



PHASYS S.A. and PHASYS ELITE

from 1.5 to 18 kVA

DC/AC single and modular inverter systems

DC/AC Inverters



PHASYS
from 1500 to 4500 VA



PHASYS ELITE
from 1.5 to 18 kVA

The solution for

- > Modem, PC, router
- > Fibre optic systems
- > Accounting systems for telecom applications
- > New energy sources: wind and solar

PHASYS S.A. inverters

- Stand-alone modules
- Output power from 1.5 to 4.5 kVA
- Integratable in 19" racks.
- Switching technology: perfectly sinusoidal output, the sinusoidal output waveform ensures its compatibility with all IT and other loads.
- Microprocessor control: enhances reliability and ensures high stability and long-lasting electrical characteristics.
- LCD display.
- Robust design to limit thermal stress and longer life of the components.
- Input-output galvanically isolated.
- Cooling controlled by variable speed fan.
- Fan efficiency test: periodically tests the efficiency of the fans and notifies if they need to be replaced.
- Integrated automatic bypass: in the event of an overload or an internal failure, the consumer is still powered via the bypass circuit that is activated.
- Autorestart function.
- Protection against polarity inversion in input to protect against the accidental inversion of the battery input connection (on the "stand-alone" version only).
- Eco-Mode modality.
- RS232 port for communication.

PHASYS ELITE systems

A modular scalable DC/AC Power System that can include up to 4 inverters for a total power of 18 kVA⁽¹⁾.

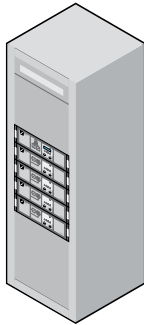
- Easy and quick installation with hot-swap modules: replacement of defective modules without any power interruption.
- High availability achieved through modular redundancy.
- Batteries input fuse protection.
- Battery bypass mains protection.
- I/O connections on the top.
- AC distribution (optional).
- Internal manual bypass (optional).

PHASYS STAR control and monitoring unit

- Management of the equipment.
- Easy control and monitoring via 32-digit LCD display.

(1) Up to 27 kVA on demand

PHASYS ELITE inverter system



PHASYS 009 A

PHASYS STAR control and monitoring unit



PHASYS 001 B 2 CAT

Integrated with **PHASYS ELITE**, the **PHASYS STAR** control and monitoring module manages the information from inverters working in parallel.

The 32-digit LCD display and 4 LEDs provide secure and simple access to all information.

- Digital control and monitoring of the inverter modules.
- Microprocessor technology with CAN-BUS communication.
- Hot-swap and Hot plug-in internal board.

PHASYS ELITE SYSTEM

UPS output power ⁽¹⁾	9 kVA	18 kVA
No. of modules	max. 3	max 4
Dimensions W x D x H	600 x 600 x 1800 mm	
Input/output connections	From the top	
Degree of protection	IP20	
Colours	RAL 7012	

(1) Up to 27 kVA on demand.

Standard electrical features

- Integrated static bypass.
- 3 kVA input-output galvanic isolation.
- Autorestart function.
- Protection against polarity inversion in input (on the "stand-alone" version only).

Electrical options⁽¹⁾

- Output AC distribution.
- Internal manual bypass.
- Second battery's input protection by fuse.
- Output Power Share.
- Bypass galvanic isolation transformer.

Standard communication features

- **PHASYS STAR** digital controller⁽¹⁾.
- MODBUS/JBUS RTU.
- Dry-contact interface⁽¹⁾.
- 2 slots for communication options.

Communications options⁽¹⁾

- **NET VISION** professional WEB/SNMP interface for UPS monitoring and shutdown management of several operating systems.
- Additional dry-contact interface⁽¹⁾.

(1) **PHASYS ELITE** version.

Technical data

PHASYS S.A. and PHASYS ELITE module

INVERTER UNIT	PH 1500	PH 3000	PH 4500
Module			
INPUT			
Rated voltage		48 VDC	
Voltage tolerance		40-58 VDC	
OUTPUT			
Rated voltage	single-phase 208 ⁽¹⁾ /220/230/240 VAC		
Voltage tolerance	± 3%	± 3.5%	± 4%
Rated frequency	50/60 Hz		
Frequency tolerance	± 0.1% (inverter), ± 2% (bypass synchronisation)		
Waveform	Sinusoidal		
Output power	1500 VA	3000 VA	4500 VA
Active power supplied	1050 W	2100 W	3150 W
Total harmonic distortion	< 4%		
Short-circuit current	3 In for 50 ms		
Overload	permanent overload 105% Iout nom		
Crest factor	3:1		
Commutation time inverter to bypass	< 1 ms		
BYPASS			
Rated voltage	single-phase 208/220/230/240 VAC		
Voltage tolerance	+15% -20%		
Rated frequency	50/60 Hz		
Frequency tolerance	± 2% ÷ ± 8%		
Commutation time bypass to inverter	< 3 ms (normal mode); < 15 ms (ECO-MODE)		
EFFICIENCY			
Normal mode	up to 85%		
ECO MODE	98%		
ENVIRONMENT			
Operating ambient temperature	0 ÷ 50 °C ⁽¹⁾ (reccomended: 20 ÷ 30 °C)		
Relative humidity	10% to 90% (not condensing)		
Cooling	Forced with variable speed		
ISOLATION			
Primary/secondary isolation	3 kVac 50 Hz		
RELIABILITY			
Mean Time Between Failure (MTBF)	≥ 35 years at 25 °C		
STANDARDS			
Safety	EN 60950		
EMC	EN50081-2, EN 61000-6-2 (immunity), ETSI EN 300 386 V1.3.1		
Performance	ASTM D 999 (Vibrations), ASTM D 5276 (Shock)		

(1) Output power derating when either the output voltage is 208 V or output temperature higher than 40 °C.