

Eaton 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	380 V, 400 V, 415 V, 440 V or 480 V, configurable
Input voltage with internal transformers	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	380 V, 400 V, 415 V, 440 V or 480 V, configurable
Output voltage with internal transformers	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 60 s 111 – 125% load 10 s 126 – 150% load 300 ms > 150% load
Max overload capability on inverter	60 min 102 - 110% load 10 min 111 – 125% load 60s 126 – 150% load 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

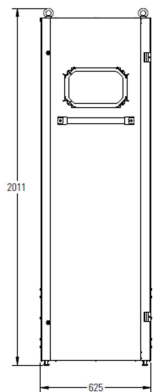
Accessories

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.

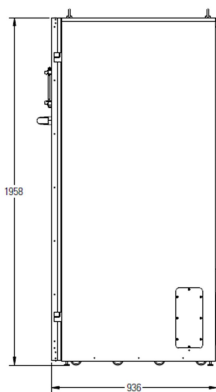
COMPLIANCE WITH STANDARDS

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

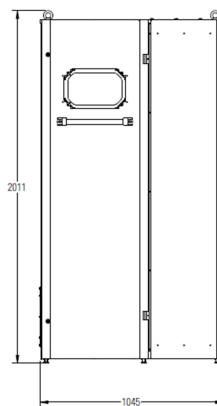
Due to continuous product improvement programmes, specifications are subject to change without notice.
For product specific specifications, contact Eaton sales representatives.



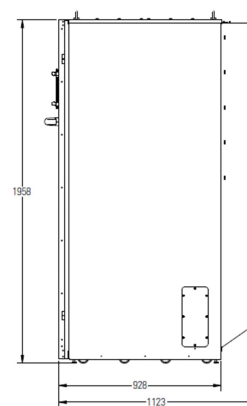
Eaton 9PHD Industrial 30kW-100kW



Rear Exhaust



Eaton 9PHD Industrial 80kW-200kW



Top Exhaust