

**City Council Agenda Items
 and
 Contracts, Leases or Agreements**

19-Jun-12

City Council Meeting Date
 Agenda Items Only

David Jurgens
 Submitted By

Water and Sewer
 Division

Utilities
 Department

Action Required:

Approval of the purchase of one (1) power generator for the Owl Creek Lift Station (LS #22) from RP Power, LLC. for \$63,810.00, plus sales tax of \$5,902.43 for a total of \$69,712.43, in accordance with Bid 12-42.

\$ 69,713	\$ 186,410	WWTP Upgrade/Replace Lift Stations
Cost of this request	Category / Project Budget	Program Category / Project Name
5400.5800.5801.00	\$ -	Wastewater Treatment
Account Number	Funds Used to Date	Program / Project Category Name
02068-1	\$ 186,410	Water/Sewer
Project Number	Remaining Balance	Fund Name

Budgeted Item

Budget Adjustment Attached

David Jurgens Department Director 25 May 12 Date
 Previous Ordinance or Resolution # _____
 Original Contract Date: _____
Paul Kelly City Attorney 5-29-12 Date
 Original Contract Number: _____

Paul A. Beck Finance and Internal Services Director 5-29-2012 Date

05-25-12 P03:26 RCVD
 Received in City Clerk's Office
Kini J.

Don Man Chief of Staff 5-29-12 Date

Received in Mayor's Office
 ENTERED
 5/29/12
 [Signature]

Donald Jordan Mayor 5/29/12 Date

Comments:

www.accessfayetteville.org

To: Fayetteville City Council

Thru: Mayor Lioneld Jordan
 Don Marr, Chief of Staff

From: David Jurgens, Utilities Director
 Fayetteville Water and Sewer Committee



Date: May 25, 2012

Subject: Purchase of a backup power generator for the Owl Creek sewer pump station, from RP Power, LLC.

RECOMMENDATION

Staff recommends approval of the purchase of a replacement back up power generator for the Owl Creek lift station from RP Power, LLC. for \$63,810.00 plus sales tax, Bid 12-42.

BACKGROUND

The existing back up power generator was installed in January 2000. This generator experienced a critical failure and the unit's original equipment manufacturer is no longer in business. The exciter, which controls the magnetic field and controls the power output in the generator system, failed and the parts to replace the exciter are no longer available. The repairs would entail removing and modifying the body of the generator at an approximate cost of nearly \$20,000, and would create unpredictable risks that associated with the major modification of the generator.

The Owl Creek lift station pumps approximately 260,000 gallons a day of wastewater from the west side of Fayetteville. The backup generator is required by our NPDES permit, and provides the critical back up during power outage episodes thus preventing possible sewer overflows.

DISCUSSION

The City received eight (8) bids on May 11, 2012. The two lowest bids did not meet the specification on the sound attenuated enclosure (maximum 71 dBA at 7 meters) requirement. RP Power, LLC. submitted the lowest responsive bid meeting the minimum specification requirements. The generator will be installed by City and CH2M Hill staff.

Vendor	Quantity	Price Each	Total Bid Price
Endless Power Corp.	1	\$61,330.00	\$61,330.00
Clifford Power Systems – Option 2	1	\$63,150.00	\$63,150.00
RP Power, LLC.	1	\$63,810.00	\$63,810.00
Clifford Power Systems – Option 1	1	\$65,045.00	\$65,045.00
Taylor Power Systems	1	\$70,287.00	\$70,287.00
Leete Generators	1	\$73,615.00	\$73,615.00
United Engines, LLC.	1	\$74,050.00	\$74,050.00
Cummins Mid-South, LLC.	1	\$94,368.00	\$94,368.00

BUDGET IMPACT

Funds are available in the Wastewater Treatment Plant – Upgrade/Replace Lift Station project, # 02068-1.

RESOLUTION NO. _____

A RESOLUTION AWARDDING BID #12-42 AND AUTHORIZING THE PURCHASE OF ONE (1) POWER GENERATOR FROM RP POWER, LLC IN THE TOTAL AMOUNT OF \$69,712.43 FOR USE AT THE OWL CREEK LIFT STATION

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF FAYETTEVILLE, ARKANSAS:

Section 1. That the City Council of the City of Fayetteville, Arkansas hereby awards Bid #12-42 and authorizes the purchase of one (1) power generator from RP Power, LLC in the total amount of \$69,712.43 for use at the Owl Creek lift station.

PASSED and APPROVED this 19th day of June, 2012.

APPROVED:

ATTEST:

By: _____
LIONELD JORDAN, Mayor

By: _____
SONDRA E. SMITH, City Clerk/Treasurer

City Of Fayetteville - Purchase Order (PO) Request

(Not a Purchase Order)

All purchases under \$2500 shall be used on a P-Card unless medical or 1099 service related. (Call x256 with questions)
All PO Request shall be scanned to the Purchasing e-mail: Purchasing@ci.fayetteville.ar.us

Requisition No.:	Date: 5/25/2012	A. 3 Bid #12-42 RP Power, LLC
P.O Number:	Expected Delivery Date: 6/20/2012	Page 4 of 28

Vendor #: New Vendor	Vendor Name: RP Power, LLC	Mail Yes:___ No:___	Quotes Attached Yes:___ No:___
Address: 7777 North Shore Place		Fob Point:	Taxable Yes: <u>x</u> No:___
City: North Little Rock	State: AR	Zip Code: 72118	Ship to code:
Requester: Cheryl Partain		Requester's Employee #: 2548	Extension: 224

Item	Description	Quantity	Unit of Issue	Unit Cost	Extended Cost	Account Numbers	Project/Subproject #	Inventory #	Fixed Asset #
1	Back up power generator for the Owl Creek Lift Station	1	Unit	63,810.00	63,810.00	5400.5800.5801.00	02068.1		
2					\$0.00				
3					\$0.00				
4					\$0.00				
5					\$0.00				
6					\$0.00				
7					\$0.00				
8					\$0.00				
9					\$0.00				
10					\$0.00				
*	Shipping/Handling		Lot		\$0.00				

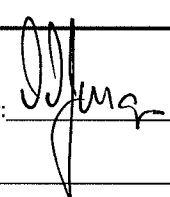
Special Instructions:

Per Bid 12-42

Subtotal:	\$63,810.00
Tax:	\$5,902.43
Total:	\$69,712.43

Approvals:

Mayor: _____

Department Director:  _____

Purchasing Manager: _____

Finance & Internal Services Director: _____

Budget Manager: _____

IT Manager: _____

Dispatch Manager: _____

Utilities Manager: _____

Other: _____

Fayetteville

ARKANSAS TDD (Telecommunication Device for the Deaf): 479.521.1316

City of Fayetteville, Arkansas
Purchasing Division – Room 306
113 W. Mountain
Fayetteville, AR 72701
Phone: 479.575.8220

INVITATION TO BID

INVITATION TO BID: BID 12-42, Generator

DEADLINE: Friday, May 11, 2012 before 2:00 PM Local Time

DELIVERY LOCATION: Room 306 – 113 W. Mountain, Fayetteville, AR 72701

PURCHASING AGENT: Andrea Foren Rasco, CPPB, CPPO, aforen@ci.fayetteville.ar.us

DATE OF ISSUE AND ADVERTISEMENT: Saturday, April 21, 2012

INVITATION TO BID Bid 12-42, Generator

No late bids will be accepted. Bids shall be submitted in sealed envelopes labeled "Bid 12-42, Generator" with the name and address of the bidder.

All bids shall be submitted in accordance with the attached City of Fayetteville specifications and bid documents attached hereto. Each bidder is required to fill in every blank and shall supply all information requested; failure to do so may be used as basis of rejection.

The undersigned hereby offers to furnish & deliver the articles or services as specified, at the prices & terms stated herein, and in strict accordance with the specifications and general conditions of bidding, all of which are made a part of this offer. This offer is not subject to withdrawal unless upon mutual written agreement by the Proposer/Bidder and City Purchasing Manager.

Name of Firm: RP Power, LLC

Contact Person: Mike McNabb Title: Sales Manager

E-Mail: mmcnabb@rp-corp.com Phone: 501.604.3038

Business Address: 7777 North Shore Place

City: North Little Rock State: AR Zip: 72118

Signature: Mike McNabb Date: May 11, 2012

**City of Fayetteville
Bid 12-42, Generator
Bid Form**

DATE REQUIRED AS A COMPLETE UNIT: 60 days from Date of Order

*GUARANTEED DELIVERY DATE: July 30, 2012

F.O.B. 630 N. Double Springs Road, Fayetteville, AR 72704

ITEM:	DESCRIPTION:	QUANTITY:	*PRICE EACH:	*TOTAL PRICE
1.	Standby Generator – as specified	1	\$ 63,810.00	\$ 63,810.00
Please Specify for Unit(s) Bid:				
*MANUFACTURER:	Kohler	*MODEL:	200REZXB	

Bids must be submitted on this bid form in its entirety AND accompanied by descriptive literature on the products being bid.

EXECUTION OF BID -

Bidders are requested to indicate by check mark or "Yes/No" on each line of the Technical Specifications the compliance of the item bid. Actual specification of any deficient item must be noted on the bid sheet or separate attachment. If specifications of item bid differ from provided literature, deviation must be documented and certified by the manufacturer as a regular production option.

Upon signing this Bid, the bidder certifies that:

1. He/she has read and agrees to the requirements set forth in this proposal, including specifications, terms, standard conditions, and any pertinent information regarding the articles being bid on.
2. Unless otherwise noted and explained, the unit bid and listed meets or exceeds all of these requirements as specified by The City of Fayetteville.
3. The Bidder can and will comply with all specifications and requirements for delivery, documentation and support as specified herein.

Unsigned bids will be rejected. Items marked * are mandatory for consideration.

*NAME OF FIRM: RP Power, LLC
Purchase Order/Payments shall be issued to this name

*BUSINESS ADDRESS: 7777 North Shore Place

*CITY: North Little Rock *STATE: AR *ZIP: 72118

*PHONE: 501.604.3038 FAX: 501.604.3033

*E-MAIL: mmcnabb@rp-corp.com

*BY: (PRINTED NAME) Mike McNabb

*AUTHORIZED SIGNATURE: Mike McNabb

*TITLE: Sales Manager

City of Fayetteville
Bid 12-42, Generator
General Terms and Conditions

1. SUBMISSION OF BID & BID EVALUATION:

- a. Bids will be reviewed following the stated deadline, as shown on the cover sheet of this document.
- b. Bidders shall submit bids based on documentation published by the Fayetteville Purchasing Division.
- c. Bids shall be enclosed in sealed envelopes or packages addressed to the City of Fayetteville, Purchasing Division, Room 306, 113 W. Mountain, Fayetteville, AR 72701. The name, address of the firm and Bid, RFP, or RFQ number shall be on the outside of the packaging as well as on any packages enclosed in shipping containers or boxes.
- d. The City will not be responsible for misdirected bids. Vendor should call the Purchasing Office at 479.575.8220 to ensure correct receipt of bidding documents prior to opening time and date listed on the bid form.
- e. Bidders must have experience in providing products and/or services of the same or similar nature.
- f. Bidder is advised that exceptions to any of the terms contained in this bid must be identified in its response to the bid. Failure to do so may lead the City to declare any such term non-negotiable. Proposer's desire to take exception to a non-negotiable term will not disqualify it from consideration for award.
- g. Local time is defined as the time in Fayetteville, Arkansas on the due date of the deadline. Bids shall be received before 3:00:00 as shown by the atomic clock located in the Purchasing Division Office.
- h. Bids will be evaluated and awarded based on the best interest of the City of Fayetteville. The City reserves the right to award bids in their entirety, none, or by line item.

2. WRITTEN REQUESTS FOR INTERPRETATIONS OR CLARIFICATION:

No oral interpretations will be made to any firms as to the meaning of specifications or any other contract documents. All questions pertaining to the terms and conditions or scope of work of this bid must be sent in writing via e-mail to the Purchasing Agent. Responses to questions may be handled as an addendum if the response would provide clarification to the requirements of the bid. All such addenda shall become part of the contract documents. The City will not be responsible for any other explanation or interpretation of the proposed bid made or given prior to the award of the contract.

3. DESCRIPTION OF SUPPLIES AND SERVICES:

Any reference to a particular brand or manufacturer is done in an effort to establish an acceptable level of quality for this project. Brands or manufacturers that are included in bid that are of at least equal quality, size, design, and specification as to what has been specified, will be acceptable for consideration only if approved by the City of Fayetteville Purchasing Division. The City of Fayetteville reserves the right to accept or reject any requested equal.

4. RIGHTS OF CITY OF FAYETTEVILLE BID PROCESS:

In addition to all other rights of the City of Fayetteville, under state law, the City specifically reserves the following:

- a. The City of Fayetteville reserves the right to select the bid that it believes will serve the best interest of the City.
- b. The City of Fayetteville reserves the right to accept or reject any or all bids.
- c. The City of Fayetteville reserves the right to cancel the entire bid.
- d. The City of Fayetteville reserves the right to remedy or waive technical or immaterial errors in the invitation to bid or in bids submitted.

- e. The City of Fayetteville reserves the right to request any necessary clarifications, additional information, or data without changing the terms of the bid.

5. COSTS INCURRED BY BIDDERS:

All expenses involved with the preparation and submission of bids to the City, or any work performed in connection therewith, shall be borne solely by the bidder(s). No payment will be made for any responses received, or for any other effort required of, or made by, the bidder(s) prior to contract commencement.

6. CONFLICT OF INTEREST:

- a. The bidder represents that it presently has no interest and shall acquire no interest, either direct or indirect, which would conflict in any manner with the performance or services required hereunder, as provided in City of Fayetteville Code Section 34.26 titled "Authority of City Employee to Contract With The City".
- b. All bidders shall promptly notify Andrea Foren, City Purchasing Agent, in writing, of all potential conflicts of interest for any prospective business association, interest, or other circumstance which may influence or appear to influence the bidder's judgment or quality of services being provided. Such written notification shall identify the prospective business association, interest or circumstance, the nature of which the bidder may undertake and request an opinion to the City as to whether the association, interest or circumstance would, in the opinion of the City, constitute a conflict of interest if entered into by the bidder. The City agrees to communicate with the bidder its opinion via e-mail or first-class mail within thirty days of receipt of notification.

7. WITHDRAWAL OF PROPOSAL:

A bid may be withdrawn prior to the time set for the bid submittal, based on a written request from an authorized representative of the firm; however, a bid shall not be withdrawn after the time set for the bid unless approved by the Purchasing Division.

8. LATE PROPOSAL OR MODIFICATIONS:

1. Bid modifications received after the time set for the bid submittal shall not be considered. Modifications in writing received prior to the deadline will be accepted. The City will not be responsible for misdirected bids. Bidders should call the Purchasing Division at (479) 575-8220 to insure receipt of their submittal documents prior to opening time and date listed.

9. LOCAL, STATE, AND FEDERAL COMPLIANCE REQUIREMENTS:

- a. The laws of the State of Arkansas apply to any purchase made under this bid. Bidders shall comply with all local, state, and federal directives, orders and laws as applicable to this proposal and subsequent contract(s) including but not limited to Equal Employment Opportunity (EEO), Disadvantaged Business Enterprises (DBE), & OSHA as applicable to this contract.
- b. Pursuant to Arkansas Code Annotated §22-9-203 The City of Fayetteville encourages all *qualified* small, minority and women business enterprises to bid on and receive contracts for goods, services, and construction. Also, City of Fayetteville encourages all general contractors to subcontract portions of their contract to *qualified* small, minority and women business enterprises.

10. PROVISION FOR OTHER AGENCIES:

Unless otherwise stipulated by the bidder, the bidder agrees to make available to all Government agencies, departments, municipalities, and counties, the proposal prices submitted in accordance with said proposal terms and conditions therein, should any said governmental entity desire to buy under this proposal. Eligible Users shall mean all state of Arkansas agencies, the legislative and judicial branches, political subdivisions (counties, local district school boards, community colleges, municipalities, counties, or other public agencies or authorities), which may desire to purchase under the terms and conditions of the contract.

11. COLLUSION:

The Proposer, by affixing his or her signature to this proposal, agrees to the following: "bidder certifies that his or her bid is made without previous understanding, agreement, or connection with any person, firm or corporation making a proposal for the same item(s) and/or services and is in all respects fair, without outside control, collusion, fraud, or otherwise illegal action."

12. RIGHT TO AUDIT, FOIA, AND JURISDICITON:

- a. The City of Fayetteville reserves the privilege of auditing a vendor's records as such records relate to purchases between the City and said vendor.
- b. Freedom of Information Act: City contracts and documents prepared while performing City contractual work are subject to the Arkansas Freedom of Information Act. If a Freedom of Information Act request is presented to the City of Fayetteville, the (Contractor) will do everything possible to provide the documents in a prompt and timely manner as prescribed in the Arkansas Freedom of Information Act (A.C.A. §25-19-101 et. seq.). Only legally authorized photocopying costs pursuant to the FOIA may be assessed for this compliance.
- c. Legal jurisdiction to resolve any disputes shall be in Washington County, Arkansas with Arkansas law applying to the case.

13. CITY INDEMNIFICATION:

The successful bidder(s) agrees to indemnify the City and hold it harmless from and against all claims, liability, loss, damage or expense, including but not limited to counsel fees, arising from or by reason of any actual or claimed trademark, patent or copyright infringement or litigation based thereon, with respect to the goods or any part thereof covered by this order, and such obligation shall survive acceptance of the goods and payment thereof by the City.

14. VARIANCE FROM STANDARD TERMS & CONDITIONS:

All standard terms and conditions stated in this request for bid apply to this contract except as specifically stated in the subsequent sections of this document, which take precedence, and should be fully understood by bidders prior to submitting a proposal on this requirement.

15. ADA REQUIREMENT FOR PUBLIC NOTICES & TRANSLATION:

Persons with disabilities requiring reasonable accommodation to participate in this proceeding/event, should call 479.521.1316 (telecommunications device for the deaf), not later than seven days prior to the deadline. Persons needing translation of this document shall contact the City of Fayetteville, Purchasing Division, immediately.

16. PROCUREMENT POLICY FOR RECYCLED MATERIALS:

The City of Fayetteville wishes to encourage its bidders to use recycled products in fulfilling contractual obligations to the City and that such practices will serve as a model for other public entities and private sector companies.

17. PAYMENTS AND INVOICING:

The bidder must specify in their bid the exact company name and address which must be the same as invoices submitted for payment as a result of award of this bid. Further, the successful bidder is responsible for immediately notifying the Purchasing Division of any company name change, which would cause invoicing to change from the name used at the time of the original bid. Payment will be made within thirty days of invoice received. The City of Fayetteville is very credit worthy and will not pay any interest, fees, or penalty for untimely payments. **Payments can be processed through bidder's acceptance of Visa at no additional costs to the City for expedited payment processing.** The City will not agree to any nonrefundable deposit or retainer that would remain property of the bidder even if the hourly work actually performed by the bidder would not justify such fee.

The City will pay the awarded bidder based on unit prices provided on invoicing. Progress payments will be made after

approval and acceptance of work and submission of invoice. Payments will be made within 30 days of accepted invoice.

18. CANCELLATION:

- a. The City reserves the right to cancel this contract without cause by giving thirty (30) days prior notice to the Contractor in writing of the intention to cancel or with cause if at any time the Contractor fails to fulfill or abide by any of the terms or conditions specified.
- b. Failure of the contractor to comply with any of the provisions of the contract shall be considered a material breach of contract and shall be cause for immediate termination of the contract at the discretion of the City of Fayetteville.
- c. In addition to all other legal remedies available to the City of Fayetteville, the City reserves the right to cancel and obtain from another source, any items and/or services which have not been delivered within the period of time from the date of order as determined by the City of Fayetteville.
- d. In the event sufficient budgeted funds are not available for a new fiscal period, the City shall notify the vendor of such occurrence and contract shall terminate of the last day of the current fiscal period without penalty or expense to the City

19. ASSIGNMENT, SUBCONTRACTING, CORPORATE ACQUISITIONS AND/OR MERGERS:

- a. The Contractor shall perform this contract. No assignment of subcontracting shall be allowed without prior written consent of the City. If a bidder intends to subcontract a portion of this work, the bidder shall disclose such intent in the bid submitted as a result of this bid.
- b. In the event of a corporate acquisition and/or merger, the Contractor shall provide written notice to the City within thirty (30) calendar days of Contractor's notice of such action or upon the occurrence of said action, whichever occurs first. The right to terminate this contract, which shall not be unreasonably exercised by the City, shall include, but not be limited to, instances in which a corporate acquisition and/or merger represent a conflict of interest or are contrary to any local, state, or federal laws. Action by the City awarding a proposal to a firm that has disclosed its intent to assign or subcontract in its response to the bid, without exception shall constitute approval for purpose of this Agreement.

20. NON-EXCLUSIVE CONTRACT:

Award of this bid shall impose no obligation on the City to utilize the vendor for all work of this type, which may develop during the contract period. This is not an exclusive contract. The City specifically reserves the right to concurrently contract with other companies for similar work if it deems such an action to be in the City's best interest. In the case of multiple-term contracts, this provision shall apply separately to each item.

21. LOBBYING:

Lobbying of selection committee members, City of Fayetteville employees, or elected officials regarding request for proposals, request for qualifications, bids or contracts, during the pendency of bid protest, by the bidder/proposer/protestor or any member of the bidder's/proposer's/protestor's staff, and agent of the bidder/proposer/protestor, or any person employed by any legal entity affiliated with or representing an organization that is responding to the request for proposal, request for qualification, bid or contract, or has a pending bid protest is strictly prohibited either upon advertisement or on a date established by the City of Fayetteville and shall be prohibited until either an award is final or the protest is finally resolved by the City of Fayetteville; provided, however, nothing herein shall prohibit a prospective/bidder/proposer from contacting the Purchasing Division to address situations such as clarification and/or questions related to the procurement process. For purposes of this provision lobbying activities shall include but not be limited to, influencing or attempting to influence action or non-action in connection with any request for proposal, request for qualification, bid or contract through direct or indirect oral or written communication or an attempt to obtain goodwill of persons and/or entities specified in this provision. Such actions may cause any request for proposal, request for qualification, bid or contract to be rejected.

22. ADDITIONAL REQUIREMENTS:

The City reserves the right to request additional services relating to this bid from the bidder. When approved by the City as an amendment to the contract and authorized in writing prior to work, the Contractor shall provide such additional requirements as may become necessary.

23. ADD OR DELETE LOCATIONS OR SERVICES:

The City reserves the right to unilaterally add or delete locations and/or services, either collectively or individually, at the City's sole option, at any time after award has been made as may be deemed necessary or in the best interests of the City. In such case, the Contractor(s) will be required to provide services to this contract in accordance with the terms, conditions, and specifications.

24. INTEGRITY OF BID DOCUMENTS:

Bidders shall use the original bid form(s) provided by the Purchasing Division and enter information only in the spaces where a response is requested. Bidders may use an attachment as an addendum to the bid form(s) if sufficient space is not available on the original form for the bidder to enter a complete response. **Any modifications or alterations to the original documents by the bidder, whether intentional or otherwise, will constitute grounds for rejection of such response.** Any such modifications or alterations a bidder wishes to propose shall be clearly stated in the bidder's response and presented in the form of an addendum to the original bid documents.

25. OTHER GENERAL CONDITIONS:

- a) Bidder is presumed to be familiar with all federal, state, and city laws, ordinances, and regulations which in any manner affect those engaged or employed in the Work, or the materials or equipment used, or that in any way affect the Work and shall in all respects comply with said laws, ordinances, and regulations. No claim of misunderstanding or ignorance on the part of Bidder or Proposer will in any way serve to modify the provisions of the contract. No representations shall be binding unless embodied in the contract.
- b) Prices shall include all labor, materials, overhead, profit, insurance, shipping, freight, etc., to cover the products and services presented. ~~Sales tax is not to be included in the bid price~~ Applicable Arkansas sales tax laws will apply when necessary but will not be considered in award of this project.
- c) Each bidder should state the anticipated number of days from the date of receipt of an order for delivery of services to the City of Fayetteville.
- d) Bidders must provide the City with their bids signed by an employee having legal authority to submit bids on behalf of the bidder. The entire cost of preparing and providing responses shall be borne by the bidder.
- e) The City reserves the right to request any additional information it deems necessary from any or all bidders after the submission deadline.
- f) The request for bid is not to be construed as an offer, a contract, or a commitment of any kind; nor does it commit the city to pay for any costs incurred by bidder in preparation. It shall be clearly understood that any costs incurred by the Proposer in responding to this request for proposal is at the bidder's own risk and expense as a cost of doing business. The City of Fayetteville shall not be liable for reimbursement to the Proposer for any expense so incurred, regardless of whether or not the proposal is accepted.
- g) If products, components, or services other than those described in this bid document are proposed, the bidder must include complete descriptive literature for each. All requests for additional information must be received within five working days following the request.
- h) **NOTE: Any uncertainties shall be brought to the attention to Andrea Foren immediately via telephone (479.575.8220) or e-mail (aforen@ci.fayetteville.ar.us). It is the intent and goal of the City of Fayetteville Purchasing Division to provide documents providing a clear and accurate understanding of the scope of work to be completed and/or goods to be provided. We encourage all interested parties to ask questions to enable all bidders to be on equal bidding terms.**
- i) Any inquiries or requests for explanation in regard to the City's requirements should be made promptly to Andrea Foren, City of Fayetteville, Purchasing Agent via e-mail (aforen@ci.fayetteville.ar.us) or telephone

(479.575.8220). No oral interpretation or clarifications will be given as to the meaning of any part of this request for proposal. All questions, clarifications, and requests, together with answers, if any, will be provided to all firms via written addendum. Names of firms submitting any questions, clarifications, or requests will not be disclosed until after a contract is in place.

- j) Any information provided herein is intended to assist the bidder in the preparation of proposals necessary to properly respond to this bid. The bid is designed to provide qualified Proposers with sufficient basic information to submit proposals meeting minimum specifications and/or test requirements, but is not intended to limit a bid's content or to exclude any relevant or essential data.
- k) Bidders irrevocably consent that any legal action or proceeding against it under, arising out of or in any manner relating to this Contract shall be prevailed by Arkansas law. Proposer hereby expressly and irrevocably waives any claim or defense in any said action or proceeding based on any alleged lack of jurisdiction or improper venue or any similar basis.
- l) The successful bidder shall not assign the whole or any part of this Contract or any monies due or to become due hereunder without written consent of City of Fayetteville. In case the successful bidder assigns all or any part of any monies due or to become due under this Contract, the Instrument of assignment shall contain a clause substantially to the effect that is agreed that the right of the assignee in and to any monies due or to become due to the successful bidder shall be subject to prior liens of all persons, firms, and corporations for services rendered or materials supplied for the performance of the services called for in this contract.
- m) The successful bidder's attention is directed to the fact that all applicable Federal and State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over the services shall apply to the contract throughout, and they will be deemed to be included in the contract as though written out in full herein. The successful bidder shall keep himself/herself fully informed of all laws, ordinances and regulations of the Federal, State, and municipal governments or authorities in any manner affecting those engaged or employed in providing these services or in any way affecting the conduct of the services and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over same. If any discrepancy or inconsistency should be discovered in these Contract Documents or in the specifications herein referred to, in relation to any such law, ordinance, regulation, order or decree, s/he shall herewith report the same in writing to City of Fayetteville.

26. ATTACHMENTS TO BID DOCUMENTS: N/A

City of Fayetteville Bid 12-42, Generator Technical Specification

- ✓ Description: Stand-by Generator Specifications (replacement generator)
- ✓ Location: Owl Creek Lift Station (LS #22)
- ✓ Address: 630 N. Double Springs Road, Fayetteville, AR 72704

- ✓ This bid is for the purchase of the generator only. Installation will be by the City or its designated representative.

- ✓ Generator purchased shall produce 480V 3-phase power and it will supply adequate power during an emergency power outage or when the electrical company is repairing transformers and or lines, fuses. The existing lift station has a switch gear in place and is rated at 400 kW.

- ✓ Generator will be installed **by others** at an existing lift station. The standby system will be coordinated so not to interfere with the lift station operation.

1. GENERAL:-

- ✓ 1.1 All unit(s) bid shall meet or exceed the minimum requirements or they will be deemed incomplete and will not be considered for bid award.

- ✓ 1.2 All specifications written are to minimums, unless otherwise noted.

2. MANUFACTURER / MODEL:-

- ✓ 2.1 Unit(s) bid shall be new standard production model as offered for commercial trade.

3. ITEM 1 – GENERATOR:

- ✓ A. Generator shall be 200 kW Standby; 185 kW prime; 480/277V generator.
- ✓ B. Deliver the project, as described in this exhibit, including:

- ✓ 1. Generation Equipment
- ✓ 2. Equipment and Installation Warranties
- ✓ 3. In-Service Training

- ✓ C. The generation equipment shall include:

- ✓ 1. Engine Generator set rated at 480V/277V; 200 kW (standby); 185 kW (prime), 0.8pf lagging; 250 KVA, 1800 RPM max
- ✓ 2. Permanent Magnet Generator
- ✓ 3. Electronic Engine Governor
- ✓ 4. Charging Alternator 24V
- ✓ 5. 24V Lead Acid Batteries, Rack and Battery Charger
- ✓ 6. Engine Cooling System
- ✓ 7. Exhaust System with Silencer

176kW prime rating at 105 deg C temperature rise

176kW prime rating at 105 deg C temperature rise

- ✓ 8. Fuel source as Natural Gas
- ✓ 9. Sound Attenuated Enclosure (maximum 71 dBA at 7 meters)
- ✓ 10. Block Heater
- ✓ 11. Lubricating Oil and Antifreeze- Initial fill

4. **WARRANTY:**

- ✓ A. The entire unit shall be warranted for a minimum of two years or 1500 hours period from the start-up date.
- ✓ B. Warranty shall include all parts, labor, and transportation of parts to and from the location of the warranty service center
- ✓ C. Awarded vendor shall be responsible for warranty administration of entire unit

5. **DELIVERY / DOCUMENTATION:**

- ✓ A. Units shall be delivered F.O.B. to the Owl Creek Lift Station (LS #22), located at 630 N. Double Springs Road, Fayetteville, AR 72704 , for compliance review and final acceptance
- ✓ B. Units shall be fully assembled, serviced, and ready for operation as delivered.
- ✓ C. Delivery shall be coordinated with the City in advance of the unit being delivered.

6. **TRAINING:**

- ✓ A. Onsite in-service service training will be provided to the City's Contract Operator's staff on the operation and maintenance of the generation equipment. In-service training shall include any commissioning services necessary to validate the equipment warranty.

7. **OPTIONAL PRICING (will not be considered for bid evaluation):**

- ✓ A. All bidders should provide the following optional pricing, as listed below, to be purchased at the City's discretion. Optional pricing shall not be considered in bid evaluation.

✓ 1. Description for annual maintenance (provide below):

✓ 2. Cost for annual maintenance: \$ 715.00
Price per year

City of Fayetteville
Bid 12-42, Generator
Statement of Disclosure – To Be Submitted With ALL Bids

This page does not count towards page limitations set forth in this request for proposal or bid. Proposer must disclose any possible conflict of interest with the City of Fayetteville, including, but not limited to, any relationship with any City of Fayetteville employee. Your response must disclose if a known relationship exists between any principal or employee of your firm and any City of Fayetteville employee or elected City of Fayetteville official.

If, to your knowledge, no relationship exists, this should also be stated in your response. Failure to disclose such a relationship may result in cancellation of a purchase and/or contract as a result of your response. This form must be completed and returned in order for your bid/proposal to be eligible for consideration.

PLEASE CHECK ONE OF THE FOLLOWING TWO OPTIONS, AS IT APPROPRIATELY APPLIES TO YOUR FIRM:



1.) NO KNOWN RELATIONSHIP EXISTS

2.) RELATIONSHIP EXISTS (Please explain)

PLEASE FILL OUT THE SECTION BELOW AND SUBMIT THIS FORM WITH YOUR BID OR PROPOSAL:

- 1.) I, as an officer of this organization, or per the attached letter of authorization, am duly authorized to certify the information provided herein are accurate and true; and
- 2.) My organization shall comply with all State and Federal Equal Opportunity and Non-Discrimination requirements and conditions of employment.

Mike McNabb

Printed Name

Mike McNabb

Signature

May 11, 2012

Date

Model: **200REZXB**

KOHLER POWER SYSTEMS

208-600 V

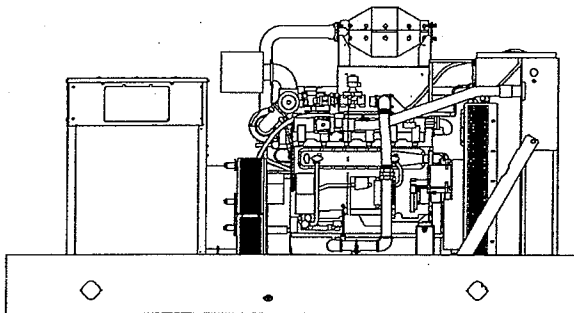
Gas



EPA-Certified for Stationary and Mobile Emergency and Non-Emergency Applications

Ratings Range

		60 Hz	
Standby:	kW	130-200	
	kVA	163-250	
Prime:	kW	174-176	
	kVA	218-220	



Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The 60 Hz generator set offers a UL 2200 listing.
- The generator set accepts rated load in one step.
- The 60 Hz generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A one-year limited warranty covers all systems and components. Two- and five-year extended warranties are also available.
- Alternator features:
 - The unique Fast-Response™ II excitation system delivers excellent voltage response and short-circuit capability using a permanent magnet (PM)-excited alternator.
 - The brushless, rotating-field alternator has broadrange reconnectability.

Generator Set Ratings

Alternator	Voltage	Ph	Hz	Rich-Burn Natural Gas				Rich-Burn LP Gas (Vapor)	
				130°C Rise		105°C Rise		130°C Rise	
				Standby Rating	Prime Rating	Standby Rating	Prime Rating	Standby Rating	Prime Rating
				kW/kVA	Amps	kW/kVA	Amps	kW/kVA	Amps
4UA10	120/208	3	60	200/250	694	174/218	604	130/163	451
	127/220	3	60	200/250	656	175/219	574	130/163	426
	120/240	3	60	200/250	601	174/218	523	130/163	391
	139/240	3	60	200/250	601	176/220	529	130/163	391
	220/380	3	60	200/250	380	174/218	330	130/163	247
	240/416	3	60	200/250	347	174/218	302	130/163	226
	277/480	3	60	200/250	301	175/219	263	130/163	195
	347/600	3	60	200/250	241	176/220	212	130/163	156
4UA13	120/208	3	60	200/250	694	176/220	611	130/163	451
	127/220	3	60	200/250	656	176/220	577	130/163	426
	120/240	3	60	200/250	601	176/220	529	130/163	391
	139/240	3	60	200/250	601	175/219	526	130/163	391
	220/380	3	60	200/250	380	176/220	334	130/163	247
	240/416	3	60	200/250	347	176/220	305	130/163	226
	277/480	3	60	200/250	301	175/219	263	130/163	195
	347/600	3	60	200/250	241	175/219	210	130/163	156

RATINGS: All three-phase units are rated at 0.8 power factor. **Standby Ratings:** The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. **Prime Power Ratings:** At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever. For dual fuel engines, use the LP gas ratings for both the primary and secondary fuels.

Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless Permanent Magnet
Leads: quantity, type	12, Reconnectable
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	130°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	Controller Dependent
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current
Peak motor starting kVA:	(35% dip for voltages below)
480 V 4UA10	790 (60Hz)
480 V 4UA13	990 (60Hz)

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and drip-proof construction.
- Vacuum-impregnated windings with fungus-resistant epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.
- Fast-Response™ II brushless alternator with brushless exciter for excellent load response.

Application Data

Engine

Engine Specifications	
Manufacturer	Doosan
Engine model	D111TIC
Engine type	11.1 L, 4-Cycle, Turbocharged, Aftercooled
Cylinder arrangement	6, Inline
Displacement, L (cu. in.)	11.05 (674)
Bore and stroke, mm (in.)	123 x 155 (4.84 x 6.10)
Compression ratio	10.5:1
Piston speed, m/min. (ft./min.)	558 (1831)
Main bearings: quantity, type	7, Precision Half-Shell
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	225 (302)
Cylinder head material	Cast Iron
Piston: type, material	—
Crankshaft material	Forged Steel
Valve material	—
Governor type	Electronic
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	±0.5%
Frequency	Fixed
Air cleaner type, all models	Dry

Exhaust

Exhaust System	
Exhaust manifold type	Wet
Exhaust flow at rated kW, kg/hr. (cfm)	850 (1211)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	600 (1112)
Maximum allowable back pressure, kPa (in. Hg)	10.2 (3)
Engine exhaust outlet size, mm (in.)	Flanged Outlet at Catalyst, see ADV drawing

Engine Electrical

Engine Electrical System	
Battery/charon/alternator	
Ground (negative/positive)	Negative
Volts (DC)	24
Ampere rating	45
Starter motor rated voltage (DC)	24
Battery, recommended cold cranking amps (CCA):	
Qty., CCA rating each	Two, 1000
Battery voltage (DC)	12

Fuel

Fuel System - Rich Burn	
Fuel type	Natural Gas, LP Gas, or Dual Fuel
Fuel supply line inlet	2.0 NPTF
Natural gas fuel supply pressure, kPa (in. H ₂ O)	1.74-2.74 (7.0-11.0)
LPG vapor withdrawal fuel supply pressure, kPa (in. H ₂ O)	1.24-2.74 (5.0-11.0)
Dual fuel engine, LPG vapor withdrawal fuel supply pressure, kPa (in. H ₂ O)	1.24 (5.0)
Fuel supply pressure, measured at the generator set fuel inlet downstream of any fuel system equipment accessories.	

Fuel Composition Limits *	Nat. Gas	LP Gas
Methane, % by volume	90 min.	—
Ethane, % by volume	4.0 max.	—
Propane, % by volume	1.0 max.	85 min.
Propene, % by volume	0.1 max.	5.0 max.
C ₄ and higher, % by volume	0.3 max.	2.5 max.
Sulfur, ppm mass	25 max.	
Lower heating value, MJ/m ³ (Btu/ft ³), min.	33.2 (890)	84.2 (2260)

* Fuels with other compositions may be acceptable. If your fuel is outside the listed specifications, contact your local distributor for further analysis and advice.

Application Data

Lubrication

Lubricating System	
Type	Full Pressure
Oil pan capacity, L (qt.)	25 (26.4)
Oil pan capacity with filter, L (qt.)	27 (28.8)
Oil filter: quantity, type	1, Cartridge
Oil cooler	Water-Cooled

Cooling

Radiator System	
Ambient temperature, °C (°F) *	50 (122)
Engine jacket water capacity, L (gal.)	21 (5.5)
Radiator system capacity, including engine, L (gal.)	116 (30.6)
Engine jacket water flow, Lpm (gpm)	284 (75)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	142.3 (8100)
Heat rejected to air charge cooler at rated kW, dry exhaust, kW (Btu/min.)	26.3 (1500)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	965 (38)
Fan, kWm (HP)	13.4 (18)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H ₂ O)	0.125 (0.5)

* Weather and sound enclosures with internal silencer reduce ambient temperature capability by 5°C (9°F).

Operation Requirements

Air Requirements	
Radiator-cooled cooling air, m ³ /min. (scfm) †	510 (18000)
Combustion air, kg/hr. (cfm)	800 (390)
Heat rejected to ambient air:	
Engine, kW (Btu/min.)	60.3 (3430)
Alternator, kW (Btu/min.)	16.0 (910)

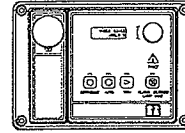
† Air density = 1.20 kg/m³ (0.075 lbm/ft³)

Fuel Consumption‡	
Natural Gas, m³/hr. (cfh) at % load	Standby Rating
100%	59.9 (2115)
75%	46.7 (1649)
50%	32.8 (1158)
25%	20.0 (706)
Natural Gas, m³/hr. (cfh) at % load	Prime Rating
100%	53.6 (1893)
75%	41.7 (1473)
50%	29.7 (1049)
25%	17.6 (622)
LP Gas, m³/hr. (cfh) at % load	Standby Rating
100%	19.9 (703)
75%	17.0 (600)
50%	11.5 (406)
25%	7.2 (254)

‡ Nominal fuel rating: Natural gas, 37 MJ/m³ (1000 Btu/ft.³)
 LP vapor, 93 MJ/m³ (2500 Btu/ft.³)

LP vapor conversion factors:
 8.58 ft.³ = 1 lb.
 0.535 m³ = 1 gal.
 36.39 ft.³ = 1 gal.

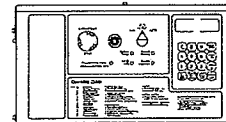
Controllers



Decision-Maker[®] 3000 Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

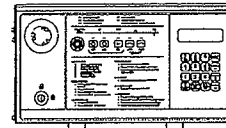
- Digital display and menu control provide easy local data access
 - Measurements are selectable in metric or English units
 - Remote communication thru a PC via network or modem configuration
 - Integrated hybrid voltage regulator with ±0.5% regulation
 - Built-in alternator thermal overload protection
 - NFPA 110 Level 1 capability
- Refer to G6-100 for additional controller features and accessories.



Decision-Maker[®] 550 Controller

Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities.

- Digital display and keypad provide easy local data access
 - Measurements are selectable in metric or English units
 - Remote communication thru a PC via network or modem configuration
 - Controller supports Modbus[®] protocol
 - Integrated voltage regulator with ±0.25% regulation
 - Built-in alternator thermal overload protection
 - NFPA 110 Level 1 capability
- Refer to G6-46 for additional controller features and accessories.



Decision-Maker[®] 6000 Paralleling Controller

Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities for paralleling multiple generator sets.

- Paralleling capability with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
 - Digital display and keypad provide easy local data access
 - Measurements are selectable in metric or English units
 - Remote communication thru a PC via network or modem configuration
 - Controller supports Modbus[®] protocol
 - Integrated voltage regulator with ±0.25% regulation
 - Built-in alternator thermal overload protection
 - NFPA 110 Level 1 capability
- Refer to G6-107 for additional controller features and accessories.

Modbus[®] is a registered trademark of Schneider Electric.

KOHLER CO., Kohler, Wisconsin 53044 USA
 Phone 920-457-4441, Fax 920-459-1646
 For the nearest sales and service outlet in the
 US and Canada, phone 1-800-544-2444
 KohlerPower.com

Kohler Power Systems
 Asia Pacific Headquarters
 7 Jurong Pier Road
 Singapore 619159
 Phone (65) 6264-6422, Fax (65) 6264-6455

Standard Features

- Alternator Protection
- Battery Rack and Cables
- Closed Crankcase Ventilation
- Integral Vibration Isolation
- Local Emergency Stop Switch
- Low Coolant Level Shutdown
- Oil Drain Extension
- Operation and Installation Literature
- Three-Way Exhaust Catalyst

Available Options

Approvals and Listings

- CSA Approval
- IBC Seismic Certification
- UL 2200 Listing

Enclosed Unit

- Sound Enclosure with Internal Silencer (Aluminum)
- ~~Sound Enclosure with Internal Silencer (Steel)~~
- Weather Enclosure with Internal Silencer (Steel)

Open Unit

- Exhaust Silencer, Critical (kits: PA-324292, PA-324470)
- Flexible Exhaust Connector, Stainless Steel

Fuel System

- Dual Fuel NG/LPG (Automatic Changeover)
- Flexible Fuel Lines
(required when the generator set skid is spring mounted)
- Gas Filter
- Secondary Gas Solenoid Valve

Controller

- Common Failure Relay
- Communications Products and PC Software
- Customer Connection (Decision-Maker® 550 controller only)
- Decision-Maker® Paralleling System (DPS)
(Decision-Maker® 6000 controller only)
- Dry Contact Kit (isolated alarm)
(Decision-Maker® 550 and 6000 controllers only)
- Input/Output Module (Decision-Maker® 3000 controller only)
- Prime Power Switch (Decision-Maker® 550 and 6000 only)
- Remote Audiovisual Alarm Panel
(Decision-Maker® 550 and 6000 controllers only)
- Remote Emergency Stop
- Remote Serial Annunciator Panel
- Run Relay

Cooling System

- ~~Block Heater, 2500 W, 90-5 (20 V, 1 Ph)~~
- Block Heater, 2500 W, 190-208 V, 1 Ph
- Block Heater, 2500 W, 210-240 V, 1 Ph
- Block Heater, 2500 W, 380-480 V, 1 Ph
(recommended for ambient temperatures below 10°C [50°F])
- Radiator Duct Flange

Electrical System

- Alternator Strip Heater
- ~~Battery~~
- ~~Battery Charger, Equalize/Float Type~~
- Battery Heater
- Line Circuit Breaker (NEMA1 enclosure)
- Line Circuit Breaker with Shunt Trip (NEMA1 enclosure)

Miscellaneous

- Air Cleaner Restriction Indicator
- Certified Test Report
- ~~Engine Fluids Added~~
- Rated Power Factor Testing
- Rodent Guards

Literature

- General Maintenance
- NFPA 110
- Overhaul
- ~~Production~~

Warranty

- ~~2-Year Basic~~
- 5-Year Basic
- 5-Year Comprehensive

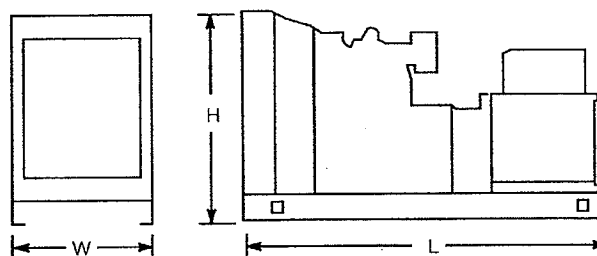
Other Options

- _____
- _____
- _____
- _____
- _____

Dimensions and Weights

Overall Size, L x W x H, max., mm (in.): 3575 x 1350 x 1908
 (140.7 x 53.1 x 75.1)

Weight (radiator model), wet, max., kg (lb.): 2722 (6000)



NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

DISTRIBUTED BY:



TIB-102

TECHNICAL INFORMATION BULLETIN

Alternator Data Sheet

Alternator Model: 4UA10
 Frequency: 60 Hz
 Speed: 1800 RPM
 Leads: 12 (6 Lead, 600 Volt)

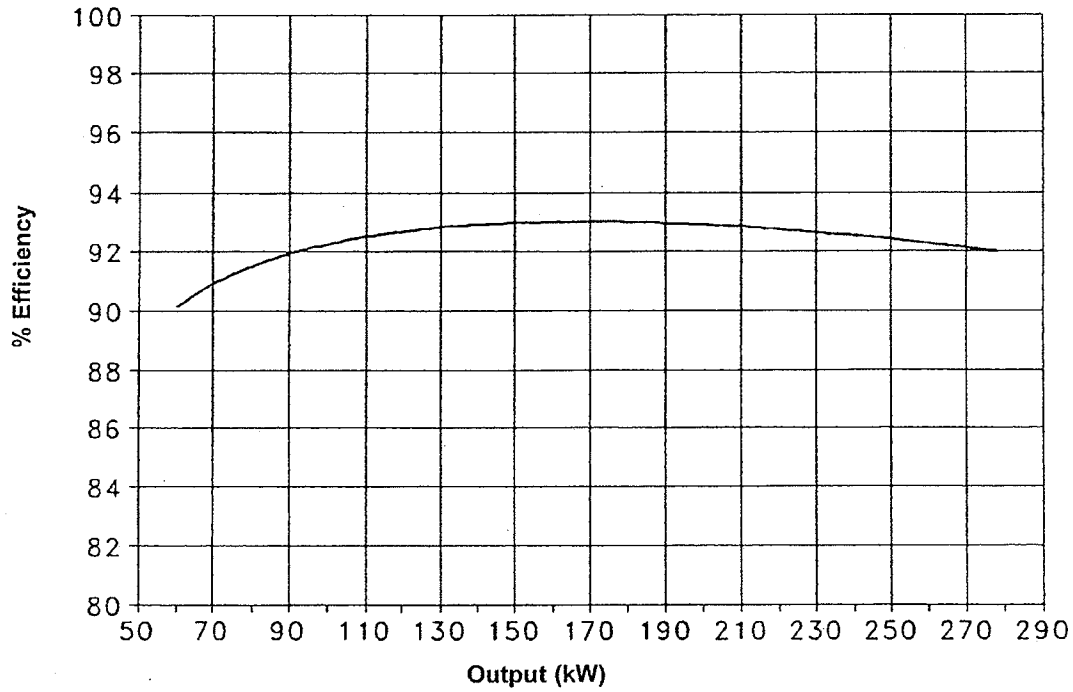
Voltage L-N/L-L	Phase	Power Factor	Connection	kW* (kVA)						
				Class B		Class F			Class H	
				80°C Continuous	90°C Lloyds	95°C ABS	105°C Continuous	130°C Standby	125°C Continuous	150°C Standby
139/240 277/480	3	0.8	Wye	225.0 (281.3)	237.0 (296.3)	243.0 (303.8)	255.0 (318.8)	275.0 (343.8)	271.0 (338.8)	275.0 (343.8)
127/220 254/440	3	0.8	Wye	220.0 (275.0)	232.0 (290.0)	238.0 (297.5)	250.0 (312.5)	270.0 (337.5)	266.0 (332.5)	270.0 (337.5)
120/208 240/416	3	0.8	Wye	215.0 (268.8)	227.0 (283.8)	233.0 (291.3)	245.0 (306.3)	265.0 (331.3)	261.0 (326.3)	265.0 (331.3)
110/190 220/380	3	0.8	Wye	205.0 (256.3)	217.0 (271.3)	223.0 (278.8)	235.0 (293.8)	250.0 (312.5)	247.0 (308.8)	250.0 (312.5)
120/240	3	0.8	Delta	215.0 (268.8)	227.0 (283.8)	233.0 (291.3)	245.0 (306.3)	265.0 (331.3)	261.0 (326.3)	265.0 (331.3)
347/600	3	0.8	Wye	205.0 (256.3)	217.0 (271.3)	223.0 (278.8)	235.0 (293.8)	260.0 (325.0)	255.0 (318.8)	260.0 (325.0)

All data tested in accordance with IEEE Standard 115. Kohler Co. reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

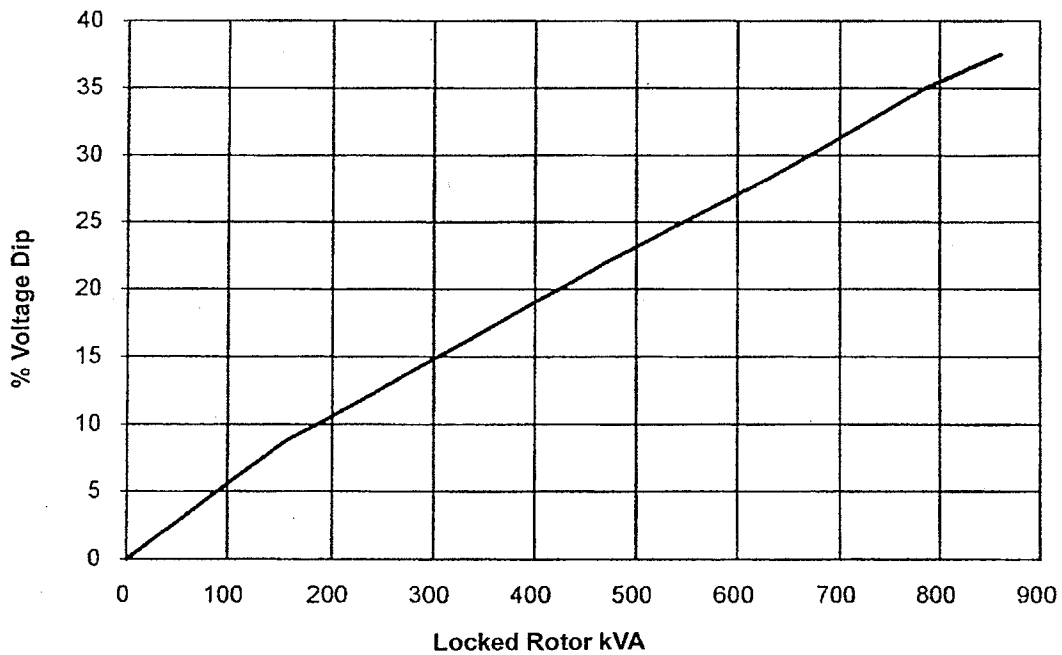
Submittal Data: 139/240 Volts, 0.8 PF, 1800 RPM, 60 Hz, 3-Phase, 130°C Rise

	Symbol	Per Unit	Ohms		Symbol	Value
Typical Resistances				Typical Time Constants		
Phase Resistance		0.030	0.005	Armature Short Circuit	T _a	0.016 sec.
Rotor Resistance		11.202	1.877	Transient Short Circuit	T' _d	0.171 sec.
				Transient Open Circuit	T' _{do}	1.988 sec.
Typical Reactances				Typical Field Current		
Synchronous				Full Load	I _{fFL}	35.76 amps
Direct	X _d	4.097	0.686	No Load	I _{fNL}	8.45 amps
Quadrature	X _q	2.131	0.357			
Transient				Typical Short Circuit Ratio		0.326
Unsaturated	X' _{du}	0.401	0.067	Harmonic Distortion		
Saturated	X' _d	0.352	0.059	RMS Total Harmonic Distortion		2.7%
Subtransient				Max. Single Harmonic		7 th
Direct	X'' _d	0.160	0.027	Deviation Factor (No Load, L-L)		4.3%
Quadrature	X'' _q	0.155	0.026	Telephone Influence Factor		<50
Negative Sequence	X ₂	0.158	0.026	Insulation Material Class		H
Zero Sequence	X ₀	0.015	0.002	per NEMA MG1-1.66		
				Phase Rotation		ABC

4UA10, 60 Hz, 139/240, 277/480 Volts, Wye
TYPICAL ALTERNATOR EFFICIENCY*

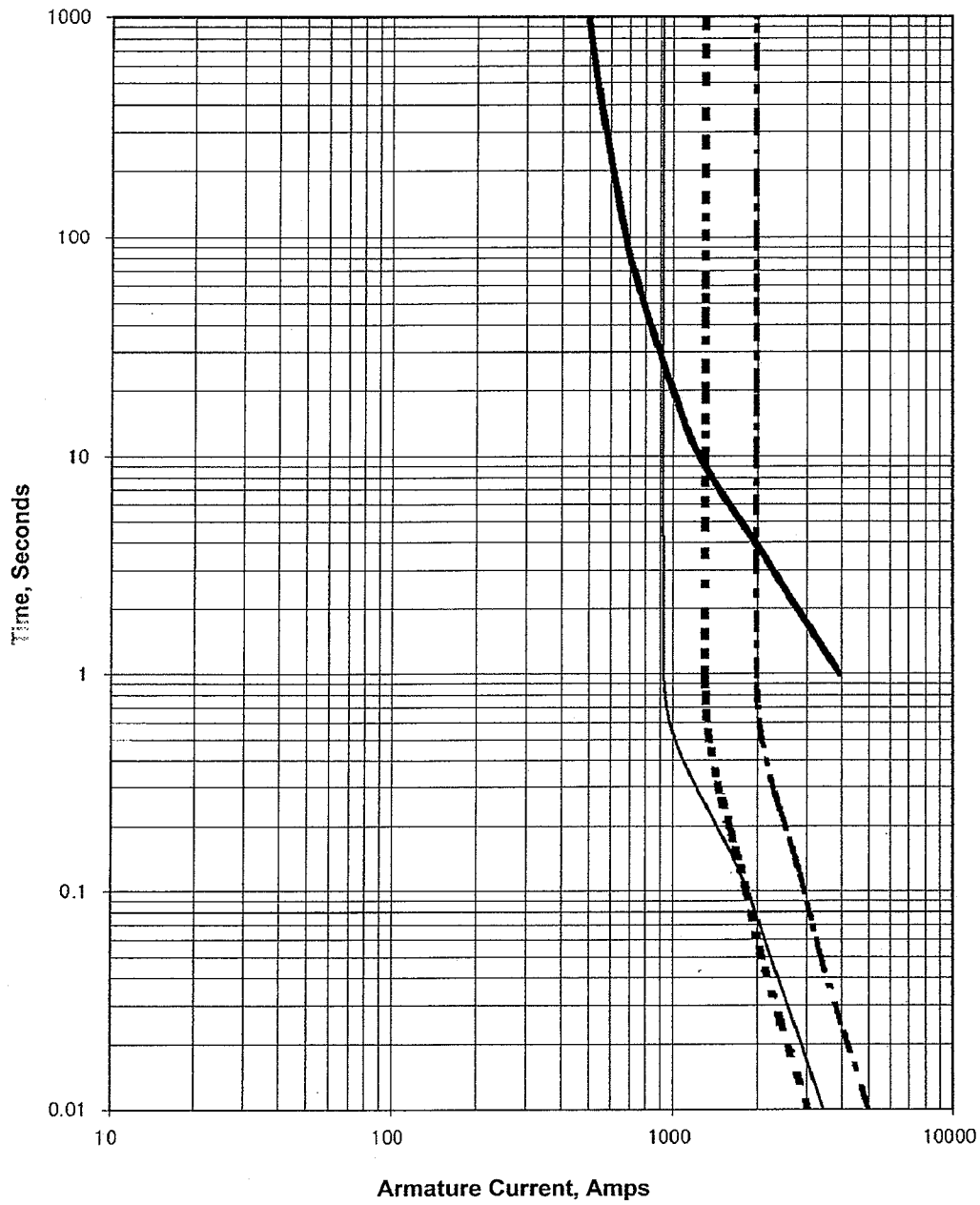


TYPICAL MOTOR STARTING CHARACTERISTICS*
4UA10, 60 Hz, 139/240, 277/480 Volts, Wye



* All data tested in accordance with IEEE Standard 115. Kohler Co. reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

4UA10, 60 Hz, High Wye Connection SHORT CIRCUIT DECREMENT CURVE



- Alternator Damage Curve
- 3 Phase Symmetrical
- - Line-to-Line 1 Phase
- - Line-to-Neutral 1 Phase

Industrial Generator Set Accessories

KOHLER POWER SYSTEMS

Weather and Sound Enclosures

ISO 9001
KOHLER POWER SYSTEMS
NATIONALLY REGISTERED

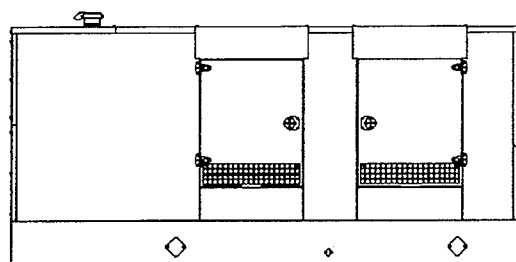
Applicable to the following:
180-400REZX and 180-400RZX
180-400REZXB and 180-400RZXB

Weather Enclosure Features

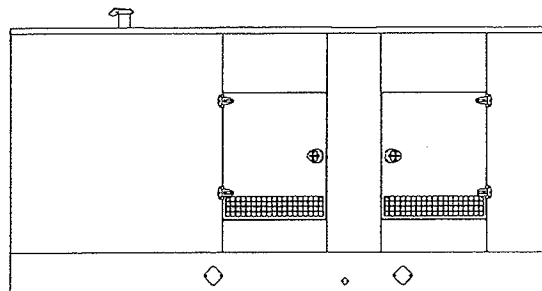
- Internal-mounted critical silencer and flexible exhaust connector
- Skid-mounted, steel construction with hinged doors.
- Fade-, scratch-, and corrosion-resistant Kohler® cream beige powder-baked finish.
- Lockable, flush-mounted door latches.
- Vertical air inlet and outlet hoods with 90 degree angles to redirect air and reduce noise.
- High wind bracing, 241 kph (150 mph).
- Automatic door holders keep doors open during maintenance.

Sound Enclosure Features

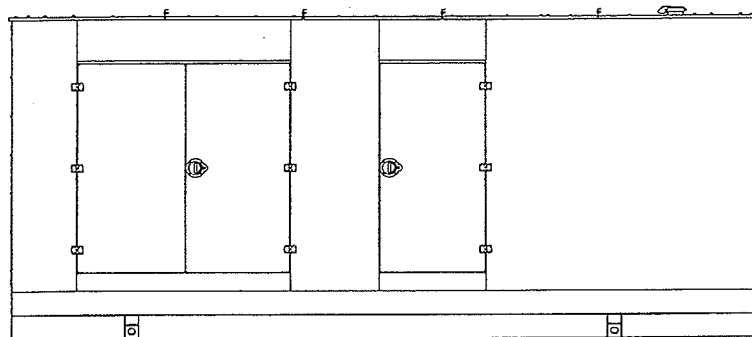
- Includes all of the weather enclosure features with the addition of sound attenuation material.
- Skid-mounted, steel or aluminum construction with hinged doors. Aluminum enclosures are recommended for high humidity and/or high salt/coastal regions.
- Acoustic insulation that meets UL 94 HF1 flammability classification and repels moisture absorption.



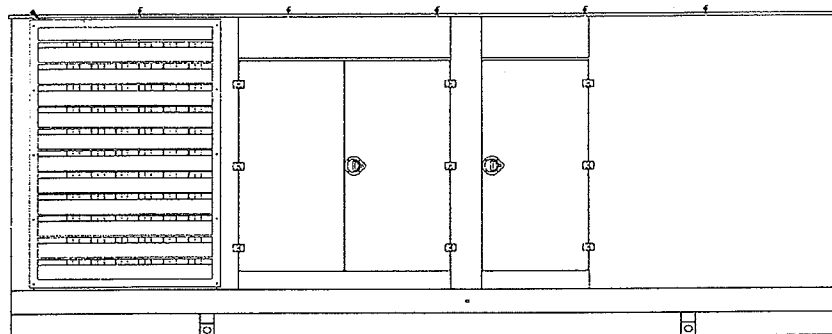
180/200 kW Enclosure



250 kW Enclosure

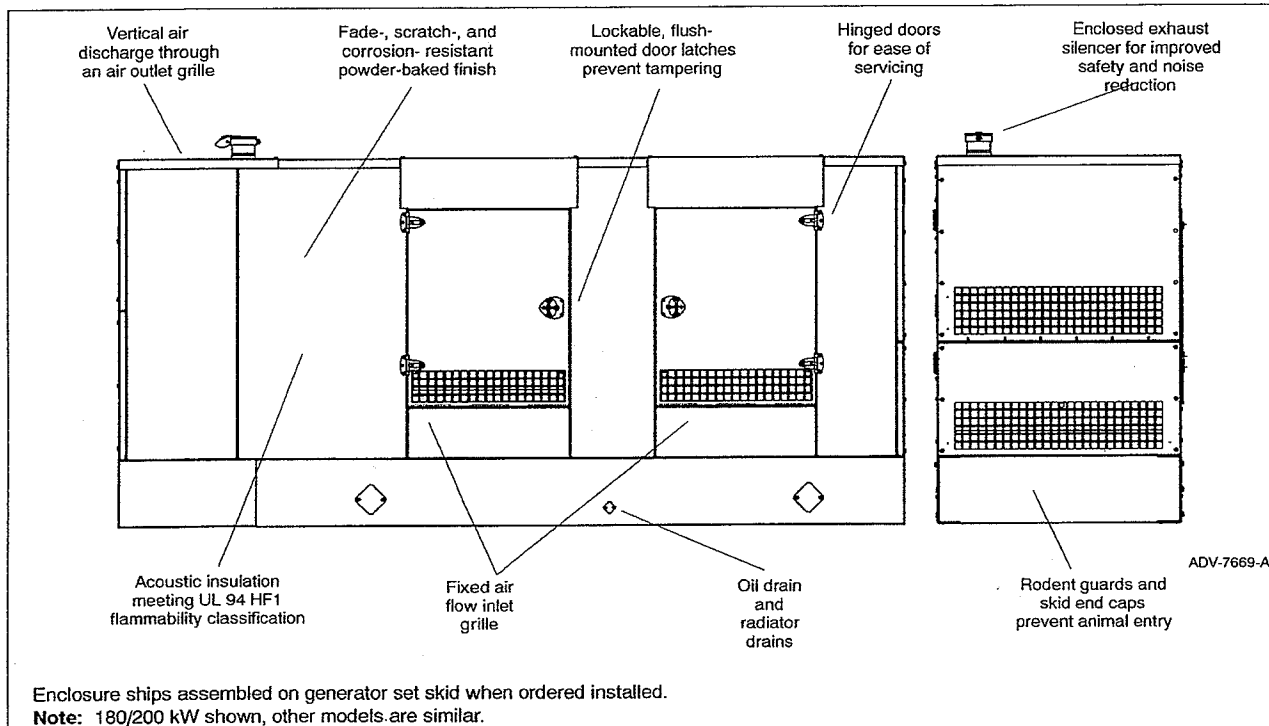


300/350 kW Enclosure



400 kW Enclosure

Weather and Sound Enclosure



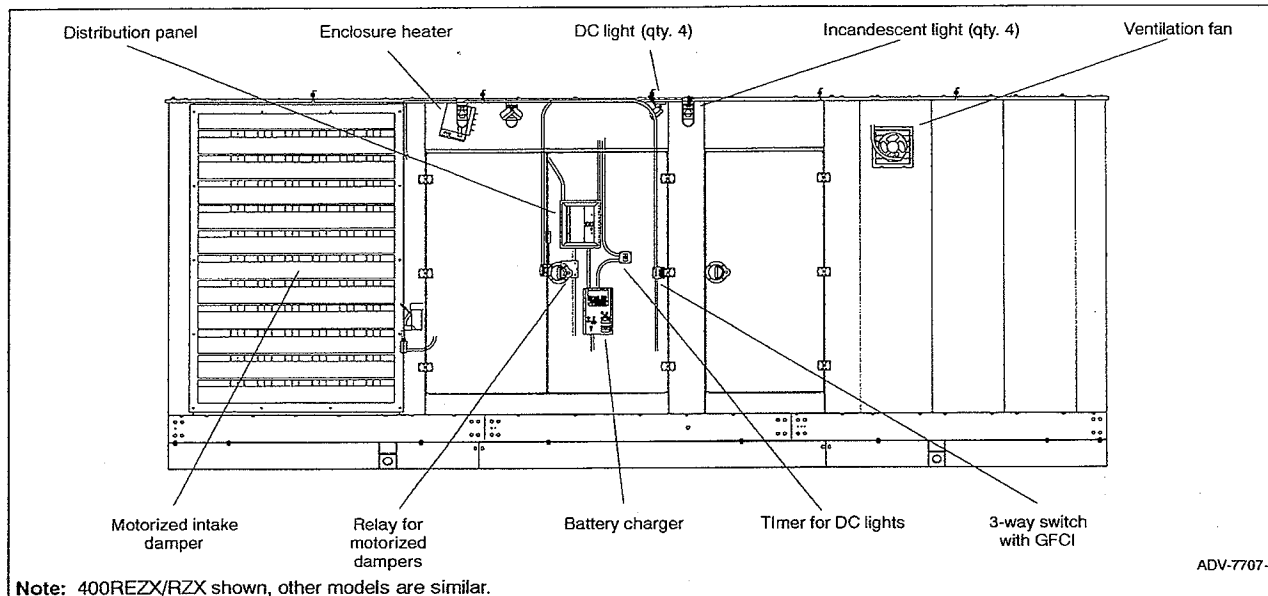
Enclosure Features

- Available in steel formed panel, solid construction. Preassembled package offering corrosion resistant, dent resilient structure mounting directly to skid.
- Powder-baked paint. Superior finish, durability, and appearance.
- Internal critical exhaust silencer offering maximum component life and operator safety.
- Interchangeable modular panel construction. Allows complete serviceability or replacement without compromising enclosure design.
- Cooling/combustion air intake with a horizontal air inlet. Sized for maximum cooling airflow.
- Service access. Multi-personnel doors for easy access to generator set control and servicing of the oil fill and battery.
- Cooling air discharge. Weather protective design featuring a vertical air discharge outlet grille. Redirects cooling air up and above enclosures to reduce noise ambient.

Additional Sound Enclosure Features

- Available in steel or aluminum formed panel, solid construction.
- Attenuated design. Acoustic insulation UL 94 HF1 listed for flame resistance with up to 51 mm (2 in.) thickness.
- Cooling air discharge. The sound enclosures include acoustic insulation with urethane film.

300-400REZX/RZX Weather and Sound Enclosure Options



Basic Electrical Package (BEP)

Distribution Panel/Load Center. Prewired AC power distribution of all factory-installed features including block heater, two GFCI-protected internal 120-volt service receptacles, internal lighting, and commercial grade wall switch. The load center is powered by building source power and protected by a main circuit breaker, rated for 100 amps with capacity and circuit positions for future expansion. AC power distribution installed in accordance with NEC and all wiring within EMT thin wall conduit. Four incandescent or fluorescent lights located within UL-listed fixtures designed for wet locations.

- BEP available with single-phase load center 120/240 VAC.
- BEP available with three-phase load center 120/208/240 VAC.

Enclosure Heater

Heater, 5 kW Ceiling Mounted. Electrical utility heater prewired to load center inside the enclosure. Rated at 17100 Btu includes adjustable louvers offering down flow and horizontal air tuning, built-in thermostat with automatic fan delay controls.

- Heater available in single phase at 240 VAC.
- Heater available in three phase at 208 or 240 VAC.

DC Light Package

DC Light Package (DLP). Prewired DC light package offering an economical alternative light source within the enclosure, as a complement to the BEP or a source of light when AC power is not available. Battery drain limited with fuse protection and controlled through a 0-60 minute, spring-wound, no-hold timer.

Miscellaneous Package Options

Battery Charger, Mounted. Mounting, prewiring of DC output and AC input when optional BEP is selected. Battery charger located inside the enclosure and accessible through an access door.

Block Heater, Junction Box. Factory-supplied block heater prewired to a junction box providing a convenient location for the customer wiring of the block heater.

- Heater available in single phase at 240 VAC.
- Heater available in three phase at 208 or 240 VAC.

Enclosure Design Options

- Aluminum Enclosure**
- Steel Enclosure**
- Panic Bar** for each latching door. Provides additional safety for individuals working on the generator set while in the enclosure.

Motorized Variable Damper and Ventilation

Motorized Air Inlets

- Aluminum construction
- Galvanized steel construction (available on sound enclosure only)

Motorized Air Outlets

- Aluminum construction
- Galvanized steel construction (available on sound enclosure only)

Ventilation Fan, 22.6 cm/min. (800 cfm) Wall Mount. Direct drive 3-blade 305 mm (12 in.) aluminum propeller fan with automatic shutters, driven by a totally enclosed air-over motor housed within a corrosion-resistant housing. Remote thermostatically controlled over a temperature range of 27°C to 54°C (80°F to 130°F). All components are prewired and installed.

Gravity Air Outlet Louver. Aluminum louvers closed when unit is not running. After the unit starts, the forced cooling air opens the outlet louvers.

KOHLER CO., Kohler, Wisconsin 53044 USA
 Phone 920-457-4441, Fax 920-459-1646
 For the nearest sales and service outlet in the
 US and Canada, phone 1-800-544-2444
 KohlerPower.com

Kohler Power Systems
 Asia Pacific Headquarters
 7 Jurong Pier Road
 Singapore 619159
 Phone (65) 6264-6422, Fax (65) 6264-6455

Weather and Sound Enclosure Specifications

Model	Max. Dimensions, mm (in.)			Weight, kg (lb.) †			Sound Enclosure, Sound Pressure at 7 m (23 ft.), dB(A)
	Length	Width	Height	Steel Weather Enclosure	Steel Sound Enclosure	Aluminum Sound Enclosure	
180REZX/RZX	4347(171.2)	1350 (53.2)	2164 (85.2)	3177 (6900)	3205 (7050)	2995 (6585)	71
180REZXB/RZXB							
200REZX/RZX	4347(171.2)	1350(53.2)	2164(85.2)	3307 (7275)	3354 (7385)	3145 (6870)	71
200REZXB/RZXB							
250REZX/RZX	4526(178.2)	1786 (70.3)	2460 (96.9)	3942 (8690)	3969 (8750)	3647 (8040)	70
250REZXB/RZXB							
300REZX/RZX	6305(248.2)	2229 (87.8)	2816(110.9)	5386 (11875)	6203 (13675)	5117 (11280)	70
300REZXB/RZXB							
350REZX/RZX	6305(248.2)	2229 (87.8)	2816(110.9)	5386 (11875)	6203 (13675)	5117 (11280)	70
350REZXB/RZXB							
400REZX/RZX	7230(284.6)	2493 (98.2)	2858(112.5)	6498 (14295)	6711 (14795)	6043 (13295)	71
400REZXB/RZXB							

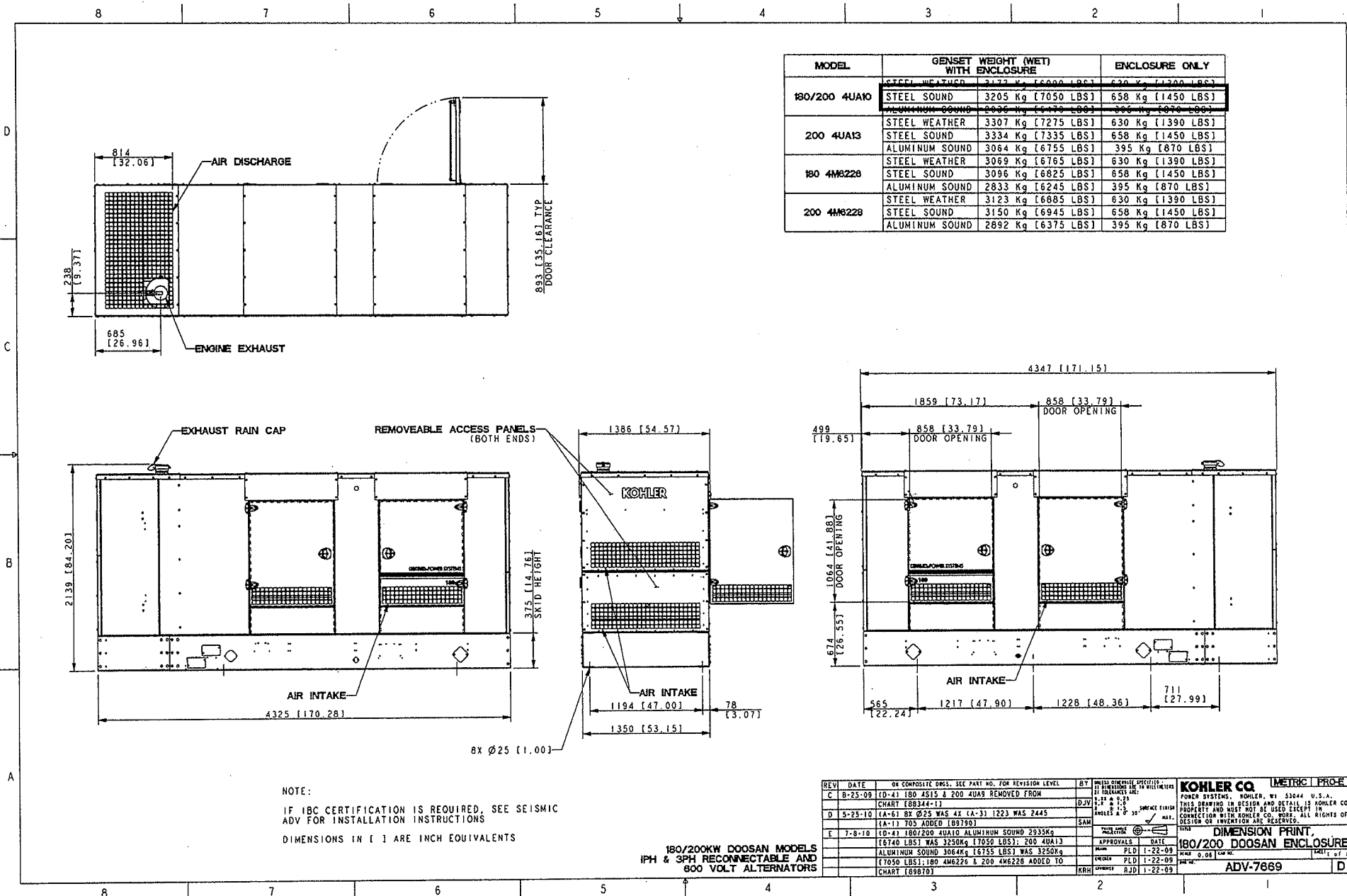
Note: Refer to the respective ADV drawings for details.

† Weight includes the generator set (wet), enclosure, and silencer. The generator set weight represents using the largest alternator option.

DISTRIBUTED BY:

Availability is subject to change without notice. Kohler Co. reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever. Contact your local Kohler® generator set distributor for availability.

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MODEL	GENSET WEIGHT (WET) WITH ENCLOSURE		ENCLOSURE ONLY	
	KG	LBS	KG	LBS
180/200 4UA10	STEEL WEATHER	3172 Kg [7000 LBS]	620 Kg [1300 LBS]	
	STEEL SOUND	3205 Kg [7050 LBS]	658 Kg [1450 LBS]	
	ALUMINUM SOUND	2935 Kg [6470 LBS]	395 Kg [870 LBS]	
200 4UA13	STEEL WEATHER	3307 Kg [7275 LBS]	630 Kg [1390 LBS]	
	STEEL SOUND	3334 Kg [7335 LBS]	658 Kg [1450 LBS]	
	ALUMINUM SOUND	3064 Kg [6755 LBS]	395 Kg [870 LBS]	
180 4M6228	STEEL WEATHER	3069 Kg [6765 LBS]	630 Kg [1390 LBS]	
	STEEL SOUND	3096 Kg [6825 LBS]	658 Kg [1450 LBS]	
	ALUMINUM SOUND	2833 Kg [6245 LBS]	395 Kg [870 LBS]	
200 4M6228	STEEL WEATHER	3123 Kg [6885 LBS]	630 Kg [1390 LBS]	
	STEEL SOUND	3150 Kg [6945 LBS]	658 Kg [1450 LBS]	
	ALUMINUM SOUND	2892 Kg [6375 LBS]	395 Kg [870 LBS]	

NOTE:
 IF IBC CERTIFICATION IS REQUIRED, SEE SEISMIC ADV FOR INSTALLATION INSTRUCTIONS
 DIMENSIONS IN [] ARE INCH EQUIVALENTS

180/200KW DOOSAN MODELS
 1PH & 3PH RECONNECTABLE AND
 800 VOLT ALTERNATORS

REV	DATE	OR COMPOSITE DRGS. SEE PART NO. FOR REVISION LEVEL	BY	THIS DRAWING IS THE PROPERTY OF KOHLER CO. IT IS TO BE USED ONLY FOR THE PROJECT AND MUST NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF KOHLER CO.
C	8-25-09	(D-4) 180 4S15 & 200 4UA9 REMOVED FROM CHART [89344-1]	DJV	
D	5-25-10	(A-5) BY Ø25 WAS 4X (A-3) 1223 WAS 2445 (A-1) 705 ADDED [89790]	SAM	
E	7-8-10	(D-4) 180/200 4UA10 ALUMINUM SOUND 2935Kg (6740 LBS) WAS 3250Kg (7050 LBS); 200 4UA13 ALUMINUM SOUND 3064Kg (6755 LBS) WAS 3250Kg (7050 LBS); 180 4M6226 & 200 4M6228 ADDED TO CHART [89870]	PLD	

KOHLER CO. METRIC PRO-E
 POWER SYSTEMS, KOHLER, WI 53044 U.S.A.
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DIMENSION PRINT, 180/200 DOOSAN ENCLOSURE
 DATE: 1-22-09
 DRAWN BY: PLO
 CHECKED BY: RJD
 APPROVED BY: RJD
 PART NO.: ADV-7669

Extended ~~Two-Year or Two Thousand (2000)-Hour~~ Stationary Standby Limited Warranty

This Kohler Standby Generator System has been manufactured and inspected with care by experienced craftsmen. If you are the original purchaser, Kohler Co. warrants for two years or two thousand (2000) hours, whichever occurs first, that the system will be free from defects in material and workmanship if properly installed, maintained, and operated in accordance with Kohler Co. instruction manuals. A Kohler distributor, dealer, or authorized representative must perform startup.

This warranty is not effective unless a proper extended warranty registration form and warranty fee have been sent to Kohler Co. within one year of supervised startup.

During the warranty period, repair or replacement at Kohler Co.'s option will be furnished free of charge for parts, provided an inspection to Kohler Co.'s satisfaction discloses a defect in material and workmanship, and provided that the part or parts are returned to Kohler Co. or an authorized service station, if requested. This extended warranty expires two years after date of startup or after 2000 hours of operation, whichever occurs first.*

This warranty does not apply to malfunctions caused by damage, unreasonable use, misuse, or normal wear and tear while in your possession.

*Some restrictions may apply. Contact your Kohler distributor/dealer for full details.

The following will **not** be covered by this warranty:

1. Normal engine wear, routine tuneups, tuneup parts, adjustments, and periodic service.
2. Damage caused by accidents, improper installation or handling, faulty repairs not performed by an authorized service representative, or improper storage.
3. Damage caused by operation with improper fuel or at speeds, loads, conditions, modifications, or installation contrary to published specifications or recommendations.
4. Damage caused by negligent maintenance such as:
 - a. Failure to provide the specified type and sufficient lubricating oil.
 - b. Failure to keep the air intake and cooling fin areas clean.
 - c. Failure to service the air cleaner.
 - d. Failure to provide sufficient coolant and/or cooling air.
 - e. Failure to perform scheduled maintenance as prescribed in supplied manuals.
 - f. Failure to exercise with load regularly.
5. Original installation charges and startup costs.
6. Starting batteries and the following related expenses:
 - a. Labor charges related to battery service.
 - b. Travel expense related to battery service.
7. Engine coolant heaters, heater controls, and circulating pumps after the first year.
8. Rental of equipment during performance of warranty repairs.
9. Parts purchased from sources other than Kohler. Replacement of a failed Kohler part with a non-Kohler part voids warranty on that part.
10. Radiators replaced rather than repaired.
11. Fuel injection pumps not repaired locally by an authorized servicing dealer.
12. Non-Kohler-authorized repair shop labor without prior approval from the Kohler Co. Warranty Department.
13. Engine fluids such as fuel, oil, or coolant/antifreeze.
14. Shop supplies such as adhesives, cleaning solvents, and rags.
15. Expenses incurred investigating performance complaints unless the problem is caused by defective Kohler materials or workmanship.
16. Maintenance items such as fuses, filters, spark plugs, loose/leaking clamps, and adjustments.

A Startup Notification form must be on file at Kohler Co. A Startup Notification form must be completed by Seller and received at Kohler Co. within 60 days after the date of initial startup. Standby systems not registered within 60 days of startup will automatically be registered by Kohler Co. using the Kohler Co. ship date as the startup date.

To obtain warranty service, call 1-800-544-2444 for your nearest authorized Kohler service representative, or write Kohler Co., Generator Service Department, Kohler, WI 53044 USA.

KOHLER CO. SHALL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND including, but not limited to, incidental consequential labor costs, installation charges, telephone charges, or transportation charges in connection with the replacement or repair of defective parts.

This is our exclusive written warranty. We make no other express warranty nor is anyone authorized to make any in our behalf.

ANY IMPLIED OR STATUTORY WARRANTY, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS OF PURCHASE, is expressly limited to the duration of this warranty.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

KOHLER
POWER SYSTEMS

KOHLER CO. Kohler, Wisconsin 53044
Phone 920-565-3381, Fax 920-459-1646
For the nearest sales/service outlet in the
US and Canada, phone 1-800-544-2444
KohlerPowerSystems.com

TP-5497 12/99c