



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
BPH70348

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
ROBERTA WAGNER
304-558-0067

RFQ COPY
 TYPE NAME/ADDRESS HERE

FBN ENTERPRISES
 WILLY CULLEY
 130 SCHOOL STREET
 WEIRTON, WV 26062

HEALTH AND HUMAN RESOURCES
 BPH - TRAUMA & EMERGENCY CARE
 SYSTEM
 VARIOUS LOCALES AS INDICATED
 ON PURCHASE ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
01/03/2007				

BID OPENING DATE: **02/06/2007** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		285-39	134315.00	326,160.00
<p>OPEN END CONTRACT TO PROVIDE AC POWER GENERATORS</p> <p>OPEN END CONTRACT</p> <p>TO ESTABLISH AN OPEN END CONTRACT FOR VARIOUS STANDBY AC POWER GENERATORS FOR THE STATEWIDE MEDICAL COMMAND MICROWAVE SYSTEM AND INTEROPERABLE RADIO SYSTEM FOR SUBDIVISIONS. THIS CONTRACT WOULD BE FOR PURCHASE OF THE GENERATORS, ACCESSORIES, DELIVERY AND INSTALLATION TO SPECIFIC TOWER SITES AS PER THE ATTACHED SPECIFICATIONS.</p> <p>EXHIBIT 3</p> <p>LIFE OF CONTRACT: THIS CONTRACT BECOMES EFFECTIVE ON AND EXTENDS FOR A PERIOD OF ONE (1) YEAR OR UNTIL SUCH "REASONABLE TIME" THEREAFTER AS IS NECESSARY TO OBTAIN A NEW CONTRACT OR RENEW THE ORIGINAL CONTRACT. THE "REASONABLE TIME" PERIOD SHALL NOT EXCEED TWELVE (12) MONTHS. DURING THIS "REASONABLE TIME" THE VENDOR MAY TERMINATE THIS CONTRACT FOR ANY REASON UPON GIVING THE DIRECTOR OF PURCHASING 30 DAYS WRITTEN NOTICE.</p> <p>UNLESS SPECIFIC PROVISIONS ARE STIPULATED ELSEWHERE IN THIS CONTRACT DOCUMENT, THE TERMS, CONDITIONS AND PRICING SET HEREIN ARE FIRM FOR THE LIFE OF THE CONTRACT.</p> <p>RENEWAL: THIS CONTRACT MAY BE RENEWED UPON THE MUTUAL WRITTEN CONSENT OF THE SPENDING UNIT AND VENDOR, SUBMITTED TO THE DIRECTOR OF PURCHASING THIRTY (30)</p>						

RECEIVED

2007 FEB -6 P 12:47
 PURCHASING DIVISION
 STATE OF WV

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE <i>Willy B. Culley</i>	TELEPHONE 1-304-748-1143	DATE 02-05-07	
TITLE Owner	FEIN 233-13-5121	ADDRESS CHANGES TO BE NOTED ABOVE	

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

**GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)**

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. All quotations are governed by the *West Virginia Code* and the *Legislative Rules* of the Purchasing Division.
4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125.00 registration fee.
5. All services performed or goods delivered under State Purchase Orders/Contracts are to be continued for the term of the Purchase Order/Contract, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/Contract becomes void and of no effect after June 30.
6. Payment may only be made after the delivery and acceptance of goods or services.
7. Interest may be paid for late payment in accordance with the *West Virginia Code*.
8. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
11. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.
12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
13. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, this contract is automatically null and void, and is terminated without further order.
14. **HIPAA Business Associate Addendum -** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (<http://www.state.wv.us/admin/purchase/vrc/hipaa.htm>) is hereby made part of the agreement. Provided that, the Agency meets the definition of a Covered Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division.
2. **SPECIFICATIONS:** Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Complete all sections of the quotation form.
4. Unit prices shall prevail in cases of discrepancy.
5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
6. **BID SUBMISSION:** All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications.

SIGNED BID TO:

Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130



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**HEALTH AND HUMAN RESOURCES
 BPH - TRAUMA & EMERGENCY CARE
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 VARIOUS LDCALES AS INDICATED
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DATE PRINTED 01/03/2007	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
BID OPENING DATE: 02/06/2007				

BID OPENING TIME 01:30PM

LINE	QUANTITY	UQP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>DAYS PRIOR TO THE EXPIRATION DATE. SUCH RENEWAL SHALL BE IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE ORIGINAL CONTRACT AND SHALL BE LIMITED TO TWO (2) ONE (1) YEAR PERIODS.</p> <p>CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICES SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM TO THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN.</p> <p>OPEN MARKET CLAUSE: THE DIRECTOR OF PURCHASING MAY AUTHORIZE A SPENDING UNIT TO PURCHASE ON THE OPEN MARKET, WITHOUT THE FILING OF A REQUISITION OR COST ESTIMATE, ITEMS SPECIFIED ON THIS CONTRACT FOR IMMEDIATE DELIVERY IN EMERGENCIES DUE TO UNFORESEEN CAUSES (INCLUDING BUT NOT LIMITED TO DELAYS IN TRANSPORTATION OR AN UNANTICIPATED INCREASE IN THE VOLUME OF WORK.)</p> <p>QUANTITIES: QUANTITIES LISTED IN THE REQUISITION ARE APPROXIMATIONS ONLY, BASED ON ESTIMATES SUPPLIED BY THE STATE SPENDING UNIT. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACT SHALL COVER THE QUANTITIES ACTUALLY ORDERED FOR DELIVERY DURING THE TERM OF THE CONTRACT, WHETHER MORE OR LESS THAN THE QUANTITIES SHOWN.</p> <p>ORDERING PROCEDURE: SPENDING UNIT(S) SHALL ISSUE A WRITTEN STATE CONTRACT ORDER (FORM NUMBER WV-39) TO THE VENDOR FOR COMMODITIES COVERED BY THIS CONTRACT. THE ORIGINAL COPY OF THE WV-39 SHALL BE MAILED TO THE VENDOR AS AUTHORIZATION FOR SHIPMENT, A SECOND COPY MAILED TO THE PURCHASING DIVISION, AND A THIRD COPY RETAINED BY THE SPENDING UNIT.</p> <p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Willy B. Culley</i>	TELEPHONE 1-304-748-1143	DATE 02-05-07
TITLE <i>Owner</i>	FBN 233-13-5121	ADDRESS CHANGES TO BE NOTED ABOVE

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<p>FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATICALLY NULL AND VOID, AND IS TERMINATED WITHOUT FURTHER ORDER.</p> <p>THE TERMS AND CONDITIONS CONTAINED IN THIS CONTRACT SHALL SUPERSEDE ANY AND ALL SUBSEQUENT TERMS AND CONDITIONS WHICH MAY APPEAR ON ANY ATTACHED PRINTED DOCUMENTS SUCH AS PRICE LISTS, ORDER FORMS, SALES AGREEMENTS OR MAINTENANCE AGREEMENTS, INCLUDING ANY ELECTRONIC MEDIUM SUCH AS CD-ROM.</p> <p>REV. 04/11/2001</p> <p>WRITTEN QUESTIONS SHALL BE ACCEPTED THROUGH CLOSE OF BUSINESS ON FRIDAY, 1/12/07. QUESTIONS MAY BE SENT VIA USPS, FAX, COURIER OR EMAIL. IN ORDER TO ASSURE NO VENDOR RECEIVES AN UNFAIR ADVANTAGE, NO SUBSTANTIVE QUESTIONS WILL BE ANSWERED ORALLY. IF POSSIBLE, EMAIL QUESTIONS ARE PREFERRED. ADDRESS INQUIRIES TO:</p> <p>ROBERTA WAGNER DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25311 FAX: 304-558-4115 EMAIL: RWAGNER@WVADMIN.GOV</p> <p>EXHIBIT 6</p> <p>PRICE ADJUSTMENT PROVISION: THE STATE OF WEST VIRGINIA WILL CONSIDER BIDS THAT CONTAIN PROVISIONS FOR PRICE ADJUSTMENTS PRIOR TO THE ORIGINAL EXPIRATION OF THE CONTRACT, PROVIDED THAT SUCH</p>						

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<p>PRICE ADJUSTMENT COVERS BOTH UPWARD AND DOWNWARD MOVEMENT OF THE COMMODITY PRICE, AND THAT ADJUSTMENT IS BASED ON THE "PASS THROUGH" INCREASE OR DECREASE OF RAW MATERIALS AND/OR LABOR, WHICH MAKE UP ALL OR A SUBSTANTIAL PART OF A PRODUCT. ADJUSTMENTS ARE TO BE BASED UPON AN ACTUAL DOLLAR FIGURE, NOT A PERCENTAGE. ALL PRICE ADJUSTMENT REQUESTS MUST BE SUBSTANTIATED IN A MANNER ACCEPTABLE TO THE DIRECTOR PURCHASING, E.G. GOVERNMENTAL BENCH MARKS, GENERAL MARKET INCREASE, PUBLISHED PRICE LISTS. SUCH REQUESTS FOR AND INCREASE SHOULD BE RECEIVED IN WRITING BY THE DIRECTOR OF PURCHASING AT LEAST 30 DAYS IN ADVANCE OF THE EFFECTIVE DATE OF THE INCREASE. ANY TIME THE VENDOR REQUESTS A PRICE ADJUSTMENT, THE PURCHASING DIVISION MAY EITHER ACCEPT THE PRICE ADJUSTMENT AND AMEND THE CONTRACT ACCORDINGLY OR REJECT THE ADJUSTMENT IN ITS ENTIRETY AND CANCEL THE CONTRACT.</p> <p>PREFERRED TERMS: IT IS PREFERRED THAT THE PRICES ON THIS CONTRACT ARE FIRM FOR LIFE OF THE CONTRACT, AS INDICATED IN THE LIFE OF CONTRACT CLAUSE CONTAINED HEREIN, NOT TO EXCEED ONE (1) YEAR.</p> <p>IF THE VENDOR CANNOT GUARANTEE A FIRM PRICE FOR THE LIFE OF CONTRACT, HE MUST INDICATE ONE OF THE PARAGRAPHS LISTED BELOW. FAILURE TO QUALIFY THE PREFERRED TERMS WILL BIND THE VENDOR TO A FIRM PRICE FOR THE LIFE OF THE CONTRACT.</p> <p>ALTERNATE TERMS: <input checked="" type="checkbox"/> THE PRICES ON THIS CONTRACT WILL REMAIN FIRM FOR (60) SIXTY DAYS AFTER THE EFFECTIVE DATE OF THE</p>						

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<p>CONTRACT. PRICES WILL REMAIN FIRM AFTER EACH PRICE ADJUSTMENT FOR A MINIMUM OF <i>NINETY</i> DAYS. (90)</p> <p>() THE VENDOR DOES NOT AGREE TO MAINTAIN A FIRM PRICE FOR THE LENGTH OF THE CONTRACT BUT OFFERS AN ALTERNATE PROPOSAL AS FOLLOWS: </p> <p>VENDOR PREFERENCE CERTIFICATE</p> <p>CERTIFICATION AND APPLICATION* IS HEREBY MADE FOR PREFERENCE IN ACCORDANCE WITH WEST VIRGINIA CODE, 5A-3-37 (DOES NOT APPLY TO CONSTRUCTION CONTRACTS).</p> <p>A. APPLICATION IS MADE FOR 2.5% PREFERENCE FOR THE REASON CHECKED:</p> <p>(<input checked="" type="checkbox"/>) BIDDER IS AN INDIVIDUAL RESIDENT VENDOR AND HAS RESIDED CONTINUOUSLY IN WEST VIRGINIA FOR FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION; OR</p> <p>() BIDDER IS A PARTNERSHIP, ASSOCIATION OR CORPORATION RESIDENT VENDOR AND HAS MAINTAINED ITS HEAD-QUARTERS OR PRINCIPAL PLACE OF BUSINESS CONTINUOUSLY IN WEST VIRGINIA FOR FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION; OR 80% OF THE OWNERSHIP INTEREST OF BIDDER IS HELD BY ANOTHER INDIVIDUAL, PARTNERSHIP, ASSOCIATION OR CORPORATION RESIDENT VENDOR WHO HAS MAINTAINED ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS CONTINUOUSLY IN WEST VIRGINIA FOR FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION; OR</p>						

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<p>() BIDDER IS A CORPORATION NONRESIDENT VENDOR WHICH HAS AN AFFILIATE OR SUBSIDIARY WHICH EMPLOYS A MINIMUM OF ONE HUNDRED STATE RESIDENTS AND WHICH HAS MAINTAINED ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS WITHIN WEST VIRGINIA CONTINUOUSLY FOR THE FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION.</p> <p>B. APPLICATION IS MADE FOR 2.5% PREFERENCE FOR THE REASON CHECKED:</p> <p>(✓) BIDDER IS A RESIDENT VENDOR WHO CERTIFIES THAT, DURING THE LIFE OF THE CONTRACT, ON AVERAGE AT LEAST 75% OF THE EMPLOYEES WORKING ON THE PROJECT BEING BID ARE RESIDENTS OF WEST VIRGINIA WHO HAVE RESIDED IN THE STATE CONTINUOUSLY FOR THE TWO YEARS IMMEDIATELY PRECEDING SUBMISSION OF THIS BID; OR () BIDDER IS A NONRESIDENT VENDOR EMPLOYING A MINIMUM OF ONE HUNDRED STATE RESIDENTS OR IS A NONRESIDENT VENDOR WITH AN AFFILIATE OR SUBSIDIARY WHICH MAINTAINS ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS WITHIN WEST VIRGINIA EMPLOYING A MINIMUM OF ONE HUNDRED STATE RESIDENTS WHO CERTIFIES THAT, DURING THE LIFE OF THE CONTRACT, ON AVERAGE AT LEAST 75% OF THE EMPLOYEES OR BIDDERS' AFFILIATE'S OR SUBSIDIARY'S EMPLOYEES ARE RESIDENTS OF WEST VIRGINIA WHO HAVE RESIDED IN THE STATE CONTINUOUSLY FOR THE TWO YEARS IMMEDIATELY PRECEDING SUBMISSION OF THIS BID.</p> <p>BIDDER UNDERSTANDS IF THE SECRETARY OF TAX & REVENUE DETERMINES THAT A BIDDER RECEIVING PREFERENCE HAS FAILED TO CONTINUE TO MEET THE REQUIREMENTS FOR SUCH PREFERENCE, THE SECRETARY MAY ORDER THE DIRECTOR OF PURCHASING TO: (A) RESCIND THE CONTRACT OR PURCHASE ORDER ISSUED; OR (B) ASSESS A PENALTY AGAINST SUCH</p>						

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SIGNATURE <i>Willy B. Culley</i>	TELEPHONE 1-304-748-1143	DATE 02-05-07
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FBN ENTERPRISES
WILLY CULLEY
130 SCHOOL STREET
WEIRTON, WV 26062

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FBN ENTERPRISES

February 6, 2007

Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

RE: RFQ BPH70348
BUYER 22

Dear Sir or Madam:

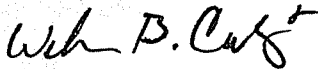
I WILLY CULLEY dba FBN ENTERPRISES under WV LICENSE # WV 028597

request the WV Vendor preference in accordance with the WV Code as specified under item 8.

of the General Terms & Conditions listed on the back of Page 1 for the above referenced

Request for Quotation.

Sincerely,



Willy Culley

OWNER – FBN ENTERPRISES



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<p>BIDDER IN AN AMOUNT NOT TO EXCEED 5% OF THE BID AMOUNT AND THAT SUCH PENALTY WILL BE PAID TO THE CONTRACTING AGENCY OR DEDUCTED FROM ANY UNPAID BALANCE ON THE CONTRACT OR PURCHASE ORDER.</p> <p>BY SUBMISSION OF THIS CERTIFICATE, BIDDER AGREES TO DISCLOSE ANY REASONABLY REQUESTED INFORMATION TO THE PURCHASING DIVISION AND AUTHORIZES THE DEPARTMENT OF TAX AND REVENUE TO DISCLOSE TO THE DIRECTOR OF PURCHASING APPROPRIATE INFORMATION VERIFYING THAT BIDDER HAS PAID THE REQUIRED BUSINESS TAXES, PROVIDED THAT SUCH INFORMATION DOES NOT CONTAIN THE AMOUNTS OF TAXES PAID NOR ANY OTHER INFORMATION DEEMED BY THE TAX COMMISSIONER TO BE CONFIDENTIAL.</p> <p>UNDER PENALTY OF LAW FOR FALSE SWEARING (WEST VIRGINIA CODE 61-5-3), BIDDER HEREBY CERTIFIES THAT THIS CERTIFICATE IS TRUE AND ACCURATE IN ALL RESPECTS; AND THAT IF A CONTRACT IS ISSUED TO BIDDER AND IF ANYTHING CONTAINED WITHIN THIS CERTIFICATE CHANGES DURING THE TERM OF THE CONTRACT, BIDDER WILL NOTIFY THE PURCHASING DIVISION IN WRITING IMMEDIATELY.</p> <p>BIDDER: <u>FBN Enterprises</u></p> <p>DATE: <u>02/05/07</u></p> <p>SIGNED: <u>Willy B. Culley</u></p> <p>TITLE: <u>Owner</u></p> <p>* CHECK ANY COMBINATION OF PREFERENCE CONSIDERATION(S)</p>						

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<p>IN EITHER "A" OR "B", OR BOTH "A" AND "B" WHICH YOU ARE ENTITLED TO RECEIVE. YOU MAY REQUEST UP TO THE MAXIMUM 5% PREFERENCE FOR BOTH "A" AND "B". (REV. 12/00)</p> <p style="text-align: center;">NOTICE</p> <p>AN ORIGINAL, SIGNED BID MUST BE SUBMITTED TO:</p> <p style="text-align: center;">DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED: SEALED BID.</p> <p>BUYER: ROBERTA WAGNER - 22</p> <p>RFQ. NO.: BPH70348</p> <p>BID OPENING DATE AND TIME: 02/06/2007 @ 1:30 PM</p> <p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID: ----- 1-304-748-4903 -----</p> <p>CONTACT PERSON (PLEASE PRINT CLEARLY): ----- Willy Culley -----</p>						

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RFQ NUMBER
BPH70348

PAGE
9

ADDRESS CORRESPONDENCE TO ATTENTION OF
ROBERTA WAGNER
304-558-0067

RFQ COPY
TYPE NAME/ADDRESS HERE

FBN ENTERPRISES
 WILLY CULLEY
 130 SCHOOL STREET
 WEIRTON, WV 26062

HEALTH AND HUMAN RESOURCES
 BPH - TRAUMA & EMERGENCY CARE
 SYSTEM
 VARIOUS LOCALES AS INDICATED
 ON PURCHASE ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
01/03/2007				

BID OPENING DATE: **02/06/2007** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
** PLEASE ENCLOSE A CONVENIENCE COPY **						
***** THIS IS THE END OF RFQ BPH70348 ***** TOTAL:						<u>326,160.00</u>
<p>EXHIBIT 4</p> <p>LOCAL GOVERNMENT BODIES: UNLESS THE VENDOR INDICATES IN THE BID HIS REFUSAL TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO COUNTY, SCHOOL, MUNICIPAL AND OTHER LOCAL GOVERNMENT BODIES, THE BID SHALL EXTEND TO POLITICAL SUBDIVISIONS OF THE STATE OF WEST VIRGINIA. IF THE VENDOR DOES NOT WISH TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO ALL POLITICAL SUBDIVISIONS OF THE STATE, THE VENDOR MUST CLEARLY INDICATE SUCH REFUSAL IN HIS BID. SUCH REFUSAL SHALL NOT PREJUDICE THE AWARD OF THIS CONTRACT IN ANY MANNER.</p> <p>REV. 3/88</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Willy B. Culley</i>	TELEPHONE 1-304-748-1173	DATE 02-05-07
TITLE Owner	FEIN 233-13-5121	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

FBN ENTERPRISES
 WILLY CULLEY
 130 SCHOOL STREET
 WEIRTON, WV 26062

6.0 Bid Evaluation Sheet

Bid will be evaluated based on the Grand Total Price listed below. Award will be based on the lowest Grand Total Price which meets all specifications in items 1.0 through 5.0.

Note: Vendors should take particular note of the specifications in General Section 1.0 to assure compliance.

Qty	Size	Description	Unit Price	Total Price
2	10 kW	LP Generator 25 kw	16,895	33,790
6	15 kW	LP Generator 25 kw	16,895	101,370
4	20 kW	LP Generator 25 kw	16,895	67,580
2	30 kW	LP Generator 45 kw	19,895	39,790
2	35 kW	LP Generator 45 kw	19,895	39,790
1	45 kW	LP Generator 45 kw	19,895	19,895
1	60 kW	LP Generator 70 kw	23,945	23,945
			134,315	
GRAND TOTAL OF BID PRICE				326,160

Above quantities are for sample purposes only. Actual ordered amounts may be more or less.

END OF SPECIFICATIONS



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
 BPH70348

PAGE
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF
 ROBERTA WAGNER
 304-558-0067

RFQ COPY
 TYPE NAME/ADDRESS HERE

VENDOR

FBN ENTERPRISES
 WILLY CULLEY
 130 SCHOOL STREET
 WEIRTON, WV 26062

SHIP TO

HEALTH AND HUMAN RESOURCES
 BPH - TRAUMA & EMERGENCY CARE
 SYSTEM
 VARIOUS LOCALES AS INDICATED
 ON PURCHASE ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
01/16/2007	02/06/2007			

BID OPENING DATE: 02/06/2007 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
*****ADDENDUM #1*****						
1.				ANSWERS TO VENDOR QUESTIONS AS PER ATTACHED.		
2.				ADDENDUM ACKNOWLEDGEMENT IS ATTACHED. THIS DOCUMENT SHOULD BE SIGNED AND RETURNED WITH YOUR BID. FAILURE TO SIGN AND RETURN MAY RESULT IN DISQUALIFICATION OF YOUR BID.		
END OF ADDENDUM #1						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Willy B. Culley</i>	TELEPHONE 1-304-748-1143	DATE 02-05-07
TITLE <i>Owner</i>	FEIN 233-13-5121	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

WV-36a STATE OF WEST VIRGINIA PURCHASING CONTINUATION SHEET	Buyer: 22	Page 1	Req. or P. O. No.: BPH70348
Vendor: FBN Enterprises	Spending Unit: Health & Human Resources		

Requisition No.: BPH70348

ADDENDUM ACKNOWLEDGEMENT

I hereby acknowledge receipt of the following checked addendum(s) and have made the necessary revisions to my proposal, plans and/or specifications, etc.

- Addendum No.'s:
- No. 1 _____
 - No. 2 _____
 - No. 3 _____
 - No. 4 _____
 - No. 5 _____

I understand that failure to confirm the receipt of the addendum(s) is cause for rejection of bids.

Walter B. Cull
Signature

FBN Enterprises
Company

02/05/07
Date

A F F I D A V I T

West Virginia Code §5A-3-10a states:

No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owned is an amount greater than one thousand dollars in the aggregate

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

EXCEPTION:

The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

LICENSING:

Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY:

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit www.state.wv.us/admin/purchase/privacy for the Notice of Agency Confidentiality Policies.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), it is hereby certified that the vendor acknowledges the information in this said affidavit and are in compliance with the requirements as stated.

Vendor's Name: FBN Enterprises

Authorized Signature: W. B. Cuff

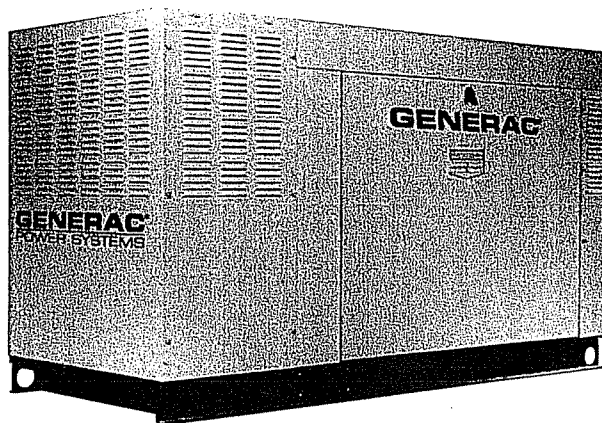
Date: 02/05/07

QT025

Liquid Cooled Gas Engine Generator Sets

Standby Power Rating

25 kW 60 Hz



GENERAC 2.4L ENGINE

Naturally Aspirated
Gaseous Fueled
QT025A

STANDARD EQUIPMENT

- All input connections in one single area
- High coolant temperature shutdown
- Low oil pressure shutdown
- Low coolant level automatic shutdown
- Overspeed automatic shutdown
- Crank timer
- Exercise timer
- Oil drain extension
- Cool flow radiator
- Closed coolant recovery system
- UV/Ozone resistant hoses
- Watertight state of the art electrical connectors
- Mainline circuit breaker
- Radiator drain extension
- Battery charge alternator
- 10 Amp static battery charger
- Battery and battery cables
- Battery rack
- Fan and belt guards
- Isochronous governor
- Flex fuel line
- Coolant heater

FEATURES

- Innovative design and fully prototype tested
- UL2200 Listed
- Solid state frequency compensated voltage regulator
- Dynamic and static battery charger
- Sound attenuated acoustically designed enclosure
- Quiet test for low noise level exercise
- Acoustically designed engine cooling system
- High flow low noise factory engineered exhaust system
- State of the art digital control system with H100 digital control panel
- Watertight electrical connectors
- Rodent proof construction
- High efficiency, low distortion Generac designed alternator
- Vibration isolated from mounting base
- Matching Generac transfer switches engineered and tested to work as a system
- All components easily accessible for maintenance
- Electrostatically applied powder paint

GENERAC®
POWER SYSTEMS, INC.

APPLICATION & ENGINEERING DATA

QT025

GENERATOR SPECIFICATIONS

TYPE	Synchronous
ROTOR INSULATION.....	Class H
STATOR INSULATION.....	Class H
TOTAL HARMONIC DISTORTION.....	<5%
TELEPHONE INTERFERENCE FACTOR (TIF)	<50
ALTERNATOR OUTPUT LEADS 3 PHASE	4 wire
BEARINGS.....	Sealed Ball
COUPLING.....	Flexible Disc
LOAD CAPACITY (STANDBY RATING)	25 kW
EXCITATION SYSTEM	Brushless

NOTE: Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046, and DIN6271 standards.

VOLTAGE REGULATOR

TYPE	Full Digital
SENSING	3 Phase
REGULATION.....	± 1/4%
FEATURES.....	Built into H-100 Control Panel V/F Adjustable Adjustable Voltage and Gain

GENERATOR FEATURES

- Revolving field heavy duty generator
- Directly connected to the engine
- Operating temperature rise 120 °C above a 40 °C ambient
- Insulation is Class H rated at 150 °C rise
- All prototype models have passed three phase short circuit testing

CONTROL PANEL FEATURES

- TWO FOUR LINE LCD DISPLAYS READ:
 - Voltage (all phases)
 - Power factor
 - kVAR
 - Engine speed
 - Run hours
 - Fault history
 - Coolant temperature
 - Low oil pressure shutdown
 - Overvoltage
 - Low coolant level
 - Not in auto position (flashing light)
 - Transfer SW type
 - Current (all phases)
 - kW
 - Transfer switch status
 - Low fuel pressure
 - Service reminders
 - Oil pressure
 - Time and date
 - High coolant temperature shutdown
 - Overspeed
 - Low coolant level
 - Exercise speed
- INTERNAL FUNCTIONS:
 - I²T function for alternator protection from line to neutral and line to line short circuits
 - Emergency stop
 - Programmable auto crank function
 - 2 wire start for any transfer switch
 - Communicates with the Generac HTS transfer switch
 - Built-in 7 day exerciser
 - Adjustable engine speed at exerciser
 - RS232 port for GenLink[®] control
 - RS485 port remote communication
 - Canbus addressable
 - Governor controller and voltage regulator are built into the master control board
 - Temperature range -40 °C to 70 °C

ENGINE SPECIFICATIONS

MAKE	Generac
MODEL.....	Inline 4
CYLINDERS.....	4
DISPLACEMENT.....	2.4 Liter
BORE	3.41
STROKE.....	3.94
COMPRESSION RATIO	8.5:1
INTAKE AIR SYSTEM	Naturally Aspirated
VALVE SEATS	Hardened
LIFTER TYPE.....	Hydraulic

GOVERNOR SPECIFICATIONS

TYPE	Electronic
FREQUENCY REGULATION	Isochronous
STEADY STATE REGULATION.....	± 0.25
ADJUSTMENTS FOR:	
Speed	Yes
Droop.....	Yes

ENGINE LUBRICATION SYSTEM

OIL PUMP	Gear
OIL FILTER.....	Full flow spin-on cartridge
CRANKCASE CAPACITY.....	4 Quarts

ENGINE COOLING SYSTEM

TYPE	Closed
WATER PUMP.....	Belt driven
FAN SPEED	2150
FAN DIAMETER.....	18 inches
FAN MODE.....	Pusher
COOLANT HEATER.....	1000W 120V

FUEL SYSTEM

FUEL TYPE	Natural gas, propane vapor
CARBURETOR.....	Down Draft
SECONDARY FUEL REGULATOR.....	Standard
FUEL SHUT OFF SOLENOID	Standard
OPERATING FUEL PRESSURE.....	5" - 14" H ₂ O

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR.....	12V 30 Amp
STATIC BATTERY CHARGER	2 Amp
RECOMMENDED BATTERY	Group 24F, 525CCA
SYSTEM VOLTAGE	12 Volts

QT025

OPERATING DATA

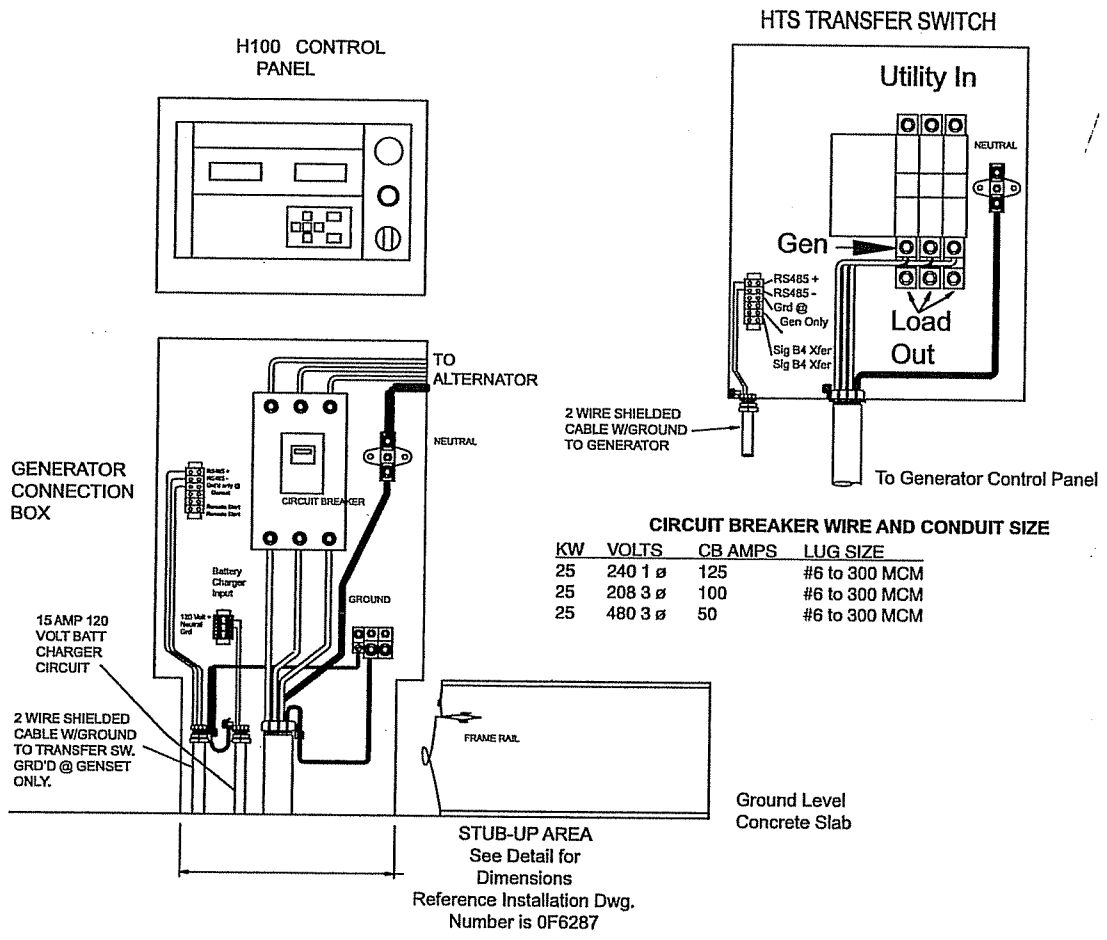
		QT025		
KW RATING		25		
ENGINE SIZE		2.4 Liter V-6		
GENERATOR OUTPUT VOLTAGE/KW - 60Hz		KW	AMP	CB Size
120/240V, 1-phase, 1.0 pf		25	104	125
120/208V, 3-phase, 0.8 pf		25	87	100
277/480V, 3-phase, 0.8 pf		25	38	50
GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35%				
Single phase or 208 3-phase		43		
480V 3-phase		57		
ENGINE FUEL CONSUMPTION (Natural Gas) (Propane)		Natural Gas	Propane	
		(ft ³ /hr.)	(gal/hr.)	cu ft/hr
Exercise cycle		60	0.65	24
25% of rated load		140	1.53	56
50% of rated load		220	2.40	87
75% of rated load		300	3.27	119
100% of rated load		380	4.15	151
ENGINE COOLING				
Air flow (inlet air including alternator and combustion air) ft ³ /min.		1,500		
System coolant capacity US gal.		2.5		
Heat rejection to coolant BTU/hr.		95,000		
Max. operating air temp. on radiator °C (°F)		60 (150)		
Max. ambient temperature °C (°F)		50 (140)		
COMBUSTION AIR REQUIREMENTS				
Flow at rated power 60 Hz cfm		70		
SOUND EMISSIONS IN DBA				
Exercising at 7 meters		59		
Full load at 7 meters		70		
EXHAUST				
Exhaust flow at rated output 60 Hz cfm		220		
Exhaust temp. at muffler outlet °F		975		
ENGINE PARAMETERS				
Rated synchronous RPM 60 Hz		1800		
HP at rated KW 60 Hz		40		
POWER ADJUSTMENT FOR AMBIENT CONDITIONS				
Temperature Deration				
3% for every 10 °C above - °C		25		
1.65% for every 10 °F above - °F		77		
Altitude Deration				
1% for every 100 m above - m		183		
3% for every 1000 ft. above - ft.		600		

RATING: All three phases units are rated at 0.8 power factor. All single phase units are rated at 1.0 power factor. **STANDBY RATING:** Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046-1. Design and specifications are subject to change without notice.

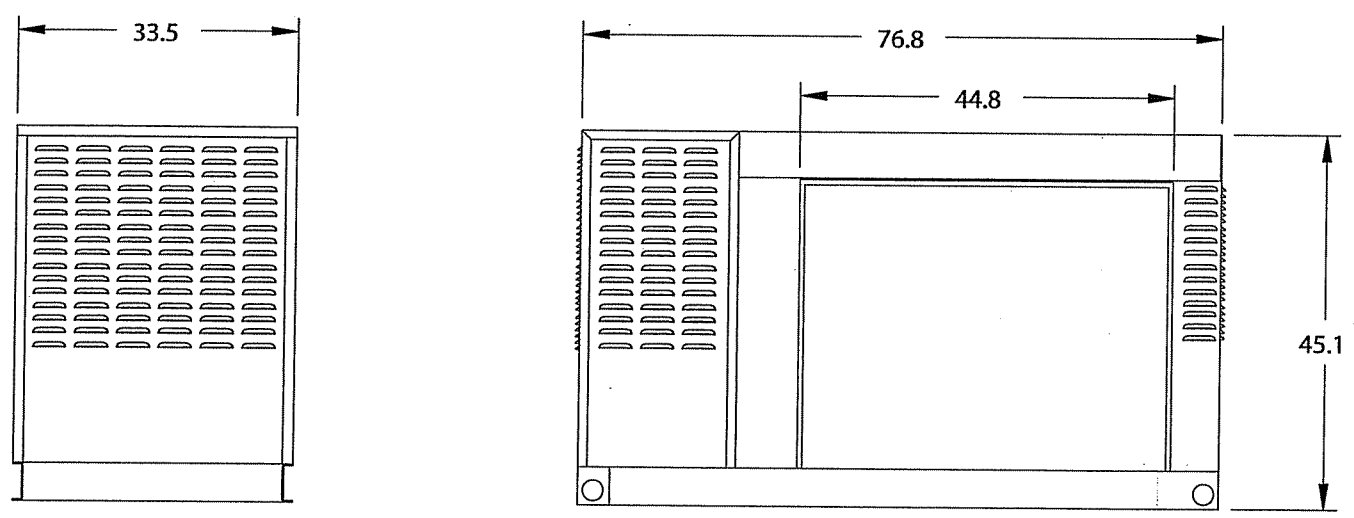
KW rating is based on LPG Fuel and may derate with natural gas.

INTERCONNECTIONS

QT025



INSTALLATION LAYOUT



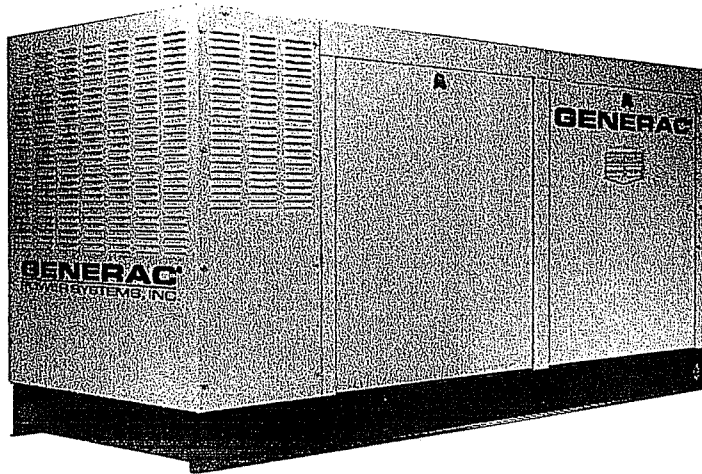
GENERAC POWER SYSTEMS, INC. • P.O. BOX 8 • WAUKESHA, WI 53187
 262/544-4811 • FAX 262/544-4851

QT045

Liquid Cooled Gas Engine Generator Sets

Standby Power Rating

45 kW 60 Hz



GENERAC 5.4L ENGINE

Naturally Aspirated
Gaseous Fueled
QT045A

STANDARD EQUIPMENT

- All input connections in one single area
- High coolant temperature shutdown
- Low oil pressure shutdown
- Low coolant level automatic shutdown
- Low fuel pressure alarm
- Overspeed automatic shutdown
- Adjustable cranking timer
- Adjustable exercise timer
- Oil drain extension
- Cool flow radiator
- Closed coolant recovery system
- UV/Ozone resistant hoses
- Coolant heater
- Watertight state of the art electrical connectors
- Mainline circuit breaker
- Oil drain extension to frame rail
- Radiator drain extension
- Battery charge alternator
- 10 Amp static battery charger
- Battery and battery cables
- Battery rack
- Fan and belt guards
- Isochronous governor
- Flex fuel line

FEATURES

- Innovative design and fully prototype tested
- UL2200 Listed
- Solid state frequency compensated digital voltage regulator
- Dynamic and static battery charger
- Quiet test for low noise level exercise
- High flow low noise factory engineered exhaust system
- State of the art digital control system with H-100 microprocessor control panel
- Built-in kW, kVAR and power factor meters
- Watertight electrical connectors
- Rodent proof construction
- High efficiency, low distortion Generac designed alternator
- Matching Generac transfer switches engineered and

GENERAC®
POWER SYSTEMS, INC.

APPLICATION & ENGINEERING DATA

QT045

GENERATOR SPECIFICATIONS

TYPE	Synchronous
ROTOR INSULATION	Class H
TOTAL HARMONIC DISTORTION	<3.5%
TELEPHONE INTERFERENCE FACTOR (TIF)	<50
ALTERNATOR OUTPUT LEADS 3 PHASE	4 wire
BEARINGS	Sealed Ball
COUPLING	Flexible Disc
LOAD CAPACITY (STANDBY RATING)	55 kW
EXCITATION SYSTEM	Brushless

NOTE: Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046, and DIN6271 standards.

VOLTAGE REGULATOR

TYPE	Full Digital
SENSING	3 Phase
REGULATION	± 1/4%
FEATURES	Built into H-100 Control Panel W/F Adjustable Adjustable Voltage and Gain

GENERATOR FEATURES

- Revolving field heavy duty generator
- Directly connected to the engine
- Operating temperature rise 120 °C above a 40 °C ambient
- Insulation is Class H rated at 150 °C rise
- All prototype models have passed three phase short circuit testing

CONTROL PANEL FEATURES

- TWO FOUR LINE LCD DISPLAYS READ:
 - Voltage (all phases)
 - Power factor
 - kVAR
 - Engine speed
 - Run hours
 - Fault history
 - Coolant temperature
 - Low oil pressure shutdown
 - Overvoltage
 - Low coolant level
 - Not in auto position (flashing light)
 - Transfer SW type
 - Current (all phases)
 - kW
 - Transfer switch status
 - Low fuel pressure
 - Service reminders
 - Oil pressure
 - Time and date
 - High coolant temperature shutdown
 - Overspeed
 - Low coolant level
 - Exercise speed
- INTERNAL FUNCTIONS:
 - RT function for alternator protection from line to neutral and line to line short circuits
 - Emergency stop
 - Programmable auto crank function
 - 2 wire start for any transfer switch
 - Communicates with the Generac RTS transfer switch
 - Built-in 7 day exerciser
 - Adjustable engine speed at exerciser
 - RS232 port for GenLink[®] control
 - RS485 port remote communication
 - Canbus addressable
 - Governor controller and voltage regulator are built into the master control board
 - Temperature range -40 °C to 70 °C

ENGINE SPECIFICATIONS

MAKE	Generac
MODEL	V7
CYLINDERS	8
DISPLACEMENT	5.4 Liter
BORE	3.55
STROKE	4.17
COMPRESSION RATIO	9:1
INTAKE AIR SYSTEM	Naturally Aspirated
VALVE SEATS	Hardened
LIFTER TYPE	Hydraulic

GOVERNOR SPECIFICATIONS

TYPE	Electronic
FREQUENCY REGULATION	Isynchronous
STEADY STATE REGULATION	+ 0.25%

All functions are factory preset
Individual parameter adjustments can be made via GenLink[®]

ENGINE LUBRICATION SYSTEM

OIL PUMP	Gear
OIL FILTER	Full flow spin-on cartridge
DRAINAGE CAPACITY	Quarts

ENGINE COOLING SYSTEM

TYPE	Closed
WATER PUMP	Belt driven
FAN SPEED	2000
FAN DIAMETER	22 inches
FAN MODE	Pusher
COOLANT HEATER	120V 1500 Watt

FUEL SYSTEM

FUEL TYPE	Natural gas, Propane vapor
CARBURETOR	Down Draft
SECONDARY FUEL REGULATOR	Standard
FUEL SHUT OFF SOLENOID	Standard
OPERATING FUEL PRESSURE	5" - 14" H ₂ O

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR	12V 30 Amp
STATIC BATTERY CHARGER	12V 10 Amp
RECOMMENDED BATTERY	Group 24F, 525CCA
SYSTEM VOLTAGE	12 Volts

QT045

OPERATING DATA

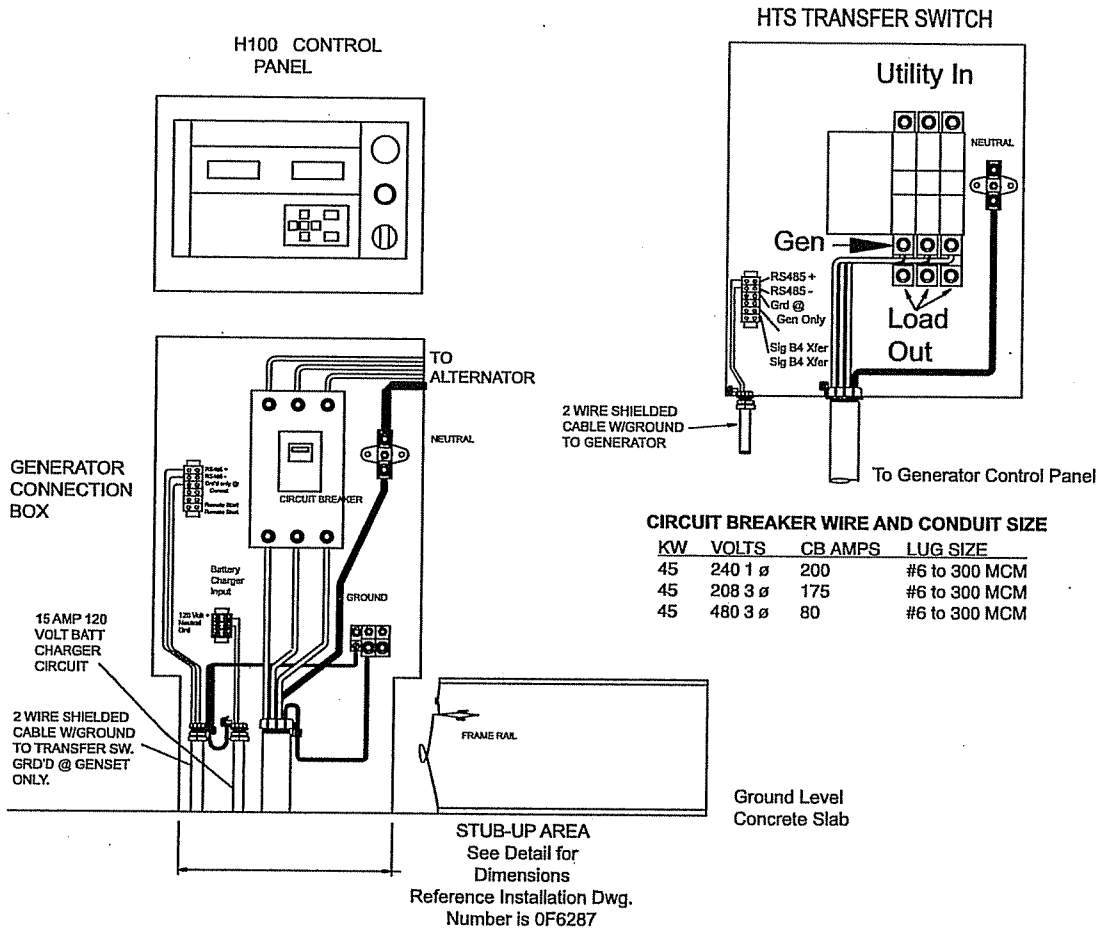
		QT045		
KW RATING		45		
ENGINE SIZE		5.4 Liter V-8		
GENERATOR OUTPUT VOLTAGE/KW - 60Hz		KW	AMP	CB Size
120/240V, 1-phase, 1.0 pf		45	188	200
120/208V, 3-phase, 0.8 pf		45	156	175
277/480V, 3-phase, 0.8 pf		45	67	80
GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35%				
Single phase or 208 3-phase		90		
480V 3-phase		120		
ENGINE FUEL CONSUMPTION (Natural Gas) (Propane)		Natural Gas	Propane	
		(ft. ³ /hr.)	(gal./hr.)	cu. ft./hr.
Exercise cycle		95	1.04	38.2
25% of rated load		170	1.87	68
50% of rated load		330	3.63	132
75% of rated load		460	5.06	184
100% of rated load		635	6.98	254
ENGINE COOLING				
Air flow (inlet air including alternator and combustion air) ft ³ /min.		4,350		
System coolant capacity US gal.		4.0		
Heat rejection to coolant BTU/hr.		196,000		
Max. operating air temp. on radiator °C (°F)		60 (150)		
Max. ambient temperature °C (°F)		50 (140)		
COMBUSTION AIR REQUIREMENTS				
Flow at rated power 60 Hz cfm		140		
SOUND EMISSIONS IN DBA				
Exercising at 7 meters		60		
Full load at 7 meters		73		
EXHAUST				
Exhaust flow at rated output 60 Hz cfm		350		
Exhaust temp. at muffler outlet °F		780		
ENGINE PARAMETERS				
Rated synchronous RPM 60 Hz		1800		
HP at rated KW 60 Hz		70		
POWER ADJUSTMENT FOR AMBIENT CONDITIONS				
Temperature Deration				
3% for every 10 °C above - °C		43		
1.65% for every 10 °F above - °F		110		
Altitude Deration				
1% for every 100 m above - m		1097		
3% for every 1000 ft. above - ft.		3600		

RATING: All three phases units are rated at 0.8 power factor. All single phase units are rated at 1.0 power factor. STANDBY RATING: Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046-1. Design and specifications are subject to change without notice.

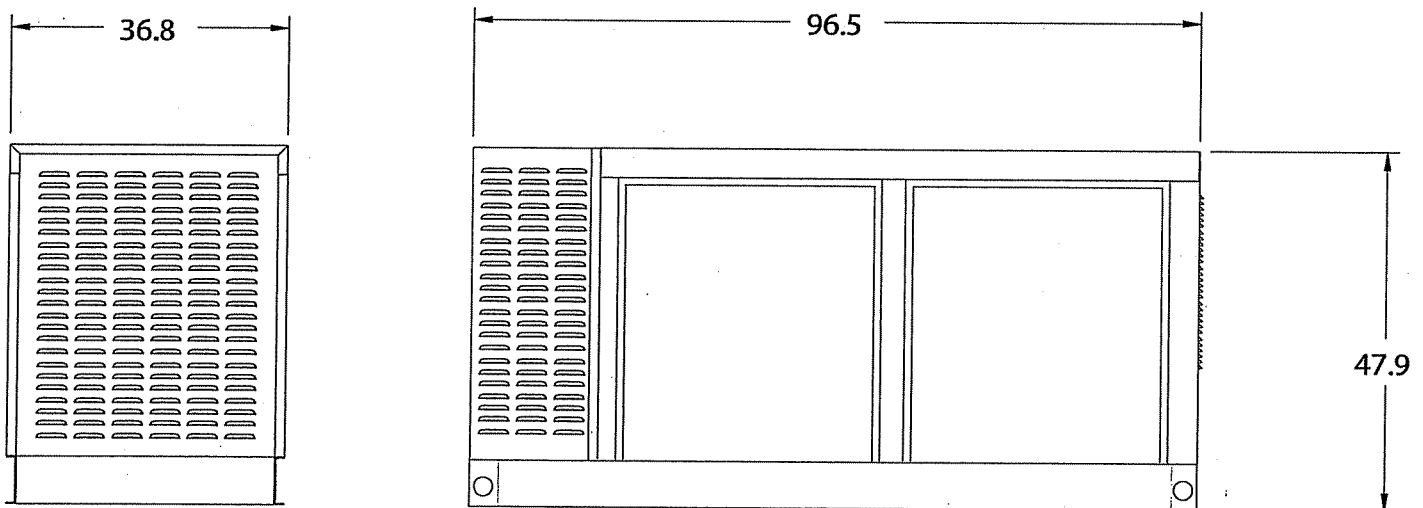
KW rating is based on LPG Fuel and may derate with natural gas.

INTERCONNECTIONS

QT045



INSTALLATION LAYOUT



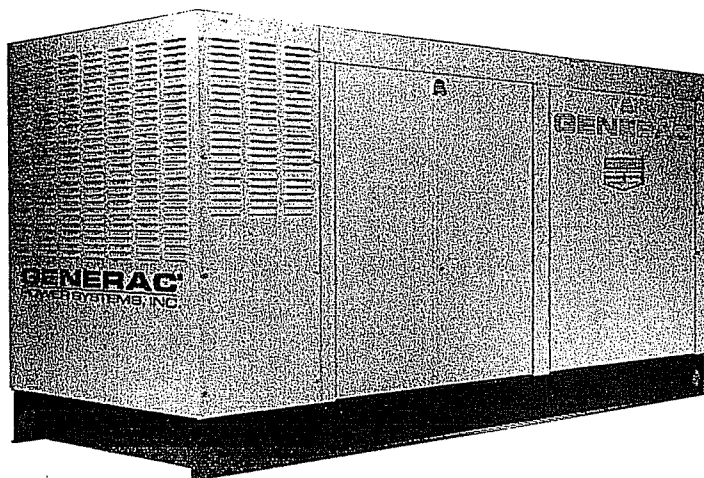
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262/544-4811 • FAX 262/544-4851

QTA055

Liquid Cooled Gas Engine Generator Sets

Standby Power Rating

55 kW 60 Hz



GENERAC 5.4L ENGINE

Naturally Aspirated
Gaseous Fueled
QTA55

STANDARD EQUIPMENT

- All input connections in one single area
- High coolant temperature shutdown
- Low oil pressure shutdown
- Low coolant level automatic shutdown
- Low fuel pressure
- Overspeed automatic shutdown
- Adjustable cranking timer
- Adjustable exercise timer
- Oil drain extension
- Cool flow radiator
- Closed coolant recovery system
- UV/Ozone resistant hoses
- Watertight state of the art electrical connectors
- Mainline circuit breaker
- Oil drain extension to frame rail
- Radiator drain extension
- Battery charge alternator
- 10 Amp static battery charger
- Battery and battery cables
- Battery rack
- Fan and belt guards
- Isochronous governor
- Coolant Heater

FEATURES

- Innovative design and fully prototype tested
- UL2200 Listed
- Solid state frequency compensated digital voltage regulator
- Dynamic and static battery charger
- Quiet test for low noise level exercise
- High flow low noise factory engineered exhaust system
- State of the art digital control system with H-100 microprocessor control panel
- Built-in kW, kVAR and power factor meters
- Watertight electrical connections
- Rodent proof construction
- High efficiency, low distortion Generac designed alternator
- Matching Generac transfer switches engineered and installed in accordance with IEEE 1547-2003

GENERAC®
POWER SYSTEMS, INC.

APPLICATION & ENGINEERING DATA

QT055

OPERATIONS

ROTARY INSULATION	Class H
TOTAL HARMONIC DISTORTION	2.5%
REGULATION (IN COLLECTOR CAPACITY MODE)	± 1/4%
ALTERNATOR OUTPUT LEADS 3 PHASE	4 wire
COUPLING	Flexible Disc
LOAD CAPACITY (STANDBY RATING)	100 kW
EXCITATION SYSTEM	Brushless

NOTE: Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046, and DIN6271 standards.

VOLTAGE REGULATION

TYPE	Electronically
SPRING	3 Phase
REGULATION	± 1/4%
FEATURES	Built into H-100 Control Panel W/F Adjustable Adjustable Voltage and Gain

GENERATOR FEATURES

- Revolving field heavy duty generator
- Directly connected to the engine
- Operating temperature rise 120 °C above a 40 °C ambient
- Insulation is Class H rated at 150 °C rise
- All prototype models have passed three phase short circuit testing

CONTROL PANEL FEATURES

- TWO FOUR LINE LCD DISPLAYS READ:
 - Voltage (all phases)
 - Power factor
 - kVAR
 - Engine speed
 - Run hours
 - Fault history
 - Coolant temperature
 - Low oil pressure shutdown
 - Overvoltage
 - Low coolant level
 - Not in auto position (flashing light)
 - Transfer SW type
 - Current (all phases)
 - kW
 - Transfer switch status
 - Low fuel pressure
 - Service reminders
 - Oil pressure
 - Time and date
 - High coolant temperature shutdown
 - Overspeed
 - Low coolant level
 - Exercise speed
- INTERNAL FUNCTIONS:
 - RT function for alternator protection from line to neutral and line to line short circuits
 - Emergency stop
 - Programmable auto crank function
 - 2 wire start for any transfer switch
 - Communicates with the Gencon HTS transfer switch
 - Built-in 7 day exerciser
 - Adjustable engine speed at exerciser
 - RS232 port for GenLink[®] control
 - RS485 port remote communication
 - Canbus addressable
 - Governor controller and voltage regulator are built into the master control board
 - Temperature range -40 °C to 70 °C

ENGINE SPECIFICATIONS

DISPLACEMENT	5.4 Liter
BORNE	1000
STROKE	4.17
COMPRESSION RATIO	9:1
INTAKE AIR SYSTEM	Naturally Aspirated
VALVE SEATS	Hardened
LUBRICATION	Hydraulic

GOVERNOR SPECIFICATIONS

TYPE	Electronically
FREQUENCY REGULATION	Isynchronous
STEADY STATE REGULATION	± 0.25%

All functions are factory preset
Individual parameter adjustments can be made via GenLink[®]

ENGINE LUBRICATION SYSTEM

OIL PUMP	Gear
OIL FILTER	Full flow spin-on cartridge
CRANKCASE CAPACITY	5 Quarts

ENGINE COOLING SYSTEM

TYPE	Closed
WATER PUMP	Belt driven
FAN SPEED	2090
FAN DIAMETER	22 inches
FAN MODE	Pusher
COOLANT HEATER	1500 Watts 120 V

FUEL SYSTEM

FUEL TYPE	Natural gas, Propane vapor
CARBURETOR	Down Draft
SECONDARY FUEL REGULATOR	Standard
FUEL SHUT OFF SOLENOID	Standard
OPERATING FUEL PRESSURE	5" 14" H ₂ O

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR	12V 30 Amp
STATIC BATTERY CHARGER	12V 2 Amp
RECOMMENDED BATTERY	Group 24F, 525CCA
SYSTEM VOLTAGE	12 Volts

Having dimensions - Secondary apparatus for supplying emergency power for the duration of the utility power outage. No overload capability is available for the ratings. (See ratings in accordance with BS5514, ISO3046 and DIN6271). (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

QT055

OPERATING DATA

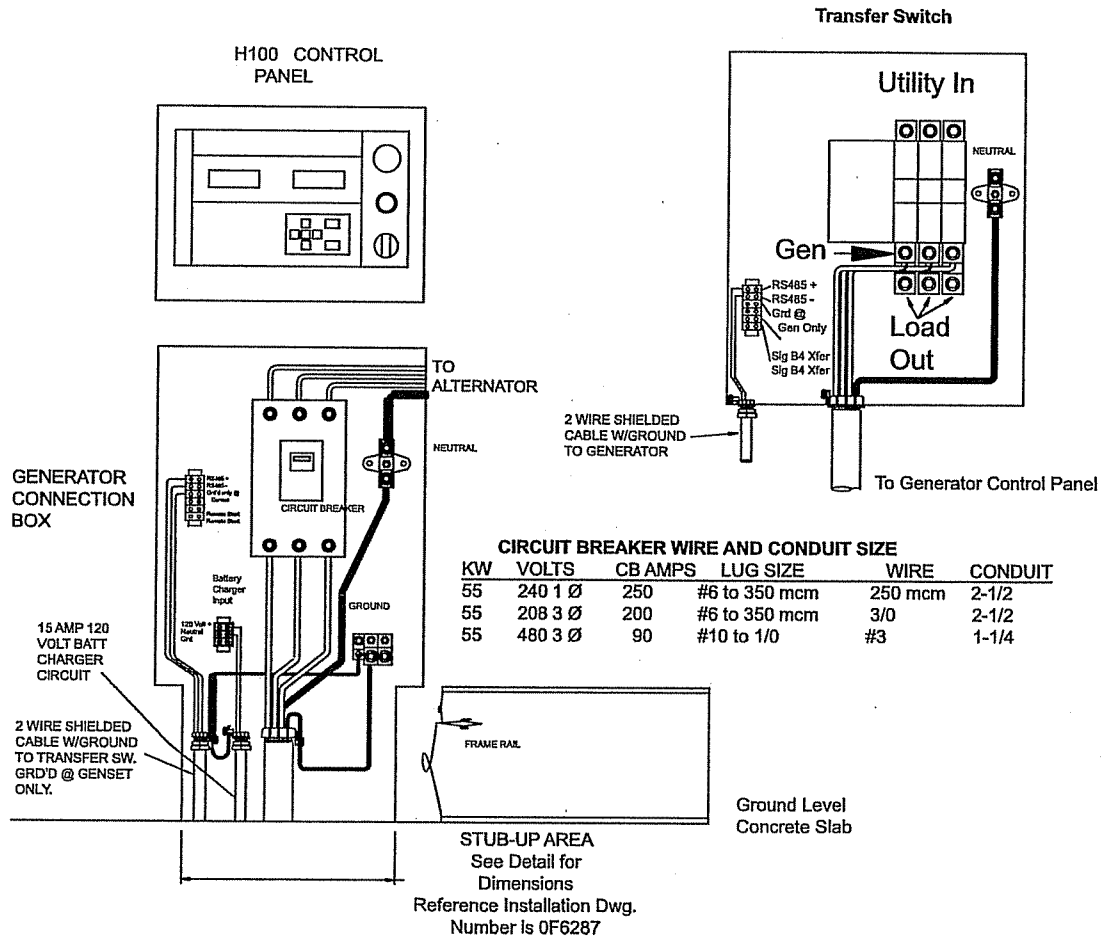
		QT055		
KW RATING		55		
ENGINE SIZE		5.4 Liter V-8		
GENERATOR OUTPUT VOLTAGE/KW - 60Hz		KW	AMP	CB Size
120/240V, 3-phase, 0.8 pf		55	165	200
120/208V, 3-phase, 0.8 pf		55	191	200
277/480V, 3-phase, 0.8 pf		55	83	90
GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35%				
Single phase or 208 3-phase		115		
480V 3-phase		130		
ENGINE FUEL CONSUMPTION (Natural Gas) (Propane)		Natural Gas	Propane	
		(ft ³ /hr.)	(gal/hr.)	cu ft/hr
Exercise cycle		95	1.04	38.2
25% of rated load		204	2.23	82.1
50% of rated load		392	4.29	157.9
75% of rated load		547	5.99	220.4
100% of rated load		756	8.28	304.7
ENGINE COOLING				
Air flow (inlet air including alternator and combustion air)		ft ³ /min.	4,350	
System coolant capacity		US gal.	4.0	
Heat rejection to coolant		BTU/hr.	210,000	
Max. operating air temp. on radiator		°C (°F)	60 (150)	
Max. ambient temperature		°C (°F)	50 (140)	
COMBUSTION AIR REQUIREMENTS				
Flow at rated power 60 Hz		cfm	163	
SOUND EMISSIONS IN DBA				
Exercising at 7 meters		59		
Full load at 7 meters		73		
EXHAUST				
Exhaust flow at rated output 60 Hz		cfm	414	
Exhaust temp. at muffler outlet		°F	800	
ENGINE PARAMETERS				
Rated synchronous RPM		60 Hz	1800	
HP at rated KW		60 Hz	88	
POWER ADJUSTMENT FOR AMBIENT CONDITIONS				
Temperature Deration				
3% for every 10 °C above - °C		25		
1.65% for every 10 °F above - °F		77		
Altitude Deration				
1% for every 100 m above - m		183		
3% for every 1000 ft. above - ft.		600		

RATING: All three phases units are rated at 0.8 power factor. All single phase units are rated at 1.0 power factor. **STANDBY RATING:** Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046-1. Design and specifications are subject to change without notice.

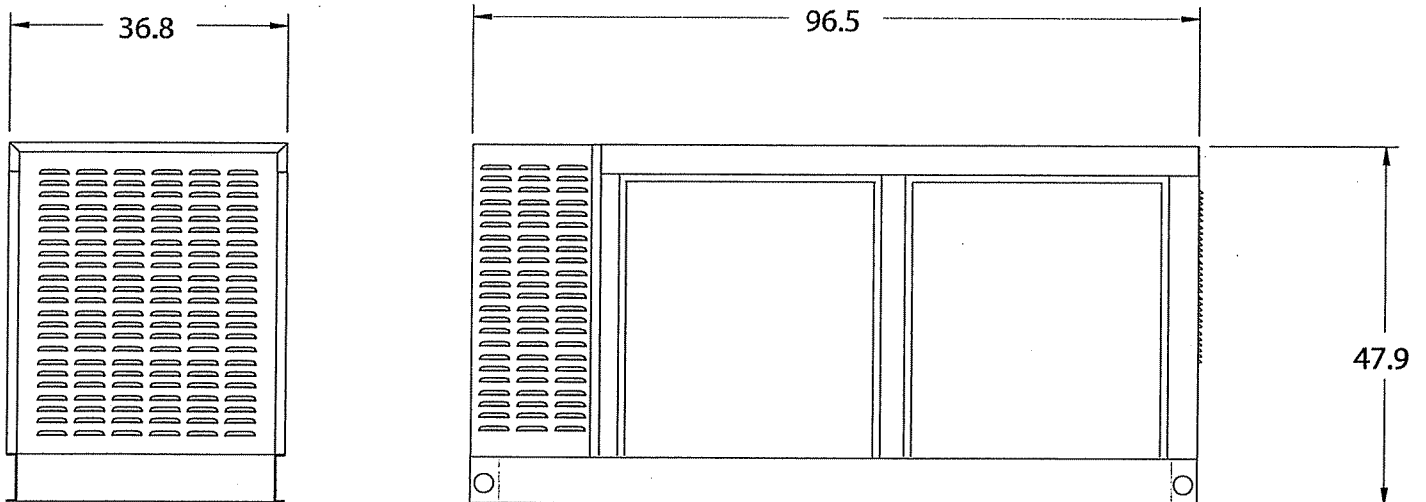
KW rating is based on LPG Fuel and may derate with natural gas.

INTERCONNECTIONS

QT055



INSTALLATION LAYOUT



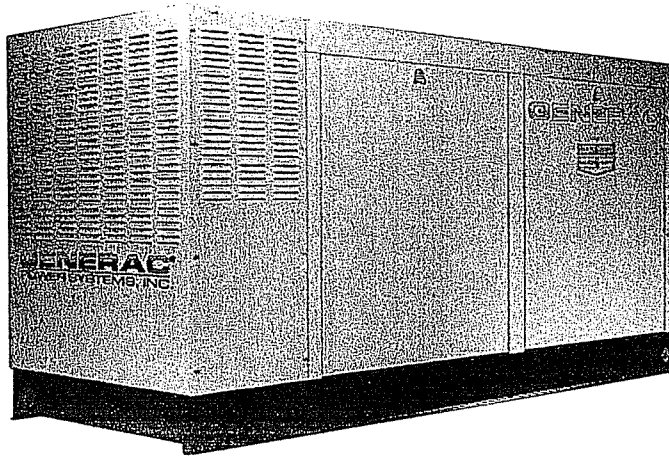
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262/544-4811 • FAX 262/544-4851

QTA070

Liquid Cooled Gas Engine Generator Sets

Standard Equipment

70 KW 60 HZ



GENERAC 6.8L ENGINE

Naturally Aspirated
Gaseous Fueled
QT070A

STANDARD EQUIPMENT

- All input connections in one single area
- High coolant temperature shutdown
- Low oil pressure shutdown
- Low coolant level automatic shutdown
- Low fuel pressure
- Overspeed automatic shutdown
- Adjustable cranking timer
- Adjustable exercise timer
- Oil drain extension
- Cool flow radiator
- Closed coolant recovery system
- UVAC zone resistant hoses
- Watertight state of the art electrical connectors
- Mainline circuit breaker
- Oil drain extension to frame rail
- Radiator drain extension
- Battery charge alternator
- 10 Amp static battery charger
- Battery and battery cables
- Battery rack
- Fan and belt guards
- Isochronous governor
- Coolant heater

FEATURES

- Innovative design and fully prototype tested
- UL2200 Listed
- Solid state frequency compensated digital voltage regulator
- Dynamic and static battery charger
- Transfer switch and manually designed enclosure
- Quiet test for low noise level exercise
- Transfer switch and manually designed enclosure
- High flow low noise factory engineered exhaust system
- Transfer switch and manually designed enclosure
- All components easily accessible for maintenance
- Transfer switch and manually designed enclosure

GENERAC®
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APPLICATION & ENGINEERING DATA

QT070

GENERATOR SPECIFICATIONS

TYPE	Permanent
CONTROL METHOD	Class H
PROTECTOR	Class H
TOTAL HARMONIC DISTORTION	Class H
TELEPHONE INTERFERENCE FACTOR (TIF)	Class H
AUTOMATIC EXERCISER (A/E) TYPE	4 wire
BEARINGS	Sealed Ball
COUPLING	Flexible Disc
LOAD CAPACITY (STANDBY RATING)	70 kW
EXCITATION SYSTEM	Brushless

NOTE: Generator rating and performance in accordance with ISO8528-3, BS5514, SAE J1349, ISO3046, and DIN6271 standards.

VOLTAGE REGULATOR

TYPE	Full Bridge
SENSING	3 Phase
FEATURES	Built into H-100 Control Panel Adjustable Voltage and Gain

GENERATOR FEATURES

- Revolving field heavy duty generator
- Directly connected to the engine
- Operating temperature rise 120 °C above a 40 °C ambient
- Insulation is Class H rated at 150 °C rise
- All prototype models have passed three phase short circuit testing

CONTROL PANEL FEATURES

- TWO FOUR LINE LCD DISPLAYS READ:
 - Voltage (all phases)
 - Current (all phases)
 - kVAR
 - Engine speed
 - Run hours
 - Fault history
 - Coolant temperature
 - Low oil pressure shutdown
 - Low coolant level
 - Not in auto position (flashing light)
 - AIS selection
 - Transfer switch status
 - Low fuel pressure
 - Service reminders
 - Oil pressure
 - Time and date
 - High coolant temperature shutdown
 - Low coolant level
 - Exercise speed
- INTERNAL FUNCTIONS:
 - I²T function for alternator protection from line to neutral and line to line short circuits
 - Emergency stop
 - Programmable auto crank function
 - 2 wire start for any transfer switch
 - Communicates with the Generator ITC transfer switch
 - Built-in 7 day exerciser
 - Adjustable engine speed at exerciser
 - RS232 port for GenLink[®] control
 - RS485 port remote communication
 - Canbus addressable
 - Governor controller and voltage regulator are built into the master control board
 - Temperature range -40 °C to 70 °C

ENGINE SPECIFICATIONS

MAKE	General
MODEL	V 1000
CYLINDERS	10
DISPLACEMENT	6.0 Ltr
BORE	100
STROKE	117
COMPRESSION RATIO	16:1
INJECT AIR SYSTEM	Mechanically Fuel Injected
VALVE TYPE	Overhead
LIFTER TYPE	Hydraulic

GOVERNOR SPECIFICATIONS

TYPE	Electronic
FREQUENCY REGULATION	Automatic
STEADY STATE REGULATION	± 0.25%
All functions are factory preset	
Individual parameter adjustments can be made via Control [®]	

ENGINE LUBRICATION SYSTEM

OIL PUMP	Gear
OIL FILTER	Full flow spin-on cartridge
CRANKCASE CAPACITY	5 Quarts

ENGINE COOLING SYSTEM

TYPE	Closed
WATER PUMP	Belt driven
FAN SPEED	5000
FAN DIAMETER	22 inches
FAN MODE	Pusher
COOLANT HEATER	1500W 120V

FUEL SYSTEM

FUEL TYPE	Natural gas, propane, kerosene
CARRIERTYPE	Down Draft
SECONDARY FUEL REGULATOR	Standard
FUEL SHUT OFF SOLENOID	Standard
OPERATING FUEL PRESSURE	11" - 14" H ₂ O

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR	12V 30 Amp
STATIC BATTERY CHARGER	12V 2 Amp
RECOMMENDED BATTERY	Group 24F 525CCA
SYSTEM VOLTAGE	12 Volts

QT070

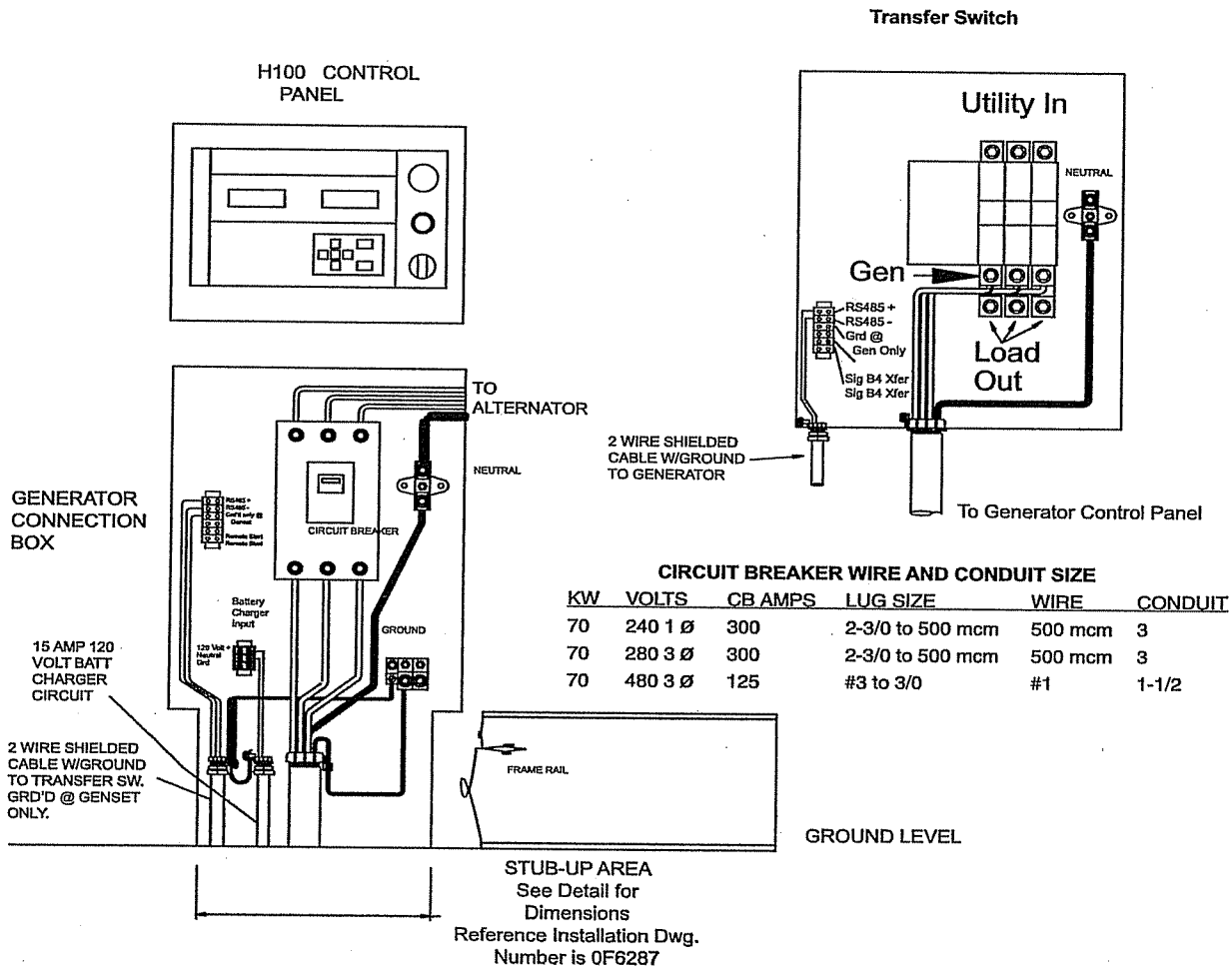
OPERATING DATA

		QT070		
KW RATING		70		
ENGINE SIZE		6.8 Liter V-10		
GENERATOR OUTPUT VOLTAGE/KW - 60 Hz		KW	AMP	CB Size
120/240V, 1-phase, 1.0 pf		70	210	250
120/208V, 3-phase, 0.8 pf		70	243	250
277/480V, 3-phase, 0.8 pf		70	105	125
GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35%				
Single phase or 208 3-phase		145		
480V 3-phase		160		
ENGINE FUEL CONSUMPTION (Natural Gas) (Propane)		Natural Gas	Propane	
		(ft ³ /hr.)	(gal/hr.)	cu ft/hr
Exercise cycle		110	1.20	44.2
25% of rated load		260	2.85	104.9
50% of rated load		499	5.46	200.9
75% of rated load		696	7.62	280.4
100% of rated load		1020	11.17	411
ENGINE COOLING				
Air flow (inlet air including alternator and combustion air) ft ³ /min.		5200		
System coolant capacity US gal.		4.5		
Heat rejection to coolant BTU/hr.		287,000		
Max. operating air temp. on radiator °C (°F)		60 (150)		
Max. ambient temperature °C (°F)		50 (140)		
COMBUSTION AIR REQUIREMENTS				
Flow at rated power 60 Hz cfm		205		
SOUND EMISSIONS IN DBA				
Exercising at 7 meters		60		
Full load at 7 meters		73		
EXHAUST				
Exhaust flow at rated output 60 Hz cfm		557		
Exhaust temp. at muffler outlet °F		890		
ENGINE PARAMETERS				
Rated synchronous RPM 60 Hz		1800		
HP at rated KW 60 Hz		110.7		
POWER ADJUSTMENT FOR AMBIENT CONDITIONS				
Temperature Deration				
3% for every 10 °C above - °C		25		
1.65% for every 10 °F above - °F		77		
Altitude Deration				
1% for every 100 m above - m		183		
3% for every 1000 ft. above - ft.		600		

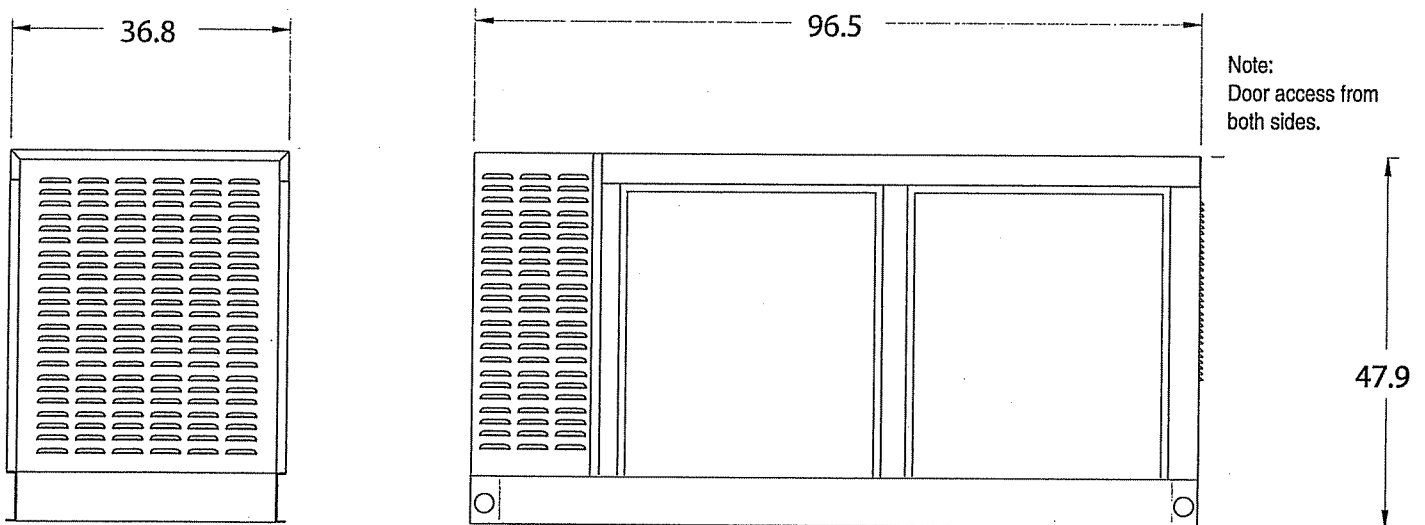
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INTERCONNECTIONS

QT070



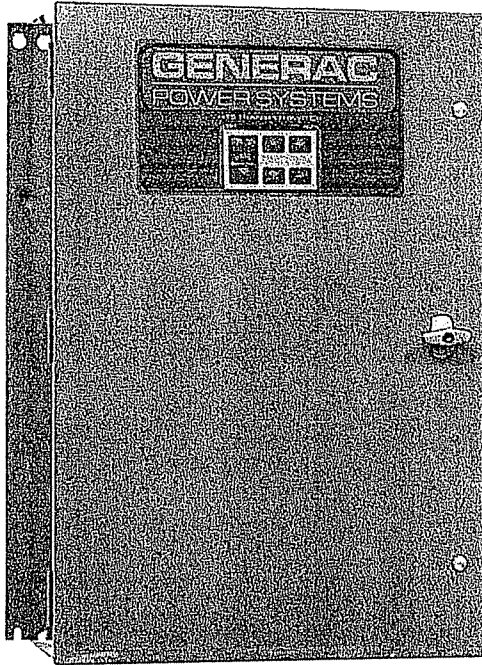
INSTALLATION LAYOUT



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262/544-4811 • FAX 262/544-4851

HTS Automatic Transfer Switch

100 - 400 Amps 600 VAC



200 Amp HTS NEMA 1

DESCRIPTION

- The Generac HTS Transfer Switch is a "State of the Art" Smart Switch designed to operate in conjunction with the Generac H100 Series generator controller.
- The HTS Transfer Switch has a 2 wire RS485 communication link to the generator controller.
- The utility voltage is monitored by the HTS along with signal before transfer, time delay neutral and inphase transfer.
- Switch operation is instigated by the generator controller.
- All timers and voltage setpoints are programmable through GenLink® Communications Software.
- Time delay neutral and inphase monitor are included.

STANDARD FEATURES

- Single coil design, electrically operated and mechanically held
- Programmable exercise time
- SPDT aux contacts
- Main contacts are silver alloy
- Conformal coating protects the printed circuit board
- UL1008 Listed
- 3 position test switch: Fast Test, Auto, Normal Test
- Arc shutes on main contacts
- Signal before transfer contacts
- Rated to all classes of loads
- Remote start, stop and transfer through GenLink® Communications Software
- Up to four transfer switches per generator

OPTIONAL ACCESSORIES

- NEMA 12 enclosure (100-400 Amps)
- NEMA 4 and 4x enclosure

GENERAC®
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INTERCONNECTIONS

HTS 100 400 Amp

Switches and Indicators

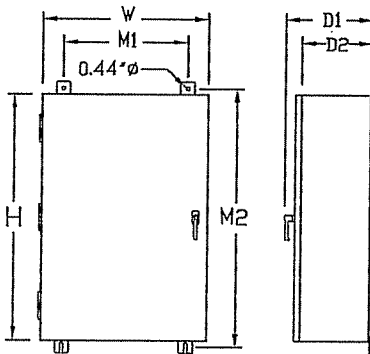
- System Ready LED
- System Fault LED
- Test Switch
- Return to Manual Switch
- Standby Operating LED
- Utility Available LED
- Post Test Switch
- Safety Disengagement Switch

Standby Accept Voltage	85-95%
Standby Accept Frequency	55-65%
Nominal Voltage	1 Volt Increments
Allowable Voltage Fluctuation	± 1.00%
Line Interruption Delay	1-10 Seconds
Engine Warmup Time	1-300 Seconds
Minimum Run Time	5-60 Minutes
Return to Utility Timer	1-30 Minutes
Engine Cooldown Timer	1-30 Minutes
Signal Before Transfer Timer	1-30 Seconds
Transfer Time	Inphase Time Delay Neutral
Phase Difference for Inphase Transfer	- / 40 Degrees

WITHSTAND CURRENT - 600 VOLT HTS SERIES

GTS RATED AMPS	100	150	200	300	400
FUSE PROTECTED					
Maximum RMS Symmetrical Fault Current - Amps	200,000	200,000	200,000	200,000	200,000
Maximum Fuse Size - Amps	600	400	400	600	600
Fuse Class	JT	JT	JT	JT	JT
CIRCUIT BREAKER PROTECTED					
Maximum RMS Symmetrical Fault Current - Amps	15,000	25,000	25,000	35,000	35,000
Protective Device Continuous Rating (Max.) - Amps	150	300	300	600	600

- Tested in accordance with the withstand and closing requirements of UL 1008 and CSA Standards.
- Current ratings are listed @ 480 VAC.



UNIT DIMENSIONS

CTS RATED AMPS	VOLTAGE	ENCLOSURE HEIGHT H	ENCLOSURE WIDTH W	WALL MOUNT BOLT PATTERN		ENCLOSURE DEPTH		WEIGHT (lbs.)
				M1	M2	D1	D2	
100	ALL	36	24	18	37.5	12.7	10	180
150-200	120/240	36	24	18	37.5	12.7	10	185
150-200	120/208	36	24	18	37.5	12.7	10	185
150-200	277/480	48*	30*	24	49.5	14.8	12	265
300-400	120/240	36	24	18	37.5	12.7	10	245
300-400	120/208	36	24	18	37.5	12.7	10	245
300-400	277/480	48*	30*	24	49.5	14.8	12	325

TERMINAL LUG WIRE RANGES

GTS RATED AMPS	CONTACTOR TERMINALS (1 LUG PER POLE) LUG WIRE RANGE	NEUTRAL BAR*		GROUND LUG (1 PROVIDED) LUG WIRE RANGE
		# LUGS	LUG WIRE RANGE	
100	2/0 - 14 AWG	4	2/0 - 14 AWG	2/0 - 14 AWG
150	400MCM - 4 AWG	4	350MCM - 6 AWG	350MCM - 6 AWG
200	400MCM - 4 AWG	4	350MCM - 6 AWG	350MCM - 6 AWG
300	600MCM - 4 AWG or 2 - [250MCM - 1/0 AWG]	4	600MCM - 4 AWG [250MCM - 1/0 AWG]**	350MCM - 6 AWG
400	600MCM - 4 AWG or 2 - [250MCM - 1/0 AWG]	4	600MCM - 4 AWG [250MCM - 1/0 AWG]**	350MCM - 6 AWG

* Not included in HTS with switched neutral. ** Allowable wire range in brackets is for 2 wires per lug.

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