



### FEATURES AND BENEFITS

Small Size Of 2" X 3" X 1.2"	Approved To UI/CSA/IEC/IEC62368-1
For 1U Applications	2 x MOPP Isolation
65W Convection Cooled	Meets 4th Edition/Heavy Industrial EMC
65W with 200 LFM Airflow	-20°C To 70°C Operating Temperature Range
Universal Input 80-264VAC	3 Years Warranty
Approved to UI/CSA/IEC/IEC60601-1, 3 <sup>rd</sup> Edition	



### MODEL SELECTION

Model Number	Volts	Output Current Convection Cooled	Output Current Forcedair(200 LFM) (Total Power)	Ripple & Noise*	Total Regulation	OVP Threshold
SLB65S05x	5V	TBD	TBD (65 Watts)	0.5%RMS, 1.5% pk-pk	±1%	14.0 ± 1.1V
SLB65S12x	12V	5.4A	10.4A (65 Watts)	0.5%RMS, 1.5% pk-pk	±1%	14.0 ± 1.1V
SLB65S15x	15V	4.3A	8.3A (65 Watts)	0.5%RMS, 1%pk-pk	±1%	18.0 ± 1.5V
SLB65S18x	18V	3.6A	6.9A (65 Watts)	0.5%RMS, 1%pk-pk	±1%	21V± 3.0V
SLB65S24x	24V	2.7A	5.2A (65 Watts)	0.5%RMS, 1%pk-pk	±1%	28.0 ± 4.0V
SLB65S48x	48V	1.3A	2.1A (65 Watts)	0.5%RMS, 1%pk-pk	±1%	55.0 ± 4.0V

Notes: Replace the "x" at the end of the model number with "C" for class II (ungrounded) input or replace with "K" for class I (grounded) input.

### INPUT

AC Input Voltage	80-264VAC, Single phase	
AC Input Current	115VAC: TBD 230VAC: TBD	
Inrush Current	TBD maximum @ 25C	
Input Fuse	TBD, 250VAC	Fuse provided on all models
Earth Leakage Current	<500uA @ 264VAC, 60Hz input, NC	
AC Input Frequency	47-63Hz	



## EFFICIENCY

Model Number	Typical	Measured @ 25°C
SLB65S12x, SLB125S15x	89% @ 230VAC, Full load	86.5% @ 115VAC, Full load
SLB125S18x	89% @ 230VAC, Full load	87% @ 115VAC, Full load
SLB125S24x	89% @ 230VAC, Full load	87% @ 115VAC, Full load
SLB125S48x	90% @ 230VAC, Full load	88% @ 115VAC, Full load

## OUTPUT

Hold-up Time	16ms minimum from loss of AC input at 115VAC	
Turn On Time	<2 seconds @115VAC (<3s for 12V output)	
Output Power	Max of 85 Watts for convection cooled Max of 125 Watts for fan cooled	
Ripple and Noise	0.5% RMS, 1% pk-pk for all models	20 MHz Bandwidth, differential mode Measured with noise probe directly across output terminals, and load terminated with 0.1µF ceramic and 10µF low ESR capacitors
Transient Response	500µs typ. response time for return to within 0.5% of final value for a 50% load change, $\Delta i / \Delta t < 0.2A/\mu s$ Max voltage deviation is 3.5%	Measured @ 25°C
Minimum Load	No minimum load is required	
Total Regulation	±2% for all models	Total regulation is the maximum deviation from nominal voltage for all loading conditions
Cooling	Convection (85W Output) Forced Air of 200 LFM (125W output)	
Overshoot	5% overshoot at turn-on, 5% overshoot at turn-off, under all conditions	

## ENVIRONMENT

Operating Temperature	-20°C to +70°C	
Temperature Derating	50% derating at 70°C	
Cooling	Convection	
Storage Temperature	-40°C to +85°C	
Altitude	Operating: 500 to 5,000 meters Non-operating: 500 to 40,000 ft	
Relative Humidity	5% to 95%, Non-condensing	
Shock	Non-operating: Half-sine, 40 gpk, 10ms, 3 axes, 6 shocks total	
Vibration	Random vibration per MIL-STD-810E, Method 514.4, Cat. 1, Figure 514.4-1, 1 hr in each of three axes	



## SAFETY

UL	EN/CSA/UL/IEC 60601-1 3 <sup>rd</sup> edition Part 1 & EN62368-1
CSA	Same as above
Demko	Same as above
CB Report	Yes
Isolation Type	Double / Reinforced between input and output

## ISOLATION SPECIFICATIONS

Insulation Safety Rating	Input to Ground	1 x MOPP
	Input to Output	2 x MOPP
Electric Strength Test Voltage	Input to Ground	1500VAC
	Input to Output	4,000VAC
	Output to Ground	1500VAC

## PROTECTION

Overtemperature Protection	Will shut down upon an overtemperature condition, auto-recovery.
Overload Protection	120% - 180% of rated output current value, Hiccup mode
Short Circuit Protection	Short across the output terminals will not cause damage to the unit. Hiccup mode
Overvoltage Protection	115% to 130% of nominal output voltage. Latching, recycle AC power to recover.

## EMI/EMC COMPLIANCE

Conducted Emissions	EN55011/22 Class B; FCC Part 15 EN55015/CISPR15:2013, CISPR22 2006 Class B, CISPR32 Class B, FCC Part 15.107, Class B:  at 115 and 230Vac	
Radiated Emissions	EN55011/22 Class A; FCC Part 15 CISPR15 radiated EN55032/CISPR22 Class B, CISPR32 Class B, FCC Part 15.109, Class B: at 115 and 230Vac	
Harmonic Current Emissions	EN61000-3-2, Class A, B, C & D	Meets class C from 5 to 125W. This is based on limits set @ 125W
Common Mode Noise: High Freq. (100Khz-20Mhz)	20mA pk-pk	
Voltage Fluctuations & Flicker	EN61000-3-3	
Static Discharge Immunity	EN61000-4-2, Level 4: 8kV contact, 15kV air, Criteria A	
RF Field Susceptibility	EN61000-4-3, Level 3 (3V/m), Criteria A EN55032/EN61000-4-3, 10V/m, 80MHz-2.7GHz, 80% AM at 1kHz IEC60601-1-2, 4 <sup>th</sup> Edition, Table 4	
Fast Transients/Bursts	EN61000-4-4, Level 3 (PS: 2kV-40A, other lines 1kV-20A), Criteria A EN55024/IEC61000-4-4, Level 4, +/- 4kV, 100kHz rep rate, 40A, Criteria A IEC60601-1-2, 4 <sup>th</sup> Edition, Table 5	
Surge Susceptibility	EN61000-4-5, Installation Class 3 (1kV diff. mode, 2kV common mode), Criteria A EN55024/IEC61000-4-5, Level 4, +/-2kV DM, +/-4kV CM, Criteria A	Performance criteria are defined as following: A - Normal performance during and after the test B - Temporary degradation, self-recoverable C - Temporary degradation, operator intervention required to recover the operation



	Surpasses IEC60601-1-2, 4 <sup>th</sup> Edition requirements.	
Conducted RF Susceptibility	EN61000-4-6, Level 3 (3Vrms), Criteria A EN55032/IEC61000-4-6, 3V/m – Level 4, 0.15 to 80Mhz; and 12V/m) in ISM and amateur radio bands between 0.15Mhz and 80Mhz, 80% AM at 1KHz IEC60601-1-2, 4 <sup>th</sup> Edition, Table 5.	
Power Frequency Magnetic Field Test	EN61000-4-8, Level 3 (3A/m), Criteria A EN55024/IEC1000-4-8, Level 4: 30A/m, 50/60 Hz IEC60601-1-2, 4th Edition, Table 4	
Voltage Sags & Surges	EN61000-4-11 95% dip/0.5 cycle (Criteria A), 60%/5cycles (Criteria B), 30%/25 cycles (Criteria A) Loading is 70% of 100W with 100VAC EN55024/IEC/EN61000-4-11: --100% dip for 10 mS, at 0, 45, 90, 135, 180, 225, 270 and 315 degrees: --100% dip for 20mS, 0 deg., Criteria A --100% dip for 5000mS (250/300 cycles), Criteria B -- 60% dip for 100mS, Criteria B -- 30% dip for 500mS, Criteria A IEC60601-1-2, 4th Edition, Table 5	

Note: 1. Specifications subject to change without notice.

2. Specifications are for convection rating at factory settings with 115VAC input and 25°C ambient unless otherwise stated.



## RELIABILITY

MTBF	>500K hours, 25°C ambient, full load	Calculation is done based on Telcordia Reports for each model is available
Warranty	3 Years	
HALT Data	Per SL Power Halt procedure	Report is available

## MECHANICAL

### TBD

- Note: 1. All dimensions in inches (mm) undefined tolerance is  $\pm .02$ " (0.5mm).  
 2. Mounting holes should be connected together for EMI purpose.  
 3. FG is safety ground connection.  
 4. This power supply requires mounting on metal standoffs 0.20" (5mm) Min. in height.

## CONNECTOR INFORMATION