Elektron

Technical data sheet

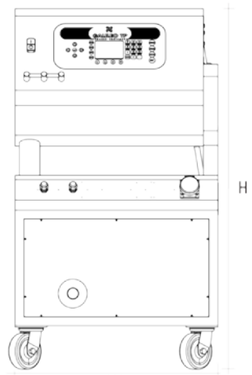
Programmable cycles number	50 *(more on request)*
Programmable barcodes number	1000 *(more on request)*
Dimensions (H x W x P)	1250 x 700 x 450 mm
Weight	104 kg
Work temperature	+0 ÷ +50 °C
Storage temperature	-25 ÷ +70 °C
Electric supply tension	230V 50/60 Hz 1 ph
Power consumption	600 W *(Up to 5 kVA with additional kit)*
Data visualization	LCD Display 4,8"
Interfaces	RS-232 for bar code reader RS-232 for printer/PC RS-485 Ethernet communication for download data

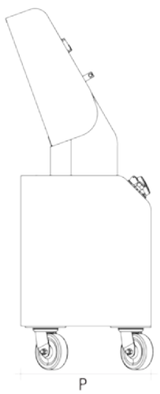
List of electrical tests

	Standard machine	Optional test only for single phase units
Ground bound test	yes	
Insulation resistance test	yes	
Dielectric strenght test	yes	
Short circuit test	no	yes
Leakage current test	no	yes
Active power	no	yes
Residual voltage test	no	yes

Calibration Kit

Dimensions (H x W x P)	200 x 290 x 380 mm
Weight	8,5 kg





GALILEO TP
PROCESS EQUIPMENT

Galileo TP Process Equipment S.r.l
ph.(+39) 055 722 13 58 - fax (+39) 055 722 22 25
Via del Pantano, 73 • 50018 Scandicci
Florence • Italy
sales@galileotp.com • www.galileotp.com

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Electrical Safety Test

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E x c e e d y o u r s t a n d a r d s

Elektron has been designed to carry out electrical safety and performance tests on domestic/commercial appliances according to the standards:EN60204-1, EN60335-1, EN60335-24, EN61010-1 and EN50106.
The system perform AC/DC testing up to 5 kVA. The solid steel cabinet equipped with wheels makes the Elektron strong and agile at the same time.
Work cycles canbe easily programmed by an easy menu on larger display, the operator can decide the sequence and parameters to be used.
The programming phase is protected by a password. Two pliers for the ground bond test are included.
Automatic selection of the work cycle with bar code reader is available on request.
It is possible to have as optional the calibration Kit for the currents and for the resistors.

Elektron performs the following tests:

1) Ground bond test
According to:
(EN 60204-1, EN 60335-1, EN 60335-2-24);
Current : I > 10 A or I > 25 A;
Measuring range:
0 ÷ 130 mΩ (I > 25 A); 0 ÷ 400 mΩ
(I > 10 A);
Current measure accuracy:
Max {0,5% f.s.; 1% v.m.}. [f.s.= 50 A];
Voltage measure accuracy:
Max {1% f.s.; 2% v.m.} . [f.s.= 7 V];
Programmed parameters: Test current, minimum impedance value, max. impedance or electrical voltage value set point, test time;
Displayed parameters: Impedance value or measured electrical voltage, current test;
The unit is equipped with two pliers, each one with a 3 m. cable, to connect the metallic part under test.

2) Insulation resistance test
According to: EN 60204-1;
Voltage: 500 Vdc *(up to 1000 Vdc upon request);*
Measuring range: 260 k - 50 MΩ;
Current measure accuracy:
Max {1% f.s.; 2% v.m.}. [f.s.= 2 mA];
Voltage measure accuracy:
Max {1% f.s.; 3% v.m.}. [f.s.= 1000 V];
Programmed parameters:
Minimum resistive value set point, test time;
Displayed parameters:
Measured resistance value, test voltage;

3) Dielectric strength test
According to: EN 60335-1. EN 60204-1 with the 1000 Vac and 500 VA additional transformer (optional);
Voltage: 0 - 4000 Vac;
Voltage regulation: Manual with a handle voltage variator or motorized controlled by a software (optional);
Measuring range: 0 - 40 mA;
Current measure accuracy:
Max {1% f.s.; 2% v.m.} . [f.s.= 45 mA];
Voltage measure accuracy:
Max {1% f.s.; 2% v.m.} . [f.s.= 4000 Vac];
Protection: A protection system is present, and it is activated when the measured voltage is higher than 50 mA.
Programmed parameters: Maximum current value set-point, electrical voltage value *(only if the optional motorized voltage variator is present).*
Displayed parameter: Measured current value, measured voltage value;

4) Short circuit test
(for single phase equipment) (optional):
Voltage: 6 Vac, applied voltage between the two phases. One of the two phases is connected to the earth;
Measuring range: 0 - 9.9 Ω;
Current measure accuracy:
Max {0,5% f.s.; 1% v.m.}. [f.s.= 50 A];
Voltage measure accuracy:
Max {1% f.s.; 2% v.m.}. [f.s.= 7 Vac];
Programmed parameters:
Maximum resistance value set-point;
Displayed parameters:
Measured resistance value;

5) Leakage current test
(for single phase equipment) (optional):
According to: EN 60335-1 and EN 60335-2-24
Voltage: 230, 115, (230 x 1,06), (115 x 1,06) Vac
Measuring range: 0 - 15 mA
Current measure accuracy:
Max {1,5% f.s.; 3% v.m.}. [f.s.= 20 mA];
Voltage measure accuracy:
Max {1% f.s.; 2,5% v.m.}. [f.s.= 300 Vac];
Programmed parameters: Test voltage, maximum leakage current value, test time;
Displayed parameters: Measured leakage current value, measured voltage value;

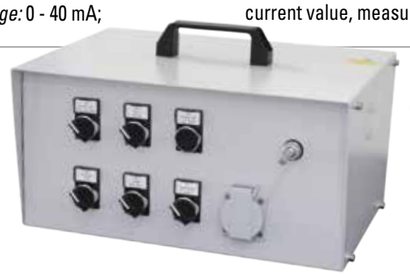
6) Active power and absorbed current test
(for single phase equipment) (optional):
According to: EN 60335-1 and EN 60335-2-24;
Voltage: 230/115 Vac.
It is possible to select it during the programming phase of each cycle;
Measuring range: 0 - 5000 VA (for 230 Vac electrical voltages) or 0 - 3000 VA (for 115 Vac electrical voltages);
Current measure accuracy:
Max {0,5% f.s.; 1% v.m.}. [f.s.= 25 A];
Voltage measure accuracy:
Max {1% f.s.; 1% v.m.}. [f.s.= 300 Vac];
Programmed parameters: Test voltage, maximum active power value set-point, minimum active power value set-point, min. cos φ value set-point, test time, waiting time between the unit under test and the power supply at the beginning of the absorbed power measurement;
Displayed parameters: Measured active power value, voltage value, measured cos φ value, current measured value.

7) Residual voltage test
(for single phase equipment) (optional):
According to: EN 60204-1;
Voltage: 230, 115 Vac;
Measuring range: 0 - 230 V dc o ac;
Voltage measure accuracy:
Max {1% f.s.; 3% v.m.}. [f.s.= 300 Vac];
Delay time precision: 0,1 s;
Programmed parameters: Test voltage, maximum residual voltage value set-point, nominal electrical voltage functioning time, waiting time after electrical power supply interruption from the unit under test;
Displayed parameters:
Residual voltage value, test voltage;

Elektron complies with European standards

Icon User Interface

The **Elektron** comes with a complete integration with the **GEDA** (**G**alileo **E**quipment **D**ata **A**cquisition) system for data acquisition and statistics, remote programming as well as external supervision of the line.



Calibration Kit

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