

ETHOS 8600 DATA SHEET



DESCRIPTION

The ETHOS 8600 is a compact, simple to use EV adaptor designed to perform all the functions required by the electrical contractor to fully test Mode 2 & 3 AC Electric Vehicle Charge-points. Specially designed to comply with UK, European and other International wiring regulations and standards, the ETHOS 8600 may be used on all single and three phase electric vehicle charge points, with appropriate connectors. They are designed to test the function and safety of a charging point. The adaptor allow you to conduct tests using appropriate single or multifunction test instruments on EV charging points in accordance with IEC/EN 61851-1 and IEC/HD 60364-7- 722.

Charging points should be tested as part of the initial installation and repeated periodically. The ETHOS 8600 test adaptor is designed to simulate the connection of an electrical vehicle to the charging point under test. Connection of the adapter enables the operator to trigger the charging process by selecting the appropriate Proximity Pilot (PP) and Control Pilot (CP) states.

Push Button for PE Pre-Test. Push button for CP Error "E" simulation. Push button for PE Error (Earth Fault) simulation Rotary switch providing PP State simulation. Rotary Switch providing CP State simulation.

Supplied with a fixed type 2 Charging Plug for charging points with panel mounted socket outlet or fixed cable with vehicle connector. Type 1 to type 2 connector charging points with fixed cable and vehicle connector Carrying Case.

CAT II 300V Rating Complies with Low Voltage Directive LVD 2014/35

Test instruments can be connected using either the front mounted mains socket or the 4mm connection ports L1, L2, L3, N, PE.

2 additional CP signal terminals give the operator the ability to measure the CP signal using an oscilloscope. In addition, the adaptor has a manual PE Pre-Test feature that allows the user to test for dangerous voltages present on the PE, prior to any other testing of the charge point. If this test fails, testing must cease as potentially dangerous voltages may be present on the PE and faults must be investigated and rectified before continuing. The adaptor also integrates two further manual tests: CP Error – simulates an error on the control pilot circuit; and a PE Error – where a disconnection of the PE circuit is produced. Both test ensure correct disconnection of the output of the charge point.

Before carrying out testing with this adaptor, it is recommended that the user familiarize themselves with the relevant standards: IEC 61851-1:2017, Electric vehicle conductive charging

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- Push Button for PE Pre-Test
- Push button for CP Error “E” simulation
- Push button for PE Error (Earth Fault) simulation
- Rotary switch providing PP State simulation
- Rotary Switch providing CP State simulation
- Type 2 Charging Plug for charging points with panel mounted socket outlet or fixed cable with vehicle connector
- Type 1 Charging ADAPTOR for charging points with fixed cable and vehicle connector
- Carrying Case
- CAT II 300V Rating
- Comply with Low Voltage Directive LVD 2014/35



SPECIFICATIONS

Functions	
PE Pre-test	Yes
PP Simulation	NC/13A/20A/32A/63A
CP States	A [Electric vehicle not connected] B [Electric vehicle connected, not ready to charge] C [Electric vehicle connected, ventilation not required, ready to charge] D [Electric vehicle connected, ventilation required, ready to charge]
CP Error “E”	On/Off
PE Error [Earth Fault]	On/Off
Outputs (for test purpose only)	
Measuring Terminals L1, L2, L3, N and PE	Max. 250/430V, CAT II 250V, max 10A.
Mains Socket	Max. 250V, CAT II 250V, allowed current max 10A . Note: Do not load mains socket simultaneously with measuring terminals
Mains Socket Protection	Fuse 10A/250V,5x20 mm, Magnetic tube produced by Xunlibang.
CP Signal Output Terminals	Approx ± 12V, CAT 0 [Under normal condition]. In case of wrong wiring or error of the charging station these terminals may become hazard => up to max CAT II 250V against PE .
General Features	
Input Voltage	Up to 250V [Single phase system]/up to 430V [Three phase system], 50/60Hz max 10A.
Type 2 Test Cable	AC charging mode 3, suitable to IEC62196-2 type 2 socket outlet or fixed cable with vehicle connector [Type 2, 7P three-phase].
Type 1 Test Cable	AC charging mode 3, suitable to IEC62196-2 type 1 or SAE J1772 with vehicle connector [Type 1, 5P single-phase].
Weight	Approx. 1kg
Dimensions [LxWxH]	Adapter size :227x109x63mm [Length without connection test cable] Handle size: 250x115x61mm [Length without connection cable]
Safety	IEC/EN 62851-1/IEC/HD 60364-7-722
Measurement Category	CAT II 250V
Pollution Degree Protection	2
Class	II
Working Temperature Range	0 to 40°C
Storage Temperature Range	-10 to 50°C
Reference Humidity Range	10 to 60% relative humidity w/o condensation
Working Humidity Range	10 to 85% relative humidity w/o condensation
Altitude Above Sea Level	Max. 200m

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