## Power 9PHD Industrial UPS 30 - 200 kW

**Technical Specification** 

## **GENERAL**

| Output power rating (PF 1.0)                                       | 30, 40, 50, 60, 80, 100, 120, 150, 160, 200 kW   |
|--|--|
| External paralleling   | Up to 8 units with HotSync technology  |
| Efficiency in double-conversion mode                               | Up to 97%  |
| Efficiency in Energy Saver System (ESS) mode                       | Up to 99%  |
| UPS topology   | IGBT with PWM, double conversion   |
| Degree of ingress protection                                       | IP23, IP33 or IP54   |
| Ambient temperature  | 0°C to 40°C up to 1000m altitude, higher ratings as optional                                 |
| RoHS/WEEE compliancy   | Yes  |
| INPUT  |  |
| Nominal voltage rating<br>Input voltage with internal transformers | 380 V, 400 V, 415 V, 440 V or 480 V, conficurable<br>208 V - 690 V                           |
| Input frequency range  | 40 - 72 Hz   |
| Input wiring   | 3ph+N+PE / 3ph+PE  |
| Input power factor   | 0.99   |
| Input THDi 100% linear load  | < 4,5%   |
| Soft start for generators  | Yes  |
| Internal back feed protection                                      | Yes, for rectifier and bypass lines  |
| OUTPUT   |  |
| Output wiring  | 3ph+N+PE / 3ph+PE  |
| Rated output voltage<br>Output voltage with internal transformers  | 380 V, 400 V, 415 V, 440 V or 480 V, configurable<br>208 V - 690 V                           |
| Output frequency   | 50 Hz / 60Hz configurable  |
| Output UTHD  | < 1% (100% linear load), < 5% (reference non-linear load)                                    |
| Default overload capacity on inverter                              | 10 min 102 – 110% load<br>60 s 111 – 125% load<br>10 s 126 – 150% load<br>300 ms > 150% load |
| Max overload capability on inverter                                | 60 min 102 - 110% load<br>10 min 111 – 125% load<br>60s 126 – 150% load<br>300ms > 150% load |
| Overload capability on bypass                                      | Continuous < 125% load, 50 ms 2000% load   |
| Rated output power factor  | 1.0  |
| Load power factor range  | 0.8 lagging to 0.8 leading   |

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| BATTERY                  |   |
|--------------------------|---|
| Battery technology       | VRLA, Li-Ion, NiCd, Eaton Super Capacitors                  |
| Nominal battery voltage  | 432 V - 480 V   |
| Maximum charging current | 29.3 A, 58.6 A, 87.9 A, 117.2 A depending on model          |
| Charging method          | Voltage regulated current limited with Eaton ABM technology |
| Boost charge function    | Yes   |
| Temperature compensation | Yes   |
| Battery start option     | Yes   |

| Communications              |   |  |
|-----------------------------|---|--|
| MiniSlots                   | 4 communication bays for Web/SNMP, ModBus/Jbus & Industrial realy   |  |
| Standard connectivity ports | Device USB and Host USB, RS-232 service port, relay output, 5 building alarm inputs, 1 relay output and a dedicated EPO   |  |
| Accessories                 |   |  |
| Accessories for UPS         | Internal transformers; Vibration dampers with mounting brackets; Seismic kit; Internal automatic transfer switch; Single feed kit; Earth fault monitoring; 24V Emergency Power Off (EPO); Custom system and battery voltages; Custom colors; Exhaust air management options |  |
| Accessory cabinets          | Industrial battery cabinets with long-life batteries; Matching transformer cabinet for one or two transformers; External maintenance bypass switch.   |  |

| COMPLIANCE WITH STANDARDS |                         |  |
|---------------------------|-------------------------|--|
| Safety (CB certified)     | IEC 62040-1             |  |
| EMC                       | IEC 62040-2             |  |
| Performance               | IEC 62040-3             |  |
| RoHS                      | EU directive 2011/65/EU |  |
| WEEE                      | EU directive 2012/19/EU |  |
| Seismic testing           | NEBS GR-63-CORE, Zone 4 |  |

Due to continuous product imrovement programmes, specifications are subject to change without notice. For product specific specifications, contact Eaton sales representatives.







