Power Control, Conversion & Distribution Solutions
380 VDC Rack Mount Power Strip

The 380 VDC Power Strip series is a key component in modern DC Data Center solutions. 380VDC has the best balance of economics and safety for standardized components. Using DC power in Data Centers reduces total cost of ownership (TCO) by:

- Reducing the number of power conversions, lowering HVAC costs
- Extending life of critical infrastructure
- Lowering infrastructure costs for data center space needs
- Lower equipment CAPEX
- Lower maintenance and operating OPEX

By having a DC Data Center, operators can simplify the integration of on-site energy generation and storage from alternative energy sources such as wind and solar.

Features:
- Up to 42 380 VDC Receptacles
- Junction Box Ready, Hard-wired Power Input
- Space Saving OU Package
- Fuse or Circuit Breaker Protection
- LED Status Indicators
- DC Power Eliminates the Conversion Process of Changing AC to DC, reducing heat and lowering energy costs
- Branch Circuit Breaker Protection
- Tactical Construction
- ODM Services Available

Specifications:
- Input Voltage: 380 VDC
- Max Input Current Rating: 60A Max Total (20A Max per Outlet & 20A Max per Load Bank)
- Input Protection 3 x 20A 2 Pole Fuse or Breaker
- Load Capacity: 18.24 KVA
- Outlets: Anderson Power Products Receptacles
- Temperature Range: 0˚C to 50˚C

Tactical, Portable Junction Box

The Junction Box is a portable COTS solution designed for distributing power from a tactical power supply supporting command & control communications systems and other critical electronic warfare (EW) & weapons equipment. When fielded, the Junction Box, working together with the TPS75, reduces fuel consumption and wear and tear on vehicles by eliminating run time to support powering fielded special ops equipment.

Features:
- 4) 28 VDC outputs
- Battery Charger Pass-Through when using the TPS75 or TPS155 and the appropriate cable
- Withstands extreme temperatures, shock and vibration; Weatherproof and waterproof housing; Meets MIL-STD 810
- LED power indicator

Specifications:
- DC Input Voltage: 28VDC, 75A DC with 10A Battery Charger
- Output Connector MIL-DTL-5015, 24-12S Locking Bayonet
- 1P75A UL489 Circuit Breaker
- DC Output J2-J4
- Voltage 28VDC, 50A
- Output Connector MIL-DTL-5015, 24-12S Locking Bayonet
- 1P50A UL489 Circuit Breaker
- Material Aluminum Enclosed, Waterproof Chassis
- Wide Operating Temperature Range: -40°C to + 60°C compliant to MIL-STD-810G

AC Switched Power Distribution Unit

The AC SMARTStart® HR (High Reliability) series is a Tactical military grade intelligent switched and sequenced PDU distributing single phase 30 Amps power to critical loads in a compact 1U package. Remote monitoring capability ideal for power distribution in fielded/remote locations. Other Applications include: Data Centers, Military Transit Cases, Defense ATE Equipment, FAA Control Centers, and more.

Features:
- Built to Withstand Extreme Temperatures, Mechanical Shock and Vibration, and Other Harsh Elements
- Monitors: Input Line Voltage, Total Load Current, Line Frequency
- Optional Alarm Sensors, Security Sensors, Limit Switches, Remote Stop
- Emergency Power Off (EPO)
- Circuit Protection and Power-On Current Limit
- Ability to Power-On or Power-Off Any/All Loads in Any Sequence Over a Wide Range of Time Intervals.
- Auto Re-Sequence When Power is Restored

Specifications:
- Input Voltage Ranges: AC: Global, IEC, NEMA Single Ø: 100-127, 200-240
- Max Input Current Rating: 20A or 30A
- Load Capacity: 1.92 – 6.45 KVA
- Circuit Protection and Power-On Current Limit
- Tactical & Reliable Construction
- Custom Design Flexibility
- Designed to Meet MIL-STD 810 and MIL-STD 461
### High Power 3 Phase Intelligent Power Distribution Unit

The AC SMARTStart® Series, our highest powered (80A) rack mounted design, supports applications where power versatility is required. Multiple types of AC outputs support a wide range of connected equipment. Optional EPO button adds safety to training simulations. Remote monitoring is ideal for autonomous equipment on land and sea.

**Features:**
- Single and Three-Phase Inputs up to 80 Amps
- In-line power filtering at input
- Over Current Protection
- Power ON/OFF Indication for Each Branch Circuit
- Remote Power Sequencing and Outlet Switching
- Voltage and Current Monitoring
- NFPA-79 Cat-0 stop compliant option available
- Function and Mode Switches (For Remote and Local): On, Off, and Start Features
- Elapsed Time Indicator
- Common Mode and Differential Mode EMI Filtering
- Designed to MIL-STD 810
- Custom Design Flexibility

**Specifications:**
- Input Voltage Ranges:
  - AC: Global, IEC, NEMA
  - Single Ø: 100-127, 200-240
  - Three Ø: 200-240 3 Ø Delta
- 120/208 3 Ø Wye
- Max Input Current Rating: to 70 Amps per Ø
- Frequency: Up to 400 Hz
- Overload Protection
- Wide Operating Temperature Range: -40°C to +60°C
- LED Indicators
- Network Interface: Telnet, Web, SNMP
- Higher current rating avail.

### DC Switched Power Distribution Unit

The DC SMARTStart® Series is an intelligent switched and sequenced PDU distributing DC power up to 80 Amps per bank in a compact 1U package. Remote monitoring capability ideal for power distribution in fielded/remote locations. Other Applications include: Military, Industrial, Telco, Data Centers, Communications, Unmanned Vehicles, Command Post Platforms, Remote Sites, RF Transmitters and more.

**Features:**
- Solid State Power Control
- Cycle Power to Connected Loads
- Electronic Switchable Solid State Breakers
- Event Log
- Reverse Polarity Protection
- SNMP Agent on Board
- Output Sequencing
- Remote Reboot
- Line Voltage, Circuit Breaker Status, and Internal Temperature Monitoring
- NEBS Level 3 Certified and UL 60950-1 Listed

**Specifications**
- Input Voltage: 48, or +24/+28 VDC
- Max Input Current Rating: 30 Amp, 60 Amps or 100 Amps
- Optional Remote Monitoring Appliance: Available in up to 12 Channels
- Input Connection: Non-rotational terminal block, dual lug, 5/8" centers, 1/4-20 threads
- Output Connections: Anderson Power Products 1327 Powerpole Series - Rated 45A
- Temperature Range: 0°C to 50°C
- LED Indicators
- Network Interface: Telnet, Web, SNMP, Series RS232

### Power Entry and Export Panel Series

The Power Entry and Export Panel Series is an expeditionary COTS solution fully integrated into various military vehicles. This power panel acts as a power entry point connecting power to a shelter and even charging batteries.

**Features:**
- Emergency Power Off
- Integrated Buss-Bar Technology
- AC & DC EMI Filtering
- Surge Protection
- Low Voltage Disconnect
- Optional “Transfer Switch” to Permit Reliable Uptime for Mission Critical Hardware in Transit Cases
- Branch Circuit Protection
- Power Quality Monitoring
- Auxiliary Outlets
- GFCI
- Tactical & Reliable Construction
- Custom Design Flexibility
- Designed to Meet MIL-STD 810 & 461

**Specifications:**
- Input Voltage: 120/208 VAC 3 Ø Wye
  - 60 Amps Per Phase
- +24/28 VDC Power Supply - 200 Amps
- HMMWV Battery - 200A
- RWS Battery - 200A
- Output Power: 208/120 VAC, 3Ø, 60Hz, 60A
- Environmental Control Unit Power: 208/120 VAC, 3Ø, 60Hz, 30A
- DC Power Supply: 208/120 VAC, 3Ø, 60Hz, 25A
- PTIP Interface:120 VAC, 60Hz, 15A & +24 VDC, 35A
- GCFI Power: 120 VAC 60Hz
- Wide Operating Temperature Range: -40°C to +60°C
- Input Over Voltage: output channels disabled, Input Under Voltage and more.
**Tactical Power Supply (TPS 75)**

The Tactical Power Supply, TPS 75, is an expeditionary commercial-off-the-shelf (COTS) solution designed to power C4ISR systems, critical electronic warfare (EW) and weapons equipment.

This lightweight, portable power supply unit provides a small footprint, and is easily stowed when not in use in the field.

**Features:**
- 75 Amp DC output options with single, or three Phase Input Power
- Withstands extreme temperatures, shock and vibration; Weather resistant housing; Meets MIL-STD 810
- Integrated battery charger; 28 Volts of DC power at 10A; Battery detect feature to ensure connection and state of charge
- Remote monitoring with user enabled remote ON/OFF for the DC outlet and the battery charger, alarm limits creation, and more.
- EMI filtering protecting against noise and interference is compliant to MIL-STD 461
- Auto over temperature shut down protects critical loads
- Reliable Construction with Integrated heat sinks and forced air cooling
- Custom Design Flexibility

**Specifications:**
- AC Input Voltage:
  - 1 x Three Phase 4 Wire WYE, 190-220 L-L VAC
  - 1 x Single Phase, 240/120 VAC, Mid-Point Neutral; 3 x Single Phase, 100-127 VAC
- Output Power:
  - DC: 75A @ 28 VDC, ±3% @ 40°C, 75% @ 60°C or
  - 24V Battery Charger: 28 VDC @ 10A Bulk Charging Capacity
- Wide Operating Temperature Range: - 40° C to + 60°C
- Network Interface: Telnet, Web

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**Tactical Power Supply (TPS 150)**

The Tactical Power Supply, TPS 150, is designed for mission critical military systems where many different pieces of equipment have high power requirements.

When fielded, the TPS supports powering special ops equipment reducing fuel consumption and vehicle wear and tear.

This model provides a higher load capacity and delivers twice the power of the TPS 75 unit.

**Features:**
- 150 Amp DC output options with single, or three Phase Input Power
- Withstands extreme temperatures, shock and vibration; Weather resistant housing; Meets MIL-STD 810
- Integrated battery charger; 28 Volts of DC power at 10A; Battery detect feature to ensure connection and state of charge
- Remote monitoring with user enabled remote ON/OFF for the DC outlet and the battery charger, alarm limits creation, and more.
- EMI filtering protecting against noise and interference is compliant to MIL-STD 461
- Auto over temperature shut down protects critical loads
- Reliable Construction with Integrated heat sinks and forced air cooling
- Custom Design Flexibility

**Specifications:**
- AC Input Voltage:
  - 1 x Three Phase 4 Wire WYE, 190-220 L-L VAC
  - 1 x Single Phase, 240/120 VAC, Mid-Point Neutral; 3 x Single Phase, 100-127 VAC
- Output Power:
  - DC: 150A @ 28 VDC, ±3% @ 40°C, 75% @ 60°C or
  - 24V Battery Charger: 28 VDC @ 10A Bulk Charging Capacity
- Wide Operating Temperature Range: - 40° C to + 60°C
- Network Interface: Telnet, Web

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**Dual Input Tactical Power Supply**

This Dual Source 650W power supply is capable of being powered from a universal shoreline (85-265VAC) or vehicle 12/24/28VDC battery / alternator source. It was designed to comply with MIL-STD-1275 for Vehicle Power Systems as well as MIL-STD-461 EMI. It can operate in a 60°C environment without fans and is rated as a IP-67 enclosure making it a very rugged design. The unit measures 10.73”L x 4.75”W x 4”H and weighs approximately 7 lbs., making it ideal for man portable applications.

**Features:**
- Multiple Power Sources AC/ or DC Battery or Vehicle Battery
- DC Voltage Output 24VDC
- AC Input Over/Under Voltage Protection
- Operates in Extreme Temperature, Humidity, & Vibration
- Convection Cooled - No Moving Parts
- Weighs approximately 7.0 lbs.
- Designed to Meet MIL-STD-810 & MIL-STD-461

**Specifications:**
- Input Characteristics: 18/36VDC Vehicle
  - Current: 13.5A Maximum @ 18V
  - Isolation (In/Out): 1.5k VDC
  - Connector: MS3470W10-6P
- 18/36VDC Battery
- Current: 90A Max
- Overload Protection: 100A/1P Circuit Breaker
- AC Input
  - Voltage: 85VAC to 265 VAC
  - Frequency: 50-400Hz
  - Current: 12A Max
  - Undervoltage & Overvoltage Protection
  - Thermal Protection
  - Power Factor Correction (0.95 min)
- Output Characteristics:
  - Voltage: 24VDC
  - Current: 30A Max Combined
  - Overload Protection: 30A/1 P Circuit Breaker, UL489, Delay Curve 51 (CB3)
  - Voltage: 42VDC
  - Current: 4.5A Max
  - Overload Protection: 10A/1P Circuit Breaker, UL489, Delay Curve 51 (CB4)
- Connector: MIL-DTL-5014, 10SL-4S Locking Bayonet, Cover Incl. (J4)

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**Portable Tactical Power Supply**

This lightweight 200W power supply is capable of being powered from a universal shoreline (85-265VAC) or vehicle 12/24/28VDC battery / source. It can operate in a 50°C environment without fans and is rated as a IP-67 enclosure making it a very rugged design. The unit measures 10.73”L x 4.75”W x 4”H and weighs approximately 7 lbs., making it ideal for man portable applications.

**Features:**
- Multiple Power Sources AC/ or DC Battery or Vehicle Battery
- DC Voltage Output 24VDC
- AC Input Over/Under Voltage Protection
- Operates in Extreme Temperature, Humidity, & Vibration
- Convection Cooled - No Moving Parts
- Weighs approximately 7.0 lbs.
- Designed to Meet MIL-STD-810 & MIL-STD-461

**Specifications:**
- Input Characteristics: 18/36VDC Vehicle
  - Current: 13.5A Maximum @ 18V
  - Isolation (In/Out): 1.5k VDC
  - Connector: MS3470W10-6P
- 18/36VDC Battery
- Current: 90A Max
- Overload Protection: 100A/1P Circuit Breaker
- AC Input
  - Voltage: 85VAC to 265 VAC
  - Frequency: 50-400Hz
  - Current: 12A Max
  - Undervoltage & Overvoltage Protection
  - Thermal Protection
  - Power Factor Correction (0.95 min)
- Output Characteristics:
  - Voltage: 24VDC
  - Current: 30A Max Combined
  - Overload Protection: 30A/1 P Circuit Breaker, UL489, Delay Curve 51 (CB3)
  - Voltage: 42VDC
  - Current: 4.5A Max
  - Overload Protection: 10A/1P Circuit Breaker, UL489, Delay Curve 51 (CB4)
- Connector: MIL-DTL-5014, 10SL-4S Locking Bayonet, Cover Incl. (J4)
**Hawk-i Laser Aiming Device**

The Hawk-i™ Video Aiming Device utilizes a camera and a rangefinder to automatically place crosshairs on your monitor. While approaching a target, the crosshairs shift based on your range to the target to show operators the true point of impact for their shot. The system also displays range to target in the upper left corner of the video image. The Hawk-i™ Video Aiming Device promotes a more accurate shot.

**Key Features:**
- Crosshairs are projected on to operator's video monitor and are automatically updated based on range to target.
- Range to target is displayed on operator's video monitor; Requires access to one analog video channel on a robotic platform.
- Sealed enclosure for environmental and shock resistance; 5-minute integration; No external monitor or hardware required at the robot's base station.
- Minimum Standoff Distance: 9 inches; Maximum Standoff Distance: 48 inches; No calibration required.

**Key Benefits:**
- The automatic crosshairs created by the Hawk-i™ video aiming system enables faster aiming and decreases chances of misfiring due to human error.
- Compatible with all 12-gauge PAN™ Disrupters.
- Significant improvement over venetian blind.
- When used in union with the Cobra Sight™ Laser Aiming Device, the effectiveness and accuracy of aiming at targets increases.

**Cobra Sight Laser Aiming Device**

The Cobra Sight™ Laser Aiming Device is an inventive new tactical device which utilizes true boresight technology.

With this aiming device, the end of the barrel remains uncovered, making zeroing in much faster. Two line lasers are utilized to project a true crosshair on your target for ranges greater than 7 inches without adjustment. With the Cobra Sight™ Laser, a more precise shot is guaranteed.

**Key Features:**
- Two line lasers intersect to produce a true crosshair.
- Sealed enclosure for environmental and shock resistance; ON / OFF controlled by robot's own laser switch or by external switch (PAN Stand Version).
- Factory-calibrated, but also user-adjustable.

**Key Benefits:**
- Compatible with all 12-gauge PAN™ Disrupters.
- No removal required before a shot is taken.
- Minimum Standoff Distance: 7 inches
- PAN™ Stand Version: 2 AA Batteries
- Robot-Mount Version: 12V/ 200mA
- Class 3R Device (two class 3A lasers)
- Factory-calibrated, but also user-adjustable.
- True boresight technology.

**Build-to-Print and Turnkey Solutions**

API Technologies is a fully integrated "one-stop shop" for engineering, design, and manufacturing of OEM, Box Builds, Build to Print, and turnkey solutions. With our breadth of expertise, established business partners, and design and manufacturing capabilities, we are ready to dedicate ourselves to understanding your needs and seamlessly moving your project to completion.

We will collaborate from the early stages of development, provide prototyping capabilities, and ensure quality through testing with the end goal of volume production.

**Technology Capabilities:**

API employs a diversified array of state-of-the-art equipment for applications in research and development prototypes, test, measurement, and simulation of electrical components & systems. Our team models and accurately defines the best design and package solution. API Technologies prides itself in having the capability to handle a one of a kind prototype unit as well as moderate volume assembly and test. We also run production lines utilizing custom designed automated test stations for specific applications, geared to provide optimum cost and manufacturing efficiencies.

**Manufacturing and Testing Capabilities:**
- Large Scale Production Systems
- Development, Integration, Staging, Testing, Installation, and Maintenance Training
- High Temperature at Full Load
- Low Temperature at Full Load
- DC Resistance
- Short Circuit Test
- Thermal cycling
- Humidity Resistance
- Salt Spray
- High Temperature Burn-In
- ATE for Electrical Verification
- Laser Welding
- Screen Printing
- Pick and Place
- CNC Machining
- Thermal Imaging
- Schematic Capture
- Solidworks Modeling
- UL Listed/CE Mark
- Customer Private Label

**Design Capabilities:**
- Full Vertical Integration
- AC & DC
- Single Phase/Three Phase AC
- -48, +12, or +24/+28 VDC
- 0U, 1U, or 2U Rack Mount
- Variety of Receptacles/Plugs
- Circuit Protection with UL-Listed Circuit Breakers
- Audible Alarm
- Local Power Meter
- Remote Capture of Power Draw & Temperature
- Remote Cycling & Sequencing of Device Loads
- Automatic Transfer Switch
- Surge Suppression
- Emergency Power Off (EPO)
- Elapsed Time Indicator
- EMI Filtering and Transient Voltage Suppression
- EMP Protection
RF, Microwave, Microelectronics & Power Solutions

Experts in the Design and Integration of Power and RF/Microwave Technologies

API Technologies’ is a trusted provider of high-performance RF, microwave and mmW components, modules and subsystems, and power conversion and distribution products for defense, space, and commercial applications.

API’s Power Solutions expertise includes power strips, power distribution, and circuit protection systems for both DC and AC power application. Choose from COTS designs or modify a design based on your unique requirements with flexibility alongside our experienced engineering and design team.

API’s RF, microwave and microelectronics product portfolio includes power and small signal amplifiers, RF & microwave filters and assemblies, IMAs, microelectronics, SAW, thin film, and active & passive components.

Applications

- Military & Mission Critical
- C4ISR
- Radar
- Expeditionary
- Information Technology
- Communications
- Medical
- Industrial
- Commercial
- Education & Institution
- Government & Security

Designed for Integration

- Custom, Configurable and Off-the-Shelf Solutions
- Subsystem and System Solutions
- Assemblies with Integrated Power Supplies
- Rack Mount Solutions
- Block Diagram Optimization
- Enhanced System Performance
- Engineering & Design Support
- Size, Weight and Power Optimization
- Multi-Discipline Expertise
- Full Vertical Integration Capabilities
- System Upgrades

API Technologies Corp. is a trusted provider of RF, microwave, power, electromagnetic and security solutions for high-reliability applications. The company designs, develops, and manufactures electronic components, modules, assemblies, systems and products for technically demanding defense, commercial, industrial and aerospace applications. While API was founded in 1981, our heritage brands, including Spectrum Microwave & Spectrum Power, have served the demanding, hi-rel marketplace for more than 60 years.