

Eaton Power Xpert 9395P 900kVA/825kW UPS Technical Specification

Manufacturer's declaration in accordance with IEC 62040-3

| IEC 62040-3 Subclause | MODEL RATING (0,9 p.f.) | 900kVA |
|-----------------------|---|--|
| | Model catalogue reference | 9395P-900 |
| | UPS options | External battery cabinets System Bypass Module (SBM) |
| | External paralleling (HotSync technology) | Up to 5 units with distributed bypass Up to 7 units with centralized bypass |
| 5.1.1 | UPS topology | Double conversion, IGBT converters |
| 5.3.4 | UPS performance classification | VFI-SS-111 |

MECHANICAL

| | | |
|--|--|----------------------|
| | UPS dimensions (width x depth x height) | 3710 x 880 x 1880 mm |
| | Weight, UPS | 2520kg |
| | Large External Battery Cabinet dimensions (width x depth x height) | 1125 x 808x 1879 mm |
| | UPS Cable entry | Top and Bottom entry |
| | UPS Degree of protection | IP 20 |
| | UPS colour | Black; RAL 9005 |

ENVIRONMENTAL

| | | |
|-----------------------|---|---|
| 6.5.5 | Acoustic noise at 1 m, in 25 °C ambient temperature | < 83dBA in double conversion, full load < 75 dBA in double conversion, <60% load |
| 4.1.4 | Ambient UPS storage temperature range | - 25 °C to + 60 °C in the protective package |
| 4.2.1.1 and 5.4.2.2 h | Ambient operating temperature range UPS Battery | 0 °C to + 40 °C <i>No output power derating required.</i> The maximum rate of temperature change shall be limited to 1.67 °C over 5 minutes (20 °C/hour), based on the ASHRAE standard 90.1-2013 + 20 °C to + 25 °C recommended for optimized battery life time |
| 4.2.1.1 | Relative humidity range | 5 to 95%, no condensation allowed There shall be at least a 1.0 °C difference between the dry bulb temperature and the wet bulb temperature, at all times, to maintain a non-condensing environment |
| 4.2.1.2 | Maximum service altitude | 1000 m (3300 ft) above sea level Maximum 2000 m (6600 ft) with 1% derating per each add 100m |

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EFFICIENCY

| | | | |
|------------------------|---|-----------|---------|
| 5.3.2 r and 6.4.1.6 | Efficiency in double-conversion, rated linear load | 100% load | 95,6 % |
| | | 75% load | 96,0 % |
| | | 50% load | 96,3 % |
| | | 25% load | 95,6 % |
| | Heat dissipation in double conversion | 100% load | 38,1kW |
| | | 75% load | 25,6kW |
| | | 50% load | 16,0 kW |
| | | 25% load | 9,4 kW |
| | | No load | 6,4 kW |
| | Efficiency in ESS, rated linear load | 100% load | 99,3 % |
| | | 75% load | 99,3 % |
| | | 50% load | 99,2 % |
| | | 25% load | 99,0 % |

ELECTRICAL CHARACTERISTICS

INPUT

| | | | |
|---------------------------|---|--------------------------------|--------------------|
| 5.2.1.a and 5.2.1 b | Rated input voltage | 220/380V; 230/400 V; 240/415 V | |
| | Voltage tolerance | Rectifier input | 230 V -15% / +15% |
| | | Bypass input | 230 V -10% / +10% |
| 5.2.1 c and 5.2.1 d | Rated input frequency | 50 or 60 Hz, user configurable | |
| | Frequency tolerance | 45 to 65 Hz | |
| 5.2.2 a and 5.2.2 b | Number of input phases | 3 phases | |
| | | Rectifier input | 3 phases + neutral |
| | | Bypass input | |
| 5.2.2 d | Input power factor, double conversion mode | | |
| | | 25-100% load | > 0,99 |
| | | 10-25% load | > 0,97 |
| 5.2.2 c | Rated input current | 1260 A r.m.s (400V) | |

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| 5.2.2 f | Maximum input current | 1500 A |
| 5.2.2 h and 5.2.2. i | Input current distortion at rated input current | < 3% |
| 5.2.2 k | AC power distribution system compatibility | TN-S, TN, TT and IT |
| | Backfeed protection | Yes, internal as standard |

ELECTRICAL CHARACTERISTICS

OUTPUT

| | | |
|---------------------|---|---|
| 5.3.2 f | Number of output phases | 3 phases + neutral |
| 5.3.2 b | Rated output voltage | 220/380 V; 230/400 V; 240/415 V, configurable |
| 5.3.2 b | Output voltage variation, steady state | < +/-1,5% |
| 5.3.2 i | Total voltage harmonic distortion 100% linear load 100% non-linear load | ≤ 2% < 5% |
| 5.3.2 q | Voltage unbalance at reference unbalanced load Phase displacement at reference unbalanced load | < +/-2,5% < +/-1,0° |
| 5.3.2 c | Rated output frequency Slew rate | 50 or 60 Hz, configurable 0,7 Hz/s |
| 5.3.2 k | Rated output power | 900 kVA/ 825 kW |
| 5.3.2 l | Overload capability On inverter | 10 min 110% load 30 sec 125% load 10 sec 150% load 300 ms >150% load |
| | Overload capability On bypass | Continuous < 115% load 20 ms 1000% load |
| 5.3.2 m | Output current limitation, short-circuit capability | 2400 A, 300 ms L-N 2280, 300 ms L-L |
| 5.3.2 o and 5.3.2 p | Load power factor Rated Permitted range | 0.9 0.7 lagging to 0.8 leading |

The technical specification is subject to change without notice.
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ESS MODE CHARACTERISTICS

| | | |
|--|--|--|
| | Transfer time to double-conversion Mains available Mains failure | No break Typically <2 ms |
| | Output voltage variation setting | ±10% of nominal voltage, default |
| | Storm detection | UPS locks into double-conversion mode when three power line disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable). |
| | High Alert mode | UPS will stay on double-conversion for one hour (user adjustable), after which the unit will automatically return to operate on ESS. |

BYPASS

| | | |
|--|--|--|
| | Type of bypass | Static |
| | Bypass rating | 900 kVA |
| | Bypass voltage range | 220/380 V; 230/400 V; 240/415 V tolerance -10% / +10% of 230V |
| | Transfer time break | No break |
| | Maintenance bypass | N/A |
| | Rated conditional short-circuit current, I_{cc} Static Bypass | 100 kA |
| | Internal static bypass ultra-rapid fuse | Bussmann, 170M7082, 2000A 690V/ac |

BATTERY CHARACTERISTICS

| | | |
|-----------|--------------------------|---|
| 5.4.2.2 d | Battery technology | 12 V, VRLA |
| 5.4.2.2 b | Battery quantity | 40 blocks, 240 cells per battery string |
| 5.4.2.2 c | Battery voltage | 480V (40 blocks) |
| 5.4.2.2 o | Recharge profile | ABM or float |
| 5.4.2.2 q | End of discharge voltage | 1.67 VPC to 1.75 VPC Configurable or automatic (load adaptive) |
| 5.4.2.2 r | Charging current limit | 360 A |

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COMMUNICATION CIRCUITS

| | | |
|-----|--|-------------------|
| 5.6 | Complete list of indications and interface devices | See User's Manual |
|-----|--|-------------------|

COMPLIANCE WITH STANDARDS

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|----------------|--|--|
| IEC 62040-1 | Safety Degree of protection | Access Operator access IP 20; protection against medium sized foreign matter (incl. finger) |
| IEC 62040-2 | Electromagnetic Compatibility Immunity Emissions | EMC Category C3 EMC Category C3 |