

## Features

- Online double conversion
- Inverter with 3 level IGBT technology for higher efficiency and minimized interference to grid
- Power Factor 1.0
- Dual DSP control for top performance
- Dual input design for mains and bypass
- Cold start function(cold start from batteries)
- Self-load test function
- Built-in battery and flexible battery configuration (16 to 20)
- ECO-IND mode and EPO function
- Double bypass: electronic and maintenance
- Efficiency up to 94%,
- Double slot for SNMP network card
- Intelligent monitoring system for batteries
- Anti-corrosion resistant coating for all PCB boards
- Easy onsite parallel slot modification (up to 4 units)
- Easy mobility and accommodation (wheels and anchors)

## Solves the following power quality issues

- High voltage surge
- Low voltage surge
- Sustained high voltage
- Sustained low voltage
- Electric noise
- Voltage spikes
- Power failure
- Frequency variations
- Harmonic distortion

## Applications

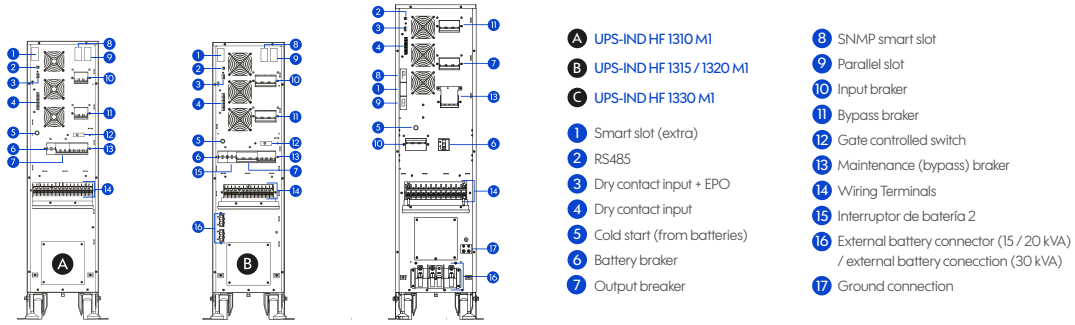
- Sites / computer rooms
- Telecommunications
- Instrumentation equipment
- Audio and video equipment
- Intelligent buildings
- Shopping centers
- Security systems
- Electronic banking
- Robotics

## Optional

- Voltage transformer for coupling to the electrical power system or load voltage
- External battery bank for extended backup
- Industronic voltage conditioner to protect the UPS and extend battery life
- Voltage Surge Suppressor



# UPS-IND HF 1300 MI Specs



Modelo UPS-IND HF	1310 MI	1315 MI	1320 MI	1330 MI
<b>Input</b>				
Capacity (W/ VA)	10 / 10	15 / 15	20 / 20	30 / 30
Voltage (Vca)	110/190, 115/200, 120/208 o 127/220 ( optional: 220/380, 230/400, 254/440, 266/460, 277/480)			
Overload Protection	Thermal magnetic input circuit breaker and thermal magnetic bypass circuit breaker			
Voltage Range (Vac)	156 A 260 (line to line): -29%, +18%			
Phase	Three phase star, 3 phases + neutral + ground, optional: delta (3 phases + ground)			
Frequency Range (Hz)	40 - 70			
Input Power Factor	≥ 0.99 At full load			
THDi	≤ 3%			
<b>Output</b>				
AC to AC Maximum Efficiency	94%			
Overload Protection	Thermal magnetic output circuit breaker			
Output Power Factor	1.0			
Voltage (Vac)	110/190, 115/200, 120/208 or 127/220			
Voltage Regulation Range (Vac)	+/- 1%			
Frequency (Hz)	60 +/- 0.1% (battery mode), optional: 50 hz			
Waveform	Pure sinusoidal wave			
Harmonic Distortion THDv	≤ 1% (Linear load), ≤ 4% (non linear load)			
Transfer Time (ms)	0.0 Ms(true on line)			
Connection Type	Three phase star, 3 phases + neutral + ground, optional: delta (3 phases + ground)			
Overload	< 105% Continuous, 105% to 110% 60 min., 110% To 125% 10 min., 125% To 150% 60 s., > 150% Immediate switch to bypass			
Energy Return / Peak Factor	Does not support energy return / ≤ 3.1			
<b>Battery Bank</b>				
Voltage (Vdc)	+/- 96 - +/- 120 (adjustable)			
Battery Capacity	20 x 9Ah 12 V	32 x 9Ah 12 V	40 x 9Ah 12 V	64 x 9Ah 12 V
Battery Type	Lead acid (sealed & maintenance free)			
Full load backup time	5 min standard (extended time available upon request)			
Maximum Load Current (A)	Adjustable 1 to 10	Adjustable 1 to 20		
Internal Battery Bank	Space for 60 batteries (3 packs of 20)			Space for 80 batt. (4 packs of 20)
Useful life time	3 to 5 years at 25°C. At higher temperatures their useful life is considerably reduced. To keep the batteries healthy we recommend recharging them at least once every 3 months and to avoid damage recharge them every 6 months.			
<b>Physical &amp; Mechanical</b>				
Audible Noise (dB)	< 55, at 1 meter			
Operating Temperature (°C)	-5 - 40			
Relative Humidity	0 - 95% without Condensation			
Maximum Operating Altitude (m.a.s.l.)	2,000 at 100%			
Cabinet	Baked electrostatic epoxy coated Steel			
Dimensions, height x width x depth (mm)	1100 x 280 x 835		1250 x 320 x 880	
UPS net weight (kg)	75 / 125*/ 150**	93 / 173*/ 170 **	95 / 186*/ 172**	112 / 269*/ 198**
UPS packaged weight (kg)	95 / 145*/ 170**	113 / 193*/ 190 **	115 / 206*/ 192**	127 / 289*/ 218**
<b>Technology</b>				
Inverter	3 level IGBT technology for higher efficiency and minimized interference to grid			
Rectifier	High Efficiency PFC type with IGBT technology			
Output Isolation Transformer	Optional			
Battery Status	Real Time Online/Discharge Information			
Thermal Dissipation (kBTU / h)	2.05	3.07	4.10	6.15
Internal Bypass	Two Bypass Modes: Automatic Static & Manual Bypass Switch for Maintenance			
Paralleling	N + 1 (up to 4 units)			
Certifications	UL-1778, CE-62040-1, CE 62040-2, ISO 9001:2015, RETIE EL-CS-210049			
Communications Interface	RS485 + EPO, 5 dry contact output signals, 1 dry contact input, RS232, SNMP network card			
Digital Touch Screen	Displays: Input and output voltage, Load capacity, Battery voltage, Operating Status Mimic and LEDs Indicators			
Alarms	Low Battery, Abnormal Input, UPS Failure, etc.			
Protection	Low Battery, overload, short circuit, over Temperature, etc.			

\*Weight with batteries included \*\*Weight with transformer included

The specifications are subject to changes and modifications without prior notice, due to our commitment of continuous improvement of reliability, design and functionality of our products