



## CyberCogs CC-CCU100 Combined Charging unit

### HARDWARE SPECIFICATIONS

- **Dimensions:** 325w x 211d x 124h (mm)
- **OBC input:**
  - 85–265VAC
  - 50-60 Hz
- **OBC output:**
  - 11Kwatts
  - 350 – 425VDC
  - 32Amps
  - >95% efficient
- **OBC output (inverter mode):**
  - 6.6Kwatts
  - 120/240 VAC (Configurable)
  - 50/60 Hz (Configurable)
- **DC/DC input:** 250-425 VDC (nominal 350V)
- **DC/DC output:**
  - 2.5Kwatts (Max 3.0Kwatts)
  - 12Volts (6-16Volts)
  - 208Amps (Max 250 Amps)
  - >95% efficient
- **PDU input:**
  - 425VDC
  - 75Kwatts (150Kwatts for 10 sec)
- **PDU outputs:**
  - FDU output:** 75Kwatts (150Kwatts for 10 sec) with contactor and precharge
  - RDU output:** 75Kwatts (150Kwatts for 10 sec)
  - HVAC compressor output:** 6Kwatts
  - PCT1 and PTC2 outputs:** 7.5Kwatts

### HARDWARE SPECIFICATIONS

- **EV controller communication:**
  - 2 CAN FD Ports
  - GB/T for AC/DC PLC (Power Line Communication)
- **EV controller I/O:**
  - Discrete inputs
  - Analog inputs, 12 bit resolution
  - Discrete Outputs:
    - H-Bridge Latch Motor Drv (12V, 3 Amps)
    - Low Side Drive (LSD) up to 3 Amps
  - PWM outputs
- **Processor:** (Lock step) Cortex M7 at 240Mhz with FPU and DSP
- **Memory:**
  - 4 Mbytes flash with ECC
  - 512Mbytes of RAM with ECC
- **Environmental:**
  - Operating temperature: -40 to 95 deg. C
  - Storage temperature: -40 to 100 deg. C
- **Package:**
  - Sealed Aluminum package with heatsink top
  - IP67 Rating
- **Mounting:**
  - 4 M6 or ¼-20 screws
  - Horizontal and Vertical Mounting
- **Cooling:**
  - Passive Conductive Heatsinking



## CyberCogs CC-CCU100 Combined Charging unit (continued)

### HARDWARE SPECIFICATIONS

- **Input Protection:**

- Surge on input and BMS
- Overvoltage
- Inrush limiting

- **Output Protection:**

- Short circuit protection
- Over temperature protections
- Accessible fuse on PTC and HVAC outputs
- Serviceable fusing on Motor Outputs

- **Connectors:**

- AC input/output connector: HVPT3A25
- BMS input/output connector: PL082X-301-10D8
- EV CC CAN/IO/Solenoid connector: 770669-1
- (2) PTC connectors: Molex 194360214
- HVAC connector: Molex 194360214
- FDU connector: HVPT2B70
- RDU connector: HVPT2B70
- 12Volt connector: HVPT2A70  
(Optional AC inverter out) HD10-3-96P

- **Agency Certifications:**

- EMI/RFI standard:** SAE J1113, SAE J551
- Radiated EMI standard:** SAE J1752, J2556
- Radiated immunity:** SAE J1812
- Conducted immunity:** SAE J2628

- **Safety Ratings:**

- ASIL C compliant
- FMVSS 305 Compliant

- **Functional Rating:**

- SAE J1772 Conducting Charging standards

### ADDITIONAL FEATURES

- USA designed and manufactured
- Integrated Security
- Secure boot
- Secure internal key storage for signing, verification, and encryption in secure module subcomponent

### SOFTWARE FEATURES

- Adaptable Software with modular design for easy integration, performing the combined functions of the following:
  - On Board Charging
  - Charge Controller
  - DC/DC 6-16Volt system
  - Power Distribution Unit
- ISS FlexHSM pre-ported through partnership with ISS
- ISS FlexUpdate pre-ported through partnership with ISS
- ISS DLM Trust for provisioning through partnership with ISS
- Software developed to Autosar coding guidelines



## CyberCogs CC-CCU100 Depiction

