

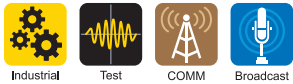
## 250 & 500W Single Output Power Supplies

### Features

- ◆ High Efficiency, up to 93%
- ◆ 1.6" high (For 1U racking)
- ◆ Wide Range AC Input
- ◆ 250W Convection Cooled
- ◆ Five year warranty



### Key Market Segments & Applications



GWS500 Shown



Specifications		GWS250	GWS500
AC Input Voltage (300VAC for 5s)	VAC	85 - 264VAC	
Input Frequency	Hz	47 - 63Hz	
DC Input Voltage	VDC	120 - 373VDC*	
Inrush Current (cold start)	A	20A at 115VAC, 40A at 230VAC	
Power Factor (1)	-	Meets EN61000-3-2 (Typical PF 0.98/0.95)	
Input Current (115/230VAC)	A	3.0 / 1.4	5.5 / 2.7
Temperature Coefficient	°C	<0.02%/°C (0 - 50°C)	
Overcurrent Protection	-	>105% of nominal or >101% of peak. 12V hiccup style, 24V-48V Constant current style	
Overvoltage Protection (2)	V	12V: 13.8 - 16.2V 24V: 30.3 - 35.5V, 36V: 41.4 - 48.6V, 48V: 60 - 69.6V	
Overtemperature Protection (2)	-	Yes	
Hold Up Time (115 / 230V input)	ms	16ms	
Leakage Current (230VAC 60Hz)	mA	<0.75mA	
Remote Sense	-	No	Yes
Remote On/Off	-	Active Low	
Standby Input Power Draw	W	<0.5W	
5V Standby (always on)	-	5V 0.3A	
DC Good	-	DC Good, open collector signal, High on Fail	
LED Indicator	-	Green LED = On	
Output Remote Programming	-	See installation manual for details	
Operating Temperature	°C	-25 to +70°C. Derate linearly to 50% load from +50 to +70°C	-25 <sup>(3)</sup> to +70°C. Derate linearly to 50% load from +50 to +70°C
Storage Temperature	°C	-30 to +85°C	
Operating Humidity	-	30 - 90% RH (non condensing)	
Storage Humidity	-	10 - 95% RH (non condensing)	
Cooling	-	Convection	Internal fan
Withstand Voltage	-	Input to Ground 1.5kVAC, Input to Output 3kVAC, Output to Ground 500VAC <sup>(4)</sup> for 1 min.	
Isolation Resistance	-	>100M at 25°C & 70%RH, Output to Ground 500VDC	
Vibration (non operating)	-	10 - 55Hz: 19.6m/s <sup>2</sup> constant sweep 1 min X, Y, Z for 1 hour	
Shock	-	< 196.1 m/s <sup>2</sup> (20G)	
Immunity	-	IEC61000-4-2 (lv 2, 3), -3 (lv3), -4 (lv 3), -5 (lv 3), -6 (lv 3), -8 (lv 4), -11	
Safety Agency Approvals	-	UL60950-1, CSA C22.2 No 60950-1-07 (cUL), EN60950-1 2nd Edition, IEC60950-1, CE Mark	
Conducted & Radiated EMI	-	EN55022-B, FCC-B	
Weight (Typ)	g	850	1020
Size (LxWxH)	in	7.8 x 4.1 x 1.61"	8.6 x 4.1 x 1.61"
Warranty	yrs	Five Years	

(1) 115 / 230VAC input

(2) Recycle AC, or use remote on/off to reset

(3) Guaranteed start up at -40°C

(4) 500VDC for GWS500

\*Safety certified for AC input only

## Model Selector

Model	Voltage (V)	Adjust Range (V)	Max Current (A)	Peak Curr. <10s, <35% DC (A)	Load Reg. (mV)	Line Reg. (mV)	Ripple Noise (mV)	Efficiency (typ) % (230VAC)
GWS250-12	12V	10.8 - 13.2	21	-	96	48	150	92
GWS500-12	12V	10.8 - 13.2	42	-	96	48	150	89
GWS250-24	24V	22 - 28.8	10.5	12.5	192	96	240	92
GWS500-24	24V	22 - 28.8	21	25.0	192	96	150	90
GWS250-36	36V	32 - 40	7	8.4	288	144	360	93
GWS500-36	36V	32 - 40	14	16.7	288	144	200	90
GWS250-48	48V	42 - 57.6	5.3	-	384	192	480	93
GWS500-48	48V	42 - 57.6	10.5	-	384	192	300	90

## GWS500 Outline Drawing

**SIGNAL CONNECTOR INFORMATION**

CN201 PIN ASSIGN  
S12B-PH05S(LF)(SN) (JST)

1	+Vm
2	+S
3	-Vm
4	-S
5	DOCK
6	COM
7	5V2B
8	5V COM
9	CNT+
10	CNT-
11	PV
12	COM

==SIGNAL CONNECTOR USED==

PART DESCRIPTION	PART NAME	MANUFACT
PIN HEADER	S12B-PH05S(LF)(SN)	JST

==MATCHING HOUSINGS, PIN & TOOL==

PART DESCRIPTION	PART NAME	MANUFACT
SOCKET HOUSING	PHDR-12VS	JST
TERMINAL PINS	SPHD-002T-P0.5(AWG28-24) SPHD-001T-P0.5(AWG26-22)	JST
HAND CRIMPING TOOL	YRS-620(SPHD-002T-P0.5) YC-610R(SPHD-001T-P0.5)	JST

==ACCESSORIES==

- \* SHORT PIECE -----1  
SHORTING +Vm ---+S, -Vm --- -S, CNT+ --- CNT-  
(ATTACHED ON CN201 AT SHIPMENT)
- \* COVER FOR BARRIER TERMINAL STRIP -----1  
(ATTACHED ON TERMINAL AT SHIPMENT)

NAME PLATE :

SCALE 1 : 1

**NOTES**

A. MODEL NAME, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT & COUNTRY OF MANUFACTURE ARE SHOWN IN ACCORDANCE WITH THE SPECIFICATION.

B. M4 TAPPED HOLES (B) FOR CUSTOMER CHASSIS MOUNTING.  
(SCREW PENETRATION DEPTH 5mm MAX.)

(unit: mm)

MODEL GWS500  
TDK-Lambda  
PA590-02-01

## Other Industrial Products

LS25 - 200	25W to 200W low cost
HWS15 - 1800	15W to 1800W limited lifetime warranty
RWS-B	50W to 600W single output
CSS500	360W to 500W medical

For Additional Information, please visit  
[us.tdk-lambda.com/lp/products/gws-series.htm](http://us.tdk-lambda.com/lp/products/gws-series.htm)

