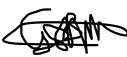
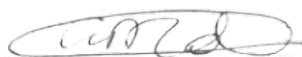


Specification

TE-IMS-PEMM P&E KDS-SPEC- 460

Description: Specification for supply, installation and commissioning of two (2) 18000BTU airconditioners in KDS Control room				
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Local Business:	PEMM Security			
Location:	Koedoespoort			

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1. Scope of Work

This specification requirement covers all the requirements that will be needed to inform the supplier/vendor/manufacture to carry out what is expected from him/her: The contract will be awarded as a turnkey project and the contractor will be responsible for all the work specified.

This specification states the minimum requirements relating to the work and in no way absolves the contractor from responsibility for sound engineering practice. Any omissions or sub-standard requirements of this specification must be brought to the attention of Transnet Engineering KOEDOESPOORT at tender stage and optional prices for addressing such omissions must be provided.

The Supplier shall supply all the labour, tools, material, equipment, consumables, facilities, testing and supervision required for the supply of the specified equipment at site during erection, pre-commissioning and commissioning activities.

2. Site Inspection

Tenderers must visit the site to familiarize themselves with all the aspects involved relating to the project that must be done. This must be arranged via the Contract Manager. The site inspection certificate will be counter-signed by the Contract Manager on day of the site visit. The tender documents must only be submitted if the site inspection certificate has been signed.

3. Information Required

Tenders shall be in duplicate and will not be considered if full particulars of all relevant equipment and works requested are not submitted at the tender stage, to ensure an objective assessment of the offer can be made. Tenderers shall confirm that the items that they are offering comply at a standard not less than the minimum required requirement asked for in the specifications. Tenderers must comply to these

specifications, but alternative offers may, in addition, also be submitted. Such alternative offers must be fully motivated and substantiated.

4. Specific Requirements:

- Occupational Health & Safety Act (Act 85 of 1993) and its Regulations, as amended
- Adhere to the Construction Regulation
- Compensation of Occupational Injuries and Diseases Act (Act 130 of 1993) as amended
- Transnet Contractor Management Procedure (TRN-IMS-GRP-PROC 014)
- Transnet Engineering IMS Compliance Policy Statement
- The contractor shall undergo Safety, Health and Environmental **(SHE) Induction**, and be issued with Induction certificate and valid permits authorising him/her to enter Transnet premises for the duration of the contract.
- The contractor is required to produce an approved Compliance File or SHE File and Site Instruction Book on site at all times.
- All measurements and amounts must be stipulated in quote.
- Contractor's name board will at all times be visible.
- A supervisor will be on site at all times.
- Comply with Transnet Engineering Waste Management Standard.
- The correct PPE must be worn at all times. (Harnesses ropes, etc.)
- During and on completion of the project, there will be SHE inspections and Risk assessments done on the site that the supplier/vendor is working on, which will be reported to the project manager.
- Failure to comply will result in a stop certificate being issued and the supplier will be required to leave the site until the situation is rectified.

- All scaffolding used to be SANS approved.
- All employees who will be working at height to have medical fitness certificate and proof of competency training thereof.
- Valid letter of good standing with Compensation commissioner.

5. Technical Requirements:

All equipment and installation whether detailed in this specification or not shall comply with the requirements of the Occupational Health and Safety Act 85 of 1993 as amended. Sudden power losses will not have an adverse effect on equipment and shall not unduly delay return to operation after power is restored.

6. Codes of Practice, Regulations & Standards:

The tenderer shall specify which statutory or industry rules will be applied for the equipment to be working successfully and safely and shall indicate the designed life span.



7. Specific Requirements

	REQUIRED	DETAILS OF OFFER Comply (Yes) / Do not comply (No)
	Specification for supply, installation and commissioning of two (2) 18000BTU airconditioners in KDS Control room	
1.	<u>Scope of work:</u>	
1.1	Supply and install two (2) 18000BTU air-conditioners	
1.2	Supply and install power supply for air-conditioners.	
1.3	Supply electrical COC for electrical installation.	
1.4	Testing and commissioning of new air-conditioner.	
1.5	<u>Air-conditioners:</u> Supply and install a two (2) 18000BTU airconditioner	
1.5.3	Air-conditioner shall be energy saving system and Control temperature to be between 16°C and 32°C.	
1.5.4	Air- conditioners shall have a heating and cooling function.	
1.5.5	Air-conditioners units shall be mid-wall split type.	
1.5.6	Air-conditioner shall be installed by an approved installer.	
1.5.7	Air-conditioners shall be supplied with remote controls.	
1.5.8	Air-conditioners shall use R410 refrigerating gas.	
1.6	<u>Electrical installation:</u>	
1.6.1	All electrical equipment/ parts shall be SANS 10142 approved.	
1.6.2	The supplier shall be responsible for the installation of 8 x 15 Amp 3 kA single phase overload protected circuit	



	REQUIRED	DETAILS OF OFFER Comply (Yes) / Do not comply (No)
	breaker in the distribution board for the supply to the 18000 BTU air-conditioners.	
1.6.3	1.5mm ² 2 + earth white surffix cable shall be used as the supply cable from the distribution board to the isolator at the outside unit of each air-conditioner.	
1.6.4	Supply and install all electrical components according to regulation OSHACT (Act No.85 of 1993) and SANS 10142-1:2003 (SANS 10142) to clarify the above statement.	
1.6.5	Surfix supply cable shall be properly secured with PVC compression gland at the point of control and the point of consumption. Glands shall be selected according to the cable size used.	
1.6.6	Surfix cable shall be installed inside 20 mm PVC conduit.	
1.6.7	PVC conduit shall be properly secured by means of saddles/clips at intervals not exceeding 500mm. PVC conduit shall be installed straight and level.	
1.6.8	30 Amp double pole isolator shall be installed in an S 15 slide box next to the outside unit to isolate each air-conditioner for maintenance purpose.	
1.6.9	Label all air conditioners, isolators and breakers according to SANS 10142 standard for electrical installation.	
1.6.9	NB: COC certificate will be handed to project manager after electrical work has been done.	
1.7	<u>Documentation:</u>	
1.7.1	The following documentation shall be supplied at tender stage: • Category "A" Practitioner certificate accredited by SAQCC (South African Qualification and Certification committee) • Registration as electrical contractor with Department of Labour. • Copy of the person's wiremen's licence and a copy	

	REQUIRED	DETAILS OF OFFER Comply (Yes) / Do not comply (No)
	of his/hers S.A ID.	
1.7.2	The following documentation shall be supplied at tender stage: • Operating manual • Certificate of Conformity of the installation issued by a Category "A" Practitioner accredited by SAQCC • Electrical installation COC	
1.8	<u>Spares.</u>	
1.8.1	The supplier shall indicate detail spare parts list of the equipment.	
1.8.2	The supplier shall indicate the critical maintenance spares.	
1.8.3	The supplier shall indicate if consignment spares will be readily available in South Africa and the average lead time.	
1.8.4	The supplier shall describe in details the main components and how they operate in details.	
1.8.5	A guarantee of spares availability for a minimum period of 20 years.	
1.9	<u>Maintenance:</u>	
1.9.1	The supplier shall indicate the maintenance requirements and frequency of the equipment.	
1.10	<u>Guarantee:</u>	
1.10.1	The supplier shall guarantee for a period 12 months after successful commissioning of the Air-conditioners that all components, plant equipment and material are new and fit for the specific purpose which they are purchased, and free from any defects in design, workmanship and material, and are in strict accordance with the contract, unless otherwise agree in writing.	
1.10.2	The supplier shall agree to replace at his/her cost any defective items discovered within the guaranteed period.	

	REQUIRED	DETAILS OF OFFER Comply (Yes) / Do not comply (No)
1.10.3	The supplier shall clearly stipulate the nature of the guarantee and how long it will take their maintenance staff to be on site. Transnet Engineering requires a response time of no more than 24 hours.	
1.10.4	Should the supplier fail, when called upon, to make good or remedy a defect (under guarantee or declared inherent) within a reasonable time, Transnet Engineering may affect the repair and thereafter recover from the supplier all cost and expenses associated with the supplier.	
1.11	<u>General:</u>	
1.11.1	The above installation shall comply with the SANS 10142 Part 1 Edition 1.8 of 2012.	
1.11.2	Contractor shall be responsible to supply and install all equipment required for the installation.	
1.11.3	All material supplied shall be SANS approved.	
1.11.4	Equipment supplied which is locally manufactured, is preferred.	
1.11.5	All installation work to be neat and of high standard.	
1.11.6	All labelling to be done to TE specifications. (Point of supply to point of consumption.)	
1.11.7	A Certificate of Compliance (COC) must be issued to the electrical examiner of TE Koedoespoort to arrange for an inspection before any electrical installation can be released for production purposes.	
1.11.8	The contractor must be available and present at the final inspection.	
1.12	<u>INSTALLATION AND COMMISINING</u>	
1.12.1	As this project is "Turn-Key" the successful tenderer is responsible for all installation and commissioning.	



	REQUIRED	DETAILS OF OFFER Comply (Yes) / Do not comply (No)
	The complete project team and PEMM responsible persons will participate in final commissioning.	

8. References:

Standard operating procedure for specification of contract work

9. Painting:

The supplier shall indicate the code of practice to which painting and surface preparation will conform to.

10. Quality Control:

The contractor shall provide a quality control plan with the tender indicating how quality will be assured.

11. Installation and Commissioning:

A detailed program (project-plan/gantt-chart) shall be submitted with the tender, indicating the main activities and periods necessary up to handover. The bidder shall submit with their tender a detail erection and installation procedure.

The contractor shall be fully responsible for any damage caused to all supplied equipment and to Transnet Rail Engineering's assets during the installation, testing and commissioning. The supplier shall conduct a risk assessment as to identify anything that might hinder the installation of the equipment.

12. Guarantee:

The contractor shall guarantee for a period of 2 months minimum after successful commissioning and free from any defects in design, workmanship and material, and are in accordance with the Contract, unless otherwise agreed in writing.

The Contractor shall agree to replace at his cost any defective items discovered within the guaranteed period.