

Un-interruptible power supply System for Finance, Material and laboratory Sections.

1. Scope :

To supply, install, test and commissioning of an UPS system comprising of 10 KVA on line UPS units with external battery bank at Ceylon Petroleum Corporation, Refinery.

2. System Configuration:

Proposed UPS system shall have following features

- (i) UPS module shall be industrial type with the capability of providing specified continuous output power of 10 KVA
- (ii) UPS module shall be operated on – line.
- (iii) Features to display on a LCD panel status indication for event logger, alarm and tripping conditions, self diagnostic features etc.
- (iv) UPS shall be facilitated with external alarm outputs (Analog/Digital).
- (v) UPS shall be facilitated with battery monitoring system with temperature compensation of battery voltage.

3. Specifications :

(i) Input

| | | |
|-----------|---|--|
| Voltage | : | 230 V AC, single phase +/- 10% variation |
| Frequency | : | 50 Hz +/- 5% variation |

(ii) Output

| | | |
|-----------|---|--------------------------------------|
| Voltage | : | 230 V AC, single phase within +/- 2% |
| Frequency | : | 50 Hz within +/- 0.5% variation |
| Rating | : | 10 KVA continuous |
| Waveform | : | True sine wave |

(iii) Battery

| | | |
|---------------------|---|--|
| Type | : | Lead Acid or Lead calcium sealed/ maintenance free |
| Autonomy Time load. | : | More than 30 minutes with 100% of rated load. |
| Battery Life | : | Shall have a minimum of 3 years guaranteed life |

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4. Ambient Conditions:

| | | |
|--------------------------|---|------------------------|
| Temperature | : | 40° C |
| Relative Humidity | : | 90% (non condensing) |
| Altitude above sea level | : | Less than 1000 m |

5. Other Requirements:

| | | |
|---------------------|---|---|
| Standard | : | IEC EN62040, BS 6290, IEC 60146 IEC 60950 or equivalent internationally recognized standard (please specify). |
| Noise Level | : | less than 50 dB(A). |
| EMC Conformity | : | IEC 62040-2 EMC Directive2004/108/CE. |
| Harmonic Distortion | : | THD Less than 5% (For non -linear loads). |
| Spares | : | A separate price list for spares required for a period of 5 years. operation shall be provided along with the main offer. |
| Design | : | UPS shall not be a prototype. |

6. Manuals :

Operating and maintenance instruction manuals containing following information and in English language shall be provided in duplicate along with the equipment.

- (i) The trouble shooting procedures
- (ii) Relevant circuit diagrams

Note: Relevant technical details/catalogues of the UPS shall be produced along with the main offer for evaluation purposes.

7. Warranty:

- (i) Supplier shall provide comprehensive warranty for all equipment including batteries for a minimum period of 3 years from the date of commissioning.
- (ii) Supplier shall have all spare parts necessary to carry out maintenance during the warranty period and thereafter upon agreement between the two parties concerned.

8. Installation, Testing and commissioning:



Supplier shall be responsible for installation, testing and commissioning of the equipment supplied. A separate quotation for installation, testing and commissioning shall be submitted with the main offer.

9. Workshop Facilities

1. The supplier should have a well established workshop and trained technical staff to carry out maintenance and servicing the offered UPS system.
2. The supplier shall enter into a service agreement for the offered UPS system if CPC wishes to do so. Warranty condition is independent from the service agreement.

10. General conditions

1. The offered model and brand shall be a well established brand in Sri Lanka. The offered UPS system shall be manufactured in a European, American or Japanese manufacturing facility.
2. The offered UPS system shall be well protected against lightning surges, overload conditions, short circuit conditions, external power quality disturbances etc.. and features clearly indicated in the offer.
3. The UPS manufacture shall have a ISO 9000 certification. If the bidder is not the manufacturer for the UPS system, a letter of authorization from the manufacturer to the bidder should be provided.
4. A site reference list for the offered UPS system operating in Sri Lanka shall be provided.



