GTP FOR STATIC 3 PHASE 4 WIRE CT-PT OPERATED
STATIC ENERGY METER FOR CONSUMER METERING WITH ABT & TOD

Sr.No.	Parameters	Technical Requirements
1	Voltage	110V (P-P) with +20% to -30%.
2	Rated secondary current	5 Amps Balanced & unbalanced load for 33 kV & 11 kV.
3	Display	LCD, (Height 11mm x 5mm min.) Scrolling through push button.
4	Display parameters	LCD test, date & time, cumulative KWH, cumulative KVAH & RKVAH, MD in KW and KVA, PF, V, I, frequency (Four Quadrant Metering), Net kVARh flown under voltage high condition i.e. above 103% of Vref. Net kVARh flown under voltage low condition i.e. above 97% of Vref. Percentage Average Voltage, Previous Interval Average Frequency, Cumulative MD, Raising Demand, Instantaneous load.
5	Power Consumption	Less than 1 Watt & 4VA per phase in voltage circuit & 2VA in current circuit.
6	Starting current	0.1% of I_b.
7	Frequency	50 Hz with ±5% variation.
8	Test Output Device	Flashing LED visible from the front for KWh, KVAH, KVARH.
9	Billing data	Date, Real time, KWH, KVAH, RKVAH, MD in KW and KVA Net kVARh flown under voltage high condition i.e. above 103% of Vref. Net kVARh flown under voltage low condition i.e. above 97% of Vref. No. of tamper counts 1st tamper occurrence with date & time, last tamper restoration date & time, KWH, KVAH & MD in last 12 months. All these data shall be accessible for reading & downloading through optical port on MRI or Laptop Computers at site.
10	MD Registration	Meter shall store MD in every 15 min. period along with date & time with sliding window (5-15 min. interval). At the end of every 15 min. new MD shall be previous MD and store whichever is higher and the same shall be displayed. It shall be possible to reset MD automatically at the end of month of defined period or through MRI or through manual MD resetting push button. The MD reset knob should be seal able (MD integration period shall be programmable).
11	TOD metering	Meter shall be capable doing TOD metering for KWH, KVAH and MD with minimum 6 time zones programmable.

12	Load survey	15 min. integration period, load profile of kWh (I), kWh (E), kVA (while Act-imp), kVA (while Act-exp), Avg. freq. for 32 days.
13	Diagnostic features	Sell diagnostic for time, calendar, RTC battery all display segments and NVM.
14	Security feature	Programmable facility to restrict the access to the information Recorder at different security level such as read communication, communication write etc.
15	Software & Communication Compatibility	Optical port compatible to transfer the data locally through CMRI & RS 485 (RJ11) port compatible for remote reading through PST / optical fibre / CDMA to the main computer. Software & hardware required for CMRI & for connectivity to AMR modules shall be supplied by the supplier at free of cost. The manufacturer shall also provide training for the use of software. Preference will be given to software compatible to windows systems. The manufacturer shall supply the AMR polling software & meter reading protocol with the meters.
16	Memory	Non volatile memory independent of battery backup, memory should be retained upto 10 years in case of power failure.
17	Climatic conditions	Orissa, India, temperature 0-45°C & humidity 96%
18	Calibration	Meters shall be software calibrated at factory and modification in calibration shall not be possible at site by any means.
19	Body of Meter	Made of engineering plastic, front cover & base to be ultrasonically welded.
20	Terminal Block	Made of polycarbonate, Integral part of the meter base, brass or copper current terminals with flat end screws.
21	Terminal Cover	Transparent terminal cover with provision of sealing through sealing screw.
22	Diagram of connections	Diagram of external connections to be shown on terminal cover.
23	Marking on name plates	Meter should have clearly visible, indelible and distinctly name plate marked in accordance with IS & IEC and also year of manufacture & year upto which guaranteed.
24	Meter Sealing	Supplier shall affix one seal on each side of meter body as advised and record should be forwarded to Reliance Energy.
25	Guarantee	66 months from the date of delivery.
26	Insulation	A meter shall withstand an insulation test of 6 KV.
27	Resistance of heat and fire	The terminal block and meter case shall have reasonable safety against the spread of fire. They shall not be ignited by thermal overload of live parts in contact with

		them.
28	Phase sequence reversal	The meter should record correctly.
29	Detection of missing potential	Meter shall log the event with date & time.
30	Reversal of C.C. Polarity	Meter shall log the event with date & time.
31	Power on/off	Meter shall log the event with date & time.
32	Logging of Snap Shots	Meter shall log all phase voltages, currents, power factor at the time of tamper attempt.
33	Mid Energy Snapshot	The meters will record midnight energy snap shots kWh (I), kWh (E), kVA (while Act-imp), kVA (while Act-exp), Reactive (Lag while Act- Imp), Reactive (Lead while Act- Imp) which can be viewed at BCS end for last 32 days