ASTRID Hyperion 400 kVA UPS

Technical Data Sheet

IGBT Rectifier

Low THDI

- IGBT rectifier technology elimi-nates total harmonics distortion to lower than 5% for both current and voltage (THDI<5%)

Compact

- The sophisticated IGBT rectifier is much smaller than conven-tional one, making the UPS more compact than ever and more accessible for maintenance

Unity Power Factor

- Improved input power factor correction, utilize most of the UPS input. Power factor close to unity even at low loads

Modular Design

Power Modules

- The moduler design of power components allow the smallest MTTR (Mean Time To Repair)

Parallel Redundant

N + 1 Redundancy

- Load sharing up to 4 units, allowing flexible redundancy configurations (1+1, N+1) without limitation

Scalability + Reliability

- With such versatie parallel units, Infinity system can easily scaled up to cope with the ever increasing capacity or redun-dancy requirement anytime, giving you the highest flexibility for infrastructure planning

Communication

Built-in RS232, USB

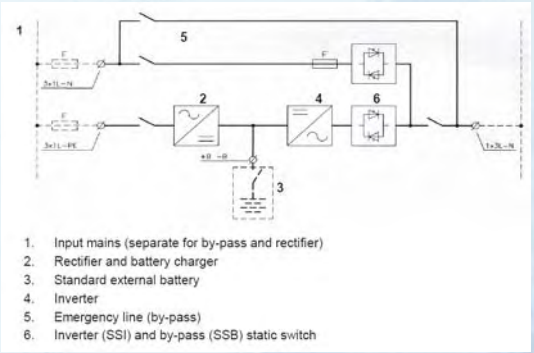
- Built-in RS232 serial port/ USB port for any remote monitoring need, or simply utilize the bundled monitoring software

SNMP card

- Optional SNMP card for network based remote monitor-ing virtually from anywhere your network can extend

Dimensions & Weight

400kVA
1200W 860D 1900H
1350kg



1. Input mains (separate for by-pass and rectifier)
2. Rectifier and battery charger
3. Standard external battery
4. Inverter
5. Emergency line (by-pass)
6. Inverter (SSI) and by-pass (SSB) static switch

General Information

POWER (KVA)	400
UPS typology	ON LINE -Double Conversion
Nominal output power @ Cos Ø 0,8(KVA)	400
Nominal output power @ Cos Ø 1(KW)	320
Efficiency AC/AC (%)	>93
Heat dissipation at nominal load and voltage: -kW -kcal	 22.4 19.2
UPS ambient temperature (°C)	0 - 40
BATTERY ambient temperature (°C)	0 - 25
UPS storage temperature (°C)	-10 - 70
BATTERY storage temperature (°C)	-10 - 60
Relative humidity non condensing (%)	<95%
Altitude (m)	1000
Paint	RAL5026 Met.,RAL9006 Met.
Ventilation	FORCED
Requested cooling air volume (mt3/h)	4900
Audible noise level (according EN50091)	<62 db
EMC compatibility	According to "EN50091-2" (CE label)
Weight (kg)	1350
Static load without battery (kg/m²)	1308
Design standard	According to "EN50091-1" "IEC 62040", "ISO 14001"
Input/output cable connection	Bottom Side (Top side on request)
Free contact interface	On request
Serial communication interface	RS232-RS485(SNMP-Option)
Hot stand-by configuration	2 UPS (1 UPS Redundant)
Parallel configuration	To increase output power up to 4 UPS or 3+1 redundant

Rectifier

POWER (KVA)	400
Nominal Inuput Voltage (Vac)	400V +10% -20%
Input Frequency (Hz)	50-60 (Select.) +/- 5
Input Power Factor (@ 400 Vac)	>0.96
DC Output Voltage Accuracy (%)	+/- 1 %
DC Ouput Voltage Ripple (%)	1% RMS
Battery Recharging Characteristic	IU (DIN 41773)
Temperature Voltage Compensation	On Request
Maximum Recharging Current (A) (at nominal load)	40
AC-DC converter type	IGBT
Input Current THD	< 5%
Nominal Current absorbed from Mains (@ nominal load and Battery charge) (A)	500
Maximum Current Absorbed from Mains (@ nom. load and maximum recharging current) (A)	560

Battery

POWER (KVA)	400
Type	Maintenance Free
Number of Cells	300
Floating Voltage @ 25°C (V)	681
Minimum Discharge Voltage (Vdc)	495
Power Requested by Inverter (Kw) @ nominal Load	336
Curr. Req. by Inverter (Vdc) @ nominal load and minimum Vdc	680
Battery Protection	Automatic Circuit Breaker (Wall Mounted Fuse Box on Request)
Battery Test	included as standard

Inverter

POWER (KVA)	400
Inverter Bridge	IGBT (High Freq. Comm.)
Nominal Output Power @ Cos Φ 0.8 (KVA)	400
Nominal Output Power @ CosΦ 1 (KW)	320
Nominal Output Voiltage (V)	380 - 415 (Select.)
Output Voltage Stability (%) - Static Baslanced load) - Static (Unbalanced load 100%) - Dynamic (Step load 0-100%-0) - Output Volt. Recovery Time (after step load)	 +/- 1 +/- 2 +/- 5 within 40ms
Phase Angle (° el.) - Balanced load - Unbalanced load 100 %	 +/- 1 +/- 2
Output Frequency (Hz)	50 - 60 (Select.)
Output Frequency Stability - Free Running Quartz Oscillator - Inverter Sync. with Mains	 +/- 0.001Hz +/- 2Hz (Adjustable)
Nominal Output Current (A) - @ Cos Φ 0.8 - @ Cos Φ 1	 580 465
Overload Capability (%)	125% per 10' 150% per 1' 200% per 0.1"
Short Circuit Current (A)	928
Short Circuit Characteristic	Elect. short circuit protection. current limited at 2 times nom. current (auto stop after 5 secs.)
Output Wave form	Sinusoidal
Output Harmonic Distortion (%) - Linear Load - Non Linear Load	IEC 62040-3 <1 <2
Crest Factor (Non linear load)	> 3:1

By-Pass

Automatic Static By-Pass	Electronic Thyristor Switch
Nominal Voltage (V)	380 - 415 (Select.) +/-10%
Nominal Frequency (Hz)	50 - 60 (Select.) +/- 5
Transfer Inverter - Static By-Pass	in case of: - Static Switch Test - Inverter failure - Input inv. volt. out of limit - Output inv. volt. out of limit
Retransfer Static By-Pass: Inverter	Automatic or Manual (Selectable) Block on mains after 6 commut. in 2 min (reset by cmd/panel)
Overload Capability	-200% Continously -1000% For 1 Cycle
Manual By-Pass	With electric security and without interruption

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