Reflecting the Truth

CERTIFICATE OF CALIBRATION

Issued By :

YADAV MEASUREMENTS PVT. LTD.

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C-035
Electro- Technical

UKAS CALIBRATION
0616

Certificate number: YMPL/91671/11413

1. Name & Address of Client:- SONAA ENGINEERS PVT. LTD.
   308-310 SUBHAM COMPLEX
   NEW FETEHPURA, UDAIPUR (RAJ.)

2. Reference:-
   Service request form number : 2006-2007/1609
   Date: 17th February, 2007
   Date of receipt item : 17th February, 2007
   Condition of item on receipt : Satisfactory

3. Calibration detail :-
   Date of issue: 22nd February, 2007
   Date of calibration : 17th February, 2007
   Due date of calibration: 17th February, 2010

4. Description of equipment under calibration:-
   Name: Digital ammeter with testing set
   Serial number : 0314125 with 9606-107A
   Model : SMP45RS

5 Environmental conditions of measurements:
   Temperature: 25±2°C
   Relative humidity: <70%

6 Description of reference standards used :

Reference standard	Calibration valid upto	Traceability	Parameters
Three phase reference meter I/S .1055 with Three phase precision C.T.(I/S 814)	27th September,2007	DKD Germany via YMPL	AC CURRENT

Remarks :-

1. For k=2
   The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS/NABL requirements. ☑
2. For k≠2
   The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k, which for a t-distribution corresponds to a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements. ☒
3. This report is specific for E.U.C. for environmental and other conditions mentioned in this report. ☑
4. The reported uncertainty applies only to the measured value and gives no indication of the long term stability of the device. ☑
5. The instrument has been calibrated for calibration points required by customer. ☑
6. The calibration due date has been mentioned as requested by customer in writing. ☑

Checked by : R.M.P RSD

Approved by : Dinesh Paliwal
Sign. :
Name : DPZ

7. **Calibration procedure:**
Equipment under calibration (having build in CT & current source) has been calibrated for a.c. current. The instrument was supplied from ac mains of 240V, 50Hz from UPS. The ac current output from the EUC was connect in series with reference measuring CT. The secondary of CT is connected to the reference three phase precision measuring instrument for standard values. No other load is connected to EUC during calibration .the measured values reported were reported from ammeter connected on the EUC. At least 6 measurements have been mode for each value and an average value has been reported. EUC is warmed up for at least half an hour.

8 **Results:-** The DPM Ammeter has been calibrated for a.c. current ranges. The Expanded uncertainty of our measurements is given in front of each measurement & calculated at 95% CL. The results are given bellow.

8. Calibration results:

Parameter	Range	Measured value (Amp.)	Standard value (Amp.)	± Expanded Uncertainty (%)	Coverage Factor (k)
a.c. current (50Hz sine wave)	50A,50Hz	48.44	49.373	0.03	2.00
		39.28	40.228	0.12	2.00
		29.63	30.290	0.08	2.00
		19.92	20.408	0.05	2.00
		9.97	10.127	0.19	2.00
		4.93	5.0623	0.49	2.00
		1.97	2.0245	0.22	2.00
		0.96	1.0013	0.30	2.00
		0.48	497.86	1.07	2.00 *

Remarks :

1. "*"Indicates that "the uncertainty quoted is dominated by resolution of EUC for which rectangular probability distribution has been assumed.