



Yadav Measurements

TEST CERTIFICATE

Issued by:

YADAV MEASUREMENTS PRIVATE LIMITED

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RIICO Bhamashah Industrial Area, Kaladwas

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CIN number: U31909RJ2003PTC018450



Certificate number: YMPL/262446/64279		Page 1 of 6
1.a	Tested for:-	RISHABH INSTRUMENTS PRIVATE LIMITED, F-31, MIDC SATPUR, NASHIK, MAHARASHTRA, 422007, INDIA
1.b	Submitted by:	RISHABH INSTRUMENTS PRIVATE LIMITED, F-31, MIDC SATPUR, NASHIK, MAHARASHTRA, 422007, INDIA
2.	Reference:- Customer order number: Service request form number: Date: Date of receipt of the instrument: Condition of item on receipt:	-Nil- 2014-2015/1009/4 16 th October, 2014 16 th October, 2014 Satisfactory
3.	Test certificate: Date of issue: Date of testing:	16 th December, 2014 13 th December, 2014
4.	Description of equipment under test:-	
	Number of samples:	2
	Nature of sample:	POWER QUALITY MONITOR
	Sr. No.	14/07/0107, 14/07/0108
	Aux. Supply:	60-300V AC/DC
	Input Voltage:	500V L-L
	Current rating:	5A/1A
	Impulse Constant:	4000 imp/kWh
	Type/Model :	RISH PQM
	Reference frequency:	45Hz-65Hz
	Accuracy Class:	0.5s

This certificate may not be reproduced in full, except with the prior written approval of the issuing laboratory

Checked by:

Sign:

Name: PRADEEP BHANAWAT

Approved By:

Sign:

Name: ASHI JAT DUBE

QF5A.00.01



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5	Tests details:- D=Test done, ND=Test not done, NA=Test not applicable, PD=Test partially done C: Conform, NC= Non Conform		
5.1	Test specification as per IEC61326-1:2012 and test procedure as per IEC 61000-4-11:2004 for Voltage dips, short interruptions test.		
A	Voltage dips, short interruptions test.	D	Conform
6.	Note:- 1) This Certificate relates only to the particular samples received for testing at YMPL. 2) Only the test(s) asked by the customer has been carried out. 3) This certificate, in full or in part, shall not be published, advertised, used for any legal action, unless prior permission has been secured. 4) Any anomaly/discrepancy in this test report/certificate should be brought to our notice within 45 days from the date of issue. 5) Authenticity of this certificate can be verified by sending details of certificate to Yadav.measurements@ymllabs.com 6)EN 61326-1:2013 is equivalent to IEC61326-1:2012 7)Unless otherwise specified all testing done on 50Hz.		
7.	Test results:-The test results are given on next pages.		

Product Description and System test Configuration:

The EUT is Power Quality monitor with both of the configuration 3 Phase 4 Wire and 3 Phase 3 Wire input supply 500V L-L and auxiliary supply 60V-300V AC/DC along with the Input current 5A/1A. EUT has a LCD Display. Refer figures given below for detailed description of EUT.

For testing EUT was powered up with 230 V AC auxiliary voltages and was given input voltage 230V along with the line current of 5A for the all three lines.

It has 2 terminals 13 and 14 for auxiliary supply.

1, 4 and 7 for line current IN for L1 L2 and L3 respectively and terminal 3, 6 and 9 for line current OUT for L1 L2 and L3 respectively.

EUT limits specified as specified by customer.

Performance criteria A: During the test Input voltage 230V is given to the EUT should be within the range of +/-23.0V and 5 Amp the current given to the system should within the range of the +/-0.5amp as read by the display of the EUT.

Performance criteria B: During the testing the equipment could be outside the limits i.e. (0.5Amps if 5 AMP and 23V if 230V is fed into the system) but after the test there shall be no loss or degradation of performance.

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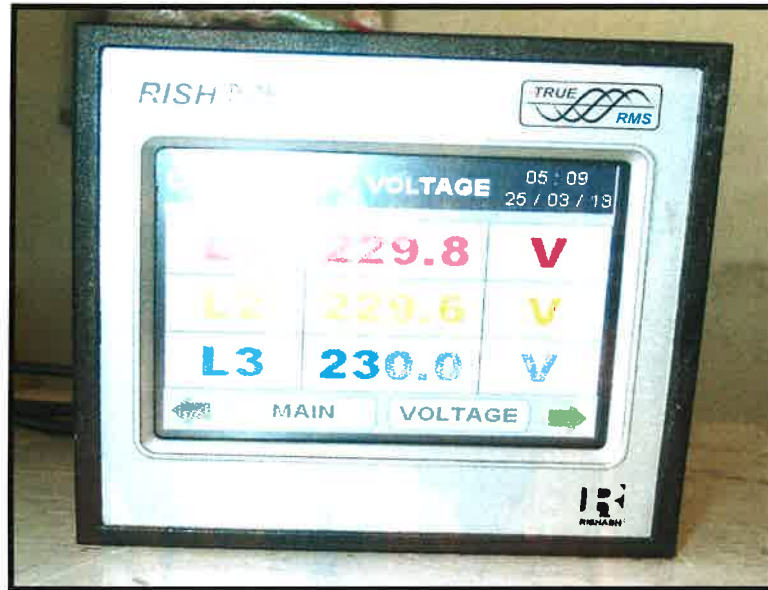


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EUT picture:

1) Front View



2) Side View



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Voltage dips, short interruptions Test

Test Instrument details: - Voltage dips, short interruptions Generator

Make: - YMPL

Model: - VDIG

S. No.	Particulars of tests and clause number	Requirement as per Specification	Measured value/Observation	Remarks
A	Voltage dips and short term interruption test (As per IEC61326-1:2012)	<p>The test shall carried out according to IEC61000-4-11 under the following conditions:-</p> <p>a) Voltage dips of 100% of V_{ref}</p> <ul style="list-style-type: none"> - Number of dips : 1 - % Voltage dip: 100% V_{ref} - % Voltage test level: 0% of V_{ref} - Duration period: 20 ms <p>The equipment should meet the Performance Criteria B as specified in IEC61326-1; after the application of voltage dips test the equipment shall continue to operate as intended. No change of actual operating state is allowed.</p> <p>b) Voltage dip of 60% of V_{ref}</p> <ul style="list-style-type: none"> - Number of dips : 1 - % Voltage dip: 60% V_{ref} - % Voltage test level: 40% of V_{ref} - Duration period: 200ms <p>The equipment should meet the Performance Criteria C as specified in IEC61326-1; during the test temporary loss of function is allowed, if self recoverable.</p>	<p>The equipment meets the performance criteria B, the equipment operates as intended after the application of voltage dips test at 0% residual voltage for 1 cycle. No damage was found after the application of the test. No malfunction or degradation of performance was observed in the equipment before and after the test.</p> <p>The equipment meets the performance criteria C, the equipment operates as intended after the application of voltage dips test at 40% residual voltage for 10 cycles. No damage was found after the application of the test. No malfunction or degradation of performance was observed in the equipment before and after the test.</p>	Conform

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S. No.	Particulars of tests and clause number	Requirement as per Specification	Measured value/Observation	Remarks
		<p>c) Voltage dip of 30% of V_{ref}</p> <ul style="list-style-type: none"> - Number of dips : 1 - % Voltage dip: 30% V_{ref} - % Voltage test level: 70% of V_{ref} - Duration period: 500ms <p>The equipment should meet the Performance Criteria C as specified in IEC61326-1; during the test temporary loss of function is allowed, if self recoverable.</p>	<p>The equipment meets the performance criteria C, the equipment operates as intended after the application of voltage dips test at 70% residual voltage for 25 cycles. No damage was found after the application of the test. No malfunction or degradation of performance was observed in the equipment before and after the test.</p>	
		<p>d) Voltage interruptions of 100% of V_{ref}</p> <ul style="list-style-type: none"> - Number of interruptions : 1 - % Voltage test level: 0% of V_{ref} - Duration Interruption time : 5s <p>The equipment should meet the Performance Criteria C as specified in IEC61326-1; during the test temporary loss of function is allowed, if self recoverable.</p>	<p>The equipment meets the performance criteria C, the equipment operates as intended after the application of voltage interruption test at 0% residual voltage for 250 cycles. No damage was found after the application of the test. No malfunction or degradation of performance was observed in the equipment before and after the test. (Test was performed on EUT Sr. No. 14/07/0108)</p>	

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Voltage dips, short interruptions Test Setup



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