



**POWERGUARD
DC-DC CONVERTER
SUPPLY SYSTEM**



DC-DC CONVERTER

Product Description

The PowerGuard A533 model is a high-capacity DC/DC converter specifically designed for military applications. This device is also preferred in industrial applications, offering a wide range of input and output options, and providing high performance even under harsh conditions.

Key Technical Specifications

| | |
|------------------------------|---|
| Input Voltage | 18V - 32V DC |
| Input Current | 0 - 105 A |
| Output Voltage: | 0V - 36V DC |
| Output Current | 0 - 45A |
| Dimensions | 266.7 mm (Height) x 142.24 mm (Width) x 306 mm (Depth) |
| Weight | 9 ± 2 kg |
| Efficiency | 80% - 92% (typical) |
| Operating Temperature | -20°C to +75°C, optional -40°C to +75°C |
| Humidity Tolerance | Up to 95% RH, non-condensing |
| Mounting Options | Rack Mount, Wall Mount, and Chassis Mount |
| Protection Features | Overload and overvoltage protection, reverse polarity protection |
| Cooling | Temperature-controlled fan |
| Standards | Compliant with MIL-STD-810G and MIL-STD-461F |

DC-DC CONVERTER

General Features

| | |
|---------------------|---------------------|
| Power Range | 1.89 kW ile 3.36 kW |
| Protection Category | IP20 |

Output Features

| | |
|-------------------------|--------------------------------|
| Voltage Range | 0V - 36V DC |
| Current Range | 0 - 45A |
| Ripple and Noise | 1% + 30mVpp |
| Line Regulation | 0.1% ($\pm 10\%$) |
| Load Regulation | 0.2% typical, load step 10-90% |
| Transient Response | 6% typical, load step 10-90% |
| Response Time | 2-3ms typical $\pm 1\%$ |
| Temperature Coefficient | 0.02% per °C typica |
| Hold-up Time | 10ms at 220VAC typical |
| Turn-on Rise Time | 100ms typical (soft start) |

Applications

The PowerGuard A533 model provides high performance and reliability, especially in military applications. It is widely used in the following areas:

Military Vehicles: Armored vehicles, tanks, and other military transport

Command and Control Systems: Systems used in the field and operation centers

Defense Systems: Radar, sonar, and missile control systems

Mobile Power Units: Generators and other power units used during mobile operations

Military Ships: Various naval vessels used by defense forces

Industrial Applications: High power industrial automation and control systems

Advantages

High Reliability: Advanced protection features ensure long-lasting and reliable use

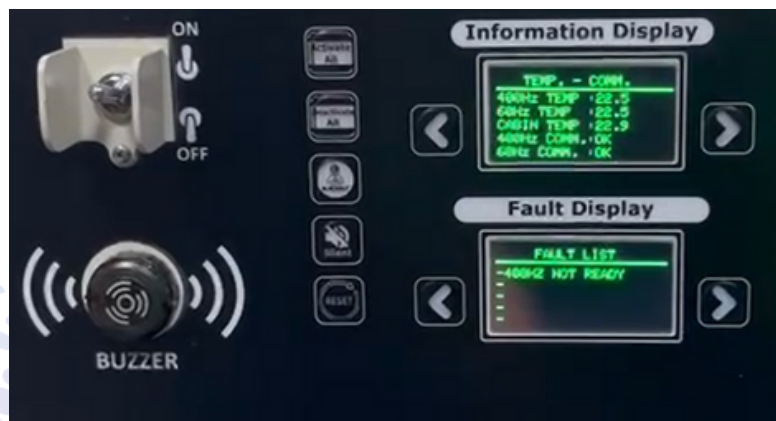
Flexibility: Wide input and output voltage range suitable for various applications

High Efficiency: 80% - 92% efficiency rate saves energy and reduces operating costs

Ruggedness: Wide operating temperature range and high humidity tolerance

Compliance with Military Standards: Designed to meet MIL-STD-810G and MIL-STD-461F standards for military applications

Information and Fault Display



OLED Information and Fault Display:

Provides real-time information and fault diagnostics

Integrated directional buttons for menu navigation

Separate OLED displays for information and fault status

User-friendly interface with dedicated buttons for key functions:

- On-Off
- Silence Alarm
- Reset

Suitable for integration in military and industrial control panels

Enhanced visibility and readability under various lighting conditions