

# Power System Checklist



## Power

Multi-voltage input 100 - 265 Volts AC
Multi-frequency input 47-400 Hz
High tolerant in-rush current 20 amps
Low voltage line regulation < 100mV
Low voltage load regulation < 100mV
Low voltage ripple and noise regulation < 100mV
High power factor > 0.95
High short circuit current tolerance = 22 amps
Multiple output voltage range = 22-28 VDC
High peak efficiency = 94%
Built-in redundancy = ideal diode "OR"ed output

## Digital Smarts

OPC-UA server connectivity
MQTT sparkplug B capable
Line input current and voltage monitoring
Load output current and voltage monitoring
Total harmonic distortion monitoring
Time-synched database logging
Direct, secure connection to MQTT broker
Direct, secure connection to PLC/DCS
Sequence of events controller
Programmable relays for diagnostics
Monitor and maintain capacity and supply
Self-diagnosing and fault reporting

## Construction

All steel construction
Made in the USA
Secure supply chain
Mountable virtually anywhere

## Environmental

Convection cooled unit
Class 1 Div 2
IP67 rated
NEMA 6 enclosure rated
High operating temperature = -25°C to 85°C
High storage temperature = -40°C to 85°C
High relative humidity = 5% to 100%
Shock and vibration resistance

## Cyber-security

Secure 32-bit (or more) RTOS
Root-of-trust technologies
Universal SSL/TLS X.509 certificates
Custom SSL/TLS X.509 certificates
Role-based access to controller functionality
FIPS 140-2 compliance
FIPS 186-4 Digital Signature Standard compliance
ISASecure Level 3 compliance
Meets NIST SP800-57
True-random number generator
Dedicated hardware cryptographic
Certificates usable until 2030
Boots with a signed and encrypted image

## Certifications

MIL-STD-461
EN 61326-1 EMC requirements
CISPR 11:2010 radiated emissions
IEC 61000-4-2 ESD immunity
IEC 61000-4-3 radiated RF immunity
IEC 61000-4-4 EFT/burst immunity
IEC 61000-4-5 surge immunity
IEC 6100 4-6 conducted RF immunity
UL Class 1 Div 1 Groups A, B, C and D
IEC 60068-2-31 drop test
IEC 60068-2-1 cold test
IEC 60068-2-2 dry heat test
IEC 60068-2-14 change of temp. (operational)
IEC 60068-2-14 change of temp. (non-operational)
PLC Code UL 508 and CSA

