



TECHNICAL DATA SHEET

July,2015

| Brief Technical Data | |
|----------------------|----------------------------|
| Model Code | CD-CDD (6-50KL) |
| Category | Dual Conversion Online UPS |
| Rectification Type | IGBT Transformer+DCU |
| Interface | LCD (65X41.5MM) |
| Transformation | pure sine wave |
| Input | 3P±25% |
| Output | 3P±1% |
| Power factor | ≥0.95 |
| THD | ≤3% |



CD-CDD-E series

BRIEF INTRODUCTION

The CDD-E series of CHADI UPS are in the category of three phase in and three out online UPS for industrial purpose. They cover a power capacity from 6kva to 50kva. Being equipped with dual DSP (Digital Signal Processor), the sixth generation high power IGBT (Insulated Gate Bipolar Translator) and RPA (Redundancy Parallel Array) technology, the CDD-E series enable parallel connections in redundant arrangement, never the less they also can work independently in different occasions. The UPS run overall protection functions of the industry and operate self diagnosis and display information on a LCD in English language. A cutting edge design integrating powerful rectification and inversion, overall digital control and LCD screen interface and efficient ventilation make CDD-E series own the first class performance and reliability in this field. The machines are equipped with standard RS232 and RJ-45 port and its computer software is provided in a disk. SNMP card and RS485 card are optional.

FEATURES & FUNCTIONS

- Dual DSP (Digital Signal Processor) basing on ART@Cortex TM-M enables overall digital control on UPS process of rectification and inversion and the charge and discharge of the battery. The machine is equipped with LCD screen, an emergency switch and physical memory for information log.
- The latest SVPWM (Space Vector Pulse Width Modulation) technology upon the IGBT power switching tube enhance the utility of the DC voltage by 15% and simultaneously eliminate the harmonic content by a large proportion, comparing to the conventional SPWM (Sinusoidal Pulse Width Modulation) technology.
- The CDD-E series UPS possess excellent loading characteristics by generating high precise output and firmly resisting to multifarious surges, so as to secure constant power output even when power consumption leaps from 0% to 100% with no request shifting to bypass.
- The CDD-E series UPS play high power dynamic performance through applying the feedback control of instant value and effective value and also the other control means, it realizes high dynamic regulation for the input voltage and current, and reduces the distortion of output-voltage.
- The UPS manage the control on each individual phase among the three phases separately by the means of rejecting the negative-sequence and zero-sequence components of output-voltage, it implements controlling the imbalance ratio of the three phases' output-voltage and the Imbalance ratio <5% (under 100% imbalance loads).
- The advanced Synchronized Equivalent Flow Control technology manage rigid synchronized operation and equivalently divide the load current for each UPS unit in the Redundancy Parallel Array. These SEFC technology and RPA technology enhance the reliability of the UPS system to a highest level and promote the system lifespan to the most. CHADI technologies can well manage 32 units of UPS in the RPA arrangement.
- Comprehensive protection functions with alarms for all faulty aspects including over-voltage protection and low-voltage protection for input and output, phase-sequence protection, over-charging and over-discharging protection for batteries, short circuit for output, over-hot protection and so on.
- A unique and efficient ventilation design is applied to CDD-E series. The ventilation is powered by first class brand centrifugal fan. Chadi UPS run intelligent control on to the fan by smart speed controlling, and the ventilating duct extend well through heat sources. The design ensure better cooling effect and allow the whole machine to be compact.
- Self diagnosis program is built in the machine and display vividly on the LCD screen, the program completely diagnose among the main circuits and key components and set alarm for any fault or defect.
- With Auto Re-start Function, when AC working abnormally, battery mode can supply power to loads till shutting up automatically; when AC recovering, UPS will start automatically, and supply power normally, no need to start manually.
- All circuit boards in the machine are processed by specially treatments of anti-dust, anti-humidity and anti-corrosion.
- WIFI function device is optional for building in this machine. Wireless control through WIFI signals are workable for smart phones or tablet PC for both Android and Mac.



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| MODEL | 6K | 10K | 15K | 20K | 30K | 40K | 50K |
|--------------------------------|---|---------------|---------------|---------------|---------------|------|------|
| Rated Power | 4.8KW | 8KW | 12KW | 16KW | 24KW | 32KW | 40KW |
| INPUT | | | | | | | |
| Rated Voltage | 3 phases, 5 wired system 380V(208V) | | | | | | |
| Frequency | 60/50 Hz | | | | | | |
| Power Factor | ≥0.95(+DCU) | | | | | | |
| OUTPUT | | | | | | | |
| Rated Voltage | 3 phases 380V±1% | | | | | | |
| Frequency | 50/60Hz±0.1% (inverted tense) | | | | | | |
| Phase Precision | 120±10 | | | | | | |
| Degree of 3-phase Imbalance | <±1%(under balance load voltages); <±3%(under 50% imbalance voltages); <±5%(under 100% imbalance loads) | | | | | | |
| Distortion Factor | Pure sine wave, linear loads ≤2.5%; non-linear loads≤3% | | | | | | |
| Overload Capacity | Over load 125% can last 20 minutes, over load 150% can last 60 seconds | | | | | | |
| Wave Crest Coefficient | 5:1 | | | | | | |
| BATTERY(EXTERNAL EXTRA) | | | | | | | |
| Rated Voltage | 384VDC(optional192VDC) | | | | | | |
| Battery Nos. | 12Vdcx32 nos. | | | | | | |
| Battery Voltage | 12 Vdc | | | | | | |
| Back-up Time | extra battery(Extra position battery (standby time is determined by battery capacity)) | | | | | | |
| System | | | | | | | |
| Transfer Time | AC↔battery 0 ms; Invert↔bypass < 4 ms | | | | | | |
| Ingress Protection | IP30(optional IP4P41) | | | | | | |
| Conversion Efficiency | ≥97%(ECO mode) | | | | | | |
| Noise | 55db(1 meter) | 58db(1 meter) | 63db(1 meter) | 66db(1 meter) | 70db(1 meter) | | |
| ENVIRONMENT | | | | | | | |
| Temperature | 0℃~45℃ | | | | | | |
| Humidity | 0~93% RH,non-condensing | | | | | | |
| Altitude | <1500m | | | | | | |
| Size | | | | | | | |
| W×D×H (mm) | 410*752*941 | | | | | | |
| Weight | | | | | | | |
| N. Weight (kg) | 65 | 90 | 140 | 160 | 190 | 260 | 280 |

* Product specifications are subject to change without further notice