



Reliable Backup Power

Sine-i is an affordable state of the art Inverter Charger with a difference. Designed to function as a standalone power source, similar to an uninterruptible power supply (UPS), the **Sine-i** provides clean, reliable, mains standby power (220V/50Hz) in case of a power failure. Some of the features are:

- Pure Sinewave Output
- Digital Signal Processor (DSP)
- Constant Voltage
- Constant Frequency
- Fast transfer (Mains-Battery-Mains)
- LCD Display with constant data update



Model APLS-DSP-1000-24 with mobile Battery Cabinet

Employing Digital Signal Processing technology (DSP) the inverter produces a highly accurate and stable mains output voltage and frequency. Rated at 1400VA and able of handling surges up to 4200VA the **Sine-i** is an ideal standby and emergency power source for critical home and industrial appliances. Extremely fast transfer time from grid power to battery power (mains by-pass) and vice versa gives the unit virtual UPS status.

Runtime in inverter mode will obviously depend on the size of the load and battery capacity but can be anything from 1 to 10 hours and more. The minimum recommended battery capacity is 24V/100Ah (2 x 12V/100Ah batteries in series). Additional battery strings can be added at any time.

The integrated battery charger comes automatically into operation when grid power (ordinary mains power) has been restored. A powerful PWM 5-stage charger circuit ensures maximum battery protection and operating life.

The **Sine-i** features a host of safety functions to protect the inverter, load, as well as the battery bank (e.g. high voltage and low voltage cut-off, battery deep discharge and overcharge protection, etc.). A LCD display on the front panel provides clear information of actual operating status and possible faults. A complete auto self-test sequence is carried out and displayed when switching the inverter on. Power supply to the load (appliance) will also be controlled via the ON/OFF switch on the front panel.

When brownouts, backouts and extended power failures become a nuisance then **Sine-i** becomes a necessity. Applications are numerous and the following are just a few examples:

At home the gate and garage doors always operate, no more interruptions while watching DSTV, recording a favorite TV program, surfing the Internet, or watching a movie with play station.

Commercial: Access control systems; critical office equipment incl. PABX, computer, printer, copier, fax, scanner; emergency and security lighting; incubators; cash registers; scanners; security cameras; ATM; lab equipment; medical equipment; vaccine fridge; small microwave oven; fans; public address system; electric tools; and so much more.



Sinewave Inverter and Charger “Sine-i”

Model Number APLS-DSP-1000-24

Nominal AC Voltage Rating:	220Vac
Nominal DC Voltage Rating:	24Vdc

Inverter Specification

Output Power:	1400VA
Surge Power Rating:	4200VA
Output Voltage:	220Vac
Output Frequency:	50 Hz + 0.1 Hz
Output Waveform:	Pure Sinewave
Peak Efficiency:	> 88%
Nominal Battery Voltage:	24Vdc
DC Input Voltage Range:	20Vdc + 0.2V to 28.8Vdc + 0.2V
Low Battery Cutout:	20Vdc + 0.2V
Total Harmonic Distortion:	Less than 3%
Overload Capability:	160% for 5 Sec, 105% for 6 Min

Charger Specification

Charger Control Circuit:	Fuzzy Logic Control (FCL)
Charging Current:	10.0Amp + 1.0A
AC Input Voltage Range:	110Vac – 285Vac
Maximum Battery Boost Level:	28.8Vdc
Equalisation:	Manual
Compatible Battery Types:	Lead Acid / VRLA / SMF
Mains Input Power Factor:	0.85 to Unity

General Specifications

LCD Indications:	Backlit LCD Messages <ul style="list-style-type: none">- Input Voltage / Input Frequency- Mains Fail / Inverter ON / Inverter OFF- Battery Charging / Charged- Short Circuit Protection- Overload Attention / Protection- Low Battery Attention / Protection- Mains Circuit Breaker tripped- Mains Low / High Cutout- Output Voltage / Current- Problems and Remedial Actions
Enclosure:	Sheet Steel
Colour:	Light Gray
Protection:	IP 20
Dimensions:	L = 470mm x W = 295mm x H = 170mm
Weight / Mass:	22.7kg
Operating Temperature:	0 - 45°C
Audible Noise Level at 1 Meter:	< 55 dB
Relative Humidity:	Max. 95% Non Condensing

General

Approvals:	ISO 9001 : 2000
Certification:	CE Certified
Warranty:	12 Months (conditional)

The manufacturer reserves the right to change specifications without prior notice.