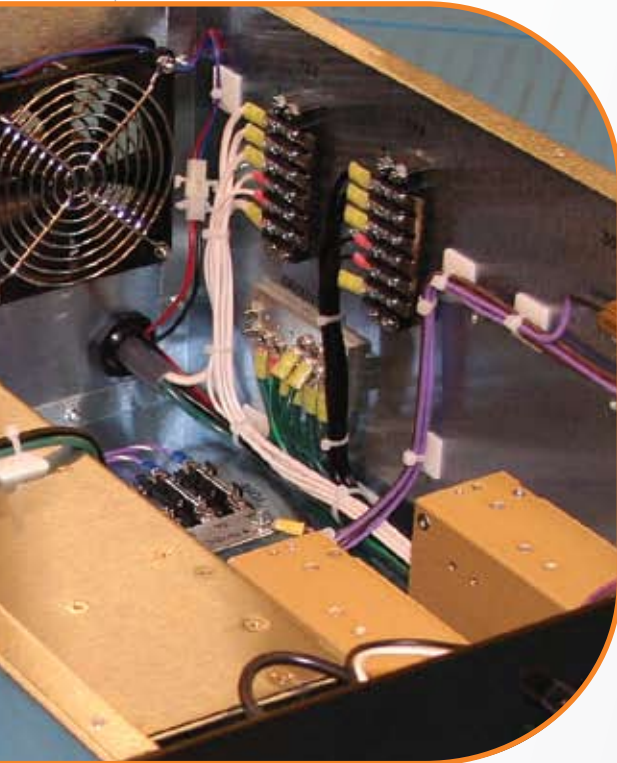


power products and thermal management



CAPABILITIES

Arrow Electronics

Your Power Products and Thermal Management Provider

As a leading power supply distributor in North America, Arrow specializes in providing solutions tailored to meet your specific power and thermal needs from concept through production.



POWER AND THERMAL SOLUTIONS AT YOUR FINGERTIPS

Our dedicated team of technical experts helps you navigate the complex process of selecting a power supply. And our award-winning value-added center located in Phoenix, Arizona boasts a combination of outstanding people, products, and technical capabilities to meet the very highest quality standards. Whether you require an off-the-shelf solution or a customized power supply, Arrow can turn your power specification into a deliverable product.

Custom/Modified Solutions

Arrow's Power Products Center, located in Phoenix, offers a vast array of value-added services to assist you in meeting your power requirements. This center maintains numerous technical and quality certifications, including ISO 9001:2000, TL9000, AS9100, and ISO 13485.

Now compliant with ISO 13485 standards, Arrow is certified for designing and manufacturing medical devices. This enables Arrow to serve the medical market with custom power supplies and systems that are specifically designed, implemented, and maintained to meet the stringent needs of this industry.

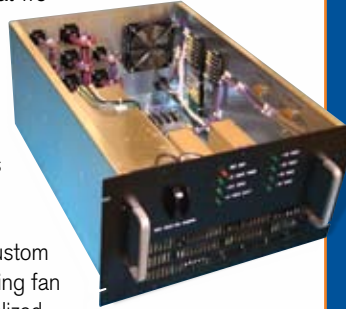
The facility's services include engineering to support product design, verification, and testing, and build-on-demand services for a wide range of applications, including medical and industrial equipment. It maintains Class 1000 cleanroom capabilities, in addition to a quality- and process-controlled environment and a Lean Sigma culture.

Off-the-Shelf Power Solutions

Through partnerships with the industry's leading suppliers, our wide range of inventory represents power products from 1 to 8,000 Watts. Arrow continually invests in new technology to maintain the strongest and most diversified inventory in the power distribution market, so that we can meet all of your power needs.

Thermal Solutions

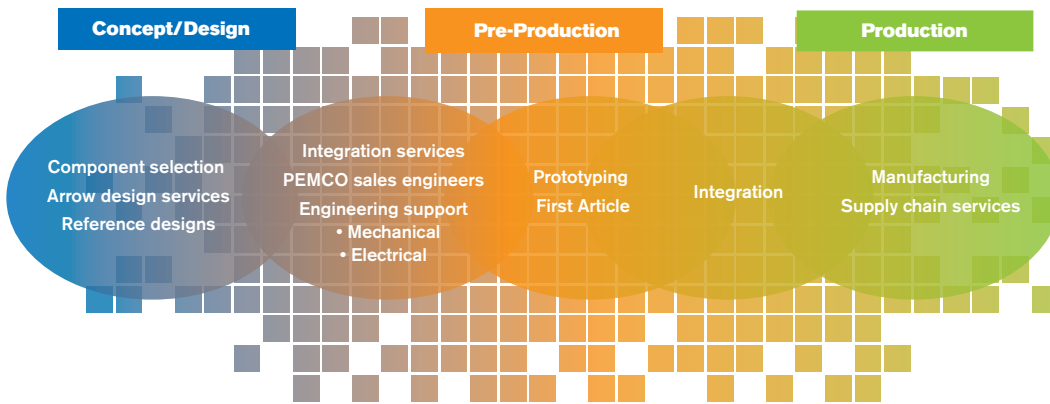
Arrow also offers a vast array of thermal products to meet your cooling device needs. Our value-added center provides custom assembly services including fan tray assembly and specialized termination. Whether you are searching for a thermal device for a complex industrial control machine or a cooling device for a rack-mounted system, Arrow has you covered, regardless of volume requirements.



Products

- AC/DC power supplies
 - ✓ Low, mid, and high
 - ✓ Front-end
 - ✓ Linear
 - ✓ PC
 - ✓ External wall mount and desktop
- Batteries
- Lighting power supplies
 - ✓ LED power supply solutions
- DC/DC products
 - ✓ Converters
 - ✓ Point of load (POL)
 - ✓ Digital programmable power supplies
 - ✓ Voltage regulator modules (VRMs)
- Value-added power products
 - ✓ Modular power supplies
 - ✓ Full custom power supplies
- Uninterruptible power supplies (UPSs)
- Thermal products
 - ✓ Fans, blowers, and impellers
 - ✓ Heat sinks
 - ✓ Fan sinks
- Advanced Telecommunications and Computing Architecture (ATCA®) and Micro Telecommunications and Computing Architecture (MicroTCA™) power supplies

Powerful Solutions from Concept Through Production



Arrow's Technical Expertise

Arrow has a dedicated team of passive, electromechanical, and connector (PEMCO) sales engineers deployed throughout North America to help you design the best solutions to meet your system requirements. Our sales engineers are experts on the latest technologies and can offer design assistance with off-the-shelf and value-added power solutions that will reduce your design time and costs.

Our experts are also committed to supporting green power-supply initiatives. Your Arrow sales engineer can help you select the most energy-efficient power solution for your system to meet strict energy regulations, including:

- Energy Star®
- Executive Order 13221 (1W Standby)
- California Energy Commissions (CEC) Regulations
- 80 Plus®

Services

- Custom
 - ✓ Sheet-metal enclosures
 - ✓ Monitoring circuits
 - ✓ Printed circuit boards
 - ✓ Cable assembly design
 - ✓ High-power "hot swap" redundant assemblies
- Integration
 - ✓ Heat sinks
 - ✓ LEDs
 - ✓ Mounting hardware
 - ✓ Power-entry modules
 - ✓ Relays, switches, etc.
- Fan Modification
 - ✓ Termination
 - ✓ Fan Tray Assembly
- Testing, inspection, and burn-in
- Build-to-print
- System design and integration
- Project management
- Product testing and documentation
- Technical support
- Kitting

PRODUCT LISTING | Power Products and Thermal Management

AC INPUT



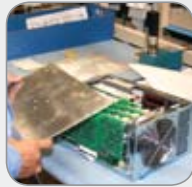
3Y Power Technology	American Power Conversion (APC)	Autec Power Systems	Delta Products	Eitek Valere	Emerson Network Power	EOS Power	Lineage Power	Magtech Industries	Murata Power Solutions	Phoenix Contact	Portwell	Power-One	RECOM Power	Sanyo Denki	SL Power (Ault and Condor)	TDK-Lambda	Universal Microelectronics Corp. (UMEC)	Voletx Power Cords
---------------------	---------------------------------	---------------------	----------------	--------------	-----------------------	-----------	---------------	--------------------	------------------------	-----------------	----------	-----------	-------------	-------------	----------------------------	------------	---	--------------------

PRODUCT TYPE																		
GENERAL-PURPOSE SWITCHERS																		
Low Power (5 - 150 Watt)	•		•		•	•	•	•			•	•	•		•	•	•	
Low Power (150 - 300 Watt)	•		•	•	•	•	•	•	•			•	•		•	•		
Mid Power (300 - 750 Watt)	•		•	•	•	•	•	•	•			•	•		•	•		
Mid-Power Modular (VAR)			•									•						
Mid-Power Hot Swap	•		•	•	•		•					•				•		
High Power (750 - 2500 Watt)	•		•	•	•		•		•			•			•	•		
High-Power Hot Swap	•		•	•	•		•		•			•			•	•		
High-Power Modular (VAR)					•							•			•	•		
High-Power Over 2500 Watt	•		•	•	•		•		•			•			•	•		
EXTERNAL POWER SUPPLIES																		
Desktop			•	•		•	•		•						•	•	•	
Wall Mount			•	•		•	•		•						•		•	
Battery Chargers			•												•			
Medical Externals			•	•		•	•		•						•	•		
AC/AC Transformers															•			
PERSONAL COMPUTING																		
ATX Form Factor	•		•	•								•						
Networking	•		•	•								•						
Hot Swap, N+1, 1U	•		•	•								•					•	
Server/Workstation	•		•	•								•	•				•	
LIGHTING																		
LED Driver (3 - 25 Watt)			•					•					•			•		
LED Driver (25 - 40 Watt)			•					•					•					
LED Driver (40 - 300 Watt)			•			•		•					•			•		
Wall-Mount LED Drivers			•					•										
Ballasts								•										
UPS SYSTEMS																		
Computer (325 - 1500 VA)		•													•			
Network (.4 - 20 KVA)		•													•			
Power Conditioning		•													•			
Surge Protection		•													•			
SPECIALIZED PRODUCTS																		
AC/DC Board Mount								•				•	•			•	•	
Compact PCI							•		•			•			•			
Din Rail				•		•				•		•	•			•		
Industrial Grade	•		•	•	•				•	•	•	•	•			•	•	
Linears												•			•	•		
Medical Linears												•			•	•		
Medical Switchers			•			•	•	•				•	•		•	•		
MicroTCA Power Module						•												
PFC Front-End Bricks						•										•		
Power Over Ethernet	•					•						•			•			
Rectifiers and/or Rack Systems	•	•		•	•		•		•			•				•		
AC Power Cords		•				•												•
Custom or Modified Standard	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•



BATTERIES, PACKS, AND CHARGERS

American Power Conversion (APC)
 Autec Power Systems
 Infinite Power Solutions
 MicroSun Technologies
 Panasonic Industrial
 SL Power (Ault and Condor)



PRODUCT TYPE						
PRIMARY						
	Lithium Manganese Dioxide (CR)		•			
	Lithium Thionyl Chloride (ER)		•			
	Ultra-Thin Flexible Lithium		•			
	Coin		•			
	Cylindrical		•			
RECHARGEABLE						
	Lithium Ion		•		•	•
	Lead Acid	•			•	
	Nickel Metal Hydride		•			
	Coin		•			•
	Cylindrical		•			•
	Prismatic		•			
	Polymer		•			
	Solid-State Thin Film			•		
SPECIALIZED						
	Battery Backup Systems	•				
	Battery Chargers		•		•	•
	Battery Packs (Custom/Standard)		•		•	

DC INPUT

3Y Power Technology
 Bel Power
 Delta Products
 Emerson Network Power
 Lineage Power
 Magtech Industries
 Murata Power Solutions
 Portwell
 Power-One
 RECOM Power
 Sanyo Denki
 SL Power (Ault and Condor)
 TDK-Lambda
 Texas Instruments (Power Trends)
 Universal Microelectronics Corp. (UMEC)

PRODUCT TYPE	3Y Power Technology	Bel Power	Delta Products	Emerson Network Power	Lineage Power	Magtech Industries	Murata Power Solutions	Portwell	Power-One	RECOM Power	Sanyo Denki	SL Power (Ault and Condor)	TDK-Lambda	Texas Instruments (Power Trends)	Universal Microelectronics Corp. (UMEC)	
ISOLATED DC/DC CONVERTERS																
	Sixteenth Brick		•	•	•		•		•				•			
	Eighth Brick		•	•	•		•		•				•	•		
	Quarter Brick		•	•	•		•		•				•	•		
	Half Brick		•	•	•		•		•				•			
	Full Brick		•	•	•		•		•				•			
	DOSA Compliant		•		•		•		•				•			
	ATCA Input Module		•	•	•		•		•				•	•		
	Intermediate Bus Converters		•	•	•		•		•				•	•		
	Board Mount < 40 Watt		•	•	•		•		•	•			•	•		•
	Board Mount > 40 Watt		•	•	•		•		•	•			•	•		•
	Industry-Standard DIP, SIP, SMT		•	•	•		•		•	•			•	•		•
	Chassis-Mount Rugged Environment								•	•			•			
	Filter Module			•					•				•			
	RF Power Modules				•				•				•			
	Single/Dual/Triple Outputs		•	•	•		•		•	•			•	•		•
NON-ISOLATED DC/DC CONVERTERS																
	DOSA-Compliant POL		•		•		•		•				•			
	POLA-Compliant POL			•	•		•		•				•	•		
	Point of Load (POL)		•	•	•		•		•	•			•	•		
	DDR Memory Module				•		•									
	Digital Programmable Bus								•							
	Voltage Regulator Modules (VRM)		•	•	•		•		•				•			
SPECIALIZED PRODUCTS																
	ATX Form Factor								•							
	ATX Output Module								•							
	DC Input Compact PCI				•		•		•				•			
	DC Input Din Rail								•	•			•			
	DC Input LED Drivers					•			•				•			
	DC Input Networking/Server	•			•				•				•			
	DC Input Open Frame					•			•				•			
	DC/AC Inverter			•					•		•		•			
	MicroTCA Power Module				•											
	Switching Regulator 0.5A - 5A								•	•					•	
	DC Input Rack and Rectifier Systems				•	•			•							

THERMAL COOLING



AC FANS, BLOWERS, AND IMPELLERS

Tube Axial and Axial Fans

Housing

- Round
- Square
- ▲ Both

Size (mm)	Aavid Thermalloy	ADDA USA	AVC America	CTS Components	Delta Products	ebm-papst, Inc.	NMB Technologies	Sanyo Denki	Tyco Electronics
60									
76						●			
80		■				■	■	■	
92		■				■	■	■	
108						●			
113						●			
120		■	■			■	■	■	
127						■			
135						■			
150						●	●		
155		●				●	●		
160						●		■	
172		●	●			●	●	●	
176		■				■			
180						■			
205		■				■			
225						■			
232						■			
254		●							
260						●			
280		■				■			
320						■			
400						●			
430						●			
460						●			
522						●			
540						●			
725						●			
805						●			

Cage Blowers

Tube Axial Blowers

Cross Flow Blowers

Centrifugal Impellers

DC FANS, BLOWERS, AND IMPELLERS

Tube Axial and Axial Fans

Housing

- Round
- Square
- ▲ Both

15		■							
20		■							
25		■							
30		■							
35		■							
36		■							
38		■							
40		■	▲						
45		■	▲						
50		■							
52		■							
55			●						
60		■							
65		■	●						
70		■							
80		■							
85		■							
92		■							
100		■							
120		■							
127		■							
135		■							
140		■							
150		■	●			●			
172		■	●			●	▲	▲	
200			●			●		●	
225						●			
232						●			
280						●			
320						●			

Counter-Rotating Fans

Cage Blowers

Tube Axial Blowers

Cross Flow Blowers

Centrifugal Impellers

HEAT SINKS AND FAN SINKS

Heat Sinks

BGA Heat Sinks

Custom Extrusions

LED Coolers

Liquid Cooling

CPU Coolers

VGA Coolers

ACCESSORIES, OPTIONS, AND SPECIAL FEATURES

Accessories and special features may not be available for all products

Environmental Conditioning

Interface Materials

Mounting Clips

AC Plug Cords

Finger Guards

Filters or Screens

Fantrays or Housings

Start/Run Capacitor

3rd Wire Sensor/Signal

Low Noise

Water Proof (IP55)

Splash Proof (IP54)

Dust Proof

Oil Proof

For more information, contact your Arrow sales representative at 800.833.3557 or visit our website at www.arrow.com/power_supplies.



Meet Our Growing Family!

Expanded generation of S-Force now available in Tubeaxial and Radial Designs

Our compact generation of S-Force tubeaxial fans and radial impellers are the most powerful performers in the world! Whether for cooling server rooms or switch cabinets, complex machines or sensitive medical technology - our intelligent and electronically controlled high performance fans are well suited for any application that requires highly focused airflow and back pressure while using the least amount of space.

If reliable and efficient air performance is what you seek for your applications - look no further. Contact an application engineer at 860.674.1515 or visit us on the web to learn more.

www.ebmpapst.us/sforce



The engineer's choice

ebmpapst

supplier ad goes here