GLP1-g Safety Tester EN60204/VDE0113
Version 2. 4018603.
Technical Specification

Description

This tester is especially designed for testing machines and devices according to the standards EN60204 or VDE 0113.

Functional principle

Designed for fast uncomplicated and safe tests of earth, insulation resistance, high voltage and residual voltage.
This tester is available to two formats:

Version1
Earth and insulation resistance tests are performed initially by means of a test probe with an integrated control unit. Afterwards the high-voltage test is done with two safety test pistols. The test pistols are available with or without an integrated start button as well as in variable cable connecting lengths. Maximum voltage is 6000V

Version2
The test object is connected to earth. All three tests can be performed against this single ground point with the same test pistol. A hand held yellow control unit serves to start the test sequence and all tests can be performed automatically. For the operator's safety the high-voltage button in the control panel has to be continuously activated during the high-voltage test. A test pistol with pressure dependent start button is used. To start the test, the test tip only has to be pressed against the test object and the test step starts. Maximum voltage is 3000V

Technical data Version 2:

HIGH-VOLTAGE TEST

high-voltage AC :	25...3000V continuously electronically controlled and with output voltage stabilization
resolution :	1V TRMS | 1Vs - peak value display
frequency :	47...63Hz depending on the mains
graph form :	sinus, depending on the mains
voltage display :	TRMS or switchable to real peak value measurement . Figures and bar graph are displayed
switch-on :	in mains zero crossing with electronic soft-start to protect the test object
potential-free :	no!
test current :	Imax = 100mA continuous, **200mA short circuit current**
current measurement :	total current | digital TRMS. switchable to active current display(TRMS)
resolution :	0.1mA
current display :	TRMS | Figures and bar graph are displayed
disr. breakdown evaluation :	total current (Imax) or active current (Iact)
Imax-value :	0.1 ... 100mA - freely programmable, when the limit current is exceeded the test is switched off with an optic and acoustic signal
reaction time :	< 10ms until the high-voltage is switched off
nominal capacity :	> 500VA (according to VDE- / IEC-regulation starting at approx. > 500V@100mA
test time display :	in seconds |
mode preset :	4 modes (manual | automatic | burning | pulsing)
mode 1 :	man. test without time and voltage monitoring / only current monitoring
mode 2 :	auto. test with time control and various monitoring functions [testing(t)].
test time :	0.5 seconds ... 100 hours
ramp time :	off | rising in 0.1 seconds ... 100 hours
resolution :	0.1 seconds
min. current :	0 ... 99mA - freely programmable (can be used for the voltage check)

mode 3 :	burning function - burning without limit current pre-set with electronic overload control
mode 4 :	pulsing function

GROUND CONTINUITY TEST

measuring range :	0 ... 0.6Ω at 6V@10A, 0 ... 1.2W at 12V@10A
potential-free :	yes
resistance measurement :	yes
voltage drop measurement :	yes
resolution :	0.001Ω | 0.01V
four-wire-technique :	yes
accuracy :	1.25% of the final value (+- 1 Digit)
limit value preset :	0.01Ω ... 1.2Ω - freely programmable
voltage type :	AC
test current AC :	1...10A in steps of 1A
test current control :	electronically constantly controlled and monitored
test voltage AC :	<= 6V or <= 12V presettable as upper limit
test voltage's frequency :	47...63Hz (depending on the mains supply of the tester)
test time :	0.1 seconds ... 1 hour - freely programmable in steps von 0.1 seconds

INSULATION RESISTANCE TEST

measuring range	1 : 0 ... 99 MΩ with 1% accuracy of the measuring value (at a test voltage of min. 500V)
measuring range 2 :	100MΩ ... 200MΩ with 1.5% accuracy of the measuring value (at a test voltage of min. 500V)
resolution :	0.1 MΩ (depending on the range)
min. limit value preset :	0.1MΩ ... 200MΩ - freely programmable
test current :	max. 5mA | with safety current limitation
performance :	max. 0.5W

test voltage :	30V ... 1000V / programmable in steps of 1V
potential-free :	yes
test voltage control :	electronically controlled and monitored
test time :	0.5 seconds ... 1 hour | adjustable in steps of 0.1 seconds
discharge :	automatically above 100KW
discharge time :	should not exceed 2 sec. - depends on the test object's capacity!
discharge time approx.	= 5*discharging resistance*test object's capacity. The residual voltage is displayed on the screen.
internal resistance :	min. 200kΩ | The internal resistance determines the charging time of your test object's capacity!
loading time	at least = 5*internal resistance*test object capacity

GENERAL INFORMATION

safety :	mains key switch, external two-circuit safety input with restraint-guided relay and emergency stop
password protection :	can be activated by you upon request
control :	microprocessor controlled with HIGH-TEC-computer of latest technology
display :	colour display | 320 x 240 points
result storage :	840 tests are stored
clock :	clock and calendar integrated - for the transfer of test results with time information
interfaces :	warning and result light connections, inputs for external safety inputs, foot switch
communication :	1 x serial RS232 or optional: USB
remote control :	digital inputs and outputs (24VDC) for the external control for e.g. PLC-applications
signals :	optical and acoustic fault messages
mains switch :	key switch with removable key - avoiding unauthorized persons use the high-voltage tester
switch-on sequence :	The tester meets the specification of the VDE 0104 / EN 50191
1. version:	ready for operation --> ready to be switched on --> high-voltage on (VDE version)
2. version:	ready for operation --> high-voltage on
supply voltage :	110...250V / 47Hz...63Hz -
current consumption :	min. 0.5A
CE-compliant :	corresponds to VDE 0411 / EN 61010
dimensions :	236mm (42TU) x 320mm x 178mm (4HU) (w x l x h)

depth :	320 mm + approx. max. 60mm for the industrial plug
weight :	17 kg
carrying handle :	optional

WHATS INCLUDED

1. tester with ground continuity, insulation resistance and high-voltage test
2. electronic high-voltage source
3. one socket for 2-pole safety test pistols at the front
4. one high-voltage test pistols with 6m cable length (article no. 4000312)
5. one control panel to select the test method and switch the high-voltage on with 6m cable length (article. no. 401884)
6. 10m cabinet connecting lead (cabinet connection) with alligator clamp (article no. 4000339)
7. start input at the front for special safety test pistol with integrated start and foot button
8. warning light (article no. 400184)
9. key switch for switching the tester on
10. start button with integrated green light
11. stop button with integrated red light
12. digital I/O-remote control connection with control plug at the rear
13. sockets for warning lights and result lights at the rear
14. 230V mains lead min. 2m long with two-pin grounded plug
15. packing

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