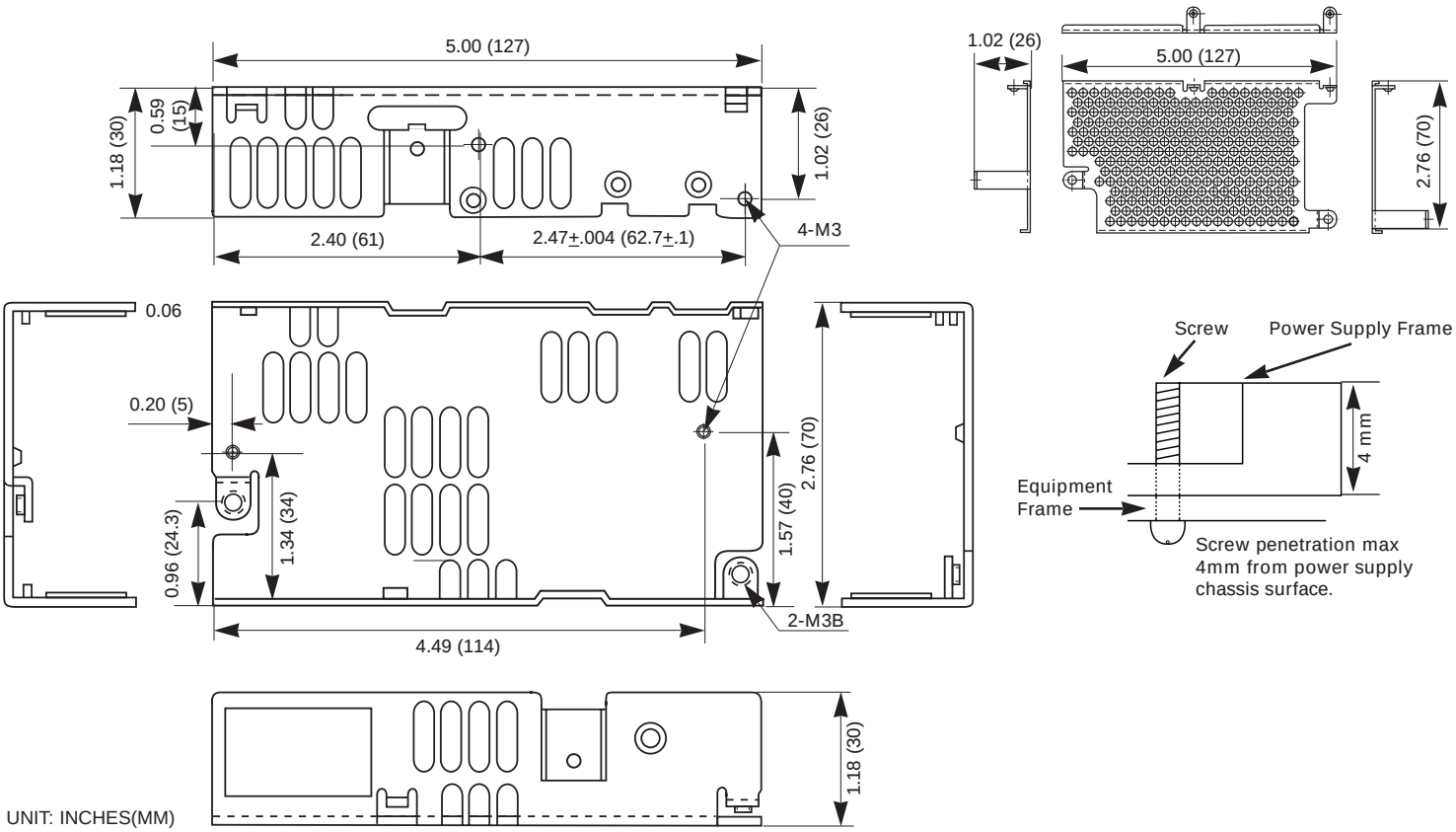
MODEL RATINGS

Model #	Output Rating							
	Output #1 (V1)		Output #2 (V2)		Output #3 (V3)		Output #4 (V4)	
FYX 600/61G-BDdb	5V	0-7A	+12V	0-3A(4Apk)	-12V	0-1A	-5V	0-1A
FYX 600/62G-BDDd	5V	0-7A	+12V(2)	0-3A(4Apk)	+12V	0-1A	-12V	0-1A
FYX 600/63G-BGEe	5V	0-7A	+24V	0-1.5A(2Apk)	+15V	0-1A	-15V	0-1A
FYX 600/64G-BGDd	5V	0-7A	+24V	0-1.5A(2Apk)	+12V	0-1A	-12V	0-1A
FYX 600/65G-BDDb	5V	0-7A	+12V	0-3A(4Apk)	+12V	0-1A	-5V	0-1A
FYX 600/66G-BEeb	5V	0-7A	+15V	0-2.5A(3Apk)	-15V	0-1A	-5V	0-1A

MECHANICAL SPECIFICATIONS

Size (W + D + H) 2.76 + 5.00 + 1.18 inches (70 + 127 + 30 mm)

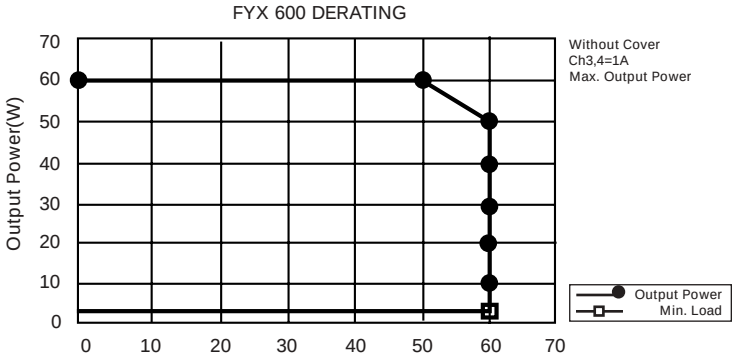
Weight 10oz.



All specifications are subject to change without notice.

CONNECTOR DESIGNATION

CN1	1	L	Connector:	Molex 41791 series
	2	NC		26-60-4030
	3	N	Mate:	Molex 2139 series
				09-50-7031
			Pin:	Molex 2478
CN2	1	Output 4	Connector:	Molex 41791 series
	2	Output 3		26-60-4080
	3	Output 2	Mate:	Molex 2139 series
	4	Common		09-50-7081
	5	+5v	Pin:	Molex 2478
	6	+5v		
	7	Common		
	8	Common		



Note: For derating information with a cover, please consult the factory.