

ELDAŞ is ACCREDITED by  
TURKISH ACCREDITATION AGENCY



Test  
TS EN ISO/IEC 17025  
AB-0045-T

AB-0045-T

EL-0804

11-12



**ELDAŞ**  
Elektrik Elektronik Sanayi ve Tic.A.Ş.  
1.Organize Sanayi Bölgesi Büyük Selçuklu Bulvarı No:2/A  
Sincan 06935 - ANKARA /TURKEY  
**TESTING REPORT**

Customer name/address : Mikroelektronika AD  
Blagoja Parovića bb - Novakovići 78000 Banja Luka Bosnia and Herzegovina

Order No: 120702-10

Name and identity of test item: Mikroelektronika Three Phase/Four Wire Active, Reactive Inductive, Reactive Capacitive Multirange Multifunctional Electricity Meter, Type MET410-E34(M/P/I), 3Phase-4 Wired with GSM/GPRS Modem

The date of receipt of test item: 02.07.2012

Remarks: 0,05-5(6) A, 3\*(100/√3 - 230)V / 400V, 50Hz, Class C Active, Class 2 Reactive, 40000 Imp/kWh, 40000 Imp/kvarh, 3K7

Date of test: 18.10.2012 - 19.10.2012

Number of pages of the Report: 10

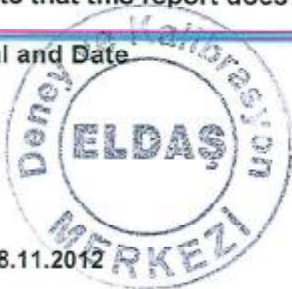
The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following pages which are part of this report.

This report was prepared after applying test/tests to the samples that are sent to our company.  
(Note that this report does not involve other samples of the customer.)

Seal and Date

Person In Charge of Test

Head of testing laboratory



08.11.2012

Ahmet CANBOLAT

Ahmet ÖZCAN

This report shall not be reproduced other than in full except with the permission of the laboratory.  
Testing reports without signature and seal are not valid.

## Testing Report

Page: 2/10

### CONTENTS

**Contents:**

**Test Standards:**

**List of Test Equipment:**

**Short Description of EUT:**

**Protection against penetration of dust and water**

**Photos of EUT**

**Page No:**

.....	2
.....	3
.....	4
.....	5
.....	6
.....	7-10

This report shall not be reproduced other than in full and with the permission of the laboratory.  
Testing reports without signature and seal are not valid.



## Testing Report

Page: 3/10

### TEST STANDARDS

The tests were performed according to following standards

- EN 60529:1991 + A1:2000
- EN 50470-1:2006

This report shall not be reproduced other than in full except with the permission of the laboratory.  
Testing reports without signature and seal are not valid.



**Testing Report**

Page: 4/10

**List of Test Equipment**

The tests were performed using following test equipment.

Device/Equipment Name)	Brand	Serial No
------------------------	-------	-----------

■ Dust room	MATEŞ	001
-------------	-------	-----

This report shall not be reproduced other than in full and only with the permission of the laboratory.  
Testing reports without signature and seal are not valid.



**Testing Report**

Page: 5/10

**Short Description of EUT**

<b>Trademark</b>	: MIKROELEKTRONIKA
<b>Type</b>	: MET410-E34(M/P/I)
<b>Basic Voltage</b>	: 3 x (100/√3 - 230)V / 400V
<b>Minumum Current</b>	: 0,05 A
<b>Transitional Current</b>	: 0,25 A
<b>Reference Current</b>	: 5 A
<b>Maximum Current</b>	: 6 A
<b>Meter Constant</b>	: 40000 imp/kWh, 40000 imp/kvarh
<b>Class</b>	: Class C (EN 50470-1/3), Class 2 (IEC 62053-23)
<b>Phase/Wire Number</b>	: 3 Phase/ 4 wire
<b>Tariff</b>	: Multi Tariff
<b>Reference frequency</b>	: 50 Hz
<b>In Door (IP 51)/Out Door (IP 54)</b>	: Out Door (IP 54)
<b>Specified Operating range</b>	: 3K7
<b>Communication Port</b>	: Optical Interface (IR), Electrical Interface (RS-485), GSM/GPRS Modem

This report shall not be reproduced other than in full and with the permission of the laboratory.  
Testing reports without signature and seal are not valid.



**Testing Report**

Page: 6/10

**Test Name: Protection against penetration of dust and water****EUT:** MET410-E34(M/P/I) (120702-10/01)**Environmental Conditions:** 22 °C % 42 RH**Date:** 18.10.2012 - 19.10.2012**Test Method Num:** DT-EL-36**Applicable Standards:** IEC 62052-11 Article 5.9

Degree of protection = Outdoor meter (IP54)

The EUT tested according to IEC 60529, under the following conditions.

- Meter in-non operating condition and mounted on a artificial wall.
- Any ingress of dust and water shall be only in a quantity not impairing the operation of the meter.
- After this test a insulation test is applied.

Error (%) before the test

Reference Current (5)A	ACTIVE			REACTIVE	
	cosf=1	cosf=0,5ind.	cosf=0,8cap.	sinf=1	sinf=-1
	-0,08	0,14	0,04	-0,08	-0,11

Error (%) after the test

Reference Current (5)A	ACTIVE			REACTIVE	
	cosf=1	cosf=0,5ind.	cosf=0,8cap.	sinf=1	sinf=-1
	-0,09	0,13	0,05	-0,09	-0,13

**Result : Positive**

This report shall not be reproduced other than in full except with the permission of the laboratory.  
Testing reports without signature and seal are not valid.



**Testing Report**

Page: 7/10

**PRODUCT PICTURE**



This report shall not be reproduced other than in full copy with the permission of the laboratory.  
Testing reports without signature and seal are not valid.





**Testing Report**

Page: 8/10

**PRODUCT PICTURE**



This report shall not be reproduced other than in full, or parts with the permission of the laboratory.  
Testing reports without signature and seal are not valid.





**Testing Report**

Page: 9/10

**PRODUCT PICTURE**



This report shall not be reproduced other than in full and with the permission of the laboratory.  
Testing reports without signature and seal are not valid.



**Testing Report**

Page: 10/10

**PRODUCT PICTURE**



This report shall not be reproduced other than in full and only with the permission of the laboratory.  
Testing reports without signature and seal are not valid.

