

## Uninterruptible Power Supply

9900D Series

700, 1050, 1400, 1750kVA



### Modular/Scalable Design

- Up to 97%(3Phase3Wire) efficiency  
Up to 96.2%(3Phase4Wire)efficiency
- Expandable to Increase Power Availability as your Data Center Grows
- Multi-Module System Capable up to 5X
- Easy to use HMI
- VRLA, flooded, Ni-Cad and LiB compatible



### Advanced Technology

- Three Level Topology to Maximize efficiency
- Advanced Harmonic Mitigation and Active Power Factor Correction
- High Frequency Battery Charging for Increased Battery Life
- All Technology Backed by a High Speed Sampling Rate for Superior Control



### Maximum Control

- High Speed Sampling
- 100kHz Sampling / 6kHz Switching
- Prevents overcurrent and overvoltage operation
- Allows the unit to transfer to bypass without unit damage
- Better step load performance
- Smoother transient response



# [SPECIFICATION]

DESCRIPTION	9900D Series			
Rating (kVA / kW)	700/700	1050/1050	1400/1400	1750/1750
Design Topology	Online double conversion (VFI-SS-III), Transformerless Design			
Regulatory	Safety : IEC 62040 -1, EMC : IEC 62040 -2, Performance : IEC 62040 -3			
Power Expansion	Up to 6 units, 10.5 MW- with advanced current minor loop control for reliable parallel operation			
Surge Protection	Built-in modular type II surge protection			
Emergency Power off (EPO)	Available in front panel			
Cable Entry	Top & Bottom as standard			
Protection Class	IP-20			
Colour	Grey RAL 7032			
<b>Input Characteristics</b>				
Converter Technology	Robust CSTBT based multi-level Technology, High Efficiency & Long life			
Nominal Voltage	3Phase 380/400/415 V + PE			
Voltage Tolerance	+15%, -20%			
Frequency	50 Hz $\pm$ 10%			
Power Factor	0.99			
Current Distortion (THDi) @ Rated Load <sup>1</sup>	3%			
System Power Walk in	30 secs programmable and up to 3600 secs programmable converter start delay			
<b>Output Characteristics</b>				
Inverter Technology	Robust CSTBT based multi-level Technology, High Efficiency & Long Life			
Nominal Voltage	3Phase-4 Wire 400/415 V (selectable)			
Frequency	50 Hz			
Frequency Sync Range	$\pm$ 1% to $\pm$ 5% (Selectable in 1% increment)			
Frequency Slew Rate	1 Hz/sec to 5 Hz/sec (Selectable in 1 Hz/sec increment)			
Phase Displacement	$\pm$ 1 Deg @ 100% balanced load, $\pm$ 3 Deg @ 100% unbalanced load			
Power Factor	Unity			
Voltage Regulation Static Load	< 1%			
Dynamic Response (100% Step Load)	< 2%, recovery within 20ms			
Voltage Distortion (THDv) @ Rated Load	<2% Linear load, <3% Non-linear load			
Over Load	110% for 60 Minutes, 125% for 10 Minutes, 150% for 1 Minute			
<b>Bypass Characteristics</b>				
Nominal Voltage	3 Phase - 4wire 400/415V +/-10%			
Nominal Frequency	50Hz			
Short Circuit withstand Capacity	500% for 20ms			
Backfeed Protection	Available			
Ecomode with PF & Harmonics Correction	Available as a value-added optional feature (Smart drive)			
<b>Battery</b>				
Nominal Voltage	480 VDC (Flexible)			
Max DC Voltage Protection	Up to 700 VDC			
Battery Type	VRLA, Flooded, Ni-Cd, LIB			
Decentralized Battery Bank Option	Available			
<b>Efficiency</b>				
Double Conversion Mode <sup>2</sup>	Up to 97%			
Smart Drive Mode (Optional Feature)	Up to 98.5%, Up to 99% Eco Mode			
<b>Communication</b>				
Intelligent Monitoring (Option)	Modbus/TCP, Modbus/RS485, RS 232, SNMP			
UPS Display	Graphical Touchscreen with LCD Display			
Alarm and Status Information	Through LCD Display, user programmable input and output dry contacts			
<b>Environmental Conditions</b>				
Operating Temperature <sup>4</sup>	0 to 40° C			
Relative Humidity	5 to 95% non-condensing			
Operating Altitude	1000m above MSL without derating			
<b>Physical</b>				
Dimension (W x D x H) <sup>3</sup>	2800 x 900 x 2080	3400 x 900 x 2080	4300 x 900 x 2080	4900 x 900 x 2080
Weight (kg)	2600	3400	4480	5300

Specifications are subject to change without prior notice as part of continuous development.

1 - With source THDv < 1%    2 - 3 Wire    3 - Dimension tolerance  $\pm$ 10 mm    4 - As per maintenance guidelines detailed in user manual

**MITSUBISHI ELECTRIC ASIA PTE LTD**

307 ALEXANDRA ROAD

MITSUBISHI ELECTRIC BUILDING

SINGAPORE 159943

TEL: (65) 6473 2308 FAX: (65) 6473 8944

www.MitsubishiElectric.com.sg