

ASGT-600

HIGHEST ACCURACY & LOWEST COST



Safety Ground Tester

ASGT-600

Resistance values from 1 microohm to 1000 miliohms

Resistance of cable and ferrules

Pass/Fail test of cables

Store, Software and Printer

QWERTY keypad LCD screen

amperis

www.amperis.com

 AMPERIS PRODUCTS S.L
Agricultura,34
27003, Lugo, España

 Contact

+T [+34] 982 20 99 20 | F [+34] 982 20 99 11
info@amperis.com | www.amperis.com

The ASGT-600 Safety Ground Tester is a 600A DC micro-ohmmeter designed specifically to measure the resistance of protective in-service grounding and jumper cable assemblies. The ASGT-600 can measure the resistance of the grounding cables, clamps and ferrules. The measured resistance values can be compared against the calculated values (using the ASTM 2249-03 standard) and a Pass/Fail result can be printed along with the measured resistance values.

The ASGT-600 can measure resistance value from 1 micro-ohm to 1000 milliohms. A typical test requires the two ends of the safety ground cable to be connected to the terminals of the ASGT-600. The resistance of the cable and ferrules can then be measured. If the cable size, cable length and temperature are provided, the ASGT-600 will determine if the cables passes or fails the test and a pass/fail indicator will be printed on the test report.

Test results are printed on the unit's built-in 2.5" thermal printer. A 44-key QWERTY-style rugged membrane keypad is used to input information and control the ASGT-600. A back-lit graphic LCD screen (128 x 64 pixels) is used to display menus and test results.

The ASGT-600 can store up to 100 test records in its internal memory. It also features a USB Flash drive interface port that can be used to store test data in a USB flash drive (not included). The ASGT-600 also features an RS-232C port that is used for factory diagnostics and calibration.

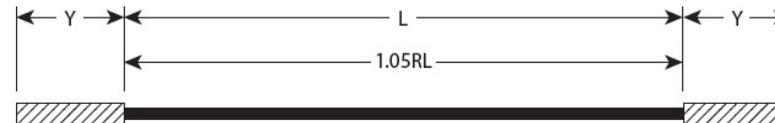
Test records can be reviewed and printed on a PC using the provided software. Prueba de Cables con Tamaño y Longitud



Sample Test Results Screen

In-Service Cable Testing

The ASGT-600 measures the total resistance value of the cable under test and then compares it to the calculated value to determine the Pass or Fail result. In order to calculate the total resistance value, the user is first prompted for the cable size, cable length, and cable temperature. Total resistance (R_m) is calculated in accordance with the ASTM F2249-03 standard using the formula below:



$$R_m = 1.05RL + 2Y = 1.05RL + 320 \mu\Omega^*$$

Where:

Y = Resistance of clamps, ferrule, and portions of the cable inside the ferrule, in milliohms*

L = Cable length in feet (ferrule to ferrule measurement to the nearest inch)

R = Cable resistance, in milliohms/foot

* **NOTE:** The clamp and ferrule resistance value of $160 \mu\Omega$ is used per the ASTM-F2249-03 standard.

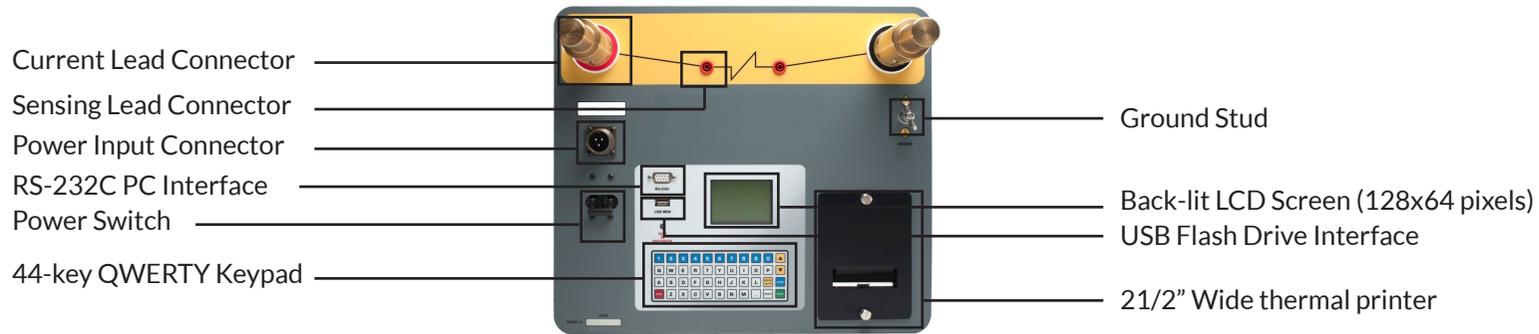
Test Cable Sizes and Length

Typical Safety Ground Cable sizes are #2, 1/0, 2/0, and 4/0. The test cable length, ranging from 1' to 50' per table 2 in the F2249-03 standard, is entered by the user.

Test Record Storage

The ASGT-600 can store 100 test records internally. Each test record contains test header information, test cable size, test cable length, temperature, test current, and cable resistance. Test records can also be stored on a USB flash drive via the unit's USB flash drive interface.

ASGT-600 Controls



ASGT-600 Specifications

Type	Save Ground Tester
Physical specifications	16 3/4" W x 12 1/2" H x 12" D (42.7 cm x 32 cm x 30.5 cm); Weight: 19.8 lbs. (8.9 Kg)
Input power	100 - 240 Vac, 50/60 Hz
Resistance reading range	1 micro-ohm to 1000 milliohms (max 1.5 milliohms @ 600A, 450 milliohms @ 10A, 1000 milliohms @ 1A)
Accuracy	110A - 49.9A: 1% ±2 micro-ohms, 50A - 600A: 1% ±1 micro-ohm
Test voltage	5 Vdc
Test current range	10A - 600A (selectable in 1A steps); thermally protected DC power supply
Display	Back-lit LCD screen (128 x 64 pixels); viewable in bright sunlight and low light conditions
Keypad	Rugged, 44-key "QWERTY" membrane keypad
Internal test record storage	128 test records. Each record can contain up to 64 readings
External test record storage	Up to 999 test records on external USB flash drive.
Computer interface	One RS-232C PC interface, one USB flash drive interface
Pc software	Windows®-based analysis software included with purchase price
Printer	Built-in 2 1/2" wide thermal printer
Safety	Designed to meet IEC 61010 (1995), UL 61010-a, and CAS-C22.2 standards
Environment	Operating: -10°C to +50°C (+15°F to +122°F); Storage: -30°C to +70°C (-22°F to +158°F)
Humidity	90% RH @ 40°C (104°F) non-condensing
Altitude	2000 m (6562 ft) to full safety specifications
Cables	15 ft (4.6 m), #1/0 AWG test cables, power cord, ground cable
Optional accessories	shipping case, 30 ft (9.1 m) test cables, C-clamp set, hand spike set
Warranty	1 year on parts and labor

Thermal Printer Output

REC NUMBER 1	
TEST RESULTS	
DATE: 12/22/14	TIME: 11:12:10
COMPANY:	COMPANY 1
LOCATION:	LOCATION 2
MFR:	MANUFACTURER 3
MODEL:	MODEL 4
S/N:	SERIAL NO 5
RATING:	RATING 6
OPERATOR:	OPERATOR 7
NOTE:	NOTE 8
TEST CURRENT: 10 AMPS	
CABLE GAUGE: AWG 2/0	
CABLE LENGTH: 31.00 FT	
CABLE TEMP: 20.0 C	
RESULTS:	
CURRENT:	9.98 AMPS
RESISTANCE:	2.850 mOhms [P]
UPPER RES LIMIT: 2.856 mOhms	
NOTES: _____	

NOTE: the above specifications are valid at nominal voltage and ambient temperature of +25°C (+77°F). Specifications are subject to change without notice