



**Value
Service
Quality
Innovation**

DC-DC & AC-DC **Modular**
Switching Power Converters

About Aimtec

DC-DC & AC-DC **Modular** Switching Power Converters

Delivering the highest quality at the most affordable price:

- Competitive quality/cost ratio

Global designer and manufacturer of modular DC/DC & AC/DC switching power supplies:

- Cost effective, feature-rich modular DC/DC & AC/DC converters
- Competitive lead times

Customer service & technical support:

- From engineering and design consultation to final delivery confirmation



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AIMTEC DC-DC Converters

What are your customer needs?

Most industrial and commercial electronic products use some type of DC-DC conversion... the key is to find out what type?

1. What output power range?

If it is between ¼ watt to 30 watt = Aimtec's power range

2. Currently using off-the-shelf modular or discrete/built-your-own DC-DC conversion?

- If modular, mfr name and part number?
- If discrete, output power, input voltage range, output voltage, and isolation?
- Package type: SMT, DIP24, SIP7, etc

3. Industrial operating temperature range?

Aimtec products cover from -40°C to +85°C



DC-DC Converter Features

- **Output power:** ¼ W ~ 30W
- **Input range:** 3 ~ 75VDC ($\pm 10\%$, 2:1, 4:1)
- **Input-Output Isolation:** 1000 ~ 6000VDC or 3000~ 4000VAC
- **Industrial operating temperature range:** -40°C to +85°C
- **Low ripple & noise**
- **Pin compatible with multiple manufacturers**
- **Assorted packages types:** SIP, DIP, SMD, 2"x1", 2"x1.6
- **Reliability:** UL , CE, CB Marking



Competitive Advantages

Different output types within same power range

- ✓ in single, dual and dual separated output types

Examples from 1 Watt series



4-pin SIP



Single



7-pin SIP



Dual

SMD



24-pin DIP



8-pin DIP

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Competitive Advantages

Standard pin out specifications

- ✓ Identical pin out specifications for easy scalability from 3W to 12W

AM3T-RZ



AM3TW-RZ



AM4TW-RZ



AM5TW-RZ



AM6TW-RZ



AM8T-IZ



AM8TW-IZ



AM12TW-Z



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Advantages of Modular Power Supplies

Modular	versus	Build Your Own
1. Mature design – tested and true		1. Failures that occur in the field time and \$\$\$ to investigate and troubleshoot
2. Multiple safety certifications		2. Certification is \$\$\$ and time prohibitive
3. On demand – available in weeks		3. Design, testing and verification takes months and \$\$\$
4. Service & warranty		4. Troubleshooting requires use of test facilities, engineers and \$\$\$
5. Drop-in replacement		5. Modifications involve board redesign - \$\$\$

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Examples of Applications





DC-DC **Single Output**

Output	1W – 6W	8W – 15W	20W – 30W
 <p>Single Output</p> 	<ul style="list-style-type: none"> • Measuring systems (i.e., temperature / heat stations) • Telephone port controllers • Telecomm equipment • Industrial network controls • Automotive safety systems • Medical devices • Cash registers • Gas analytic systems • Electric power meters (High voltage input-output isolation) • PDAs / handheld computers 	 <ul style="list-style-type: none"> • Phone stations • Telecom equipment • Programmable controllers • Alarm systems • Modems • Flight Simulators 	<ul style="list-style-type: none"> • Phone stations • Phone port controller • Medical devices • Industrial measurement • Industrial controllers • Graphic Displays • Low voltage logic arrays 

Same pin-out for different power, input range & isolation!

Examples of Applications

DC-DC **Dual & Dual Separated Output**

Output	1W – 6W	8W – 15W	20W – 30W
 <p>Dual Output</p>	<ul style="list-style-type: none"> • Phone control systems • Distribution systems for medical devices • Industrial network control systems • Measuring systems • Point-of sales terminals • Mobile Data Terminals • Scanners 	<ul style="list-style-type: none"> • Phone stations • Portable Gas Detectors • Distribution systems 	<ul style="list-style-type: none"> • Telecomm • Industrial overall • Industrial measurement converters • Thermocouples • Industrial controllers
<p>Dual Separated</p>	<ul style="list-style-type: none"> • Industrial automated control systems 		<ul style="list-style-type: none"> • Traffic Monitoring Systems 

Packages: SMD, SIP4, SIP7, DIP8, SIP12, DIP24, 2"x1", 2"x1.6"

New **AC-DC & DC-DC** Products Introduced from Q3'2008 to Q1'2009

5W and 15W launched in July 2008:

AMEL5-MAZ
Low Profile

AME15-MAZ
Encapsulated

AMEC15-MAZ
Enclosed Connector

AMES15-MAZ
Enclosed Screw Terminal

60W Desktop launched January 2009:

AMA60-Z

AMA75-Z

120W Open Frame Launched January 2009 - Open Frame with Connectors

AMEO120-Z

LED Drivers

AMLD-IZ

AMLDL-Z

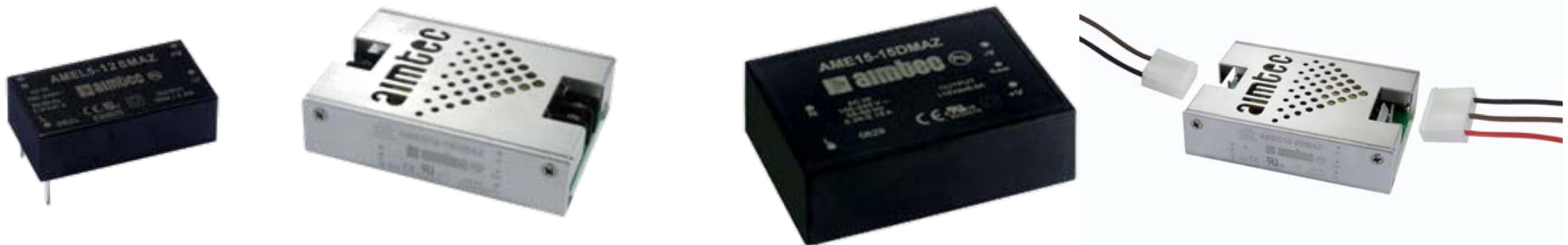
New DC-DC & AC-DC Products for Q2'2009

New Product Launch Schedule			
Series	Product Type	Press Release date	Status
AMLDL-3050Z	LED Driver - new model	39911	Launched
AMLDL-3060Z	LED Driver - new model	39911	Launched
AMLDL-3070Z	LED Driver - new model	39911	Launched
AMLDL-30100Z	LED Driver - new model	39911	Launched
AM2L-NZ	DC-DC SMD 2watt	39918	Launched
AM2LV-NZ	DC-DC SMD 2watt	39918	Launched
AM1LT-NZ	DC-DC SMD 1watt	39925	TBL
AM1M-NZ	DC-DC DIP14 1watt	39925	TBL
AM1L-xxxxxxD-NZ	DC-DC – new dual sep models	39932	TBL
AM2L-xxxxxxD-NZ	DC-DC – new dual sep models	39932	TBL
AMSRL-NZ	DC-DC Switching Regulator	39948	TBL
AME30-MAZ	AC-DC 30watt	39952	TBL
AMES30-MAZ	AC-DC 30watt	39952	TBL
AMEC30-MAZ	AC-DC 30watt	39952	TBL
AME40-MAZ	AC-DC 40watt	39959	TBL
AMES40-MAZ	AC-DC 40watt	39959	TBL
AMEC40-MAZ	AC-DC 40watt	39959	TBL

Product Reviews

AC-DC Converter Features

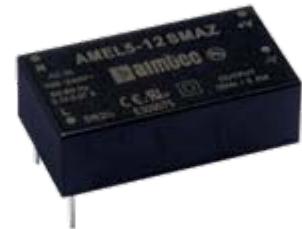
- **Universal input range:** 90 ~260 VAC, 47 ~ 63Hz and 120 ~ 370VDC
- **Output power:** 5W, 15W, 60W, 75W, 120W
- **High Input to Output Isolation:** up to 4000Vac
- **Can work in:** 110VAC (USA, ASIA) & 220VAC (EMEA) power network.
- **Ideal for:** high voltage input DC-DC converters (120 ~ 370VDC).
- **Very low EMI** (Conducted & Radiated Emission)
- **EN55022 class B** for very sensitive telecom applications (5W & 15W)
- **EN60601-1** for medical equipment (5W & 15W)



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AMEL5-MAZ AC-DC Converter

- **Low profile:** PCB mountable encapsulated 2" x 1" package
- **Universal inputs:** of 90~260VAC, 47~440Hz or 120~370VDC
- **Isolation:** 4000VAC Medically certification: EN60601-1
- **Industrial operating temperature:** range of -25°C to +80°C.
- **Low ripple and noise:** 50 to 100 mV p-p
- **Meets or exceeds:** Energy Star EPS v2.0 requirements
- **Safety approvals:** cULus, CB and CE marks
- **Typical Applications include:** support medical and dental devices, industrial control devices, test and measurement equipment, telecommunications applications and consumer electronics



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AME15-MAZ AC-DC Converter

- **Three package types:**
 - Plastic encapsulated
 - Metal enclosed with screw terminals
 - Metal enclosed with connector package
- (optional DIN rail bracket for both of the metal enclosed packages)
- **Universal inputs:** of 90~260VAC, 47~440Hz or 120~370VDC
- **Isolation:** 4000VAC Medical certification: EN60601-1
- **Industrial operating temperature:** range of -40°C to +80°C.
- **Meets or exceeds:** Energy Star EPS v2.0 requirements
- **Safety approvals:** cULus, CB and CE marks
- **Typical applications include:** medical and dental devices, industrial control devices, test and measurement equipment, telecomm applications and consumer electronics



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AMA60-Z

Desktop AC/DC Converter

- **Universal inputs:** of 90~264VAC, 47~67Hz
- **Commercial Operating Temperature Range:** 0°C to +40°C
- **Low ripple and noise:** 50 to 240 mV p-p
- **Very low EMI** (Conducted & Radiated Emission) designed to meet EN55022 class B for very noise sensitive applications
- **Designed to meet Safety Standard:** Complies to EN60950-1
- **Protection features:** Over load, Over Voltage, Short Circuit Protection
- **Typical Applications include:** Laptop computers, telephone systems, electronic gaming equipment, lighting applications, test and measurement equipment, telecommunications applications and consumer electronics



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AMEO120-Z

Open Frame AC/DC Converter

- **Universal inputs:** of 90~264VAC, 47~67Hz
- **Commercial Operating Temperature Range:** 0°C to +40°C
- **Very low EMI** (Conducted & Radiated Emission) Designed to meet EN55022 class B for very noise sensitive applications
- **Designed to meet Safety Standard:** Complies to EN60950-1
- **Protection features:** Over load, Over Voltage, Short Circuit Protection
- **Typical Applications include:**, industrial control devices, test and measurement equipment, telecommunications applications and consumer electronics



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NEW Products

AMLDx-xZ

Constant current LED drivers

Feature LED drivers provide high output current (up to 1A), very wide input (7:1) and high efficiency (up to 96%) in small DIP14 and DIP16 package

AMLD-IZ series:

- wide input range of 7-30VDC
- wide output range of 2-28VDC
- constant output currents of 300mA, 350mA, 500mA, 600mA, 700mA and 1A, for driving either a single unit or long strings of LEDs
- Remote ON/OFF control function
- PWM
- Analog voltage dimming control (0 – 100%)
- DIP14 (20.32 x 10.16 x 6.88 mm)
- DIP16 (23.37 x 13.97 x 10.16 mm)



AMLDL-Z drivers:

- With a high efficiency rate of 95%
- Operating temperature of -40oC up to +85oC at full load



AM2L-NZ

Low Profile (6mm high), Isolated SMD 2 Watt DC-DC Converter

- Compact, low profile (17.78 x 17.78 x 6.00mm) package
- Input voltages of 5 or 12VDC
- Single and dual output voltages include 5, 9, 12 or 15 VDC
- I/O isolation of 1000VDC, providing source to load protection and allows reverse polarization of load voltage
- High efficiency rates of up to 85% help to maximize battery lifetime and minimize unwanted heat generation
- Operating temperature range: -40°C to +85°C at full power without derating or forced air cooling
- Cold start up temperature of -40°C and a MTBF of >3,500,000 hour, making these robust converters ideal for outdoor applications
- RoHS compliant



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AM2LV-NZ

Regulated ($\pm 0.5\%$), Isolated (15000VDC), SMD 2 Watt DC-DC Converter

- Internal SMT construction – ideal for space critical applications
- Input ranges of 9~18 or 18~36 VDC
- Single and dual output voltages include 5, 9, 12 or 15 VDC
- I/O isolation of 1500VDC,
- Continuous short circuit protection with auto-recovery restart
- Operating temperature range: -40°C to $+85^{\circ}\text{C}$ with derating or up to $+71^{\circ}\text{C}$ at full load without derating or forced air cooling
- Requires no other external components for full performance
- RoHS compliant



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BROWSE
PRODUCTS

BROWSE
SERIES

AC-DC LED Drivers DC-DC Bricks DC-DC Enc. Non Isolated POL

What's new ?



AM2L-NZ: New Low Profile (6mm high), Isolated SMD 2 Watt DC-DC Converter April 17, 2009

Feature rich LED drivers provide high output current (up to 1A) in small DIP 14 and DIP16 package April 8, 2009

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AMLDL-Z



Wattage Up to 8.4

Constant output current mA 300~350

VDC Input Range (7:1) 7~30

Efficiency 95%

Dimming Control 0-100%

