

## 1000W to 1500W Single Output General Purpose Power Supplies

<https://product.tdk.com/en/power/rws-b>  
[www.emea.lambda.tdk.com/rws-b](http://www.emea.lambda.tdk.com/rws-b)



The RWS1000/1500-B are 1000W and 1500W rated AC-DC power supplies, designed to provide solid performance at an economical price. The series accepts a wide range 85 to 265Vac input with output voltages from 12V to 48V. They are certified to IEC62368-1 and EN62477-1 (OVC III). These 7-year warranty<sup>(1)</sup> products meet both class B radiated and conducted EMI standards. Option model features include an isolated 5V 1A standby voltage, remote on/off and an output-low/fan-fail isolated signal. Up to five units can be connected in parallel for additional power.

### Features

- Seven Year Warranty<sup>(1)</sup>
- Conservative Electrolytic Capacitor Ratings
- Class B Conducted and Radiated EMI
- Configurable Output Screw Terminal Block Orientation
- Compact, Enclosed Construction

### Benefits

- Low Cost of Ownership
- Long Service Life
- Easier System EMC Compliance
- Simplified Cable Connections
- Space Saving in End Equipment

### Model Selector

Model	Voltage (V)	Adjustable Range (V)	Max Current (A)	Max Output Power (W)	Load Reg (mV)	Line Reg (mV)	Ripple Noise (mV)	Efficiency (typ at 115/230Vac) (%)
RWS1000B-12	12V	10.2-13.8V	84	1008	96	48	150	82 / 85
RWS1500B-12	12V	10.2-14.4V	125	1500	96	48	150	81 / 85
RWS1000B-15	15V	12.8-17.2V	67	1005	120	60	150	82 / 85
RWS1500B-15	15V	12.8-18.0V	100	1500	120	60	150	82 / 85
RWS1000B-24	24V	20.4-28.8V	42	1008	144	96	180	85 / 88
RWS1500B-24	24V	20.4-28.8V	63	1512	144	96	180	85 / 88
RWS1000B-36	36V	30.6-41.4V	28	1008	216	144	250	85 / 88
RWS1500B-36	36V	30.6-43.2V	42	1512	216	144	250	85 / 88
RWS1000B-48	48V	40.8-57.6V	21	1008	288	192	300	85 / 88
RWS1500B-48	48V	40.8-57.6V	32	1536	288	192	300	85 / 88

<b>RWS1000B-</b>	<b>12</b>	<b>/</b>	<b>S</b>
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Output voltage 12, 15, 24, 36, 48

blank	Air enters over input/output terminals
/R	Remote On/Off
/FO	PF signal and parallel
/RFO	Remote ON/OFF, Power Fail signal and parallel operation
/RF	Reverse Fan, air exits over input/output terminals
/CO2	Conformal coating
/S	Standby 5V

Specifications		
Model		RWS1000/1500-B
<b>Input</b>		
Input Voltage Range (Operating)	Vac	85 - 265 <sup>(2)</sup>
Nominal Input Voltage Range	Vac	100 - 240 (Note: Safety certified for 90-264Vac)
Input Frequency	Hz	47 - 63 (Note: Safety certified for 50-60Hz only)
DC Input Voltage Range	Vdc	120 - 340 (Note: Safety certified for AC input only)
Input Current (110/230Vac)	A	RWS1000B: 13 / 7, RWS1500B: 19 / 10
Inrush Current at 100/200Vac (Cold Start)	A	60 / 60
Leakage Current	mA	< 1.2
Power Factor (100/200Vac)	-	0.98 / 0.95
Harmonic Compliance	-	Meets IEC61000-3-2
Hold Up Time	ms	20
Efficiency	-	See model selector table
Conducted & Radiated EMI	-	EN55011 / EN55032-B, FCC Class B, VCCI-B
Immunity	-	See immunity table
Safety Certifications and Markings	-	IEC/UL/CSA/EN62368-1, 60950-1, CE Mark and UKCA Mark

Immunity				
Test	Standard	Test Level	Criteria	Notes: See IEC61000 immunity test report on website for further details
ESD	EN61000-4-2	Air ± 8kV and contact ± 4kV	B	
Radiated Susceptibility	EN61000-4-3	80M -1GHz: 10V/m 1.4 - 2.0GHz: 3V/m 2.0 - 2.7GHz: 1V/m	A	
Electrical Fast Transient Burst	EN61000-4-4	± 2kV	B	
Surge	EN61000-4-5	Normal ± 2kV Common ± 4kV	B	
Conducted Susceptibility	EN61000-4-6	10Vrms	A	
Magnetic Fields	EN61000-4-8	30A/m	A	
Voltage Dips	EN61000-4-11	30% 500ms	B	
		60% 10ms	B	
		100% 20ms	A	
		100% 5000ms	B	
Voltage Dips	EN60601-1-2 Ed.4	30% 500ms	B	
		100% 10ms	A	
		100% 20ms	A	
SEMI F47 Line Dip	SEMI F47	100% 5000ms	B	At input voltages > 200Vac

Specifications		
Model		RWS1000/1500-B
<b>Output</b>		
Switching Frequency	kHz	RWS1000B; 95, RWS1500B; 85, PFC converter 65
Line Regulation	-	See model selector table
Load Regulation	-	See model selector table
External Load Capacitance	uF	100,000
Ripple & Noise	-	See model selector table
Temperature Coefficient	%/°C	0.02
Minimum Load	-	No minimum load required
Overcurrent Protection	%	>105. Constant current mode with automatic recovery. A prolonged overload of more than 5s will cause unit to shutdown
Overvoltage Protection	-	Latching (unit shutdown), cycle AC input to reset
Overtemperature Protection	-	Latching (unit shutdown), cycle AC input to reset
Remote Sense	-	Yes
Remote On/Off	-	Optional, See Part Numbering Scheme. ON when the external voltage is applied, OFF when open
DC Good / Fan Alarm	-	See options section
Standby Voltage	-	5V 1A (always on). See Part Numbering Scheme
Indicators	-	Green LED indicates DC is OK
Parallel Operation	-	Optional, See Part Numbering Scheme
Series Operation	-	Possible

Specifications		
Model		RWS1000/1500-B
<b>Environmental</b>		
Operating Temperature	°C	-20 to +60, derate linearly to 60% load from 50 to 60 Reverse air (/RF): -20 to +70, derate linearly to 50% load from 50 to 70
Operating Humidity	%RH	Operating: 20 - 90, Storage: 10 - 90
Storage Temperature	°C	-30 to +75
Humidity (non condensing)	%RH	10 - 90 (Operating & Storage)
Cooling	-	Forced air. Optional reverse fan direction
Altitude	m	3000
Withstand Voltage (For 1 minute)	Vac	Input to ground 2,000, Input to output 4,000, Output to ground 1,500 for 1 minute
Vibration (Non operating)	-	10-55Hz (Sweep for 1min.) 19.6m/s <sup>2</sup> Constant X,Y,Z 1 hour each
Shock (Non operating)	-	Less than 196m/s <sup>2</sup> , 11ms, ±X, ±Y, ±Z 3 times each
<b>Other</b>		
Weight (Typ)	g	RWS1000B: 2000, RWS1500B: 3000
Size (WxHxD)	mm	RWS1000B; 127 x 63 x 198, RWS1500B; 127 x 63 x 261
Size (WxHxD)	Inches	RWS1000B; 5 x 2.48 x 7.8, RWS1500B; 5 x 2.48 x 10.28
Connectors	-	Screw terminal input and output. Signal connectors JST S12B-PHDSS
MTBF - Telcordia SR-332 issue 3**	Hours	1,222,361
Warranty	yrs	7 <sup>(1)</sup>

See website for detailed specifications, test methods and installation manual

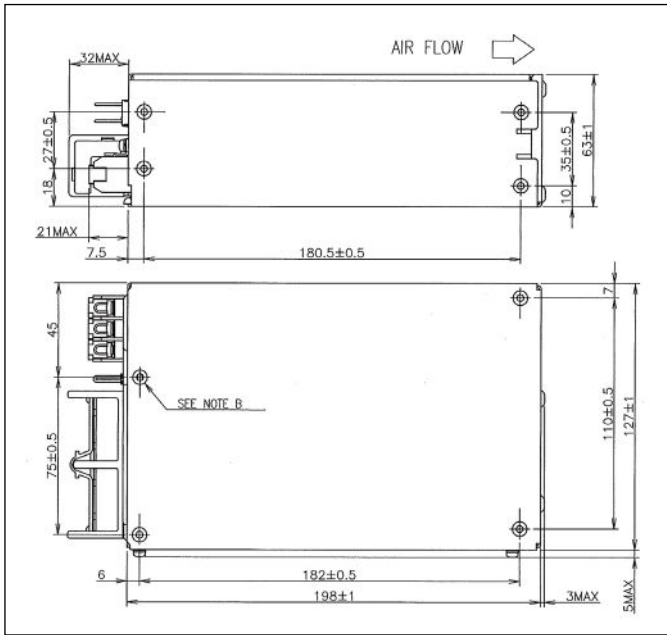
(1) The Americas and EMEA regions: 7 years. Other regions: 5 years. See applicable regional terms of sale.

(2) Derate linearly to 80% load from 90 to 85Vac input

\*Safety certified for AC input only

\*\*RWS1500B-24 model, 25°C ambient, full load, 24Vdc output

**Outline Drawing RWS1000B**



**Outline Drawing RWS1500B**

