



Liebert®

Hipulse D

5kVA-160kVA 3P-1P

10kVA-250kVA 3P-3P



Features

- Fully digital UPS solution for industrial applications
- Robust design ensure high reliability features
- User-friendly display
- Design and temperature features for industrial
- Zero Transfer time
- Galvanic isolation features
- State of Art Mechanical Assembly design for ease of Maintenance
- Parallel redundant configuration
- Fully customizable
- External communication capabilities
- Customized Designs to suit IP protection requirements

Application

- Manufacturing
- Pharmaceutical
- Textile
- Retail
- Power Generation
- T&D Oil and Gas
- Transportation
- Cement plants
- Steel Plants
- Chemical & Fertilizer

Feature-rich Industrial AC UPS system embedded with the latest technologies for optimal power protection and reliability

The Liebert® Hipulse D is an Industrial AC UPS system which is designed to meet a wide array of mission critical continuity needs in an industrial environment. It is embedded with the latest technologies available in the market today to provide your business maximum power protection even in the harshest conditions.



A fully digital Industrial UPS system

- Easy System configuration through software for on-site modification and retrofitting needs State of the art SPWM Technology with digital control ensure low electrical noise for the loads/ appliances a fast transient response
- Better voltage regulation
- Low total harmonic distortion
- (THD) Easy navigation
- Event log for analysis of fault occurrence and easier maintenance
- Hipulse D-3X1- Input, Battery , Output, Bypass per Group 170, i.e. total 680 event logs; In Hipulse D-3X3 254 event logs
- Push button system control
- 2 lines of 20 characters display
- English & Chinese language display



Robust mechanical design for easy maintenance

- State of art front access for a more efficient maintenance
- If necessary, side and rear panels are removable Fan replacement from front or top
- Easy access to Thyristors, IGBTs & PCBs

International standards compliant

- IEC / EN 62040 – 1 : Safety
- IEC / EN 62040 – 2 : Electromagnetic compatibility
- IEC / EN 62040 – 3 : Performance & testing
- ISO 9001:2015 : Quality System

High reliability features

- 15 to 20 years product lifespan, supported by recommend preventive maintenance

Design & temperature

- Suitable for operation at higher ambient temperature
- Improved thermal design with ventilation ensures improve in MTBF of the components

Galvanic isolation features

- Any mains disturbance will not be transferred to the DC circuit or to the output
- Load remains safe all the time irrespective of switching/ transient in the Mains and sudden other output load changes in the O/P ACBD
- Double conversion topology provides clean and reliable power

Connectivity Options

- UPS MON-II (RS232 or ETHERNET based)
- SNMP (RJ45)
- MODBUS (RS 485)
- ETHERNET based remote monitoring (i-REMOTE)
- For all UPS

Transfer time

- Safe transfer to bypass, without a break for the connected load
- 0 s when synchronized on reserve
- <10 ms transfer time in Async mode

Parallel redundant configuration

- *N+1 Units can be paralleled
- Immediate communication between the paralleled systems after connection
- No single point of failure
- Active load sharing

Customization Capability

- Customized UPS configurations
- offered at pre-sales stage
- Fully custom built options meet required output power, voltage levels as well as available input power and voltage quality levels
- Customer requirements like color, protection, PFC etc.
- Customized accessories like ACDB, SCVS, Cell Booster
- Option of input passive filter for PF & THDi improvement
- Battery charging requirements
- Extended temperature up to 50°C
- Seismic qualification

* Note : N=1 for 3X1, N=2 for 3x3

Technical Specifications

MODEL	STANDARD OFFERINGS	OPTIONAL																											
INPUT																													
Nominal Voltage	415 V AC, 3 Phase, 3 wire (+10 % , -20 %)	220 V AC 3 Phase, 3 wire (+ 10 % , -15 %)																											
Nominal Frequency	50 Hz (± 10 %)	60 Hz (± 6 %)																											
Input Power factor	>=0.88 up to 7.5 kVA and >=0.92 for 10 kVA and above	≥ 0.94																											
Input Fault Level	10 kA	<ul style="list-style-type: none"> 50kA (MCCB), 70kA (MCCB) Input Isolation Transformer 																											
RECTIFIER																													
Type	Full Wave, A-PFC Rectifier	12 Pulse, above 20 kVA Rating																											
CHARGER																													
Type	<ul style="list-style-type: none"> IGBT based Dual mode of charging Suitable to charge VRLA-SMF, Lead Acid, Ni-Cd, Li-Ion battery. 																												
Nominal Voltage Regulation	± 1 %																												
Ripple (without Battery)	< 2 %																												
Charging Method	Constant Voltage Constant Current (CVCC) Auto & Manual with 0 to 24 Hr programmable timer																												
BATTERY																													
Battery Voltage	<ul style="list-style-type: none"> 240 VDC for 5 to 15 kVA (114 to 132 cells for Lead Acid & 181 to 210 cells for Ni-cd) 300 VDC for 20 kVA (144 to 162 cells for Lead Acid & 229 to 248 cells for Ni-cd) 360 VDC for 30-120 kVA (174 to 192 cells for Lead Acid & 277 to 305 cells for Ni-cd) 																												
	<ul style="list-style-type: none"> 110 VDC (5-15 kVA UPS) (54 to 67 cells for Lead Acid & 86 to 96 cells for Ni-cd) 220 VDC (20-120 kVA UPS) (108 to 122 cells for Lead Acid & 172 to 191 cells for Ni-cd) 																												
	Note : +2 Blocks of 12 V and -1 Block of 12V possible																												
Type	Ni-Cd / Tubular / Li-Ion / VRLA																												
Battery Charging Capacity (w/o Input Isolation Transformer)	<table border="1"> <thead> <tr> <th>KVA</th> <th>1P</th> <th>3P</th> </tr> </thead> <tbody> <tr> <td>5 to 10</td> <td>15A</td> <td>20A</td> </tr> <tr> <td>15 to 20</td> <td>20A</td> <td>20A</td> </tr> <tr> <td>30 to 40</td> <td>30A</td> <td>40A</td> </tr> <tr> <td>50 & 80</td> <td>40A</td> <td>40A</td> </tr> <tr> <td>60</td> <td>40A</td> <td>40A</td> </tr> <tr> <td>100 to 160</td> <td>40A</td> <td>40A</td> </tr> </tbody> </table>	KVA	1P	3P	5 to 10	15A	20A	15 to 20	20A	20A	30 to 40	30A	40A	50 & 80	40A	40A	60	40A	40A	100 to 160	40A	40A	<table border="1"> <tbody> <tr> <td>2 to 20 kVA</td> <td>40 A at 110 VDC</td> </tr> <tr> <td>2 to 20 kVA</td> <td>20 A at 220 VDC</td> </tr> <tr> <td>25 to 80 kVA</td> <td>60 A at 220 VDC</td> </tr> </tbody> </table>	2 to 20 kVA	40 A at 110 VDC	2 to 20 kVA	20 A at 220 VDC	25 to 80 kVA	60 A at 220 VDC
KVA	1P	3P																											
5 to 10	15A	20A																											
15 to 20	20A	20A																											
30 to 40	30A	40A																											
50 & 80	40A	40A																											
60	40A	40A																											
100 to 160	40A	40A																											
2 to 20 kVA	40 A at 110 VDC																												
2 to 20 kVA	20 A at 220 VDC																												
25 to 80 kVA	60 A at 220 VDC																												
Protection	Battery Breaker	Reverse Battery Indication, Reverse Battery protection & Indication																											
OUTPUT																													
Nominal Voltage	220V / 230V / 240V AC 1P & 400 / 415V AC 3P	110 / 115 / 120 V AC 1P & 380V AC 3P																											
Load PF Support Capacity	0.6 to Unity (within its kVA / kW rating)																												
Voltage Regulation	± 1 % for 230 VAC 1P ±1% for 3P (Balance load), ±2% for 3P (Unbalance load)	± 2 % for 110 VAC, 1P																											
Frequency	50 Hz (± 0.1 Hz) in Free Running Mode ± 5 % (± 1 to 5 % adjustable) in Synchronous mode	60 Hz (± 0.1 Hz)																											
Waveform	True Sine Wave																												
Total Harmonic Distortion	< 2 % Max. for 100 % Linear Load < 5 % Max. for 100 % Non-Linear Load (IEC 62040-3)																												
Overload Capacity	110 % for 60 min, 125 % for 10 min. , 150 % for 1 min																												
Duty	Continuous																												
Inverter Philosophy	IGBT based PWM with INSTANTANEOUS sine wave control																												
Dynamic Response	For 0 to 100 % step load change, the output shall remain within ± 5 % and recover to 98 % within 1 cycle (<3 cycles for parallel redundant system) (IEC 62040-3, Class 1)																												
Crest Factor	3 : 1																												

Technical Specifications

MODEL	STANDARD OFFERINGS	OPTIONAL
STATIC SWITCH		
Frequency Synchronisation	± 2.5 Hz	Frequency band selection with the step of +/- 0.5Hz [Max upto +/- 2.5Hz]
Slew Rate	0.2 Hz/Sec	
Transfer (Inverter to Bypass)	In Sync mode – No break in transfer In ASync mode – < 10 ms	
Re-transfer (Bypass to Inverter)	In Sync mode – No break in re-transfer In ASync mode – Not applicable	
Overload Capacity	1000 % for 100 ms	
Manual Bypass Operation	Make Before Break	
System Configuration	Standalone	Parallel Redundant, Hot Stand by
PHYSICAL		
Enclosure Protection	IP41, IP42	
Colour	RAL 7035 Structure Finish	RAL 7021 / RAL 7032 / IS 5 – 631/ RAL 9001 Structure or as per customer requirement
Paint Thickness & Type	90 micron (± 10 micron) Epoxy Powder Coated	
Cooling	Forced Air	
Cable Entry	Bottom	Top
Wound Components	Class of Insulation – Class H (Transformer / Inductor)	
GENERAL SPECIFICATIONS		
Operating Temperature	0 to 45°C (5-20 kVA) 0 to 40°C (30-120 kVA)	Up to 50°C
Relative Humidity	0 to 95 % (Non-condensing)	
Storage Temperature	0 to 60°C	
Utility Socket	230 V / 5 A	
Illumination Lamp	11 W CFL	Space Heaters
Earth Busbar (Ref.IS 3043)	Make Before Break	
	5-20 kVA: 3 x 25 mm CU 3 x 25 mm CU 30-40 kVA: 3 x 25 mm CU 3 x 25 mm CU (Earth bus bar running along the panel)	50-120 kVA: 6 x 50 mm copper (Earth bus bar running along the panel)
PFCs	One relay contact for each (Rating 250 VAC , 1 A)	PFC with 250 V , 2 A / 6 A rating (6 Nos)
Transducer		Transducer 4 to 20 mA
UPS Monitoring Software	UPSMON II	UPSMON II or SNMP or i Remote (Only one option can be given)
Connectivity	RS 232 / RS 485	Ethernet or MODBUS RS485 or Profibus or Profinet or MODBUS TCP/IP (Only one option can be given)



Vertiv.com/en-in | E-mail : marketing.india@vertiv.com | Toll free : 1-800-2096070

Vertiv Energy Private Limited | Plot C-20, Rd No.19, Wagle Ind Estate, Thane (W), 400604. India

© 2019 Vertiv Co. All rights reserved. Vertiv, and the Vertiv logo trademarks or registered trademarks of Vertiv Co. All other names and logos referred to are trade names, trademarks or registered trademarks of their respective owners. While every precaution has been taken to ensure accuracy and completeness herein, Vertiv Co. assumes no responsibility, and disclaims all liability, for damages resulting from use of this information or for any errors or omissions. Specifications are subject to change without notice.