## **CPSS ZEN**





## CPSS ZEN SINGLE-PHASE TECHNICAL DATA SHEET

| MODEL                       |   | CPSS ZEN 4000   | CPSS ZEN 6000  | CPSS ZEN 8000  | CPSS ZEN 1000    |  |
|-----------------------------|---|---|----------------|----------------|------------------|--|
|                             | VA  | 4000  | 6000           | 8000           | 10000            |  |
| POWER                       | W   | 3500  | 5250           | 7000           | 8500             |  |
| INPUT                       | Rated voltage*                                  | 110 – 280 Vac   |                |                |                  |  |
|                             | Frequency                                       | 45 – 70 Hz  |                |                |                  |  |
|                             | Power factor                                    | >0.99   |                |                |                  |  |
|                             | Current distortion (THDi)                       | <5%   |                |                |                  |  |
| OUTPUT                      | Rated voltage                                   | 200/208/220/230/240 Vac selectable  |                |                |                  |  |
|                             | Voltage distortion                              | <2% with linear load, <7% with distorting load  |                |                |                  |  |
|                             | Voltage stability                               | ±1%   |                |                |                  |  |
|                             | Frequency                                       | 50/60 Hz (selectable)   |                |                |                  |  |
|                             | Frequency regulation                            | ±1Hz, ±3Hz selectable   |                |                |                  |  |
|                             | Frequency stability                             | ≤ 0.2% (free running)   |                |                |                  |  |
|                             | Power factor                                    | 0.875 0.85  |                |                |                  |  |
|                             | Crest factor                                    | 3:1   |                |                |                  |  |
|                             | Waveform  | Pure sine wave  |                |                |                  |  |
|                             | Output connection                               | Screw terminal block  |                |                |                  |  |
|                             | Capacity @ 100 % load                           | 4000 VA/3500 W  | 6000 VA/5250 W | 8000 VA/7000 W | 10000 VA/8500 W  |  |
|                             | Overload @ 120% permanent load                  | 4200 VA/4200 W  | 6300 VA/6300 W | 8400 VA/8400 W | 10200 VA/10200 V |  |
|                             | VFI mode  | Up to 93%   |                |                |                  |  |
| EFFICIENCY                  | ECO mode  | Up to 97%   |                |                |                  |  |
|                             | In battery                                      | Up to 94%   |                |                |                  |  |
|                             | Dimensions (WxDxH) mm                           | 288x700x513   |                |                |                  |  |
|                             | Weight (kg)                                     | 41 42   |                |                |                  |  |
|                             | Alarms  | Audible and visual alarm alerts for: incorrect battery polarity, short circuit, power failure,<br>low battery, bypass transfer, and UPS fault, etc. |                |                |                  |  |
| GENERAL                     | Protection                                      | Battery polarity, short circuit, overload, overheating, deep discharge, overcharging.   |                |                |                  |  |
|                             | Operating mode                                  | Multimode: VFI, ECO, Emergency (SE), Mixed mode (SA and SE with separate outputs)   |                |                |                  |  |
|                             | Cold start from the battery without mains power | Included  |                |                |                  |  |
|                             | Protection class                                | IP20  |                |                |                  |  |
|                             | Battery type                                    | 12V VRLA, AGM (maintenance-free lead)   |                |                |                  |  |
|                             | Number of batteries                             | 20 units (120 cells)  |                |                |                  |  |
| BATTERY - CHARGER           | Charging time                                   | 80% of the battery capacity within 12h  |                |                |                  |  |
|                             | Internal battery charger                        | 4 A Standard (additional 4 A with optional kit)   |                |                |                  |  |
|                             | External battery cabinet connections            | Plug-in & Play  |                |                |                  |  |
|                             | Operating temperature**                         | 0 – 40°C  |                |                |                  |  |
| ENVIRONMENTAL<br>PARAMETERS | Relative humidity                               | 0% – 90% (without condensing)   |                |                |                  |  |
|                             | Altitude (a.s.l.)                               | <1000 m with no power derating, >1000 m with 1% derating for every 100 m  |                |                |                  |  |
|                             | Audible noise at 1 m                            | ≤60 dBA   |                |                |                  |  |
| CONNECTIVITY                | Built-in communication ports                    | USB, RS232, EPO On/Off contact, and additional slots for optional cards   |                |                |                  |  |
|                             | User interface                                  | LCD and function keys (parameters: voltage, frequency, load percentage, battery voltage, output voltage, estimated uptime, UPS temperature).        |                |                |                  |  |
|                             | Optional accessories                            | Cards: SNMP, RS485 ModBus, dry relay contacts   |                |                |                  |  |
|                             | Compatible software platforms                   | Microsoft Windows, Linux, Mac OS, VMware  |                |                |                  |  |
| REGULATIONS                 | Standards                                       | EN 50171, IEC EN 62040-1, IEC EN 62040-2, IEC EN 62040-3  |                |                |                  |  |
|                             | Marking   | CE, UKCA  |                |                |                  |  |

\* Subject to conditions \*\* To be verified according to the battery parameters

## **CPSS ZEN**





## CPSS ZEN THREE-PHASE TECHNICAL DATA SHEET

| MODEL                       |   | CPSS ZEN 3/3 10 KVA   | CPSS ZEN 3/3 20 KVA | CPSS ZEN 3/3 30 KVA | CPSS ZEN 3/3 40 KV |  |  |  |
|-----------------------------|---|---|---------------------|---------------------|--------------------|--|--|--|
| POWER                       | kVA   | 10  | 20                  | 30                  | 40                 |  |  |  |
| OWER                        | kW  | 9   | 17                  | 27                  | 33                 |  |  |  |
| INPUT                       | Rated voltage                                   | 400 V three-phase with neutral  |                     |                     |                    |  |  |  |
|                             | Voltage tolerance                               | ±20%  |                     |                     |                    |  |  |  |
|                             | Rated frequency                                 | 40 – 70 Hz  |                     |                     |                    |  |  |  |
|                             | Power factor                                    | ≥0.99   |                     |                     |                    |  |  |  |
|                             | Current distortion (THDi)                       | ≤ 4% at full load ≤ 3% at full load   |                     |                     |                    |  |  |  |
| OUTPUT                      | Rated voltage                                   | 380/400/415 V three-phase+neutral   |                     |                     |                    |  |  |  |
|                             | Voltage stability                               | ±1% (static load)   |                     |                     |                    |  |  |  |
|                             | Frequency                                       | 50/60 Hz  |                     |                     |                    |  |  |  |
|                             | Frequency stability                             | ±0.01% (free running)   |                     |                     |                    |  |  |  |
|                             | Power factor                                    | 0.9 0.85 0.9 0.825  |                     |                     |                    |  |  |  |
|                             | Crest factor                                    |   | 3                   | :1                  |                    |  |  |  |
|                             | Voltage distortion                              | ≤2% with linear load, ≤5% with distorting load  |                     |                     |                    |  |  |  |
|                             | Permissible overload                            | 120% permanent load, 125% for 10 minutes, 150% for 1 minute   |                     |                     |                    |  |  |  |
| EFFICIENCY                  | VFI mode  | Up to 95%   |                     |                     |                    |  |  |  |
|                             | ECO mode  | Up to 98%   |                     |                     |                    |  |  |  |
|                             | In battery                                      | Up to 94%   |                     |                     |                    |  |  |  |
| GENERAL                     | Parallel connection                             | Up to 6 units   |                     |                     |                    |  |  |  |
|                             | Dimensions (WxDxH) mm                           | 260x850x890 (including wheels)  |                     |                     |                    |  |  |  |
|                             | Weight (kg)                                     | 74  | 76                  | 85                  | 88                 |  |  |  |
|                             | Alarms  | Audible and visual alarm alerts for: incorrect battery polarity, short circuit, power failure, low battery, bypass<br>transfer, and UPS fault, etc. |                     |                     |                    |  |  |  |
|                             | Protection                                      | Battery polarity, short circuit, overload, overheating, deep discharge, overcharging.   |                     |                     |                    |  |  |  |
|                             | Operating mode                                  | Multimode: VFI, ECO, Emergency (SE), Mixed mode (SA and SE with separate outputs)   |                     |                     |                    |  |  |  |
|                             | Cold start from the battery without mains power | Included  |                     |                     |                    |  |  |  |
|                             | Protection class                                | IP 20   |                     |                     |                    |  |  |  |
|                             | Number per string (12V)                         | 40 pcs  |                     |                     |                    |  |  |  |
|                             | Common battery for parallel configuration       | Supported   |                     |                     |                    |  |  |  |
| BATTERY                     | Internal battery (optional)                     | Up to blocks<br>40 12 V 7/9 Ah batteries N.A.   |                     |                     |                    |  |  |  |
|                             | Max charging current**                          | 12.9 A  | 14.5 A              | 24.7 A              | 28 A               |  |  |  |
|                             | Cold start from the battery without mains power | Included  |                     |                     |                    |  |  |  |
| BYPASS                      | Rated voltage                                   | 380/400/415 V three-phase+neutral   |                     |                     |                    |  |  |  |
|                             | Voltage tolerance                               | Basic window $\pm 10\%$ (programmable $\pm 5\% - \pm 15\%$ )  |                     |                     |                    |  |  |  |
|                             |   | Critical window ±25% (programmable ±16% – ±30%)   |                     |                     |                    |  |  |  |
|                             | Frequency                                       | 50/60 Hz  |                     |                     |                    |  |  |  |
|                             | Frequency tolerance                             | ±1 Hz / ±3 Hz (selectable)  |                     |                     |                    |  |  |  |
|                             | Protection                                      | Fuses   |                     |                     |                    |  |  |  |
| ENVIRONMENTAL<br>PARAMETERS | Operating<br>temperature***                     | 0 – 40°C  |                     |                     |                    |  |  |  |
|                             | Altitude (a.s.l.)                               | <1000 m with no power derating, >1000 m with 1% derating for every 100 m.   |                     |                     |                    |  |  |  |
|                             | Relative humidity                               | 0 – 95% (without condensing)  |                     |                     |                    |  |  |  |
|                             | Audible noise at 1 m.                           | <52dB <55dB   |                     |                     |                    |  |  |  |
| CONNECTIVITY                | User interface                                  | 4.3" colour LCD touch screen display with removable SD card   |                     |                     |                    |  |  |  |
|                             | Built-in communication ports                    | USB, RS232, EPO, 3 out dry relay contacts (programmable) and<br>two additional slots for optional cards   |                     |                     |                    |  |  |  |
|                             | Optional accessories                            | Cards: SNMP, RS485, ModBus, 6 in/6 out dry relay contacts,<br>touch panel for remote monitoring, Mixed mode kit                                     |                     |                     |                    |  |  |  |
|                             | Standards                                       | EN50171, IEC EN 62040-1, IEC EN 62040-2, IEC EN62040-3  |                     |                     |                    |  |  |  |
| REGULATIONS                 | Marking   | CE, UKCA  |                     |                     |                    |  |  |  |

\*\* Subject to conditions \*\*\* To be verified according to the battery parameters