

Linear Power Supplies, 230 Series

AC Input:	100/120/220/240 VAC + 10%, -12%, 47-63 Hz. See AC connection table under APPLICATION NOTES for jumper information. Fuse information is next to outline and mounting drawings.
DC Output:	See Voltage/Current Rating Chart. Adjustment range $\pm 5\%$ minimum.
Line Regulation:	$\pm 0.05\%$ for a 10% line change
Load Regulation:	$\pm 0.05\%$ for a 50% load change
Output Ripple:	2V to 15V unit: 5.0mV PK-PK maximum 20V to 28V unit: 0.02% PK-PK maximum
Transient Response:	50 μ seconds for 50% load change
Short Circuit and Overload Protection:	Automatic current limit/foldback
Overvoltage Protection:	Built-in on all 5V outputs. Set at 6.2V ± 0.4 V. Other models use optional overvoltage protection.
Remote Sensing:	Provided on most models, open sense load protection built in.
Stability:	$\pm 0.3\%$ for 24 hour period after 1 hour warm-up
Temperature Rating:	Operation: 0°C to +70°C Above 50°C, derates linearly to 40% at 70°C (Low temperature option -40°C to order)
Storage:	-40°C to +85°C
Temperature Coefficient:	$\pm 0.03\%/^{\circ}\text{C}$ maximum
Efficiency (typical):	5V unit: 45%; 12V and 15V units: 55% 20V and 24V units: 60%
Vibration:	Per MIL-STD-810C, Method 514, Procedure X
Shock:	Per MIL-STD-810C, Method 516, Procedure V
EMC:	These component power supplies have inherently very low conducted & radiated noise levels. We have tested some of our units which passed the requirements of BS EN5022B.
Isolation:	Input to ground: 3750 VAC min. Input to output(s): 3750 VAC min. Output to ground: 500 VAC min. Leakage current (live to ground): 25 μ A max.
Safety:	Designed to meet UL1950, IEC950 & UL544 specifications. Split safety bobbin, CE marked (LVD) see also application notes.
Covers:	Available for case sizes A, AA, B, C, D & E.
Connections:	A.C. input: Solder joint or push on crimped connector (tab size 2.8mm) D.C. output: Solder joint or push on crimped connector (AMP 0.25" Faston)

For full specification and mechanical drawings, please contact the ALL PSU sales office.
Specifications may change without notice, E&OE. ALL PSU Terms & Conditions Apply.

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ALL PSU DATA SHEET

SINGLE OUTPUT MODELS

Model	Output (V/A)	Case	Cover available
23005A	5/3.0	A	✓
23005B	5/5.0	B	✓
23005C	5/9.0	C	✓
23005D	5/12.0	D	✓
23005E	5/18.0	E	✓
23012A	12/1.7	A	✓
23012B	12/3.4	B	✓
23012C	12/5.1	C	✓
23012D	12/6.8	D	✓
23012E	12/10.2	E	✓
23012F	12/16	F	✓
23015A	15/1.5	A	✓
23015B	15/3.0	B	✓
23015C	15/4.5	C	✓
23015D	15/6.0	D	✓
23015E	15/9.0	E	✓
23015F	15/15	F	✓
23024A	24/1.2	A	✓
23024B	24/2.4	B	✓
23024C	24/3.6	C	✓
23024D	24/4.8	D	✓
23024E	24/7.2	E	✓
23024E/10	24/10	E	✓
23024F	24/12	F	✓
23028A	28/1.0	A	✓
23028B	28/2.0	B	✓
23028C	28/3.0	C	✓
23028D	28/4.0	D	✓
23028E	28/5.0	E	✓
23028F	28/10	F	✓

DUAL & TRIPLE OUTPUT MODELS

Model	Output 1 (V/A)	Output 2 (V/A)	Output 3 (V/A)	Case	Cover available
23205A	*5/1.5	* -5/1.5		AA	✓
23212Z	12/0.4	-12/0.4		A	✓
23212A	12/1.0	-12/1.0 OR -5/0.4		AA	✓
23212B	12/1.7	-12/1.7 OR -5V/0.7		BB	
23212C	12/3.4	-12/3.4		CC	
23215D	12/5.0 OR 15/5.0	-12/5.0 OR -15/5.0		E	✓
23215Z	15/0.4	-15/0.4		A	✓
23215A	12/1.0 OR 15/0.8	-12/1.0 OR -15/0.8 OR -5/0.4		AA	✓
23215B	12/1.7 OR 15/1.5	-12/1.7 OR -15/1.5 OR -5/0.4		BB	
23215C	12/3.4 OR 15/3.0	-12/3.4 OR -15/3.0		CC	
23215D	12/5.0 OR 15/5.0	-12/5.0 OR -15/5.0		E	✓
23305A	*5/2.0	*9-15/0.4	*-(9-15)/0.4 OR -5/0.4	AA	✓
23305B	5/3.0	12/1.0 OR 15/0.8	-12/1.0 OR -15/0.8 OR -5/0.4	AAA	
23305C	5/6.0	*12-15/1.0	*-(12-15)/1.0 OR -5/0.4	D	✓
23305D	5/6.0	12/1.7 OR 15/1.5	-12/1.7 OR -15/1.5 OR -5/0.7	BBB	
23305E	5/8.0	12/1.7 OR 15/1.5	-12/1.7 OR -15/1.5 OR -5/0.7	131	
23305F	5/12.0	12/1.7 15/1.5	-12/1.7 OR -15/1.5 OR -5/0.7	DBB	
23305G	5/12.0	12/3.4 15/3.0	-12/3.4 -15/3.0	DCC	

HIGH VOLTAGE MODELS

Model	Output (V/A)	Case	Cover available
23048A	* 48/0.5	A	✓
23048B	* 48/1.0	B	✓
23048D	* 48/3.0	D	✓
23048E	* 48/4.0	E	✓
23060A	* 60/0.4	A	✓
23060B	* 60/0.8	B	✓
23060D	* 60/2.0	D	✓
23150A	*150/0.15	A	✓
23180A	*180/0.15	A	✓
23200A	*200/0.125	A	✓
23250A	*250/0.1	A	✓

*No remote sensing.

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