



Bid Notice Abstract

Request for Quotation (RFQ)

Reference Number 10785370
Procuring Entity MANGALDAN WATER DISTRICT
Title SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF ONE (1) UNIT VARIABLE FREQUENCY DRIVE (VFD) WITH COMPLETE ACCESSORIES
Area of Delivery Pangasinan

Solicitation Number: MAWADGOODS#5, S. 2024	Status	Pending
Trade Agreement: Implementing Rules and Regulations	Associated Components	1
Procurement Mode: Negotiated Procurement - Small Value Procurement (Sec. 53.9)	Bid Supplements	0
Classification: Goods	Document Request List	0
Category: Water Service Connection Materials/Fittings	Date Published	24/04/2024
Approved Budget for the Contract: PHP 350,000.00	Last Updated / Time	23/04/2024 17:07 PM
Delivery Period: 15 Day/s	Closing Date / Time	30/04/2024 14:00 PM
Client Agency:		
Contact Person: Bernadeth D Dizon Industrial Relations Management Officer A Serafica St., Mangaldan Pangasinan Philippines 2432 63-75-5235884 63-75-6530574 mangaldanwaterdistrict0979@yahoo.com		

Description

INSTRUCTIONS TO SUPPLIERS AND SPECIFICATIONS FOR THE SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF ONE (1) UNIT VARIABLE FREQUENCY DRIVE (VFD) WITH COMPLETE ACCESSORIES

1. Invitation is restricted to Filipino Citizens/Sole Proprietorships, Cooperatives and Partnerships or Organizations with at least Sixty Percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines.
2. Prospective Suppliers shall submit their duly signed quotation together with the authentic copy of the original required documents in SEALED ENVELOPES in three copies to be marked as "Original Copy", "Copy 1", and "Copy 2".
3. The required documents refers to the following;
 - a. Mayor's/Business Permit
 - b. PhilGEPS Registration Number
 - c. Income/Business Tax Return
 - d. Omnibus Sworn Statement
 - e. Authority of the Signatory to transact and enter into a contract with the Mangaldan Water District
 - f. Warranty (if awarded the contract)

4. Failure to submit one or more of the required documents, the BAC shall rate the supplier as "failed".
5. Deadline for the submission of quotation and aforesaid required documents shall be on or before April 30, 2024, 2:00 P.M. only.
6. Quotation and required documents submitted after the deadline shall not be accepted by the BAC.

7. Specifications

QTY DESCRIPTION / SPECIFICATION

1 Assy Supply, Delivery, Installation and Commissioning of Variable Frequency Drive 50 HP, 230 V, 1 Ph Input, 3 Ph Output (for 25 HP motor)

Safety features should include the following:

- Provides various fieldbus cards for flexible applications.
- Built-in Modbus communication
- Built-in DC Choke to suppress harmonics
- Built-in EMC Filter to filter noise
- Built-in safe stop function, PLC function and brake unit
- Multi-function displays for the drive status
- Simple and intuitive operation
- User-define parameter groups
- Real-time clock (RTC) function
- Multi-language display
- Copy function saves parameters and PLC programs to the keypad memory for easy back-up/transferring to other drive.
- Hot pluggable LCD keypad
- Removable fan
- Supports various network protocols
- The electronic components of the drive are isolated from the cooling system to reduce heat interference. Dissipated heat can be discharged by flange-mounting installation, and forces fan cooling can import cold air into the heat sink. The heat dissipation performance is optimized by these two cooling methods.
- Conformal coating (Class 3C3 of IE60721-3-3 standard) ensures drive operation stability and safety in critical environments.

CONTROL PANEL

- IP 66 protection level
- Complete with protective devices such as circuit breaker, magnetic line contactor, liquid level relay for well, under/over voltage relay, lightning arrester, relay for chlorinator, hourmeter, digital voltmeter/ammeter, current transformer, push buttons, pilot lights, selector switch, pressure transmitter 0-10 bars with 4-20 MA analog output in NEMA 1 Enclosure,
- Size: 16" x 32" x 42"

Item Specifications

Control Characteristics Control Mode • IMVF (Induction Motor V/F control)

- IMVF + PG (Induction Motor, V/F control with encoder)
- IM/PM SVC (Inductor Motor / Permanent-magnet) Synchronous Motor, space vector control
- IMFOC + PG (Induction Motor, field-oriented control with encoder)
- PMFOC + PG (Permanent-magnet Synchronous Motor, field-oriented control with encoder)
- IMFOC Sensorless (Induction Motor, sensorless field-oriented control)
- PM Sensorless (Permanent-magnet Synchronous Motor, sensorless field-oriented control)
- IPM Sensorless (Interior Permanent Synchronous Motor, sensorless vector control)
- SynRM Sensorless (Synchronous Reluctance Motor, sensorless field-oriented control)
- IM TQCPG (Induction Motor, torque control with encoder)
- PM TQCPG (Permanent-magnet Synchronous Motor, torque control with encoder)
- IM TQC Sensorless (Induction Motor, sensorless torque control)
- SynRM TQC Sensorless (Synchronous Reluctance Motor, sensorless torque control)

Max. Output Frequency 0 ~ 599 Hz

Frequency Output Accuracy Digital command: $\pm 0.01\%$, $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$; Analog command: $\pm 0.1\%$, $25 \pm 10^{\circ}\text{C}$

Output Frequency Resolution (Input Frequency Resolution) Digital command: 0.01 Hz, Analog command: $0.05 * \text{max.}$ output frequency (Parameter 01-00), 11 bit plus sign

Speed Control Range (Speed Control Ratio) • IMVF, IMVF + PG, IMSVC: 1:50

- IMFOC Sensorless: 1:100
- IMFOC + PG: 1:1000
- PMSVC: 1:20
- PM Sensorless: 1:50
- IPM Sensorless: 1:100
- PMFOC + PG: 1:1000

Starting Torque • IMVF, IMVF+PG, IMSVC: 150% / 3 Hz

- IMFOC Sensorless: 200% / 0.5 Hz
- IMFOC + PG: 200% / 0 Hz
- PMSVC: 100% / (motor rated frequency / 20)
- PM Sensorless: 100% / (motor rated frequency / 50)
- IPM Sensorless: 100% / 0 Hz
- PMFOC + PG: 200% / 0 Hz

Torque Accuracy TQC + PG: $\pm 5\%$; TQC Sensorless: $\pm 15\%$

Torque Limit Heavy Duty: up to 180% torque current; Super Heavy Duty: up to 220% torque current
Protection Characteristics Out Over-current Protection Over-current protection for 240% of rated current (Heavy duty)
When the over-current protection function is triggered, it will stop and send out error codes.
Output Current Clamp Heavy duty / Super heavy duty: 190 ~ 195% rated current
Over-voltage (DC) Protection It will shut down under below conditions:
DC bus over 410 V
Grounding Leakage Current Protection The leakage current is 60% higher than the rated current
Output Low / Under Current Fault Low current detection in open circuits
Short-circuit Current Rating (SCCR) A fuse is suitable for power systems with less than 100kA short-circuit capacity
Motor Overheat Protection Supports electronic thermal relay protection, PTC, KTY84-130 and PT100
Drive Overheat Protection Built-in temperature sensor (IGBT refer to oH1, Heatsink refer to oH2)
Fan Control On / Off switch control
Certification CE (Low Voltage Directive 2014/35/EU, EN61800-5-1; EMC Directive 2014/35/EU, EN61800-3) UL508C, cUL CAN / CSA C22.2 No.14-13, No.274*6, Plenum rated
RCM, KC*7, EAC*7, SEMI F47-0706, GB12668.3
WEEE 2012/19/EU, RoHS 2011/95/EU*8
ISO 9001 (Quality assurance system)
ISO 14001 (Environmental system)
Safety Standards Safe Torque Off (STO, EN/IEC61800-5-2) TUV Rheinland Certified
IEC62061/IEC61508, SIL CL2
EN ISO13849-1, Cat.3/PL d

CONTRACT DURATION: 15 Calendar Days

WARRANTY: One (1) year covering factory defects of parts and same length of warranty for service

F.O.B.: Mangaldan Water District

Created by Bernadeth D Dizon

Date Created 23/04/2024

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Republic of the Philippines
MANGALDAN WATER DISTRICT
Serafica St., Mangaldan, Pangasinan
Tel. No. (075) 523-5884; Telefax No. (075) 653-0574

MINUTES OF THE BIDS AND AWARDS COMMITTEE'S MEETING HELD ON
FEBRUARY 18, 2022 AT CONFERENCE ROOM, MANGALDAN WATER DISTRICT,
MANGALDAN, PANGASINAN

Present:

Ms. Bernadeth Dizon	-	Chairperson
Ms. Marlyn C. De Guzman	-	Vice-Chairperson
Ms. Demmee G. Carbonel	-	Secretary
Mr. Leonardo M. de Vera	-	Member
Mr. Liverino A. Torio	-	Member, Technical Working Group

Absent:

Ms. Anna Liza G. Ramos	-	Member
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Opening of the sealed envelope for the last and fourth procurement for the day, RE: Supply, Delivery and Installation of one (1) unit Variable Frequency Drive (VFD) Motor Control System with Programmable Interface Panel with Complete Accessories (MAWADGOODS#6, S. 2022) started at exactly 3:23 P.M.

Madam Chairperson informed the body that among the six (6) prospective bidders who appeared in the Document Request List namely, Hexagon Mechanelec Systems, Inc. doing Business Under the Name and Style of Keylargo Industrial Sales, RKS Motor Control Products, LJ Industrial Fabrication Inc., Aqua Haus, Inc. Andritech Industrial Sales Co, and Armen Electro-Mech Sales & General Merchandise, only one (1) supplier submitted its quotation and other documentary requirements ahead with the deadline set forth by the Bids and Awards Committee that is February 18, 2022 at 2:00 P.M. in a sealed envelope namely, RKS Motor Control Products.

Upon checking the documents submitted, all were satisfied and found responsive. RKS Motor Control Products quoted in the amount of THREE HUNDRED FIVE THOUSAND PESOS (P 305,000.00) with one (1) year warranty for parts and services.

After further and thorough deliberation of the BAC of all the documents submitted it was found that RKS Motor Control Products is the Supplier with the Single Calculated and Responsive Quotation.

In view of the afore-stated, the following Resolution is hereby recommended to the management, to wit:

BAC Resolution Declaring RKS MOTOR CONTROL PRODUCTS as the Single Calculated and Responsive Quotation for the SUPPLY, DELIVERY AND INSTALLATION OF ONE (1) UNIT VARIABLE FREQUENCY DRIVE (VFD) MOTOR CONTROL SYSTEM WITH PROGRAMMABLE INTERFACE PANEL WITH COMPLETE ACCESSORIES Under Negotiated Procurement under Small Value Procurement (MAWADGOODS#6, S. 2022)

RESOLUTION NO. 14, S. 2022

WHEREAS, the BAC's recommendation to the Management to adopt BAC Resolution No. 9, S. 2022 that is Section 53 Negotiated Procurement under 53.9 "Small Value Procurement" as an alternative method to be used for the Supply, Delivery and Installation of one (1) unit Variable Frequency Drive (VFD) Motor Control System with Programmable Interface Panel with Complete Accessories was approved on February 10, 2022;

WHEREAS, the Approved Budget Cost for the said procurement is THREE HUNDRED FIFTY THOUSAND PESOS (P350,000.00);

WHEREAS, at least six (6) prospective bidders appeared in the Document Request List namely, Hexagon Mechanelec Systems, Inc. doing Business Under the Name and Style of Keylargo Industrial Sales, RKS Motor Control Products, LJ Industrial Fabrication Inc., Aqua Haus, Inc. Andritech Industrial Sales Co, and Armen Electro-Mech Sales & General Merchandise;

WHEREAS, only one (1) supplier namely RKS Motor Control Products submitted its eligibility documents within the date and time set-forth on February 18, 2022 at 2:00 P.M. by the Mangaldan Water District Bids and Awards Committee;

WHEREAS, RKS Motor Control Products quoted in the amount of THREE HUNDRED FIVE THOUSAND PESOS (P305,000.00), submitted complete documentary requirements and it was found to be compliant;

WHEREAS, the BAC found RKS Motor Control Products to be substantially complying or passed during the evaluation of quotation conducted on February 18, 2022 at the Conference Room of the Mangaldan Water District, Serafica St., Mangaldan, Pangasinan;

WHEREAS, the bid amount as read is as follows;

Name of Supplier	Bid Amount (as read)	% Variance from ABC
RKS MOTOR CONTROL PRODUCTS	P 305,000.00	12.857%

WHEREAS, the detailed evaluation of bids conducted on February 18, 2022 resulted in the following:

Name of Supplier	Bid Amount (as calculated)	% Variance from ABC
RKS MOTOR CONTROL PRODUCTS	P 305,000.00	12.857%

WHEREAS, after thorough evaluation and verification of quotation and documentary requirements submitted by the afore-stated Bidder, the BAC finds RKS MOTOR CONTROL PRODUCTS to be with the Single Calculated and Responsive Quotation;

WHEREFORE, on motion of Ms. Marlyn de Guzman and was duly seconded by all members of the BAC, it was;

RESOLVED AS IT IS HEREBY RESOLVED, that RKS MOTOR CONTROL PRODUCTS be recommended to the Management for the Supply, Delivery and Installation of one (1) unit Variable Frequency Drive (VFD) Motor Control System with Programmable Interface Panel with Complete Accessories in the amount of THREE HUNDRED FIVE THOUSAND PESOS (P305,000.00);

RESOLVED FURTHER, that a copy of this Resolution be furnished the Office of the Board of Directors and the General Manager for their appropriate action;

RESOLVED FURTHERMORE, at the MAWAD Office, Mangaldan, Pangasinan, Philippines this 21st day of FEBRUARY, 2022.

BIDS AND AWARDS COMMITTEE:


BERNADETH D. DIZON
BAC Chairperson


MARLYN C. DE GUZMAN
BAC Vice-Chairperson


DEMMEE G. CARBONEL
BAC Secretary


LEONARDO M. DE VERA
BAC Member

(M UAVE)
ANNA LIZA G. RAMOS
BAC Member

Approved by:


ENGR. MARCELO M. PETONIO
General Manager

Date Approved: 2/24/2022