

Test Report 3173568.

Olympia Electronics


N. Lakasas - P. Arvanitidis S.A.

Introduction.

This report has been prepared by Rowan Kelly and relates to the activity detailed below:

Job/Registration Details	Client Details
Job number: 3173568 Job type: Testing Samples Submitted Start Date: 05/08/2021 Test type: Audit Sample ID: 10189245 Registration: KM 640086 Scheme: BS EN 62034 Automatic Test Systems Protocol: PCP507 Scheme Mgr: Kane Pinney Quality system: ISO 9001:2015	Olympia Electronics N. Lakasas - P. Arvanitidis S.A. 72nd klm Old National Road Thessaloniki - Katerini Kolindros, Pieria 60300 Greece

The report has been approved for issue by Luke Masters Electrical Testing team Leader

Approved For Issue	
	Issue Date: 01/10/2021

Objectives.

Audit test for product certification to the limited clauses of BS EN 62034:2012 and BS EN 61347-2-11:2002 in conjunction with BS EN 61347-1:2015 in accordance with PP 507.

Product Scope.

GR-6500 ATS

Report Summary.

A type sample of the above product has been tested and examined to the relevant requirements of the above specification and has been found to comply with these requirements, see summary of test comments on pg. 4 for details.

Test Samples.

Sample Id/ER Number	Description
10189245	GR-6500 ATS

Description of Test Samples.

Sample Description
Class I, PERC surface mounted ATS system with white thermoplastic enclosure of Class II construction with IP 30 rating. For direct connection to mains rated at 220 - 240 V a.c., 0.63 A at 50/60 Hz via terminal block.

Test Equipment.

Number	Description	Cal Due Date
9004509	Thermal Hygrometer	06/04/2022
9005164	Barometer	23/06/2022
9006605	Stopwatch	18/03/2023
CAS:110-54-3	95% Hexanes	NICS
9004753	Clare Tester	13/08/2021
9004648	Push/Pull Force Gauge	16/09/2021
9006446	Standard Test Finger	08/09/2021
9005274	Stabilised Power Supply*	NICS
9006117	Variac*	NICS
9006643	Multi-meter*	30/06/2022
9006450	Calipers	11/11/2021
9005170	Humidity Chamber**	NICS
9006328	Thermal Hygrometer**	16/12/2021
9002011	Dielectric Withstand Tester	23/10/2021

* Instruments 9006177 and 9005274 verified using instrument 9006122

** Instrument 9005170 verified using instrument 9006328

Summary of Test Comments.

Clause	Comments
No Comments	

Glossary of Terms.

PASS: Complies. Tested by BSI engineers at BSI laboratories.

PASS1: Complies. Witnessed by BSI engineers in manufacturers laboratory.

PASS2: Complies. Tests carried out by third party lab; results accepted by BSI.

PASS*: Report resulted in uncertainty and states that Compliance is more probable than non-compliance.

FAIL: Non compliance – Product does not meet the requirements of this clause.

FAIL*: Report resulted in uncertainty and states that Non-compliance is more probable than compliance.

N/A: Not applicable to design under consideration.

N/T: Not tested due to similarity to previously tested item; reference earlier test report.

Conditions of Issue.

This Test Report is issued subject to the conditions stated in current issue of 'BSI Terms of Service'. The results contained herein apply only to the particular sample(s) tested and to the specific tests carried out, as detailed in this Test Report. The issuing of this Test Report does not indicate any measure of Approval, Certification, Supervision, Control or Surveillance by BSI of any product. No extract, abridgement or abstraction from a Test Report may be published or used to advertise a product without the written consent of BSI, who reserve the absolute right to agree or reject all or any of the details of any items or publicity for which consent may be sought.

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Supporting Data – Test Results

Table A – BS EN 62034: 2012, BS EN 61347-2-11:2002, used in conjunction with BS EN 61347-1:2015.

Standard Clause Ref	Activity	Test Result/ Evidence/Comment/ NC Ref	Complies?
Clause 4.1 (BS EN 62034)	Labelling, Installation guide/Instructions, Construction and Critical components	Sample labels, construction and critical components were identical to those assessed in the Type test. A revised version of the installation guide was provided which contained all required information.	PASS
Clause 4.4 (BS EN 62034)	System integrity, Software failure	Software version used Ver.04.09 which was previously accepted	PASS
Clause 7 (BS EN 61347-2-11)	Marking	All required markings present on ATS and in instructions	PASS
Clause 7.1 (BS EN 61347-1)	Marking	All required markings present on ATS	PASS
Clause 7.2 (BS EN 61347-1)	Durability and legibility of marking	The markings were lightly rubbed with a cloth soaked in water and a cloth soaked in 95% hexanes for 15 seconds each. After the test all markings were still legible.	PASS
Clause 10 (BS EN 61347-2-11)	Provision for earthing	Earth terminal cannot be loosened by hand without the use of a tool.	PASS
Clause 10 (BS EN 61347-1)	Protection against accidental contact with live parts	Live parts of the ATS were not accessible with the standard test finger when assembled as in normal use. The ATS was supplied with 240 V _{RMS} a.c. and 60 seconds after disconnection of the power supply the voltage across the supply cord was measured. Max. voltage limit: 50 V _{RMS} Max. measured voltage: 0.001 V _{RMS} a.c. 0.0 V d.c.	PASS

Standard Clause Ref	Activity	Test Result/ Evidence/Comment/ NC Ref	Complies?
Clause 11 (BS EN 61347-1)	Moisture resistance and insulation	<p>Test sample was placed in a humidity chamber for 48 hrs at 93% RH and 21 °C. Afterwards, test sample showed no damage.</p> <p>Insulation Resistance 500 V d.c. applied for 60 seconds, with 5 second ramp up time, between:</p> <p>Input and output terminals → Metal foil wrapped around enclosure Min. IR: 4 MΩ (Double) Measured IR: >10 GΩ</p> <p>Input and output terminals → Fixing screw Min. IR: 4 MΩ (Double) Measured IR: >10 GΩ</p> <p>Input terminals → Control terminals Min. IR: 2 MΩ (Basic) Measured IR: 521.8 MΩ</p> <p>Input terminals → Earth terminals Min. IR: 2 MΩ (Basic) Measured IR: 364.2 MΩ</p>	PASS
Clause 12 (BS EN 61347-1)	Electric strength	<p>Electric Strength a.c. test voltage applied for 60 seconds, with 5 second ramp up time, between:</p> <p>Input and output terminals → Metal foil wrapped around enclosure Test voltage: 2960 V_{RMS} (Double) No flashover or breakdown</p> <p>Input and output terminals → Fixing screw Test voltage: 2960 V_{RMS} (Double) No flashover or breakdown</p> <p>Input terminals → Control terminals Test voltage: 1480 V_{RMS} (Basic) No flashover or breakdown</p> <p>Input terminals → Earth terminals Test voltage: 1480 V_{RMS} (Basic) No flashover or breakdown</p>	PASS

Standard Clause Ref	Activity	Test Result/ Evidence/Comment/ NC Ref	Complies?
<p>Clause 16 (BS EN 61347-1)</p>	<p>Creepage distances and clearances</p>	<p>RMS working voltage not exceeding 250 V, PTI < 600</p> <p>Creepage distance limits: Basic: 2.5 mm Double: 5 mm</p> <p>Clearance limits: Basic: 1.5 mm Double: 3 mm</p> <p>Between live parts of different polarity (Basic):</p> <p>L terminal → N terminal Measured creepage distance: 9.6 mm Measured clearance: 3.3 mm</p> <p>N terminal → E terminal Measured creepage distance: 8.3 mm Measured clearance: 8.1 mm</p> <p>Between live parts and outer accessible surface of insulating parts (Double):</p> <p>L terminal → Outer surface of thermoplastic enclosure Measured creepage distance: 34 mm Measured clearance: 16 mm</p>	<p>PASS</p>
<p>Comments: See Summary of Test comments on page 4 for details.</p>			

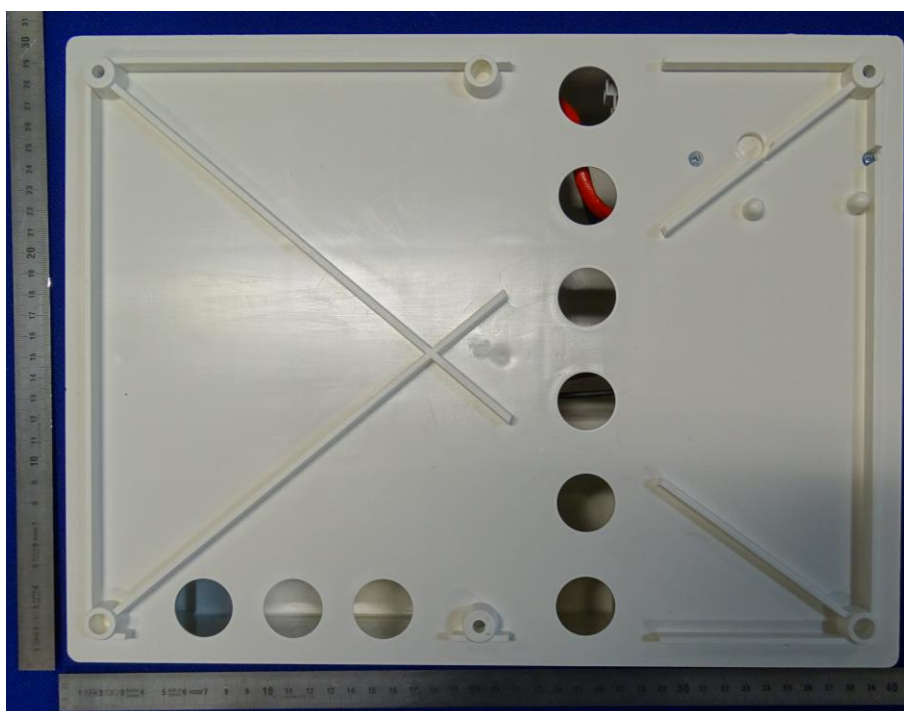
Table B – Critical components check.

Critical component	Type test BSI 8408553-2 Rev 1	Audit	Changes?
Screw terminal	Adels Contact: 503 Si 1-4mm ² , 400 V, 10 A, Tmax: 100°C, UL 94 V-2	Adels Contact: 503 Si 1-4mm ² , 400 V, 10 A, Tmax: 100°C, UL 94 V-2	NO
Switched mode power supply block	Meanwell: RS-25-15 100-240 V a.c., 50/60 Hz, 0.4 A (230 V), 0.7 A (115 V)	Meanwell: RS-25-15 100-240 V a.c., 50/60 Hz, 0.4 A (230 V), 0.7 A (115 V)	NO
Enclosure back plate	Olympia Electronics: GR-6500 Back ABS – Polycarbonate	Olympia Electronics: GR-6500 Back ABS – Polycarbonate	NO
Enclosure Body	Olympia Electronics: GR-6500 Front ABS – Polycarbonate	Olympia Electronics: GR-6500 Front ABS – Polycarbonate	NO
Comments:			

Sample Photographs.



ATS Exterior (Front)



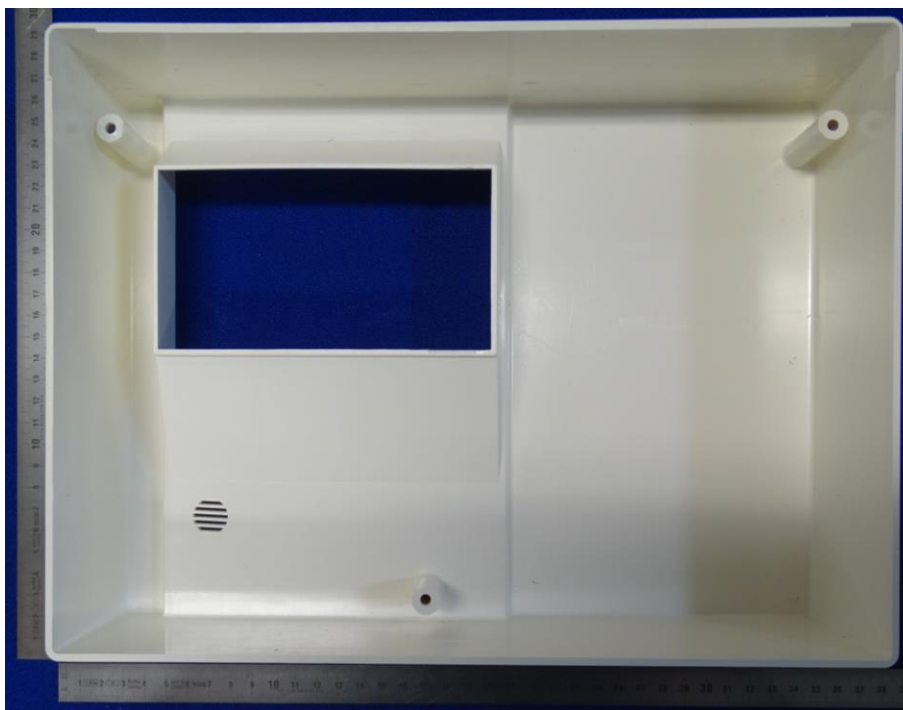
ATS Exterior (Mounting Surface)



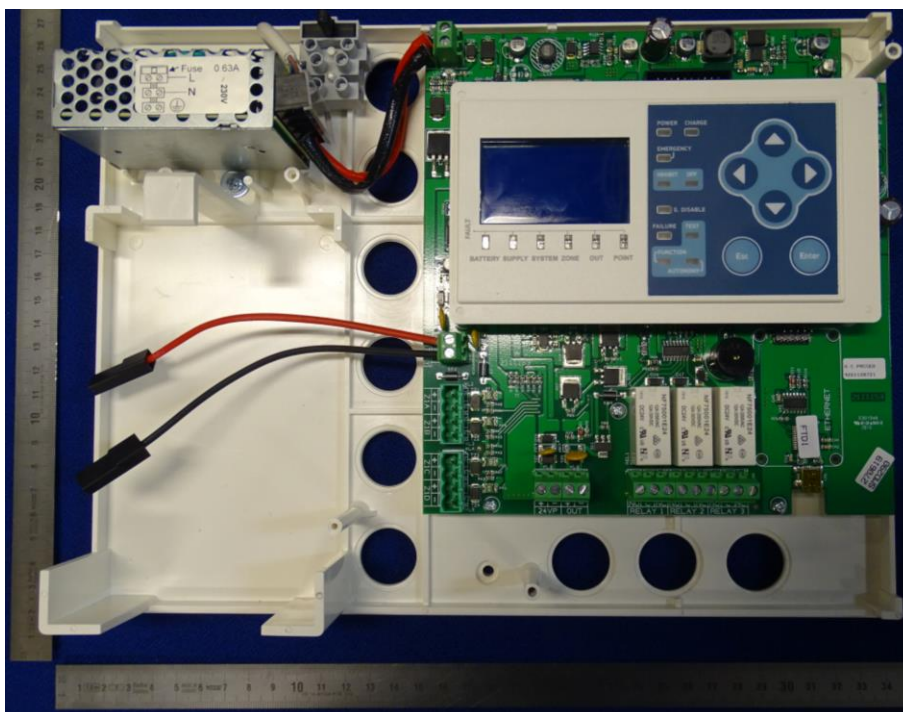
ATS Exterior (Profile)



ATS Exterior (Profile)



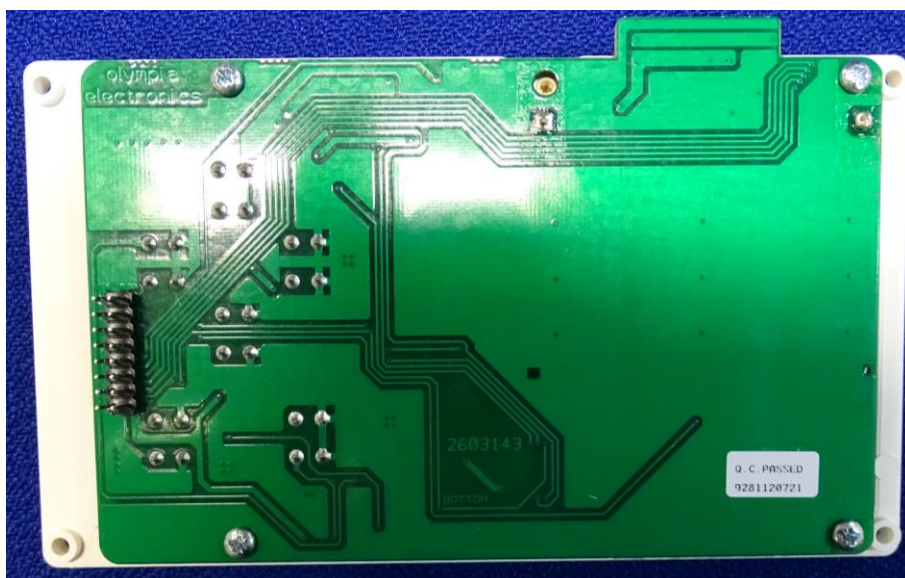
ATS Interior (Main enclosure)



ATS Interior



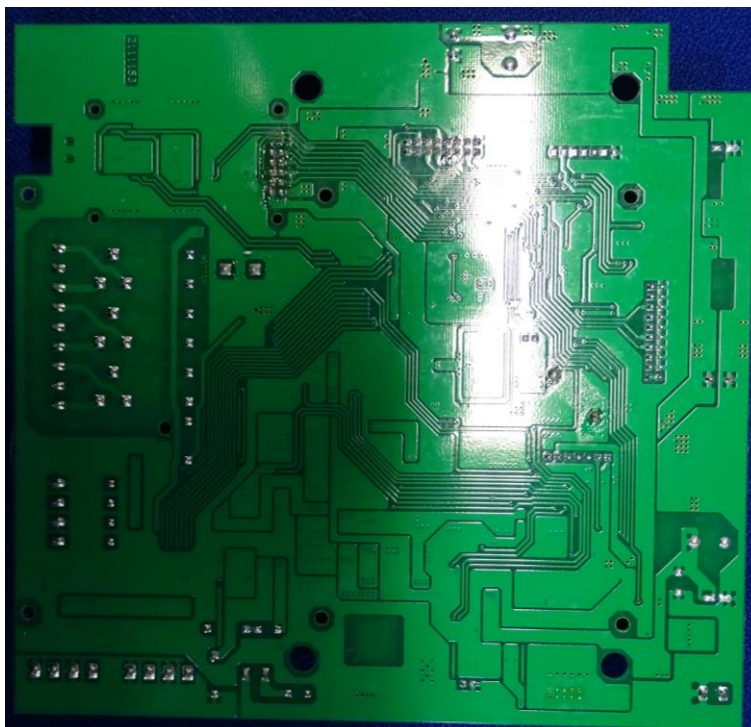
ATS Interface PCB (Front)



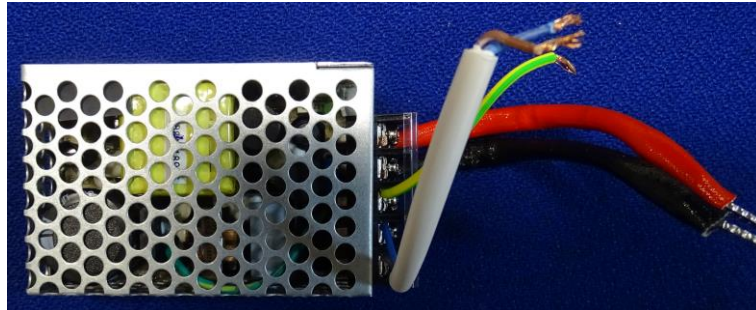
ATS Interface PCB (Underside)



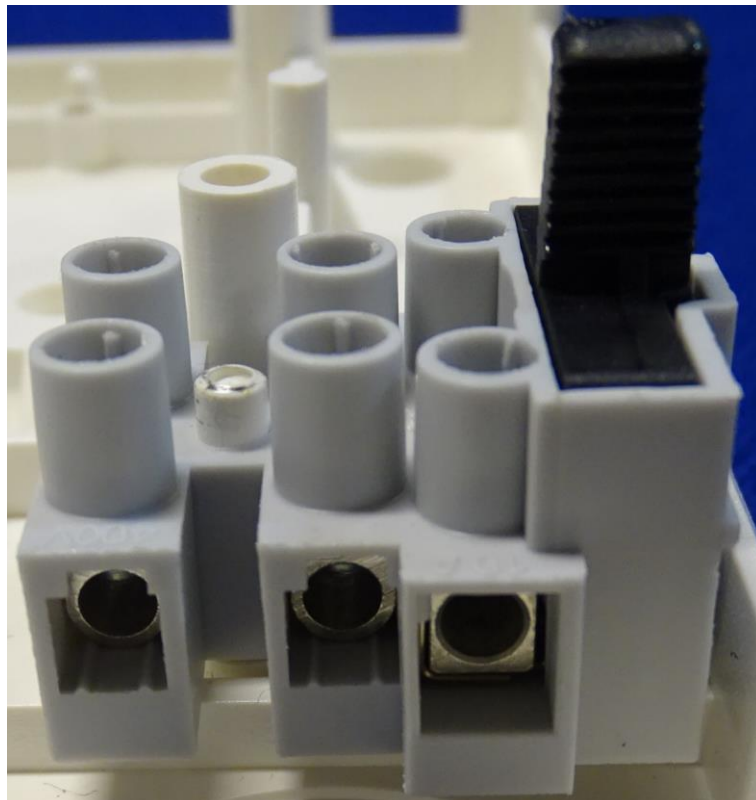
ATS Secondary Circuit PCB (Front)



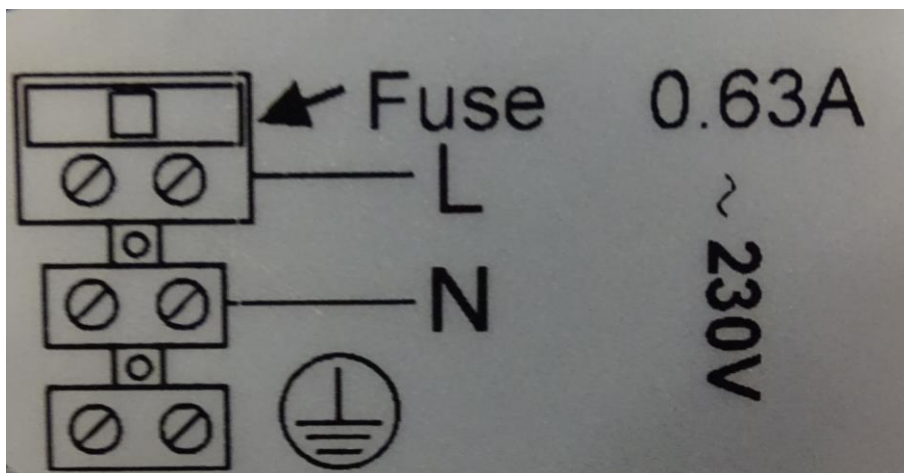
ATS Secondary Circuit PCB (Underside)



Switched Mode Power Supply Block



Terminal Block



Terminal Label



Ratings Label

*** End of Report ***