# AD Series "The Wedge" **Desktop Power Supplies**

## **Desktop Power Supplies**

The Desktop Power Supplies, popularly called the "Wedge" due to its distinctive ergonomically friendly shape, offer a convenient way to convert 12Vdc mobile radio transceivers for use as desktop base stations. They will operate from AC supplies, either 115V or 230V without manual adjustment. The continuous rating is 108W (9A), sufficient for most radio transceivers on the market.



manufacturers.

#### **Integrated Battery Back Up Facility**

The product has a built in battery back up facility which will allow the supply to continuously trickle charge a battery which will automatically power the transceiver in the event of a mains supply cut.

#### **Designed for Ease of Use**

The wedge gets its name from its unique shape which is designed to angle the radio towards the user for ease of operation. A microphone clip is supplied for each side of the radio (except universal units) for either left or right handed operators.

A red LED indicates when the output from the unit is supplied from the mains. If a battery back up has been fitted, and the mains supply should fail, a yellow LED will light, indicating that the output is supplied from the back up battery providing the operator with reassurance of the status of the equipment.

### Can't find what you're looking for?

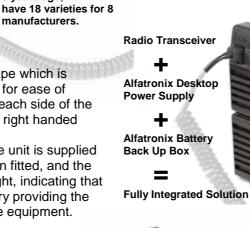
Alfatronix Desktop "wedge" power supplies are configured to suit a wide range of radio transceivers from many manufacturers - see list overleaf. However, if you use a variety of radio types or cannot find a compatible unit, try our UNIVERSAL unit, P/N AD UN UNI. This uses a mechanical interlocking fixing system (3M "Dual Lock") to fix the transceiver securely to the power supply.

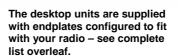
#### **Product Coding**

The product codes are developed to be as intuitive as possible. Taking the Motorola AD MT 3100 as an example: AD denotes the Alfatronix AD Series MT denotes the radio manufacturer (Motorola) 3100 denotes a popular radio compatible with this unit.

AD	Alfatronix AD Series		
MT	Denotes the radio manufacturer. In		
	this case Motorola		
3100	Denotes a popular radio compatible		
	with this unit.		
Please note: Like most part numbers, the			

3100 fits a *range* of radios, not just the 3100. See overleaf for a complete list.



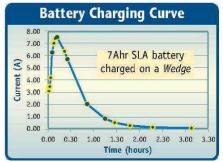








For a complete system, order our fully compatible battery back up box - P/N AD BBB (to include a 7Ah battery) or AD BBB NB (excluding the battery).



# **Choose your Wedge Desktop Power Supply**

Manufacturer	Order these Part				
	numbers from	to fit these transceiver varieties			
	Alfatronix				
Motorola	AD MT 3100	PRO3100, PRO5100, PRO7100, GM340, GM640, GM350, GM360, GM660, GM380			
Motorola	AD MT-CM	CM-140, CM-160, CM-340, CM-360			
Motorola NEW	AD MT-DM	DM 3400, DM 3401, DM 3600 & DM 3601			
Kenwood	AD KW TK-762	TK-760, TK-860, TK-762, TK-780, TK-880, TK-980, TK-981			
Kenwood	AD KW TK-7102H	TK-7180, TK-7189E, TK-8180, TK8189E			
Kenwood	AD KW TK-7160	TK-7160, TK-7162, TK-8160, TK-8162, TK-7102, TK-8102			
lcom	AD IC IC-F310	IC-F310s, IC-F410s, IC-F310, IC-F410, IC-F510, IC-F610, IC-F320s, IC-F420s, IC-F320, IC-F420, IC-F520			
Icom	AD IC IC-F1700	IC-F1710, IC-F2710, IC-F1810, IC-F2810			
Icom	AD IC IC-F1010	IC-F1010, IC-F2010, IC-F1020, IC-F2020, IC-F1610, IC-F2610, IC-A110 Euro			
Icom	AD IC IC-F110	IC-F110, IC-F110S, IC-F210, IC-F210S, IC-F121, IC-F121S, IC-F221, IC-F221S, IC-F111, IC-F211, IC-			
		F111S, IC-F211S			
Icom NEW	AD IC IC F-5062	IC-F5062, IC-F6062			
Tait	AD TA-8000	TM-8105, TM-8110, TM-8115			
Yaesu/Vertex	AD VS VX-2200	VX2200E, VX2100E			
Yaesu/Vertex	AD VS FP-2500	VX-2000V, VX-2000U, FP-2500E			
Yaesu/Vertex	AD VS VX-4104	VS-4104-0-50, VX4100E, VX4200E			
Maxon	AD MX PM160	PM100, PM160			
Nokia EADS	AD NK EA-TMR880	TMR880			
Nokia EADS	AD NK EA-TMR880i	TMR880i, TMR880i remote head			
Novel	AD NR-M400	NM-60-100, NM-60-400			
HYT <i>NEW</i>	AD HYT TM 600	TM600, TM610			
A L L	AD UN UNI	Our most popular unit - Universal wedge base unit to fit any radio			
Battery Back Up	AD BBB	Battery back up box including fitted 7Ah battery – Turnkey solution			
Battery Back Up	AD BBB NB	Battery back up box excluding battery. Please purchase a 7Ah GEL battery locally			

## **Technical Data**

Input voltage range  Auto-Select, 85-135Vac and 170-265Vac, 47- 440Hz  Output voltage options  Output noise  Power Conversion Efficiency Isolation between input and case/output Isolation casework to ground Normal operating temperature  Storage Temperature  -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A  Storage Temperature  -25°C to +100°C  Max case temperature  -25°C to +100°C  Max case temperature  -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A  Storage Temperature  -25°C to +100°C  Max case temperature  -25°C to +100°C  Max case temperature  -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A  Storage Temperature  -25°C to +100°C  Max case temperature  -25°C to +100°C  Max case temperature  -25°C to +100°C  Max case temperature  -25°C to +100°C  Anodized aluminium  EEC-320 C14 socket, C13 terminated cordset 6.3mm push-on blade terminals  Stud with crimp eyelet, adjacent to input  Output Indicator  Red LED adjacent to output terminals  4 x Rubber feet. DIN rails clips available as a special order  Safe area protection:  Over Current Over heat  Output over voltage  Transients  Catastrophic failure  Approvals  Catastrophic failure  Approvals  Dimited by current sensing circuit  Limited by temperature sensing circuit  Limited by temperature sensing circuit  Protected by independent shut down circuit  Protected by independent shut down circuit  Protected by inters and rugged components  Protected by input and output fuses  2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive  EN50081-1, EN50082-1, EN55014-1, EN61000-3-3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805				
Output noise	Input voltage range			
Output noise  Power Conversion Efficiency Isolation between input and case/output Isolation casework to ground Normal operating temperature  Topically 85%  Connected directly to mains input ground  Normal operating temperature  -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A  Storage Temperature  70°C at full load with 25°C ambient Operating humidity Operating humidity Casework Anodized aluminium  Connections: Input Output Ground Output Ground Output Indicator Mounting Method  Safe area protection:  Over Current Over heat Output over voltage Transients Catastrophic failure  Approvals  Tested to  Verbare  Tested to  Solver Connections  -25°C to +100°C -25°C	Output voltage options	13.6Vdc. Worst case limits are +/- 4%		
Isolation between input and case/output Isolation casework to ground  Normal operating temperature  Storage Temperature  Max case temperature  Operating humidity  Casework  Connections: Input Output Indicator  Safe area protection:  Over Current Output over voltage Transients Catastrophic failure  Approvals  Tested to  Isolation casework to ground  Connected directly to mains input ground  Connect this specification table  +30°C to +70°C de-rate linearly to 0A  25°C to +100°C  Max case temperature  70°C at full load with 25°C ambient  Oper darl linearly to 0A  25°C to +100°C  Appowals  Anodized aluminium  IEC-320 C14 socket, C13 terminated cordset  6.3mm push-on blade terminals  Stud with crimp eyelet, adjacent to input  Output Terminals  4 x Rubber feet. DIN rails clips available as a special order  Limited by current sensing circuit  Protected by independent shut down circuit  Protected by independent shut down circuit  Protected by input and output fuses  2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive  18 No60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805		,		
Connected directly to mains input ground  Normal operating temperature  -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A  Storage Temperature  -25°C to +100°C  Max case temperature  70°C at full load with 25°C ambient Operating humidity 95% max, non-condensing Casework  Anodized aluminium  Connections: Input 0utput Ground  Stud with crimp eyelet, adjacent to input Output Indicator  Mounting Method  Safe area protection:  Over Current Over heat Output over voltage Transients Catastrophic failure  Approvals  Tested to  Connected directly to mains input ground  -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A  -25°C to +100°C  4 full load with 25°C ambient  09°C at full load with 25°C ambient  09°C at full load with 25°C ambient  09°S max, non-condensing  IEC-320 C14 socket, C13 terminated cordset 6.3mm push-on blade terminals 4 x Rubber feet. DIN rails clips available as a special order  Limited by current sensing circuit Limited by independent shut down circuit Protected by filters and rugged components Protected by filters and rugged components Protected by input and output fuses  2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive  81/S0082-1, EN55014-1, EN61000-3-3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805	Power Conversion Efficiency			
Isolation casework to ground  Normal operating temperature  -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A  Storage Temperature  -25°C to +100°C  Max case temperature  70°C at full load with 25°C ambient Operating humidity  95% max, non-condensing  Casework  Anodized aluminium  Connections: Input Output Ground  Stud with crimp eyelet, adjacent to input Output Indicator  Mounting Method  Safe area protection:  Over Current Over heat Output over voltage Transients Catastrophic failure  Approvals  Tested to  Connected directly to mains input ground -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A -25°C to +30°C to meet this specification to 0A -25°C to +30°C to meet this specification to 0A -25°C to +30°C to meet this specification to 0A -25°C to +30°C to meet this specification to 0A -25°C to +30°C to meet this specification to 0A -25°C to +30°C to +70°C to de-rate linearly to 0A -25°C to +30°C to +70°C to de-rate linearly to 0A -25°C to +30°C to +70°C to de-rate linearly to 0A -25°C to +30°C to +70°C to de-rate linearly to 0A -25°C to +30°C to +00°C to de-rate linearly to 0A -25°C to +30°C to +00°C to de-rate linearly to 0A -25°C to +30°C to +00°C to de-rate linearly to 0A -25°C to +30°C to +00°C to de-rate linearly to 0A -25°C to +30°C to +00°C to de-rate linear	Isolation between input and	1.5kVac/3.0kVac rms		
Normal operating temperature  -25°C to +30°C to meet this specification table +30°C to +70°C de-rate linearly to 0A  Storage Temperature  -25°C to +100°C  Max case temperature  70°C at full load with 25°C ambient  Operating humidity  95% max, non-condensing  Casework  Anodized aluminium  IEC-320 C14 socket, C13 terminated cordset 6.3mm push-on blade terminals Ground  Output Ground  Output Indicator  Mounting Method  Safe area protection:  Over Current Over heat Output over voltage Transients Catastrophic failure  Approvals  Tested to  Output Normal over voltage 1	case/output			
Storage Temperature  -25°C to +100°C  Max case temperature  70°C at full load with 25°C ambient  Operating humidity  95% max, non-condensing  Casework  Anodized aluminium  IEC-320 C14 socket, C13 terminated cordset 6.3mm push-on blade terminals Ground  Stud with crimp eyelet, adjacent to input  Output Indicator  Mounting Method  Safe area protection:  Over Current Over heat Output over voltage Transients Catastrophic failure  Approvals  Tested to  -25°C to +100°C  Anodized aluminium  IEC-320 C14 socket, C13 terminated cordset 6.3mm push-on blade terminals 4. Rubber feet. DIN rails clips available as a special order  Limited by current sensing circuit Limited by current sensing circuit Protected by independent shut down circuit Protected by independent shut down circuit Protected by ingupt and output fuses 2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive 93/68/EEC The CE marking directive 18 EN50081-1, EN55014-1, EN5100-3-3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805	Isolation casework to ground	Connected directly to mains input ground		
Storage Temperature  Max case temperature Operating humidity Operating humidity Operating humidity Operating humidity Operating humidity Osework Anodized aluminium IEC-320 C14 socket, C13 terminated cordset 6.3mm push-on blade terminals Ground Stud with crimp eyelet, adjacent to input Output Indicator Red LED adjacent to output terminals Mounting Method Safe area protection: Over Current Over heat Output over voltage Transients Catastrophic failure  Approvals  Tested to  Tested to  -25°C to +100°C Af full load with 25°C ambient Ose full load with 25°C at full load terminals Ose full	Normal operating temperature	-25°C to +30°C to meet this specification table		
Max case temperature     70°C at full load with 25°C ambient       Operating humidity     95% max, non-condensing       Casework     Anodized aluminium       Connections: Input     IEC-320 C14 socket, C13 terminated cordset       Output     6.3mm push-on blade terminals       Ground     Stud with crimp eyelet, adjacent to input       Output Indicator     Red LED adjacent to output terminals       Mounting Method     4 x Rubber feet. DIN rails clips available as a special order       Safe area protection:     Limited by current sensing circuit       Output over voltage Transients Catastrophic failure     Limited by temperature sensing circuit       Approvals     2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive 23/68/EEC The CE marking directive 18/50/50, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805		+30°C to +70°C de-rate linearly to 0A		
Operating humidity  Casework  Anodized aluminium  Connections: Input Output Ground  Output Indicator  Mounting Method  Safe area protection:  Over Current Output over voltage Transients Catastrophic failure  Approvals  Tested to  Operating humidity  95% max, non-condensing Anodized aluminium  IEC-320 C14 socket, C13 terminated cordset 6.3mm push-on blade terminals Stud with crimp eyelet, adjacent to input Output let output terminals 4 x Rubber feet. DIN rails clips available as a special order  Limited by current sensing circuit Limited by temperature sensing circuit Protected by independent shut down circuit Protected by injust and output fuses 2004/108/EC The general EMC directive 206/95/EC The low voltage directive 93/68/EEC The CE marking directive 18-50081-1, EN50082-1, EN55014-1, EN61000-3-3, EN60995, EN609945, UL1950, CSA950-95, FCC Class "B", VDE0805	Storage Temperature			
Casework Connections: Input Output Output Ground Output Indicator  Safe area protection:  Over heat Output over voltage Transients Catastrophic failure  Approvals  Tested to  Anodized aluminium IEC-320 C14 socket, C13 terminated cordset 6.3mm push-on blade terminals Stud with crimp eyelet, adjacent to input Output lodicator  Red LED adjacent to output terminals 4 x Rubber feet. DIN rails clips available as a special order  Limited by current sensing circuit Limited by current sensing circuit Protected by independent shut down circuit Protected by filters and rugged components Protected by input and output fuses 2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive 18150081-1, EN50082-1, EN55014-1, EN61000-3-3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805	Max case temperature	70°C at full load with 25°C ambient		
Connections: Input Output Output Ground Output Indicator Mounting Method  Safe area protection:  Output over voltage Transients Catastrophic failure  Approvals  Tested to  IEC-320 C14 socket, C13 terminated cordset 6.3mm push-on blade terminals Stud with crimp eyelet, adjacent to input Output terminals 4 x Rubber feet. DIN rails clips available as a special order  Limited by current sensing circuit Limited by temperature sensing circuit Protected by independent shut down circuit Protected by filters and rugged components Protected by input and output fuses  2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive EN50081-1, EN50082-1, EN55014-1, EN61000-3-3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805	Operating humidity	95% max, non-condensing		
Output Ground Gr		Anodized aluminium		
Ground  Output Indicator  Red LED adjacent to output terminals  A x Rubber feet. DIN rails clips available as a special order  Safe area protection:  Over Current Over heat Output over voltage Transients Catastrophic failure  Approvals  Tested to  Stud with crimp eyelet, adjacent to input  Red LED adjacent to output terminals  4 x Rubber feet. DIN rails clips available as a special order  Limited by current sensing circuit Limited by temperature sensing circuit Protected by independent shut down circuit Protected by filters and rugged components Protected by input and output fuses  2004/108/EC The general EMC directive 2016/95/EC The low voltage directive 93/68/EEC The CE marking directive  83/68/EEC The CE marking directive 33, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805	Connections: Input	IEC-320 C14 socket, C13 terminated cordset		
Output Indicator  Mounting Method  Safe area protection:  Over Current Over heat Output over voltage Transients Catastrophic failure  Approvals  Tested to  Red LED adjacent to output terminals  4 x Rubber feet. DIN rails clips available as a special order  Limited by current sensing circuit Limited by independent shut down circuit Protected by filters and rugged components Protected by filters and rugged components Protected by input and output fuses  2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive EN50081-1, EN50082-1, EN55014-1, EN61000-3-3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805				
Mounting Method  4 x Rubber feet. DIN rails clips available as a special order  Safe area protection:  Over Current Over heat Output over voltage Transients Catastrophic failure  Approvals  Approvals  Tested to  4 x Rubber feet. DIN rails clips available as a special order  Limited by current sensing circuit Limited by independent shut down circuit Protected by independent shut down circuit Protected by input and output fuses  2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive EN50081-1, EN50082-1, EN55014-1, EN61000-3-3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805		Stud with crimp eyelet, adjacent to input		
Safe area protection:  Over Current Over heat Output over voltage Transients Catastrophic failure  Approvals  Tested to  Safe area protection:  Limited by current sensing circuit Limited by temperature sensing circuit Protected by independent shut down circuit Protected by filters and rugged components Protected by input and output fuses  2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive EN50081-1, EN50082-1, EN55014-1, EN61000-3- 3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805	,	Red LED adjacent to output terminals		
Safe area protection:  Over Current Over heat Output over voltage Transients Catastrophic failure  Approvals  Tested to  Description:  Output over voltage Transients Catastrophic failure  Approvals  Limited by current sensing circuit Limited by temperature sensing circuit Protected by independent shut down circuit Protected by filters and rugged components Protected by input and output fuses  2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive  EN50081-1, EN50082-1, EN55014-1, EN61000-3- 3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805	Mounting Method			
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Over heat Output over voltage Transients Catastrophic failure  Approvals  Approvals  Tested to  Output over voltage Transients Catastrophic failure  Limited by temperature sensing circuit Protected by independent shut down circuit Protected by filters and rugged components Protected by input and output fuses  2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive EN50081-1, EN50082-1, EN55014-1, EN61000-3-3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805		Limited by current concing circuit		
Output over voltage Transients Catastrophic failure  Approvals  Approvals  Tested to  Output over voltage Transients Catastrophic failure  Protected by independent shut down circuit Protected by filters and rugged components Protected by input and output fuses  2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive EN50081-1, EN50082-1, EN55014-1, EN61000-3- 3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805				
Transients Catastrophic failure  Approvals  Approvals  Protected by filters and rugged components Protected by input and output fuses 2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive EN50081-1, EN50082-1, EN55014-1, EN61000-3- 3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805				
Catastrophic failure				
Approvals  2004/108/EC The general EMC directive 2006/95/EC The low voltage directive 93/68/EEC The CE marking directive Tested to  EN50081-1, EN50082-1, EN55014-1, EN61000-3- 3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805	Catastrophic failure			
93/68/EEC The CE marking directive  Tested to EN50081-1, EN50082-1, EN55014-1, EN61000-3- 3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805				
Tested to EN50081-1, EN50082-1, EN55014-1, EN61000-3- 3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805		2006/95/EC The low voltage directive		
3, EN60950, EN60945, UL1950, CSA950-95, FCC Class "B", VDE0805		93/68/EEC The CE marking directive		
Class "B", VDE0805	Tested to			
Markings CE				
	Markings	CE		

Weights and Dimensions							
	Width	Depth	Height	Weight			
AD UN UNI	168mm	125mm	58mm	800g			
AD BBB	163mm	145mm	70mm	2810g			
AD BBB NB	163mm	145mm	70mm	318g			
NOTE: The general body of all wedges measure as above. The endplates protrude further to allow fixing to the radio.							





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