# **300XAC** Quick Start Guide

apt

Modular AC Power Source

## **MODELS 310XAC, 320XAC, 340XAC, 360XAC**

#### **POWER CHECKLIST**

Power down output while connections are made. Output & input cabling have unique AWG carrying capacity. (Be sure to use the appropriate gauge for your application)

Work in a safe and orderly manner, your test station should always be neat.

Educate unqualified personnel of test area dangers.

Refrain from touching test connections and product while testing.

WARNING: An AC Power Source produces voltages and currents that can cause harmful or fatal electrical shock. This guide was created for operators who have some familiarity with high voltage/current testing applications. To prevent accidental injury or death, follow all warnings within this guide.

## **FRONT PANEL CONTROLS**



- **Power Switch** Rocker style power switch with international ON () and OFF (O) markings.
- 2 Graphic LCD 240 x 64 monographic LCD.
- **3** Soft Keys Multi-functional selection keys used to select parameters, select screens, and edit parameters.
- 4 Numeric Keypad Keys used to enter numerical values.
- 5 **Delete Key** Used to delete text characters and numeric data.
- 6 Rotary Knob Used to adjust the voltage/frequency output in MANUAL Mode or DC Mode.
- Lock Key Used to lock out the front panel.
- 8 Lock LED When lit, this LED indicates the instrument's front panel is locked.
- **7 Test/Reset Key** Used to turn ON/OFF output voltage, or used to reset the instrument in the event of a failure condition.
- **Test/Reset LED** When lit, this LED indicates output is active, or when blinking indicates the instrument is in a failure condition.

## **BACK PANEL CONTROLS**



- **Sync Output Connector** Provides the capability to monitor a 5 VDC output signal.
- **Remote Output Connector** Provides output to monitor PASS, FAIL, TEST-IN-PROCESS via relay contact closures.
- **3** Automated Interface Card RS-232 interface card used to control, program, and capture data.
- **4** Linking Card (OPT 8) Provides input and output communication ports for operating multiple instruments in parallel and polyphase modes.
  - Interface Input: Connector used to attach the instrument to a master power source. Connecting the interface cable to this port automatically designates the instrument as a slave unit.
  - Interface Output: Connector used to attach the instrument to a slave power source. Connecting the interface cable to this port automatically designates the instrument as a master unit unless an interface cable is also connected to the Interface Input port (in this case the instrument is automatically configured as a slave unit).
- 5 Input Terminal Power Block Provides input power to the instrument.\*
  - 50 G: Earth ground (chassis) connection
  - 5 N: Neutral input screw terminal
  - 👵 L: Line input screw terminal

### Output Terminal Power Block - Provides output power to the DUT.

- 6 💿 Ns: Neutral sense screw terminal
  - 6 N: Neutral output screw terminal
  - G: Earth ground (chassis) connection
  - 😔 L: Line output screw terminal
  - 60 Ls: Line voltage sense screw terminal

\*Models 310XAC and 320XAC require 1Ø 100-240 VAC  $\pm$  10%, 47-63 Hz.

## **BACK PANEL CONTROLS**



Input Terminal Power Block - Provides input power to the instrument.\*

- 10 L: Line input screw terminal
- 1 Neutral input screw terminal
- 0 G: Earth ground (chassis) connection

#### 2 Output Terminal Power Block - Provides output power to the DUT.

- 20 N: Neutral output screw terminal
- 2 G: Earth ground (chassis) connection
- 20 L: Line output screw terminal
- **External Sense Output Terminal Block** Provides screw terminals for external voltage sense leads.
  - 30 L: Line voltage sense screw terminal
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## **BACK PANEL CONTROLS**

Model 360XAC

## 2a 2b 2c



- Input Terminal Power Block Provides input power to the instrument.\*
- 2 Output Terminal Power Block Provides output power to the DUT.
  - 20 N: Neutral output screw terminal
  - 21. G: Earth ground (chassis) connection
  - 20 L: Line output screw terminal
- 3 External Sense Output Terminal Block Provides screw terminals for external voltage sense leads.
  - 3 L: Line voltage sense screw terminal
  - 3 N: Neutral voltage sense screw terminal





\*Model 360XAC requires 1Ø 200-240 VAC ± 10%, 3Ø3W 200-240 VAC ± 10%, 3Ø4W 346-416 VAC ± 10% at 47-63 Hz.

## **SELECT A TEST MODE**



WARNING: LOCATE A SUITABLE TEST AREA WITH A THREE-PRONG, GROUNDED OUTLET. TEST YOUR THREE PRONG OUTLET FOR PROPER WIRING AND READ THE POWER CHECKLIST BEFORE USING YOUR INSTRUMENT.

The 300XAC includes **TWO TEST MODES** which change the way your AC Power Source operates.

**PROGRAM MODE** - Allows you to use test steps and memory locations within the AC Power Source menu. Designed for advanced testing applications.

**MANUAL MODE** - Allows you to run a test quickly using basic test parameters. Does not use preprogrammed test steps.

- **1.** Turn the power switch ON.
- 2. From the Set screen, press the MORE soft key. In the next window press the SYSTEM soft key.
- **3.** In the System Parameters Menu, use the  $(\uparrow, \downarrow)$  arrow keys to highlight AUTO RUN parameter. Press EDIT to change the parameter.
- 4. Press CHANGE to toggle the parameter between PROGRAM and MANUAL mode.
- 5. Press ENTER to save changes.
- 6. Continue to adjust parameters according to testing needs.

7. Press EXIT from System Parameters Menu to return to Set screen.

When the AUTO RUN parameter is set to PROGRAM mode, the Set screen will be displayed as follows:



(Set Screen)

When the AUTO RUN parameter is set to MANUAL mode, the Set screen will be displayed as follows:



## **CONSTANT CURRENT MODE**

### 1. Turn ON the OC FOLD parameter:

From the Set screen, press the MORE soft key. In the next window press the SYSTEM soft key.

In the System Parameters Menu, use the  $(\uparrow, \downarrow)$  arrow keys to highlight the "OC FOLD" parameter. Press EDIT to change the parameter.

Press CHANGE to set the highlighted parameter to ON. Press ENTER to save changes. Press EXIT twice to return to the Set screen.

## 2. Program a current Hi-Limit, which represents the constant current you will provide to the load:

Press EDIT from the Set screen.

Use the  $(\uparrow, \downarrow)$  arrow soft keys to highlight the "A Hi-Lmt" parameter. Press EDIT to change the parameter.

Use the Numeric Keypad to enter the desired current limit. Press ENTER to save changes and then press EXIT to return to the Edit Parameters Menu. The limit set will be the constant current output.

### 3. Program the voltage:

From the Edit Parameters Menu, use the  $(\uparrow, \downarrow)$  arrow soft keys to highlight the "Voltage" parameter. Press EDIT to change the parameter.

Using the Numeric Keypad enter the voltage which should be set higher than the nominal load voltage. This allows the current to adjust to the Hi-Limit value.

Press ENTER after you enter the voltage and press EXIT twice to return to the Set screen.

**Note:** For advanced features and functions such as linking and 3Ø setup please refer to the product manual.

## **VIEW TEST RESULTS**

From the Set screen, press the MORE soft key. Then press the Results key to view your test results.

Pass		
Settings 100.0V	Results 100.0V	Page 🔨
160.0Hz	60.0Hz 0.0W	Page 🗸
9.00A 0.0Ap	0.000A 0.0Ap	Exit

(Pass/Fail Indication screen)

If you have multiple steps linked together, use the ( $\uparrow$ ,  $\downarrow$ ) arrow keys to toggle through each step to view test results.

Press EXIT to return the Set screen.





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