

 <p>Yadav Measurements</p>	<h2>TEST CERTIFICATE</h2>	 <p>T-0347</p>
	<p>Issued By :  <b>YADAV MEASUREMENTS PRIVATE LIMITED</b>          Regd Office &amp; works : Post Box no. 169, Plot no. 373-375          RIICO Bhamashah Industrial Area, Kaladwas          Udaipur-Rajasthan - 313003, INDIA          Tel: 0091-294-2650127,28, Fax: 0091-294-2650129          Email: Yadav.measurements@ymllabs.com          website: www.yadavmeasurements.com          CIN number: U31909RJ2003PTC018450</p>	

Certificate number: YMPL/253378/64280		Page 1 of 5
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- 2014-2015/1009/5 16 <sup>th</sup> October, 2014 16 <sup>th</sup> October, 2014 Satisfactory
3.	Test certificate: Date of issue: Date of testing:	16 <sup>th</sup> December, 2014 28 <sup>th</sup> November, 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

<p>This certificate is issued in accordance with the laboratory accreditation requirements of the National Accreditation Board for testing and calibration Laboratories (NABL). This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.</p>	
<p>Checked by :           Sign. :           Name : <b>PRADEEP BHANAWAT</b></p>	<p>Approved by :           Sign. :           Name : <b>ARHIJAT DUBE</b></p>

	<b>TEST CERTIFICATE</b>		
	Issued by:  <b>YADAV MEASUREMENTS PRIVATE LIMITED</b>		

Certificate No. YMPL/253378/64280	Page 2 of 5
-----------------------------------	-------------

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 IEC 61326-1:2012 and test procedure as per IEC 61000-4-4:2010 for Electric Fast Transient Burst Test.		
A	Electric Fast Transient Burst Test	D	C
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 <a href="mailto:Yadav.measurements@ymllabs.com">Yadav.measurements@ymllabs.com</a> 7) EN 61326-1:2013 is equivalent to IEC61326-1:2012 8) Unless otherwise specified all testing done on 50Hz.		
7.	Test results:-The test results are given on next pages.		

**Product Description**

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.

Checked by: 		Approved by: 	
--	---	--	---



Yadav Measurements

# TEST CERTIFICATE

Issued by:

**YADAV MEASUREMENTS PRIVATE LIMITED**



Certificate No. YMPL/253378/64280

Page 3 of 5

## EUT Picture

### 1) Front View



### 2) Side View



Checked by:

Approved by:

	<b>TEST CERTIFICATE</b>		
	Issued by:  <b>YADAV MEASUREMENTS PRIVATE LIMITED</b>		

Certificate No. YMPL/253378/64280	Page 4 of 5
-----------------------------------	-------------

**Electrical Fast Transient Burst Immunity Test**

**Reference Equipment Details:**

**EFT Generator: - Make: - EM Test**

**Model: - EFT 503**

**Coupling/Decoupling Network: - Make: - EM Test**

S.No.	Particulars of tests & clause number	Requirement as per Specification	Measured value/observation	Remarks
A	Electrical Fast Transient Burst Immunity Test (As per IEC61326-1:2012)	<p>The test shall be carried out as per IEC61000-4-4:2010 under the following condition:</p> <p><b>Power port:</b>  <b>Test Conditions:</b>            - EUT powered up by applying reference auxiliary voltage            -Input supply to the EUT was 230V and 5A current.            -Test voltage on the input AC power ports: <math>\pm 2.0\text{kV}</math>            - Test voltage on the Auxiliary circuit: <math>\pm 2\text{kV}</math>            -Test mode: Common            - Test voltage on the I/O Port i.e. RS-485: <math>\pm 1\text{kV}</math>            -Test mode: Coupling clamp</p> <p>- Burst frequency: 5kHz            - Time of coupling : 60s            - Polarity: positive and negative</p> <p>During testing the equipment could be outside the limits i.e. (+/-0.5A if 5A and +/-23V if 230V is fed into the system) but after the test there shall be no loss or degradation of performance. The equipment should be within limit after the test.</p> <p>Also there should be no degradation of performance or loss of function allowed and EUT should be within the specified limits during and after the test.</p>	<p>EUT complies to performance criteria B. During and after the test there was no fluctuation and flickering of display and the applied system voltage and current were also within the limit as specified by the customer.</p> <p>Also EUT was checked for its performance and found ok during and after the application of the Electrical Fast Transient Burst Immunity Test</p> <p>Also there was no disturbance occurred in modbus communication during the test.</p> <p>(Test was performed on EUT Sr. No. 14/07/0108)</p>	Conform

Checked by:			Approved by:	
-------------	---	---	--------------	--





Yadav Measurements

# TEST CERTIFICATE

Issued by:

**YADAV MEASUREMENTS PRIVATE LIMITED**



Certificate No. YMPL/253378/64280

Page 5 of 5

## Electrical Fast Transient Burst Immunity Test Setup

### During power port testing



### During I/O i.e. 485 port testing



Checked by:

Approved by:

QF5D.00.01

