TECHNICAL INFORMATION SCHEDULE

Instruction to Bidders

The bidder shall submit all remarks diagrams and drawings according to the technical information schedule document and in the English Language.

INFORMATION TO BE SUPPLIED/PRESENTED IN THE TABLES BELOW SHALL BE SUPPORTED BY THE GENERATOR AND AUXILIARY ORIGINAL EQUIPMENT MANUFACTURER DATASHEET. FAILURE TO PROVIDE SUPPORTING TECHNICAL DATASHEET SHALL RENDER THE BID NON RESPONSIVE

ALL REMARKS TO THE TECHNICAL INFORMATION SCHEDULE SHALL BE PROVIDED IN FULL AND IN THE SPACE PROVIDED.

Remarks provided in the space allowed, that are not clear or inadequate or the lack there of will not be considered.

**[A]. Fixed Generator**

# ENGINE

| **NO** | **ITEM** | **REMARKS** |
| --- | --- | --- |
|  | Manufacturer’s Name |  |
|  | Country of Origin |  |
|  | Manufacturer’s model No. and year of manufacture |  |
|  | Continuous sea level rating after allowing for ancillary equipment :  a) In b.h.p.  b) In kW |  |
|  | Percentage de-rating for site conditions  a) For altitude  b) For temperature  c) For humidity  d) Total de-rating |  |
|  | Net output on site in kW |  |
|  | Nominal speed in r.p.m. |  |
|  | Number of cylinders |  |
|  | Strokes per working cycle |  |
|  | Stroke in mm |  |
|  | Cylinder bore in mm |  |
|  | Swept volume in cm3 |  |
|  | Mean piston speed in m/min |  |
|  | Compression ratio |  |
|  | Cyclic irregularity |  |
|  | Fuel consumption of the complete generating set on site in l/h of alternator output at :  a) Full load  b) ¾ load  c) ½ load  NOTE :  A tolerance of 5% shall be allowed above the stated value of fuel consumption. |  |
|  | Make of fuel injection system. |  |
|  | Capacity of fuel tank in litres |  |
|  | Is gauge glass fitted to tank? |  |
|  | Is electric pump for filling the fuel tank included? |  |
|  | Method of starting |  |
|  | Voltage of starting system |  |

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  | Method of cooling |  |
|  | Type of radiator if water-cooled |  |
|  | Type of heater for warming cylinder heads |  |
|  | Capacity of heater in kW |  |
|  | Method of protection against high temperature |  |
|  | Method of protection against low oil pressure |  |
|  | Type of governor |  |
|  | Speed variation in %  a. Temporary  b. Permanent |  |
|  | Minimum time required for as assumption of full load in seconds |  |
|  | Recommended interval in running hours for :  a. Lubricating oil change  b. Oil filter element change  c. Decarbonising |  |
|  | Type of base |  |
|  | Can plant be placed on solid concrete floor? |  |
|  | Are all accessories and ducts included? |  |
|  | Is engine naturally aspirated? |  |
|  | Are performance curves attached? |  |
|  | Diameter of exhaust pipe |  |
|  | Noise level in plant room in dBA | N/A |
|  | Noise level at tail of exhaust pipe in dBA |  |
|  | Design Life |  |
|  |  |  |

# ALTERNATOR

| **NO** | **ITEM** | **REMARKS** |
| --- | --- | --- |
|  | Maker’s name and model no. |  |
|  | Country of Origin and year of manufacture |  |
|  | Type of enclosure |  |
|  | Nominal speed in r.p.m. |  |
|  | Number of bearings |  |
|  | Terminal voltage |  |
|  | Sea level rating kVA at 0,8 power factor |  |
|  | De-rating for site conditions |  |
|  | Input required in kW |  |
|  |  |  |
|  | Method of excitation |  |
|  | Efficiency at 0,8 power factor and :  a) Full load  b) ¾ load  c) ½ load |  |
|  | Maximum permanent voltage variation in % |  |
|  | Transient voltage dip on full load |  |
|  | Voltage recovery on full load application in milli-seconds |  |
|  | Is alternator brushless? |  |
|  | Class of insulation of windings |  |
|  | Is alternator tropicalised? |  |
|  | Symmetrical short circuit current at terminals n Ampere |  |
|  | Type of Coupling |  |
|  | Design Life |  |

# CONTROL PANEL

| **NO** | **ITEM** | **REMARKS** |
| --- | --- | --- |
|  | Maker’s Name |  |
|  | Country of Origin |  |
|  | Is board floor mounted? |  |
|  | Finish of board |  |
|  | Make of volt, amp, and frequency meters |  |
|  | Dial size of meters in mm |  |
|  | Scale range of voltmeter |  |
|  | Scale range of ammeters |  |
|  | Ration of current transformers |  |
|  | Make of hour meter |  |
|  | Range of cyclometer counter |  |
|  | Smallest unit shown on counter (Item 11) |  |
|  | Make of circuit breaker |  |
|  | Type of circuit breaker |  |
|  | Rating of circuit breaker in Amp and fault level in kA |  |
|  | Setting range of overload trips |  |
|  | Setting range of instantaneous trips |  |
|  | Make of change-over equipment |  |
|  | Make of voltage relay |  |
|  | Is control and protection equipment mounted on a small removable panel? |  |
|  | Type of control equipment |  |
|  |  |  |
|  | Make of mains isolator |  |
|  | Type of indicators for protective devices |  |
|  | Make of rectifier |  |
|  | Type of rectifier |  |
|  | Is battery charging |  |
|  | Are volt- and ammeters provided for charging circuit? |  |
|  | Is the alarm hooter of the continuous duty type? |  |
|  | Rating in Amps of :  a. Change-over equipment  b. Mains on load isolator  c. By-pass switch  d. Circuit breaker to outgoing feed |  |

# BATTERY

|  |  |  |
| --- | --- | --- |
| **NO** | **ITEM** | **REMARKS** |
|  | Maker’s Name |  |
|  | Country of Origin |  |
|  | Type of battery |  |
|  | Voltage of battery |  |
|  | Number of cells |  |
|  | Capacity in cold crank amp |  |
|  | Is the battery Maintenance free |  |
|  | Design Life |  |

# DIMENSIONS

|  |  |  |
| --- | --- | --- |
| **NO** | **ITEM** | **REMARKS** |
|  | Overall dimensions of set in mm |  |
|  | Overall mass |  |
|  | Is the generator room/container adequate for the installation of the set |  |
|  | Is the generator room/container sound attenuatted |  |
|  | Is the generator room/container weatherproof |  |

# DEVIATION FROM SPECIFICATION

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| --- | --- |
| **NO** | **DESCRIPTION** |
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**[B]. Mobile Generator**

# ENGINE

| **NO** | **ITEM** | **REMARKS** |
| --- | --- | --- |
|  | Manufacturer’s Name |  |
|  | Country of Origin |  |
|  | Manufacturer’s model No. and year of manufacture |  |
|  | Continuous sea level rating after allowing for ancillary equipment :  a) In b.h.p.  b) In kW |  |
|  | Percentage de-rating for site conditions  a) For altitude  b) For temperature  c) For humidity  d) Total de-rating |  |
|  | Net output on site in kW |  |
|  | Nominal speed in r.p.m. |  |
|  | Number of cylinders |  |
|  | Strokes per working cycle |  |
|  | Stroke in mm |  |
|  | Cylinder bore in mm |  |
|  | Swept volume in cm3 |  |
|  | Mean piston speed in m/min |  |
|  | Compression ratio |  |
|  | Cyclic irregularity |  |
|  | Fuel consumption of the complete generating set on site in l/h of alternator output at :  a) Full load  b) ¾ load  c) ½ load  NOTE :  A tolerance of 5% shall be allowed above the stated value of fuel consumption. |  |
|  | Make of fuel injection system. |  |
|  | Capacity of fuel tank in litres |  |
|  | Is gauge glass fitted to tank? |  |
|  | Is electric pump for filling the fuel tank included? |  |
|  | Method of starting |  |
|  | Voltage of starting system |  |

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  | Method of cooling |  |
|  | Type of radiator if water-cooled |  |
|  | Type of heater for warming cylinder heads |  |
|  | Capacity of heater in kW |  |
|  | Method of protection against high temperature |  |
|  | Method of protection against low oil pressure |  |
|  | Type of governor |  |
|  | Speed variation in %  a. Temporary  b. Permanent |  |
|  | Minimum time required for as assumption of full load in seconds |  |
|  | Recommended interval in running hours for :  a. Lubricating oil change  b. Oil filter element change  c. Decarbonising |  |
|  | Type of base |  |
|  | Can plant be placed on solid concrete floor? |  |
|  | Are all accessories and ducts included? |  |
|  | Is engine naturally aspirated? |  |
|  | Are performance curves attached? |  |
|  | Diameter of exhaust pipe |  |
|  | Noise level in plant room in dBA | N/A |
|  | Noise level at tail of exhaust pipe in dBA |  |
|  | Design Life |  |
|  |  |  |

# ALTERNATOR

| **NO** | **ITEM** | **REMARKS** |
| --- | --- | --- |
|  | Maker’s name and model no. |  |
|  | Country of Origin and year of manufacture |  |
|  | Type of enclosure |  |
|  | Nominal speed in r.p.m. |  |
|  | Number of bearings |  |
|  | Terminal voltage |  |
|  | Sea level rating kVA at 0,8 power factor |  |
|  | De-rating for site conditions |  |
|  | Input required in kW |  |
|  |  |  |
|  | Method of excitation |  |
|  | Efficiency at 0,8 power factor and :  a) Full load  b) ¾ load  c) ½ load |  |
|  | Maximum permanent voltage variation in % |  |
|  | Transient voltage dip on full load |  |
|  | Voltage recovery on full load application in milli-seconds |  |
|  | Is alternator brushless? |  |
|  | Class of insulation of windings |  |
|  | Is alternator tropicalised? |  |
|  | Symmetrical short circuit current at terminals n Ampere |  |
|  | Type of Coupling |  |
|  | Design Life |  |

# CONTROL PANEL

| **NO** | **ITEM** | **REMARKS** |
| --- | --- | --- |
|  | Maker’s Name |  |
|  | Country of Origin |  |
|  | Is board floor mounted? |  |
|  | Finish of board |  |
|  | Make of volt, amp, and frequency meters |  |
|  | Dial size of meters in mm |  |
|  | Scale range of voltmeter |  |
|  | Scale range of ammeters |  |
|  | Ration of current transformers |  |
|  | Make of hour meter |  |
|  | Range of cyclometer counter |  |
|  | Smallest unit shown on counter (Item 11) |  |
|  | Make of circuit breaker |  |
|  | Type of circuit breaker |  |
|  | Rating of circuit breaker in Amp and fault level in kA |  |
|  | Setting range of overload trips |  |
|  | Setting range of instantaneous trips |  |
|  | Make of change-over equipment |  |
|  | Make of voltage relay |  |
|  | Is control and protection equipment mounted on a small removable panel? |  |
|  | Type of control equipment |  |
|  |  |  |
|  | Make of mains isolator |  |
|  | Type of indicators for protective devices |  |
|  | Make of rectifier |  |
|  | Type of rectifier |  |
|  | Is battery charging |  |
|  | Are volt- and ammeters provided for charging circuit? |  |
|  | Is the alarm hooter of the continuous duty type? |  |
|  | Rating in Amps of :  a. Change-over equipment  b. Mains on load isolator  c. By-pass switch  d. Circuit breaker to outgoing feed |  |

# BATTERY

|  |  |  |
| --- | --- | --- |
| **NO** | **ITEM** | **REMARKS** |
|  | Maker’s Name |  |
|  | Country of Origin |  |
|  | Type of battery |  |
|  | Voltage of battery |  |
|  | Number of cells |  |
|  | Capacity in cold crank amp |  |
|  | Is the battery Maintenance free |  |
|  | Design Life |  |

# DIMENSIONS

|  |  |  |
| --- | --- | --- |
| **NO** | **ITEM** | **REMARKS** |
|  | Overall dimensions of set in mm |  |
|  | Overall mass |  |
|  | Is the generator room/container adequate for the installation of the set |  |
|  | Is the generator room/container sound attenuatted |  |
|  | Is the generator room/container weatherproof |  |

# DEVIATION FROM SPECIFICATION

|  |  |
| --- | --- |
| **NO** | **DESCRIPTION** |
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