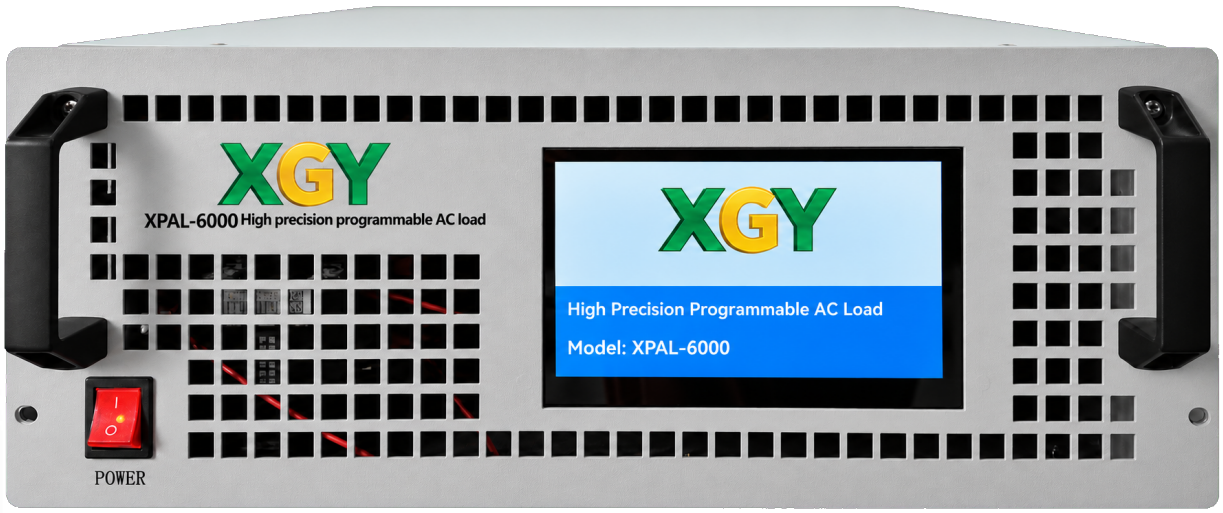
# XPAL-6000

## High Precision Programmable AC Load

### At a Glance

High Precision Programmable AC Load is a program-controlled adjustable load box, which can also be manually controlled. Test by setting different power, current and resistance under fixed voltage. Intelligent operation achieves the function of constant power or constant current or resistance. 24-bit AD conversion is adopted, the sampling period is about 8000 times/s, and the voltage and current are sampled simultaneously. It can be used for power detection of battery pack, inverter, intelligent switch and other products. New power consumption components are adopted with high power density, and forced air cooling is adopted for heat dissipation.



# 1. Functions and Technical Indexes

## 1.1 Technical indicators

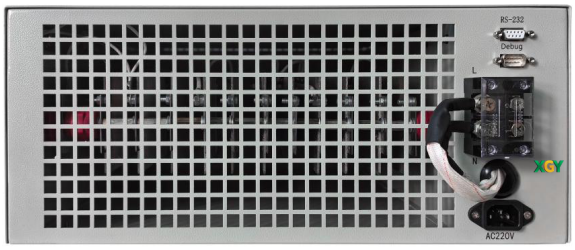
| Model | XPAL-6000 |
|---|---|
| Product name | High Precision Programmable AC Load |
| **Working power** | |
| Input voltage | AC220V±10% 50Hz |
| Rated power | 100W |
| **Communication** | |
| RS-232 | Baud rate 9600 |
| **Load function** | |
| Input voltage | AC80 ~ 240V; Rated AC110V/AC220V |
| Enter the frequency | 50Hz/60Hz |
| Rated power | 6000W |
| Rated current | 54A@105 ~ 135V 27A@215 ~ 240V |
| Power setting accuracy | 20W |
| Current setting accuracy | 0.09A |
| Load Return Actual Accuracy | -3% + 1.5% or ± 20W |
| Resistance setting range and accuracy | 4.1 ~ 600Ω@110V 14 ~ 2400Ω@220V ±5% |
| Power factor | PF=1.0 |
| Heat dissipation mode | Air Cooling |
| Other functions | Unload/short circuit |
| **Measurement and error** | |
| Voltage | ± (0.1% of reading + 0.2% of span) |
| Electric current | ± (0.1% of reading + 0.1% of span) |
| Active power | ± (0.1% of reading + 0.1% of span) |
| Frequency | ±0.1% |
| Power factor | ±0.02 |
| **Protection function** | |
| Overvoltage | |
| Overpower | |
| Overtemperature | |
| **Work environment** | |
| Temperature | 0 ~ 40°C |
| Humidity | ≤85%RH |
| Atmospheric pressure | 86 ~ 106kPa (4000m and below) |
| Size L* H*D | 483mm x 264mm x 632mm |
| Weight Net weight | About 17 Kg |

# 2. Instructions for Use

## 2.1 Front panel




## 2.2 Rear panel




## 2.3 Setup and Measurement Screen

Note: Auto Compensation/No Compensation Press and hold for 3 seconds to switch.

Auto compensation, adjust the load according to the actual voltage to achieve constant power/constant current function.

No compensation, test at preset voltage and load.

Virtual numeric keypad entry, allowing 2 decimal places



# 3. Communications

## 3.1 Communication interface RS-232

Use an RS-232 cable with a DB-9 interface (male to female direct connection) to connect to the serial port of the controller (such as a PC).




### 3.1.1 RS-232 interface description

| Pin No. | Description |
|---|---|
| 1 | No connection |
| 2 | TXD, transmit data |
| 3 | RXD, receive data |
| 4 | No connection |
| 5 | GND |
| 6 | No connection |
| 7 | No connection |
| 8 | No connection |
| 9 | No connection |

## 3.2 Communication parameters

| Agreement | Baud rate | Digit | Stop Bit | Check |
|---|---|---|---|---|
| Modbus_RTU | 9600 | 8 | 1 | N |

# 4. Product maintenance

1. Clean the chassis and panel regularly to prevent dust accumulation at the input and output ports.
2. Do not place heavy sundries and liquid containers on the chassis.
3. Avoid working in places with volatile flammable liquids and conductive fiber dust.

**XGY Pty Ltd**
Sydney Engineering Centre
Email: info@xgytek.com | Web: www.xgytek.com