



9155M and 9355M UPS



Advanced vessel or rig power protection for:

- Navigation systems
- Communication systems
- Ship automation
- Computer systems
- Integrated bridge



Double conversion UPS

Qualified design for marine and offshore environment

- DNV type approved UPS
- Compact design for saving space
- Easy to install, mounting rails can be bolted or welded to the deck/bulk head
- IP22 protection class
- Vibration absorbers under and at the back of the cabinet
- Maintenance from the front

Premium power performance

- Double conversion provides the highest level of protection available by isolating the output power from all input anomalies.
- Active power factor correction (PFC) provides 0,99 input power factor and less than 4,5% THD, thus eliminating interference with other critical equipment in the same network and enhancing compatibility with generators.
- The UPS is optimized for protecting modern 0,9 p.f. rated IT equipment without the need to oversize.

True reliability

- Patented Powerware HotSync® technology makes possible to parallel up to four UPSs to increase availability or add capacity. The technology enables load sharing without any communication line, thus eliminating single point of failure.
- ABM® technology charges batteries only when necessary, preventing batteries corrosion and prolonging batteries service life by up to 50%.
- Internal automatic static bypass switch
- Internal mechanical bypass switch

Extensive configurability

- Configurable to frequency converter operation (50 → 60Hz and 60 → 50Hz)
- A multilingual graphical LCD display makes possible to monitor the UPS status easily.
- Wide software and connectivity options provide monitoring, management and shutdown capabilities over network

Cost savings and sustainability

- Small footprint saves valuable space in ship and rig installations.
- Possibility for internal transformer or batteries eliminate the need for costly and space-consuming external cabinets.
- A single technical platform used in Eaton's UPS products guarantee easy upgrades and similarity in service, thus lowering total cost of ownership.
- A range of service agreement options can be easily customized for customers' needs and budget.
- Eaton uses sustainable materials and highly efficient manufacturing technology, thus generating dramatic savings in carbon footprint as compared to competitive UPS systems.

Powering Business Worldwide

TECHNICAL SPECIFICATIONS**UPS output power rating (0,9 p.f.)**

kVA	8	10	12	15
kW	7,2	9	10,8	13,5

General

Efficiency in double conversion mode (full load)	92% (without transformer)
Efficiency in double conversion mode (half load)	90% (without transformer)
Distributed paralleling with Hot Sync technology	4
Field upgradeable	yes
Inverter/rectifier topology	transformer-free IGBT with PWM
Audible noise	<50 dB
Colour	RAL 7035

Input

Nominal voltage rating (configurable)	380, 400, 415 V 50/60 Hz
With internal transformer	(9155): e.g. 230, 400, 440, 480, 690V
With external transformer	(9355): e.g. 230, 400, 440, 480, 690V
Input voltage range	Low -20% at 100% load/-50% at 50% load without battery discharge; High +10% /max +20%
Input frequency range	45-65 Hz
Input power factor	0,99
Input ITHD	less than 4,5%
Soft start capability	Yes
Internal backfeed protection	Yes

Output

Nominal voltage rating (configurable)	380, 400, 415 V 50/60 Hz
With external transformer	(9155): e.g. 230, 400, 440, 480, 690V
With internal transformer	(9355): e.g. 230, 400, 440, 480, 690V

Output UTHD	<3% (100% linear load); <5% (reference non linear load)
Output power factor	0,9 (e.g. 9 kW at 10 kVA)
Permitted load power factor	0,7 lagging - 0,8 leading

Battery

Type	Maintenance free VRLA batteries, NiCd
Charging method	ABM technology or Float
Temperature compensation	Optional
Battery nominal voltage (lead-acid)	384 V (32x12 V, 192 cells)
Charging current / Model	Default 3 A *Max 30 A

*May be limited by maximum UPS input current rating

Accessories

Isolation transformer, long-life batteries, external battery cabinets, UPS Center (input, bypass, distribution), X-Slot connectivity (Web/SNMP, ModBus/Jbus, Relay, Hot Sync, ViewUPS-X remote display), Hot Sync parallel tie cabinet, integrated manual bypass, external maintenance bypass switch

Communications

X-Slot	2 communication bays
Serial ports	1 available
Relay inputs/outputs	2/1 programmable

Compliance with standards

Safety	IEC 62040-1, IEC 60950-1
EMC	IEC 62040-2, IEC 60945
Performance	IEC 62040-3
Approvals	CE, DNV Type Approval
Other classification survey reports	On request

Stand-alone UPS with 1-phase input

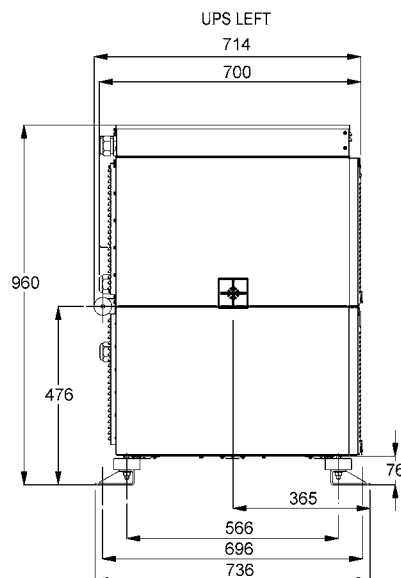
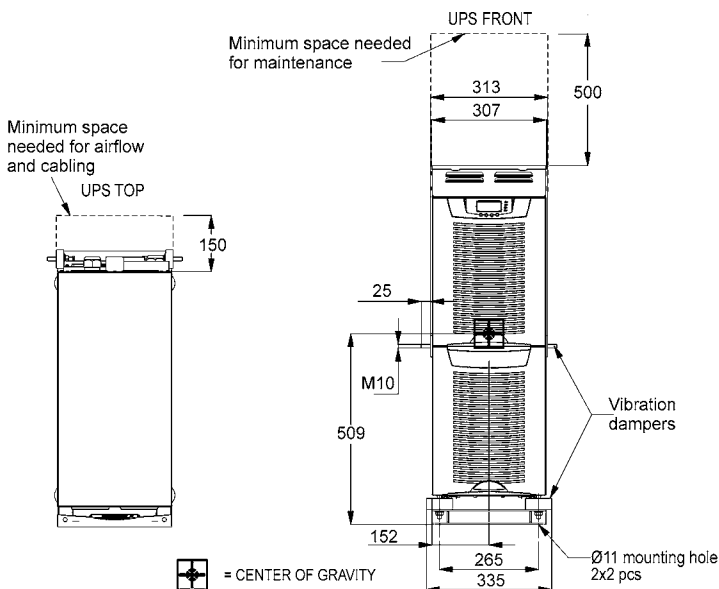
Description	Rating	Dimensions (HxWxD)	Weight with input transformer (net/gross)
9155-8-ST-M	8 kVA / 7.2 kW	960x313x714 (+150 mm)	170/190 kg
9155-10-ST-M	10 kVA / 9 kW	960x313x714 (+150 mm)	170/190 kg

Stand-alone UPS with 3-phase input

Description	Rating	Dimensions (HxWxD)	Weight with input transformer (net/gross)
9155-8-NT-M	8 kVA / 7.2 kW	960x313x714 (+150 mm)	170/190 kg
9155-10-NT-M	10 kVA / 9 kW	960x313x714 (+150 mm)	170/190 kg
9155-12-NT-M	12 kVA / 10.8 kW	960x313x714 (+150 mm)	170/190 kg
9155-15-NT-M	15 kVA / 13.5 kW	960x313x714 (+150 mm)	170/190 kg

External battery cabinets

Description	Rating	Back-up	Dimensions (HxWxD)	Weight (net/gross)
9X55-BAT-M-64x7Ah	2x32x7 Ah	See runtime spec.	880x347x718 (+150 mm)	217/237 kg
9X55-BAT-M-96x7Ah	3x32x7 Ah	See runtime spec.	1278x347x718 (+150 mm)	323/348 kg

TYPE APPROVED
PRODUCT