



Vertiv™ Liebert®

ITA2 UPS

5-40 kVA

Flexible power protection for
Rack or Tower installation



In today's dynamic world, having basic power protection is not enough for enterprises. Business continuity is even more vital with digital trends constantly emerging and transforming the way you do business. In your critical system, you simply cannot afford downtime or waste time recovering these systems after a disruption. What you need is a robust, highly-efficient, reliable UPS system which offers perennial, round-the-clock protection for diverse applications.

Our Solution

The Vertiv™ Liebert® ITA2 is a fully-digital, highly reliable, double-conversion UPS solution that provides clean and consistent power. This highly efficient solution is ideal for various deployments, including IT racks, network closets, automation control systems, and precision instruments to small sized control rooms among other edge applications.

- Cutting-edge design enables seamless integration into various ecosystems
- Tailored for global deployment in a low carbon, compact footprint

The ultimate level of engineering and dynamics that have gone beyond the development of this innovative, next-generation product facilitate top-notch availability and excellent performance at low ownership costs, giving you ultimate peace of mind.

Liebert® ITA2 5-40 kVA



5-10 kVA



16-40 kVA

Application Areas

- Edge Networks
- Data Centers
- Automation industries
- Server Farms
- Workstations
- Telecom

Liebert® ITA2

Robust power protection solution in a compact package

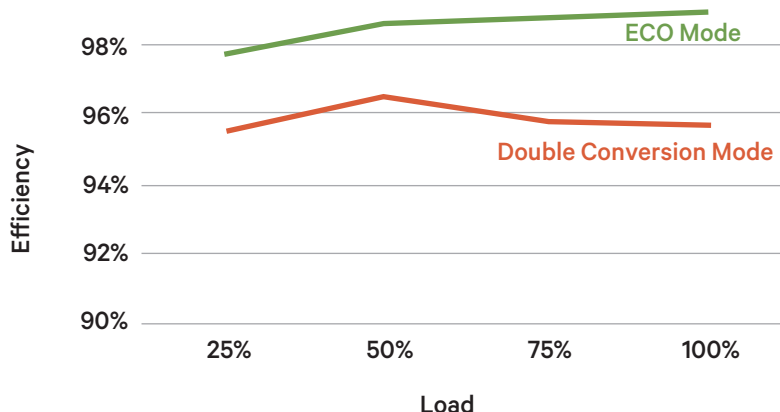


Key Features

- Robust structure with cutting edge channelized airflow design
- Wide input voltage range, making it immune to grid interference
- Rack-tower design for installation flexibility
- Able to deliver both three-phase and single-phase output²
- 0.99 input power factor for better grid or generator compatibility
- Powerful charging capability for minimum battery recharging time
- Programmable output outlets/terminals with cascade protection to protect key devices during heavy load²
- Integrated communication port for remote monitoring
- Easy to install, repair, and maintain
- Compliance with seismic conduction and vehicle carrying test
- Gravity sense LCD display
- Turnkey dust-resistant design with ability to operate under high ambient temperature of up to 50 °C

The Most Efficient UPS

Vertiv™ Liebert® ITA2 offers best-in-class efficiency of up to 96.5% in double conversion mode over a wide range of load conditions, resulting in significant OPEX cost savings. Liebert ITA2's integrated ECO mode of operation further enhances efficiency of up to 99%.



The Most Flexible UPS



**Shown here the UPS and battery cabinets in a tower*

- Optimized modules minimizes the amount of used space in the rack
- Support base makes it convenient and stable to place on a floor
- Adjustable display panel ensures readability and ease of use
- Fast, flexible and easy to deploy power output distribution options
- The flexible battery configurations such as VRLA and Lithium-ion external battery cabinets are designed to meet individual installation availability and back up time requirements.



VRLA Battery Cabinet



2U Li-ion Battery Cabinet



Available in different wattage variations, Vertiv™ Liebert® ITA2 is ideal in the edge of networks, light industrial applications and data centers, easily blending into any virtualized environment and providing comprehensive power protection at reduced operating costs.

Reliability in a compact footprint

- Fully-digital control with high output voltage precision
- Manages all the nine power problems including sagging, spikes, and fluctuations
- Built-in intelligent communication card for remote monitoring and management
- Built-in-power charger for fast charging reduces the battery charging time
- Prolonged backup time through cascaded connection
- Quality-tested for 1000 hours for extreme durability and tolerance even in stringent conditions

High Availability

Early Warning of UPS System Status

Multiple audible and visual alarms instantly alert for critical issues.

Periodic Battery Testing

Provides automatic and manual self-diagnostic battery testing for peace of mind.

Power-Factor Correction

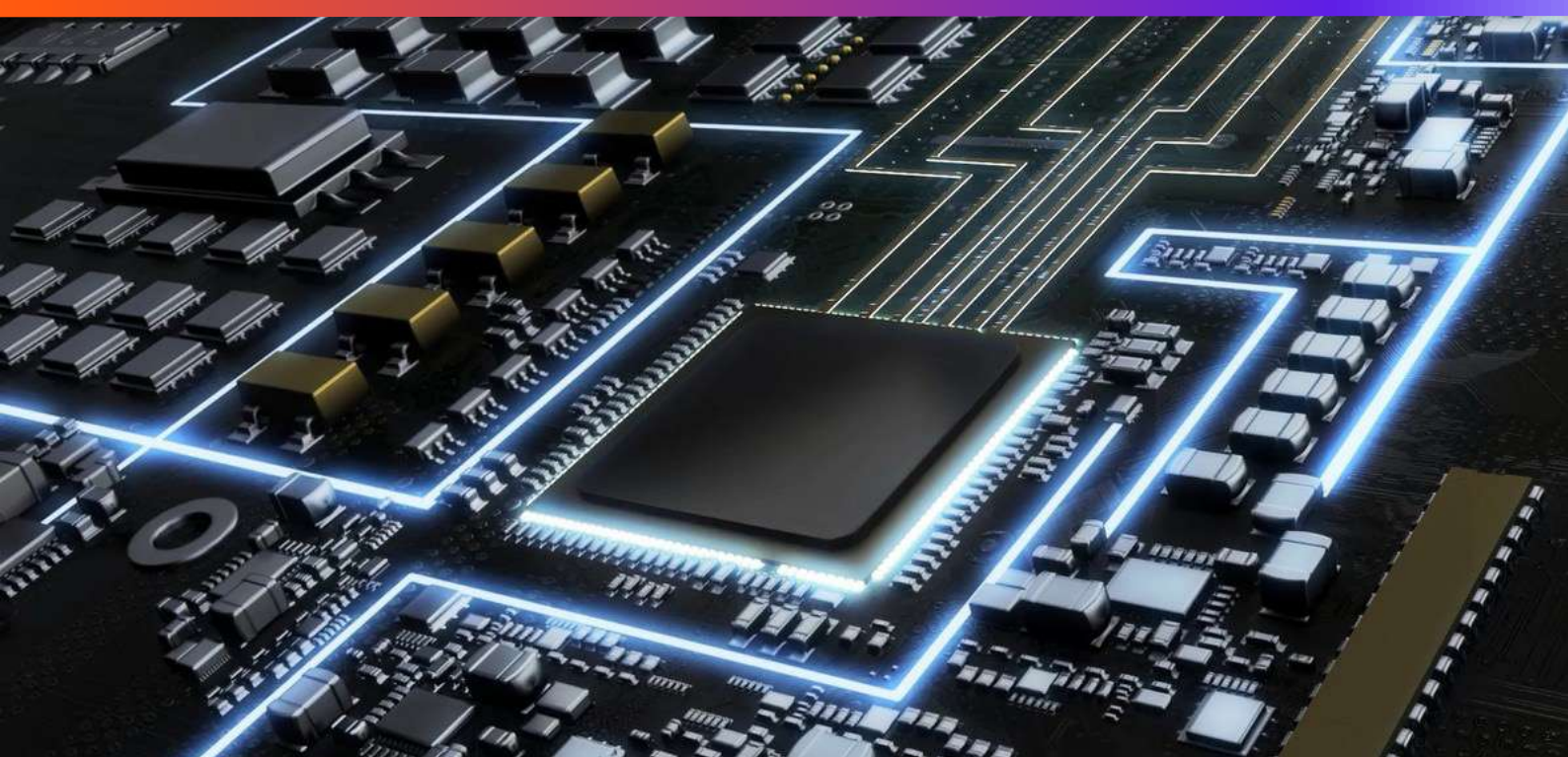
Prevents noise, harmonics, and distortion from being transferred to connected loads or fed back to the utility.

Lightning and Surge Protection

The transient voltage surge suppression circuitry inside the Liebert® ITA2 provides additional protection for the connected equipment.

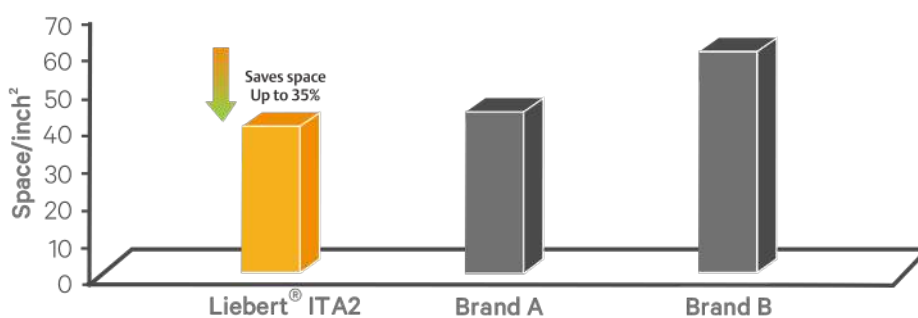
Wide Input Voltage Window

Prolongs battery life by allowing the UPS to maximize the use of utility power before being transferred to the battery when the input voltage exceeds the specified limits.



More of What You Need: High Power Density

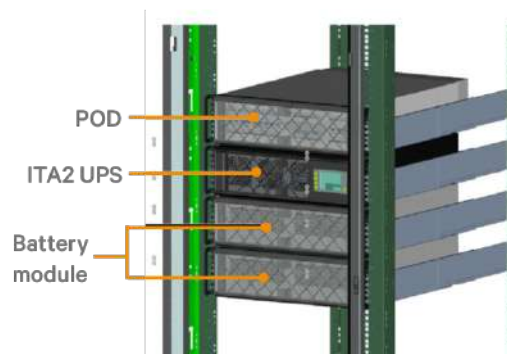
The Vertiv™ Liebert® ITA2 is designed with a high power factor in a small footprint. This increased power density maximizes the usable power to meet the needs of advanced IT operations.



POD- Optional Accessories

The Liebert POD maintenance bypass and output distribution unit ensures continuous uptime when your critical system cannot afford any power loss without power, even for scheduled UPS maintenance.

It allows you to manually transfer connected equipment to utility power via a maintenance bypass switch, permitting scheduled service or UPS replacement without shutting down connected equipment.



Lithium-ion Battery Compatibility

The Liebert® ITA2 is powered with most powerful & intelligent battery charger that enables to integrate seamlessly with Safest Lithium Iron Phosphate (LFP) chemistry batteries.

Considering the benefits lithium-ion batteries provides over traditional battery deployments. Not only do users enjoy the longer life, more cycles and fewer replacements, they also benefit from the compact, smaller size and lower weight. Plus, the higher operating temperature and lower maintenance add to the savings.

All these advantages directly impact IT facilities to drive an impressive total cost of ownership experience. Vertiv leverages its DNA in critical systems to deliver a lithium-ion battery system that is integrated seamlessly into the power chain.

Our capabilities and processes come together to ensure the UPS, batteries, monitoring, management service and support offerings are orchestrated for delivering on our customer expectations.



Vertiv™ MPL Lithium ion Battery Cabinet with Liebert® ITA2

Benefits of Lithium-ion Batteries

Longer life VRLA LIB	Weighs less 10 LB 4 LB VRLA LIB	More cycles 100% 500% LEADACID LIB
Saves space VRLA LIB	Saves cooling cost kWh kWh VRLA LIB	Battery Management System EXTERNAL LEAD ACID BUILT-IN LIB

Intelligent Communications

The Vertiv™ Liebert® ITA2 offers an intuitive control panel, network connectivity communications card, and optional software monitoring, all designed to ensure visibility, control and peace of mind for manned or unmanned locations. You can even monitor key environmental and room conditions.

Vertiv™ Power Insight

Vertiv™ Power Insight is a web-based solution for managing and monitoring up to 100 Vertiv™ UPSs and rPDUs that provides a quick way to safely shutdown IT devices based on user-configured parameters. It helps improve availability and simplifies the monitoring and management of mission-critical IT equipment. Additionally, if VMware™ is your virtualization platform of choice, you can benefit from the seamless integration offered by the Vertiv Power Insight vCenter Plugin. The vCenter Plugin provides single-pane-of-glass monitoring and management of UPS and rPDU infrastructure directly within the vCenter Management Platform.

It can also be configured to trigger automatic Virtual Machine (VM) shutdown or migration (using vMotion) based on alarms or events communicated by Vertiv Power Insight.



Remote Diagnostic Services for Rapid Response

Data-Driven Insight

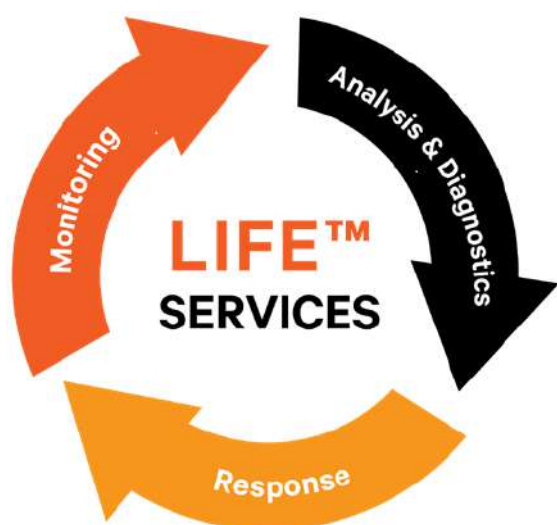
With Life Services you don't just have someone periodically checking equipment status. You have Vertiv experts continuously monitoring and analysing all relevant control and operating parameters from your equipment to maintain optimum performance.

Real-time Response

Real-time data enables realtime response to potential anomalies. Rather than wait for a problem to be detected by on-site personnel, Vertiv Life Services "sees" operating issues as soon as they occur. It triggers immediate service action to prevent problems or cut hours or days off the time-to-repair, preventing or reducing downtime.

Connected Service

Vertiv service engineers can resolve many anomalies remotely and are connected to the Vertiv field service organisation for on-site resolution. They can dispatch a field service engineer as soon as a critical condition is identified, often arming the engineer with a diagnosis so they arrive knowing the issue and with any required replacement parts.



Battery Backup Table (With VRLA)

UPS Model	Battery Modules	Backup Time in Minutes									
		5kVA	4.5kVA	4kVA	3.5kVA	3kVA	2.5kVA	2kVA	1.5kVA	1kVA	0.5kVA
5kVA	1	6.8	7.8	9.2	11.2	13.9	17.9	24.3	35.6	58	122.4
	2	18	20.9	24.6	29.7	36.5	46	59.7	81.7	126.4	278.8
	3	31.9	36.6	42.6	50.2	60.2	74.1	94.5	128.3	207	435.7
	4	46.3	52.6	60.3	70.2	83.5	102.2	130.3	182.7	287.6	592.5
	5	60.4	68.1	77.8	90.3	107	131.4	171.6	237.1	368.2	749.3
	6	74.4	83.7	95.4	110.4	131.5	164.6	212.9	291.5	448.8	906.1

UPS Model	Battery Modules	Backup Time in Minutes									
		6kVA	5.4kVA	4.8kVA	4.2kVA	3.6kVA	3kVA	2.4kVA	1.8kVA	1.2kVA	0.6kVA
6kVA	1	5.1	6.1	7.1	8.6	10.8	13.9	19	28	46.9	101
	2	14	16.1	19.1	23	28.6	36.5	48.4	67	103.9	228.2
	3	24.7	28.7	33.6	40	48.5	60.2	77.6	105.6	167.6	359.7
	4	36.7	42	48.7	57	68	83.5	106.9	147.8	235.1	491.2
	5	48.8	55.3	63.3	73.6	87.5	107	138.3	193.5	302.6	622.8
	6	60.5	68.2	77.9	90.4	107.1	131.5	172.9	239.1	370.1	754.3

UPS Model	Battery Modules	Backup Time in Minutes									
		10kVA	9kVA	8kVA	7kVA	6kVA	5kVA	4kVA	3kVA	2kVA	1kVA
10kVA	2	4.8	5.5	7.4	10.2	14	18	24.6	36.5	59.7	126.4
	3	8.8	10.2	13.6	18.5	24.7	31.9	42.6	60.2	94.5	207
	4	13.7	15.9	21.1	28.4	36.7	46.3	60.3	83.5	130.3	287.6
	5	19.4	22.4	29.7	39.3	48.8	60.4	77.8	107	171.6	368.2
	6	25.8	29.6	38.6	50.6	60.5	74.4	95.4	131.5	212.9	448.8

UPS Model	Battery Modules	Backup Time in Minutes									
		16kVA	14.4kVA	12.8kVA	11.2kVA	9.6kVA	8kVA	6.4kVA	4.8kVA	3.2kVA	1.6kVA
16kVA	4	9.5	11	13	15.6	19.4	24.8	33.8	48.7	77.7	169.6
	6	16.8	19.6	23.1	27.8	34	42.9	56.2	77.9	121.7	271.9
	8	25.3	29.3	34.4	40.8	49.2	60.7	78.1	107.3	173.2	374.1
	10	34.4	39.5	45.9	53.8	63.9	78.4	100.3	138.9	225.2	476.3
	12	43.6	49.7	57.2	66.5	78.7	96.1	122.4	173.7	277.2	578.6

UPS Model	Battery Modules	Backup Time in Minutes									
		20kVA	18kVA	16kVA	14kVA	12kVA	10kVA	8kVA	6kVA	4kVA	2kVA
20kVA	4	6.9	8	9.5	11.5	14.3	18.3	24.8	36.7	60.3	130.3
	6	12.3	14.3	16.8	20.4	25.3	32.3	42.9	60.5	95.4	212.9
	8	18.5	21.5	25.3	30.5	37.5	46.8	60.7	84	131.8	295.5
	10	25.3	29.3	34.4	41	49.7	61.1	78.4	107.6	173.4	378.1
	12	32.6	37.5	43.6	51.4	61.6	75.2	96.1	132.3	215.1	460.7

Note: Battery autonomy times and 5 year design life are based on operation at 25°C. Approximate autonomy times are based on fully charged batteries and can vary +/-5% due to battery manufacturing variances.

Battery Backup Table (With 192 V, 12 Ah Lithium-ion)

UPS Model	Battery Modules	Backup Time in Minutes									
		5kVA	4.5kVA	4kVA	3.5kVA	3kVA	2.5kVA	2kVA	1.5kVA	1kVA	0.5kVA
5 kVA (Single phase UPS Models)	1	20	22	28	32	36	46	56	76	118	222
	2	44	50	56	64	78	92	116	156	242	448
	3	68	76	88	100	118	144	178	240	364	674
	4	94	104	116	134	158	194	240	322	484	894
	5	118	132	144	168	198	244	302	404	604	1114
	6	142	160	172	202	238	294	364	486	724	1334

UPS Model	Battery Modules	Backup Time in Minutes									
		6kVA	5.4kVA	4.8kVA	4.2kVA	3.6kVA	3kVA	2.4kVA	1.8kVA	1.2kVA	0.6kVA
6 kVA (Single phase UPS Models)	1	16.0	18.0	20.6	26.0	30.0	36.0	47.9	63.0	98.3	185.0
	2	36.0	41.0	46.9	53.0	60.0	78.0	95.8	129.0	201.7	373.3
	3	56.0	63.0	71.3	83.0	96.0	118.0	147.8	199.0	303.3	561.7
	4	78.0	86.0	97.5	111.0	130.0	158.0	197.8	267.0	403.3	745.0
	5	97.0	109.0	123.8	139.0	164.0	198.0	247.8	335.0	503.3	928.3
	6	117.0	132.0	150.0	167.0	198.0	238.0	297.8	403.0	603.3	1111.7

UPS Model	Battery Modules	Backup Time in Minutes									
		10kVA	9kVA	8kVA	7kVA	6kVA	5kVA	4kVA	3kVA	2kVA	1kVA
10 kVA (Single phase UPS Models)	1	10	11	14	16	18	23	28	38	59	111
	2	22	25	28	32	39	46	58	78	121	224
	3	34	38	44	50	59	72	89	120	182	337
	4	47	52	58	67	79	97	120	161	242	447
	5	59	66	72	84	99	122	151	202	302	557
	6	71	80	86	101	119	147	182	243	362	667

UPS Model	Battery Modules*	Backup Time in Minutes									
		20kVA	18kVA	16kVA	14kVA	12kVA	10kVA	8kVA	6kVA	4kVA	2kVA
20 kVA (Three phase UPS Models)	1 string	10	11	14	16	18	23	28	38	59	111
	2 string	22	25	28	32	39	46	58	78	121	224
	3 string	34	38	44	50	59	72	89	120	182	337
	4 string	47	52	58	67	79	97	120	161	242	447
	5 string	59	66	72	84	99	122	151	202	302	557
	6 string	71	80	86	101	119	147	182	243	362	667

UPS Model	Battery Modules*	Backup Time in Minutes									
		30kVA	27kVA	24kVA	21kVA	18kVA	15kVA	12kVA	9kVA	6kVA	3kVA
30 kVA (Three phase UPS Models)	2 string	15	16	18	21	25	30	39	52	78	173
	3 string	22	25	28	32	38	47	59	81	120	260
	4 string	30	34	38	43	52	63	79	109	161	345
	5 string	38	43	48	55	66	78	99	137	202	430
	6 string	47	52	59	67	80	93	119	165	243	515
	7 string	56	62	70	79	94	109	139	193	284	600

Note : * 1 string equals to 2 battery cabinets

(1) Backup times in above tables have approximate values. They are based on new, fully charged batteries at a temperature of 77°F (25°C) with 100% resistive UPS loading. Different loading will change the actual backup times. Backup times listed may vary by ±5% due to manufacturing variances of the batteries.

Build Your Total Infrastructure Solution with Vertiv

Discover expert designed IT infrastructure solutions with proven success in diverse environments

Vertiv™ Geist™ rPDU

Reliable power distribution with outlet level remote monitoring and management providing the highest level of power visibility and control.

Vertiv™ VE Rack

Self-contained 42U server rack designed to simplify equipment installation and provides an additional 6cm of useable depth.

Software and IT Management

Monitor the entire system either locally or remotely to ensure you are alerted of out-of-range conditions that could result in costly downtime.

Cable and Air Flow Management

Included accessories ensure proper cable management and airflow to keep your equipment cool.

POD

Ensures safe and reliable power distribution function.

Vertiv™ Liebert ITA2 UPS

Protect mission critical equipment in the event of power loss or extreme power fluctuations.

Vertiv™ MPL

First and Only Lithium-Ion battery option for rack-mount 1-phase & 3-phase UPS that provides safe, reliable and scalable backup power.



Vertiv™ Liebert® ITA2 UPS Specifications

Nominal Ratings (kVA)	5	6	10	16	20	30	40
Long Backup Model	ITA-05k00AL1102P00	ITA-06k00AL1102P00	ITA-10k00ALA102P00	ITA-16k00AL3A02P00	ITA-20k00AL3A02P00	ITA-30k00AL3302P00	ITA-40k00AL3302P00
Part Number	01202670	01202671	01202672	01202682	01202683	01202660	01202897

Input Parameters

Nominal Input Voltage (V)	220/230/240 VAC 1-Phase, 2 Wire	220/230/240 VAC 1-Phase, 2 Wire; 380/400/415 VAC 3-Phase, 4 Wire	380/400/415 VAC 3-Phase, 4 Wire
Input Voltage Range (V)	176-288 VAC at full load; 100-176 VAC at linear derating; 100 VAC at half load		
Nominal Input Frequency (Hz)	50/60		
Input Power Factor (kW/kVA) ³	0.99		
Current THD at Full Linear Load ³	<3		

Battery

Battery Blocks Per String	12*, 15, 16, 17, 18, 19, 20	24*, 30, 32, 34, 36, 38, 40	32-40	24-40**
Battery Charger Max. Power (A)	5	8	13	
External Battery Cabinet Option (VRLA)	P/C : ITA-BCI0020K01 (built-in battery module of 16 block X 12 V X 9 AH) Battery cabinet Dimensions in rack arrangement - 430 (W) x 750 (D) x 85 (H)			Only external battery cabinet
External Battery Cabinet Option (Li-ion)*	P/C: ITA-BLI0020KL2 (2U lithium ion battery module assembly - 192V / 12Ah/1 cabinet) Battery cabinet Dimensions in rack arrangement- 430 (W) x 680 (D) x 86 (H); Weight - 35 kg / cabinet			NA

Output

Nominal Output Voltage (V)	220/230/240 VAC (1-phase)	220/230/240 VAC (1-Phase), 380/400/415 VAC (3-Phase)	380/400/415 VAC (3-Phase)
Nominal Output Frequency (Hz)	50/60		
Rated Power Factor (kW/kVA)	Unity		
Voltage Harmonic Distortion (%)	<2% for Linear loads & <5% for Non-linear loads		
Overload Capacity @ at 25 °C	105~125%, 10 min; 125~150%, 1 min; >150%, 200 ms		105~125%, 10 min; 125~150%, 1 min; 150~200%, 5 s

Efficiency

Online Mode Efficiency	Up to 95.5%	Up to 95.8%	Up to 96.2%	Up to 96.5%
ECO Mode Efficiency	Up to 99%			

Dimensions and Weight

UPS Dimensions (W x D x H) in mm-Rack Mounted Arrangement	430 x 480 x 85	430 x 590 x 85	430 x 600 x 130		430 x 730 x 130
Weight (kg)	11	15	23	23.5	30

General

Nosie at 1 m (dBA)	<55	<58	<60	<63
Operating Temperature (°C)	0 ~ 50*			
Relative Humidity (%RH)	5 ~ 95, non-condensing			
Altitude (m)	3000 without derating			
General and Safety Requirements for UPS	IEC 62040-1			
EMC Requirements for UPS	IEC 62040-2			
UPS Classification According to IEC 62040-3	VFI-SS-111			
Environmental Aspects- Requirements and Reporting	IEC 62040-4			

Note: *Dearting conditions apply ** 24-26-28-30 with de-rating (1) with ABS certification (2) Not Available in 30 & 40 kVA (3) Conditions apply (4) For 5-10 kVA, requires min 1 battery cabinet; For 16-20 KVA, requires min one group (2 battery cabinets); For 30 kVA, requires min two groups (4 battery cabinets); For 40 kVA, not available

