

**Mountain Regional Water**  
 a Special Service District of Summit County  
 6421 North Business Park Loop Road, Unit A  
 PO Box 982320  
 Park City, UT 84098  
 Tel. (435) 940-1916  
 Fax (435) 940-1945

**Purchase Order No.:**  
**MRW2025-01-15**



**PURCHASE ORDER**

**Vendor Info.**  
 Name: Tech-Flow  
 Address: 1104 North 1600 West  
 City, State Zip: Layton, Utah 84041  
 Phone/Contact: 801-920-1116/Brett Hazen

**Ship To**  
 Name: Mountain Regional Water SSD  
 Address: 6421 N. Business Park Loop Rd., Ste A  
 City, State Zip: Park City, Utah 84098  
 Phone: 453.940.1916

Qty.	Units	Description	Unit Price	TOTAL
		Lost Canyon Pump 1 Replacement Goulds 9RCHC vertical turbine pump		\$ 109,672.00
		Installation fee		\$ 4,000.00
		Freight		\$ 2,800.00
		See attached quote BH1690		

Shipping Method:

Requested by:  Sam Grenlie

Account Number:

Sub Total	\$ 116,472.00
Shipping & Handling	
<b>TOTAL</b>	<b>\$ 116,472.00</b>

Notes/Remarks:

**REQUIRED SIGNATURES:**

Financial Officer

General Manager (required if over \$20,000)

Governing Board (required if over \$50,000)

Mountain Regional Water is a political subdivision of Summit County and thereby exempt from State and Local Sales Tax. If a tax exemption certificate is required, please request a completed Utah State Form 721 from Financial Officer.



# Quotation

PO Box 209.  
 Layton, UT 84041  
 Phone: (801) 444-9900  
 Fax: (801) 444-9901  
 Cell: (801) 920-1116  
 Email: brett.hazen@tech-flow.com

**To:** Mountain Regional  
**Attn:** Sam  
**cc:**

**Date:** 19-Nov-24  
**Quote:** BH1690

*Sent by email Nov. 19, 2024*

**Phone:**  
**Fax:**  
**email:**

**Reference:**  
**Application:**  
**Job Name:**  
**Job Site:**

**We are pleased to quote the following for your favorable consideration:**

Line	Qty	Part No.	Description	Price ea.	Ext. Price
1	1		Goulds 9RCHC vertical turbine pump 400 hp GE motor Wolong # V4875 Vertical Solid Shaft 400HP-1800-460V-TEFC-509VP30 frame Discharge head HEAD 816T12 150# flanges 6"x8" CONNECTION TO 14" UNDERGROUND BARREL 11' 6" length Column piping Dynamically balanced impellers Adjustable Spacer Coupling API Plan 13 Flush seal Mechanical seal MECH SEAL-HP (SXSXII-1.500") Stuffing Box	\$106,101.00	\$109,672.00
2	1		Installation fee includes crane setting setting impeller and startup	\$4,000.00	\$4,000.00
3	1		Sales tax will be added if you are not tax exempt	\$0.00	\$0.00
4	1		Frieght costs will be prepaid and added to the final invoice	\$2,800.00	\$2,800.00

**Grand Total: \$116,472.00**

Delivery:  
 Routing:  
 FOB:  
 Valid For: 60 days  
 Terms: net 30

Thank you for the opportunity to quote.  
 Please call or fax our office if we can be of further assistance.

Quoted By: Brett Hazen

Pump Data Sheet - Turbine 60 Hz

Company:  
Name:  
Date: 10/28/2024

Customer:



**Pump:**

Size: 9RCHC (stages: 6)      Dimensions:  
 Type: Lineshaft      Suction: ---  
 Synch Speed: 3600 rpm      Discharge: ---  
 Dia: 6.88 in      Vertical Turbine:  
 Curve: ---      Eye Area:  
                          Bowl Size: 9.25 in  
                          Max Lateral: 0.88 in  
                          Thrust K Factor: 4.9 lb/ft

**Fluid:**

Name: Water  
 SG: 1      Vapor Pressure: 0.256 psi a  
 Density: 62.4 lb/ft<sup>3</sup>      Atm Pressure: 14.7 psi a  
 Viscosity: 1.1 cP  
 Temperature: 60 °F      Margin Ratio: 1

**Search Criteria:**

Flow: 925 US gpm      Near Miss: ---  
 Head: 1180 ft      Static Head: 0 ft

**Pump Limits:**

Temperature: ---      Sphere Size: 0.75 in  
 Wkg Pressure: ---

**Motor:**

Standard: NEMA      Size: 400 hp  
 Enclosure: WPI      Speed: 3600 rpm  
 Frame: 5007  
 Sizing Criteria: Max Power on Design Curve

**Pump Selection Warnings:**

None

**--- Duty Point ---**

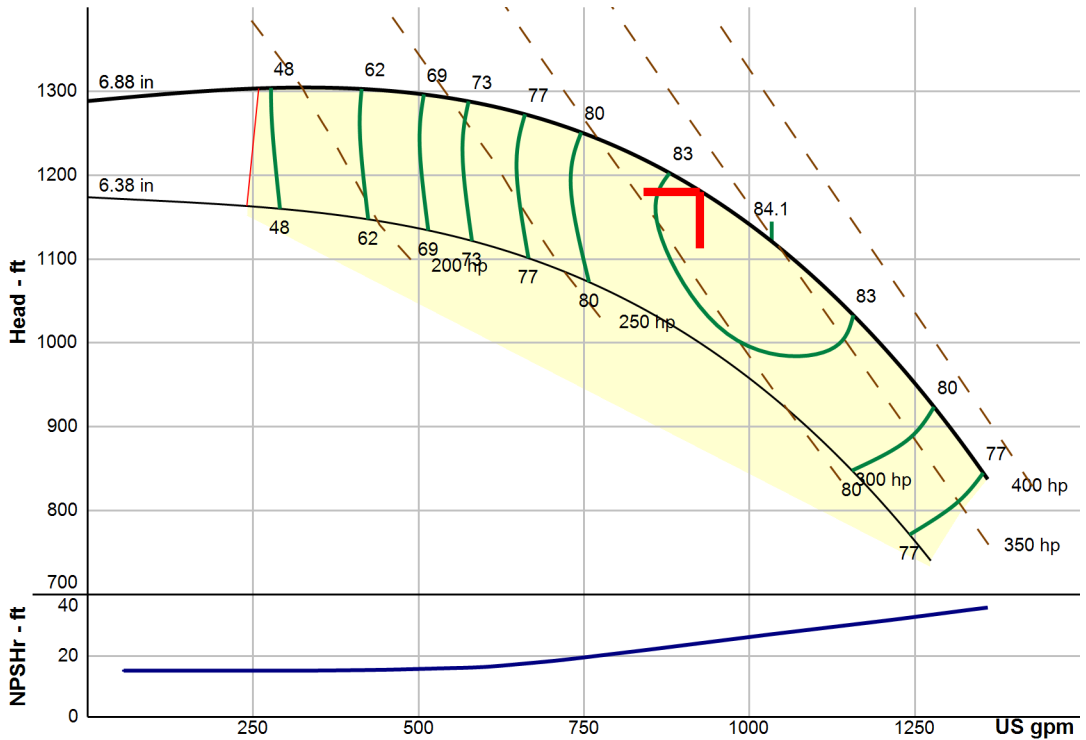
Flow: 925 US gpm  
 Head: 1181 ft  
 Eff: 83.6%  
 Power: 330 hp  
 NPSHr: 24.1 ft  
 Speed: 3540 rpm

**--- Design Curve ---**

Shutoff Head: 1288 ft  
 Shutoff dP: 558 psi  
 Min Flow: 258 US gpm  
 BEP: 84.1% @ 1034 US gpm  
 NOL Power:  
     375 hp @ 1360 US gpm

**--- Max Curve ---**

Max Power:  
     375 hp @ 1360 US gpm



**Performance Evaluation:**

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
1110	3540	1069	83.6	358	29
925	3540	1181	83.6	330	24.1
740	3540	1253	79.8	293	19.2
555	3540	1291	71.9	252	16
370	3540	1304	58	210	15.2



# Product Information Packet

June 21, 2024

Data shown is for the current revision model #. Ensure your nameplate model # matches.

<b>Model Number:</b>	<b>5KS509XAJ6420</b>
<b>Catalog Number:</b>	<b>V4875</b>
<b>Instruction Manual:</b>	GEI-M1045
<b>Connection Diagram:</b>	GEM2034E-FIG20
<b>Outline Drawing:</b>	148CB59INLSFGLC0001

Accessory Connection Diagrams			
<b>Bearing Thermocouple:</b>	None	<b>Heater:</b>	3027JE-1C
<b>RTD:</b>	None	<b>Thermistor:</b>	None
<b>Thermostat:</b>	None	<b>Winding Thermocouple:</b>	None
<b>Bearing RTD:</b>	None		

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Outline Drawing	03
Connection Drawing(s)	04

**Marks:**

<b>MODEL NUMBER:</b>	<b>5KS509XAJ6420</b>	<b>Estimated Weight:</b>	4607 Lbs
<b>Outline Drawing:</b>	148CB59INLSFGLC0001	<b>Time Rating:</b>	CONT
<b>Connection Diagram:</b>	GEM2034E-FIG20	<b>Enclosure:</b>	TEFC
<b>Instruction Book:</b>	GEI-M1045	<b>Encl Construction:</b>	841
<b>Design Code:</b>	50ED1526A	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	B509VP30	<b>Insulation Class:</b>	F
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	4	<b>Nominal Efficiency:</b>	96.2 %
<b>Output Power:</b>	400HP 296KW	<b>Guaranteed Efficiency:</b>	95.4 %
<b>RPM:</b>	1785	<b>3/4 Load Efficiency:</b>	--
<b>Voltage:</b>	460	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	92.3
<b>Amps - FL:</b>	445.0	<b>Power Factor:</b>	87.5
<b>Service Factor:</b>	1.15	<b>Bearing - DE:</b>	6219ZC3
<b>Alt Service Factor:</b>	--	<b>Bearing - ODE:</b>	7326

**Enclosure is Totally Enclosed Fan-Cooled**

**Stamped Nameplate Notes:**

EXCEPTION TO IEEE-STD-841-2009  
 ALUMINUM FAN  
 VERTICAL-841  
 DE BRG 95BC02JP3 ODE BRG 130BT03MD00  
 GE SELF DECLARED CLASS I DIV 2  
 GROUP A,B,C,D MOTOR  
 MAX EXPOSED INTERNAL AND EXTERNAL SURFACE  
 TEMPERATURES UNDER USUAL SERVICE CONDITION  
 AT 1.00 S.F. DO NOT EXCEED 200 DEG C  
 TEMP CONT HTR LDS HE1-HE2 115V 200W  
 UPPER BRG OIL: 18.0 QTS  
 LOWER BRG OIL: 2.5 QTS  
 0 DEG C TO 40 DEG C : ISO 32(MINERAL OR  
 SYNTHETIC)  
 -25 DEG C TO 0 DEG C : ISO 32 SYNTHETIC  
 ROT CCW FACING TOP LEAD/PH SEQ 3-2-1/1-2-3  
 ROT CW FACING TOP LEAD/PH SEQ 1-2-3/1-2-3  
 MAXIMUM SPACE HEATER SURFACE  
 TEMPERATURE 160 DEG C  
 INVERTER DUTY PER NEMA MG1 PART 31

**Additional Information:**

ALTERNATE RATING FOR PWM CONTROL  
1.0 SF. VAR TORQUE RANGE 0-60 HZ  
NOTE TO MFG: ROUTINE TEST REPORT & 5 POINT  
VIBRATION TEST REQD  
LEADS WITH SLEEVING  
BOLTED COUPLING  
PAINT INSIDE OF FRAME, FAN COVER, SHAFT  
PAINT OUTSIDE OF ODE END SHIELD  
4 POLE, VERT SOLID SHAFT HIGH THRUST (1D)  
TEMP CONTRL 115V HEATER LEADS TO CON BOX  
RCF=2451 CPM CG=28.72IN STAT DEF=0.0059 IN  
COPPER WASHER UNDER HEADS OF BRG CAP BOLTS  
APPLY TITE - SEAL (A50CD427A) ON BEARING  
CAP SCREWS, RABBETS AND PLUG THREADS  
SHAFT RUNOUT .0015 TIR  
C/B GRD PLATE  
BEARING LIFE 8760 HOURS AT 12400 LB THRUST  
2500 Cu. In. CBOX

**Performance Characteristics**

1st Winding 1st Connection

**Design: 50ED1526A**

**Marks:**

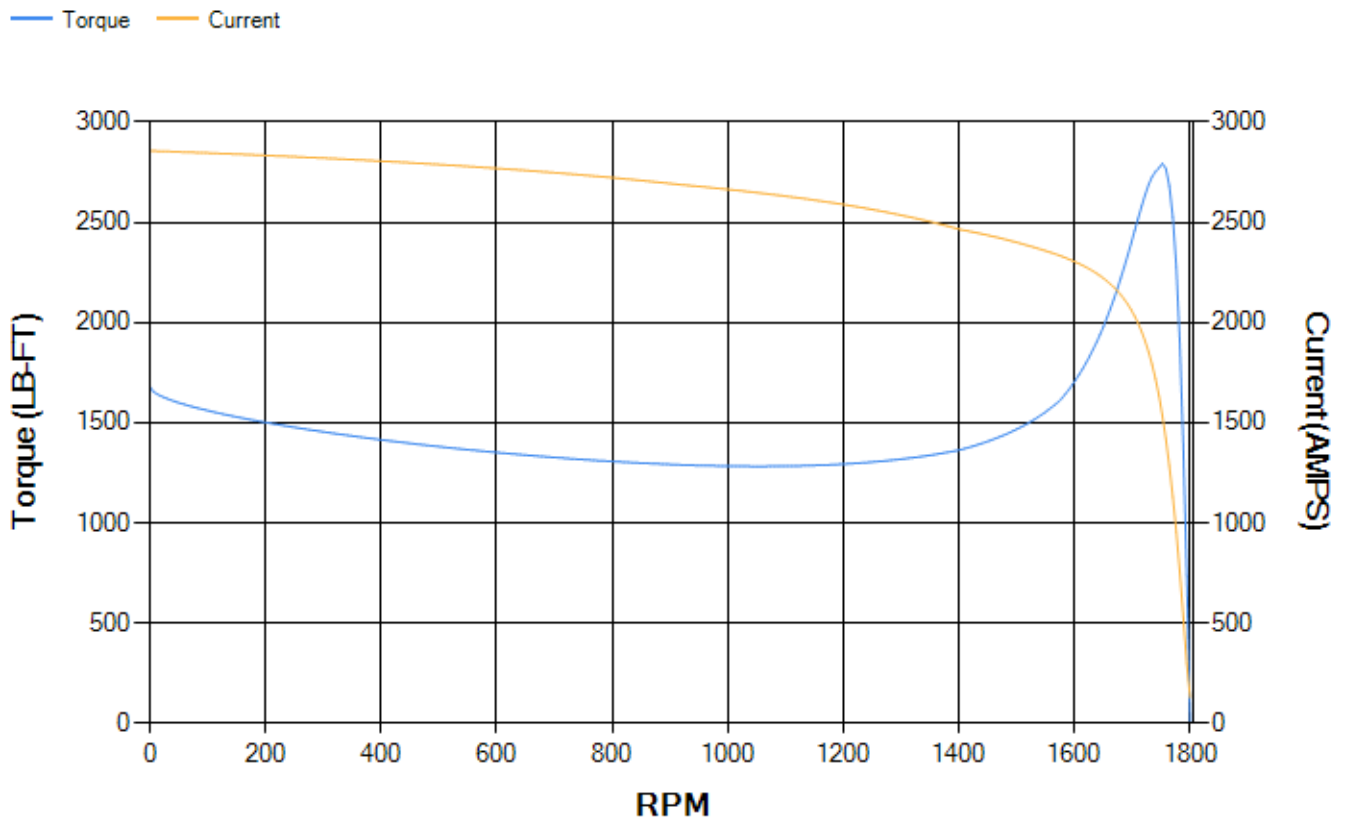
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.63	95.76	96.1	95.89	95.3	92.58	0.00
% PF	87.88	87.82	88.31	84.91	78.05	57.96	5.04
AMPS	556.8	511.95	440.65	344.85	251.63	174.4	128.73

<b>TORQ(FL)#FT</b>	1175.66	<b>TORQ(LR)%FL</b>	143.08	<b>TORQ(BD)%FL</b>	234.36
<b>AMPS(LR)</b>	2857.08	<b>PF AT START</b>	0.2		

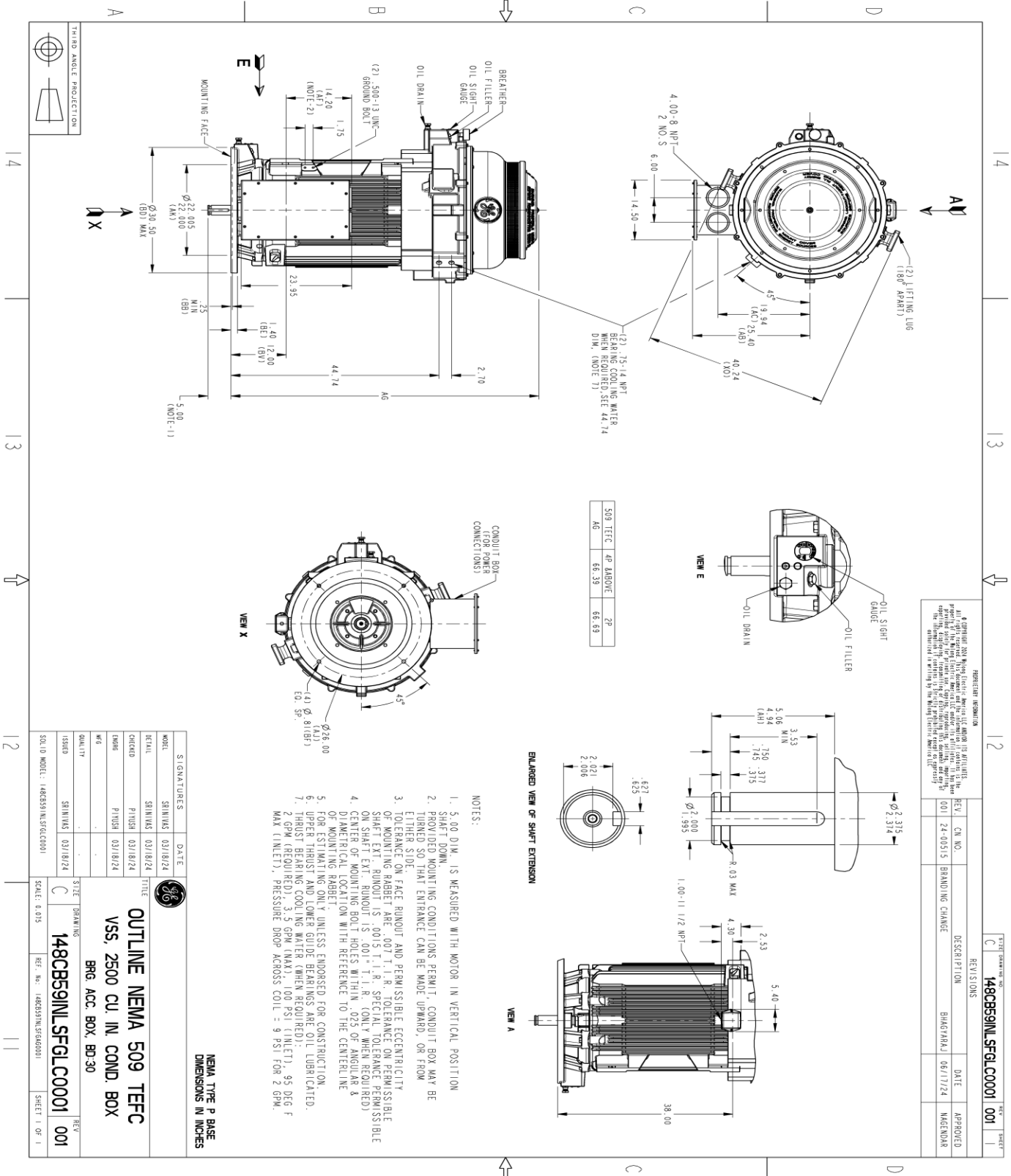
This motor is capable of two cold or one hot start with a maximum connected load inertia of 5217 Lb-Ft Sq (219.64 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 29 seconds. Safe stall time at 100% voltage is 67 seconds cold, 35 seconds hot. Rotor inertia is 143.91 Lb-Ft Sq (6.06 Kg-meter Sq).

<b>Open Circuit A-C:</b>	1.171	<b>Short Circuit D-C:</b>	0.042
<b>Short Circuit A-C:</b>	0.05	<b>X/R Ratio:</b>	15.926
<b>Stator Slots:</b>	72	<b>Rotor Slots:</b>	58

**Speed Torque Current Curve (First Connection, First Speed)**



Marks:



REV.	CH. NO.	DESCRIPTION	DATE	APPROVED
001	24-00515	BRAND NAME CHANGE	06/17/24	MSGENDAR

SIGNATURES	DATE
SRINIVAS	03/18/24
SRINIVAS	03/18/24
SRINIVAS	03/18/24
SRINIVAS	03/18/24
SRINIVAS	03/18/24

**MODEL:** 509 TEFC  
**CHECKED:** SRINIVAS  
**DWG. NO.:** 148CB591NLSFGLC001  
**DATE:** 03/18/24  
**SCALE:** 0.015

**OUTLINE NEMA 509 TEFC**  
**VSS, 2500 CU IN COND. BOX**  
**BRG. ACC. BOX, BD-30**

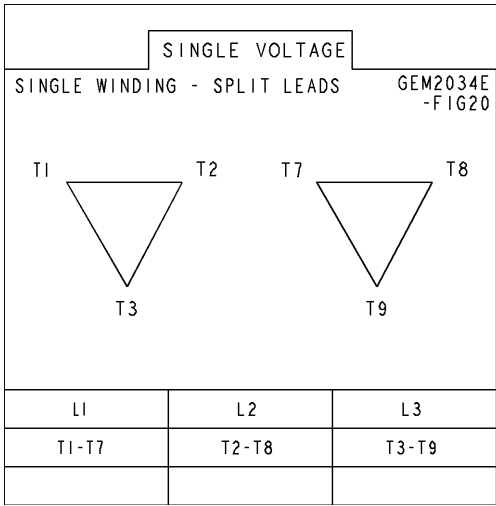


NEMA TYPE P BASE  
 DIMENSIONS IN INCHES

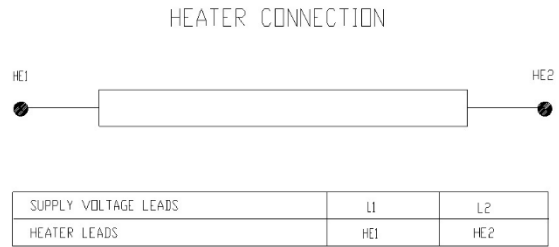


Marks:

**Connection Diagram**  
**GEM2034E-FIG20**



**Heater Connection**  
**3027JE-1C**

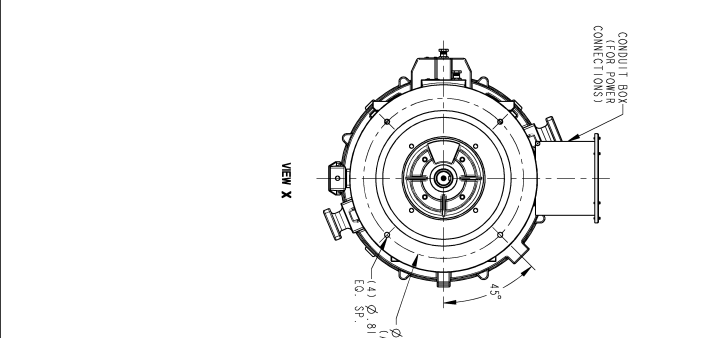
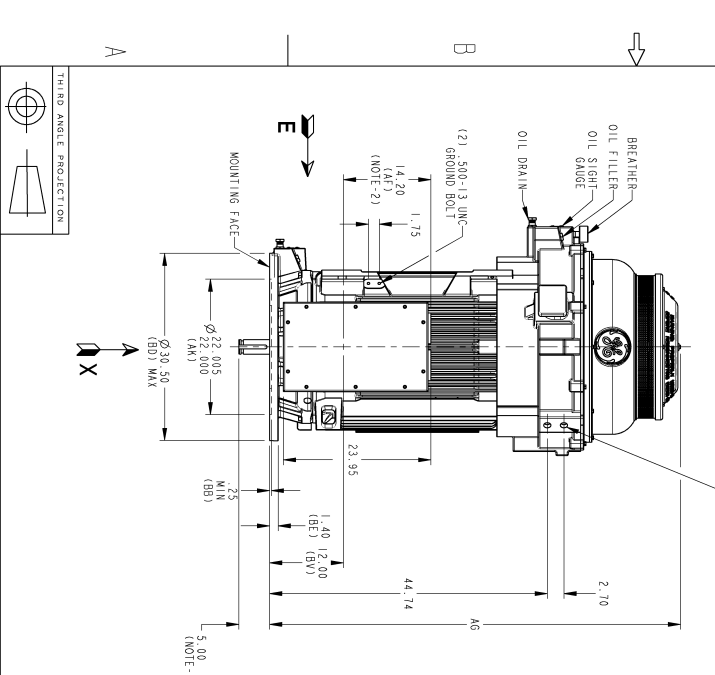
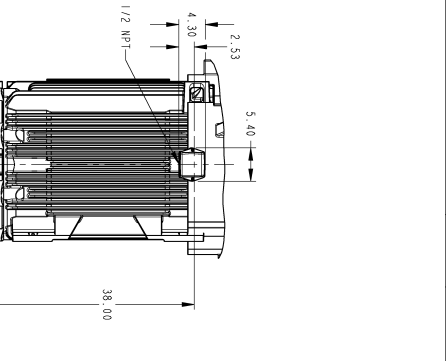
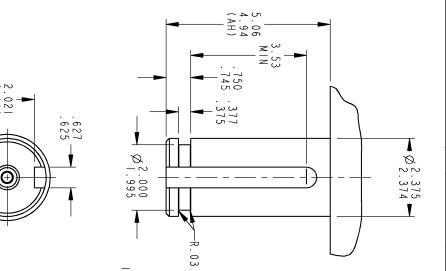
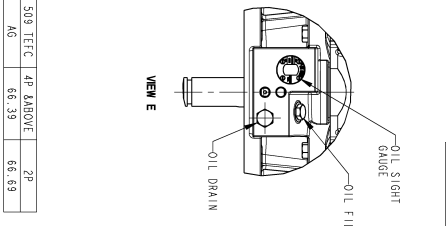
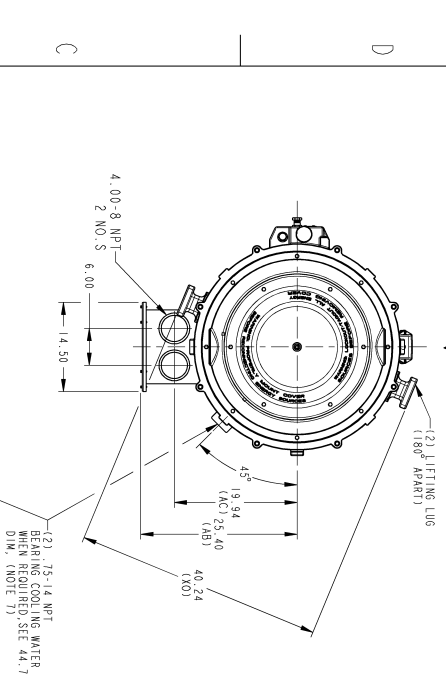


REVISIONS

REV.	CH. NO.	DESCRIPTION	DATE	APPROVED
001	24-00315	BRAND NG CHANGE	06/11/24	MADEWAR

REV. SHEET 1

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NOTES:

- 5.00 DIM. IS MEASURED WITH MOTOR IN VERTICAL POSITION
- SHAFT DOWN.
- PROVIDED MOUNTING CONDITIONS PERMIT, CONDUIT BOX MAY BE TURNED SO THAT ENTRANCE CAN BE MADE UPWARD, OR FROM EITHER SIDE.
- TO BEK SODEN FACE RUNOUT AND PERMISSIBLE ECCENTRICITY OF MOUNTING RABBET ARE .0015 T. I. R. (ONLY WHEN REQUIRED) ON SHAFT EXT. RUNOUT IS .001" T. I. R. (ONLY WHEN REQUIRED)
- CENTER OF MOUNTING BOLT HOLES WITHIN .025 OF ANGULAR & DIAMETRICAL LOCATION WITH REFERENCE TO THE CENTERLINE OF MOUNTING RABBET.
- FOR ESTIMATING ONLY UNLESS ENDORSED FOR CONSTRUCTION.
- UPPER THRUST AND LOWER GUIDE BEARINGS ARE OIL LUBRICATED.
- THRUST BEARING COOLING WATER (WHEN REQUIRED): 2 GPM (MAX), 3.5 GPM (MAX), 100 PSI (INLET), .95 DEG F MAX (INLET), PRESSURE DROP ACROSS COIL = 9 PSI FOR 2 GPM.

NEMA TYPE P BASE  
DIMENSIONS IN INCHES



SIGNATURES	DATE
MODEL SRINIVAS 03/18/24	
DRAWN SRINIVAS 03/18/24	
CHECKED PIVUSH 03/18/24	
ENG. PIVUSH 03/18/24	
WIG	
QUALITY	
ISSUED SRINIVAS 03/18/24	

SCALE: 0.015

REF. NO.: 148CB591NLSFG0000

SHEET 1 OF 1

**OUTLINE NEMA 509 TEFC**  
**VSS, 2500 CU. IN. COND. BOX**  
**BRG. ACC. BOX, BD-30**

148CB591NLSFG00001 001



Estimate Sheet

Nickerson Company, Inc.  
P.O. Box 25425  
2301 West Indiana Ave.  
Salt Lake City, UT 84125

Customer:	AQUA ENGINEERING / MOUNTAIN REGIONAL WATER	11/6/2024		
Attention:	NICK GRAUE / SAM GRENLIE	REV.2		
Phone:	801-683-3733 / 801-712-8598			
Fax:				
Job Name:	MOUNTAIN REGIONAL PUMP UPGRADE			
Condition of Service:	925 GPM @ 1180' HD			
<b>#</b>	<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Extension</b>
				\$ -
1	PUMP ASSEMBLY	NATIONAL PUMP MODEL K10LC-7 STAGE, CAST IRON/ENAMEL & DUCTILE IRON BOWLS, BRONZE IMPELLERS DYNAMICALLY BALANCED, BRONZE BOWL BEARINGS, 6" X 1 1/2" COLUMN ASSEMBLY TO FIT 11.5' BARREL, NFT DISCHARGE HEAD WITH 8" SUCTION, 6" DISCHARGE, FABRICATED STEEL, SINGLE MECHANICAL SEAL WITH PLAN 13 SEAL FLUSH, AFS ADJUSTABLE SPACER COUPLING, AND ENAMEL PAINT	\$ 48,113.00	\$ 48,113.00
				\$ -
1	MOTOR	G.E. 400 HP VERTICAL SOLID SHAFT MOTOR, 3/60/460 VOLT, TEFC ENCLOSURE, 3600 RPM, VFD DUTY, 5008VP FRAME, 24" BASE DIAMETER.	\$ 78,994.00	\$ 78,994.00
				\$ -
				\$ -
				\$ -
				\$ -
		LEAD TIME:		\$ -
		8 WEEKS SUBMITTALS, 2 WEEKS APPROVAL, 16 WEEKS PRODUCTION		\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
	<b>Freight:</b>			INCLUDED
	<b>Tax</b>			NOT INCLUDED
	<b>Total Price:</b>			\$ 127,107.00
	<b>Shipment:</b>	SEE ABOVE		
	<b>FOB:</b>	SALT LAKE CITY, UTAH		

QUOTE GOOD FOR 30 DAYS

Terms: Net 30 days  
Quoted by: Jeff Stucki

Phone: 801-973-8888  
Fax: 801-973-8267

**NICKERSON COMPANY, INC. WARRANTY, TERMS AND CONDITIONS OF SALE.**

PURCHASER: \_\_\_\_\_ P.O.# \_\_\_\_\_

DESCRIPTION \_\_\_\_\_

All orders shall be made out to Nickerson Company, Inc. at P.O. Box 25425, Salt Lake City, Utah 84125 and shall be subject to acceptance by Nickerson Company, Inc.

1. **CONSTRUCTION AND LEGAL EFFECT.** Our sale to you will be solely upon the terms and conditions set forth herein. They supersede and reject any conflicting terms and conditions of yours, any statement in yours to the contrary notwithstanding. Exceptions to any of our terms and conditions must be contained in a written or typed (not printed) statement received from you; we shall not be deemed to have waived any of our terms and conditions or to have assented to any modification or alteration of such terms and conditions unless such waiver or assent is in writing and signed by an authorized officer. No representation of any kind has been made by us except as set forth herein; this agreement conclusively supersedes all prior writings and negotiations with respect thereto and we will furnish only the quantities and items specifically listed on the face hereof; we assume no responsibility for furnishing other equipment or material shown in any plans and/or specification for a project to which the goods ordered herein pertain. Any action for breach of contract must be commenced within one year after the cause of action has accrued Our quoted prices, discounts, terms and conditions are subject to change without notice.

2. **PRICES.** Unless otherwise noted on the face hereof, prices are net F.O.B. Point of Origin. Service time of a factory-trained service man is not included and may be charged extra. The amount of any applicable present or future tax or other government charge upon the production, sale, shipment or use of goods ordered or sold will be added to billing unless you provide us with an appropriate exemption certificate.

3. **DEFECTIVE EQUIPMENT AND LIMITATION OF WARRANTIES.** Providing purchaser notifies us promptly, if within one year from date of shipment equipment sold by Nickerson Company, Inc. fails to function properly under normal, proper and rated use and service because of defects in material or workmanship demonstrated to our satisfaction to have existed at the time of delivery, the company reserving the right to either inspect them in your hands or request their return to us will at our option repair or replace at our expense F.O.B. our Salt Lake City plant, or give you proper credit for such equipment or parts determined by us to be defective, if returned transportation prepaid by purchaser. The foregoing shall not apply to equipment that shall have been altered or repaired after shipment to you by anyone except our authorized employees, and the company will not be liable in any event for alterations or repairs except those made with its written consent. Purchaser shall be solely responsible for determining suitability for use and the company shall in no event be liable in this respect. The equipment or parts manufactured by others but furnished by us will be repaired or replaced only to the extent of the original manufacturer's guarantee. Our obligations and liabilities hereunder shall not be enforceable until such equipment has been fully paid for. Purchaser agrees that if the products sold hereunder are resold by purchaser, he will include in the contract for resale, provisions which limit recoveries against us in accordance with this section. In case of our failure to fulfill any performance representation, it is agreed that we may at our option remove and reclaim the equipment covered by this agreement at our own expense and discharge all liability by repayment to the purchaser of all sums received on account of the purchase price. (The foregoing obligations are in lieu of all other obligations and liabilities including negligence and all warranties, or merchantability or fitness for a particular purpose or otherwise, express or implied by connection with the sale or furnishing of goods or parts, their design, suitability for use, installation or operation.) We will in no event be liable for any direct, indirect, special or consequential damages or delay resulting from any defect whatsoever, and our liability under no circumstances will exceed the contract price for the goods for which liability is claimed.

4. **DELIVERY.** Delivery, shipment and installation dates are estimated dates only, and unless otherwise specified, are figured from date of receipt of complete technical data and approved drawings as such may be necessary. In estimating such dates, no allowance has been made, nor shall we be liable directly or indirectly for delays of carriers or delays from labor difficulties, shortages, strikes or stoppages of any sort, fires, accidents, failure or delay in obtaining materials or manufacturing facilities, acts of government affecting us directly or indirectly, bad weather, or any causes beyond our control or causes designated Acts of God or force majeure by any court of law, and the estimated delivery date shall be extended accordingly. We will not be liable for any damages or penalties whatsoever, whether direct, indirect, special consequential, resulting from our failure to perform or delay in performing unless otherwise agreed in writing by an authorized officer.

5. **OPERATING CONDITIONS AND ACCEPTANCE.** Recommendations and quotations are made upon the basis of operating conditions specified by the Purchaser. If actual conditions are different than those specified and performance of the equipment is adversely affected thereby, Purchaser will be responsible for the cost of all expenses incurred in, and reasonable profit for, performance of the equipment is adversely affected thereby, Purchaser will be responsible for the cost of all changes in the equipment required to accommodate such conditions, and we reserve the right to cancel this order and Purchaser shall reimburse us for all costs and expenses incurred in, and reasonable profit for, performance hereunder. We reserve the right to refuse any order based upon a quotation containing an error. The provisions in any specification or char issued by Nickerson Co. are descriptive only and are not warranties or representations; Nickerson Co. will certify to a rated capacity in any particular product upon request. Capacity head and efficiency certifications are based on shop tests and when handling clear, fresh water at a temperature not over 85° F. Certifications are at this specified rating only and do not cover sustained performance over any period of time nor under conditions varying from these.

6. **SHIPPING.** Unless you specify otherwise in writing, (a) goods will be boxed or crated as we may deem proper for protection against normal handling, and extra charge will be made for preservation, waterproofing, export boxing and similar added protection of goods; (b) routing and manner of shipment will be at our discretion, and may be insured at your expense, value to be stated at order price. On all shipment F.O.B. our plant, delivery of goods to the initial carrier will constitute delivery to you and all goods will be shipped at your risk. A claim for loss of damage in transit must be entered with the carrier and prosecuted by you. Acceptance of material from a common carrier constitutes a waiver of any claims against us for delay or damage or loss.

7. **CANCELLATION AND RETURNED EQUIPMENT.** Orders may be cancelled only with our written consent and upon payment or reasonable and proper cancellation charges. Goods may be returned only when specifically authorized and you will be charged for placing returned goods in saleable condition, any sales expenses then incurred by us, plus a restocking charge and any outgoing and incoming transportation costs which we pay.

8. **CREDIT AND PAYMENT.** Payment for products shall be 30 days net. Pro-rata payments shall become due with partial shipments. A late charge of 2 percent per month or the maximum permitted by law, which ever is less, will be imposed on all past due invoices. We reserve the right at any time to alter, suspend, credit, or to change credit terms provided herein, when in our sale opinion your financial condition so warrants. In such case, in addition to any other remedies herein or by law provided. Failure to pay invoices at maturity date at our election makes all. subsequent invoices immediately due and payable irrespective of terms, and we may withhold all subsequent deliveries until the full account is settled, and we may terminate this agreement. Acceptance by us of less than full payment shall not be a waiver of any of our rights. You represent by sending each purchase order to us that you are not insolvent as that term is defined in applicable state or federal statutes. In the event you become insolvent before delivery of any products purchased hereunder, you will notify us in writing. A failure to notify us of insolvency at the time of delivery shall be construed as a reaffirmation of your solvency at that time. Irrespective of whether the products purchased hereunder are delivered directly to you, or to a customer of yours, and irrespective of the size of shipment, we shall have the right to withhold or reclaim goods under the applicable state and federal statutes. Where youCare responsible for any delay in shipment the date of completion of goods may be treated by us as the date of shipment for purposes of payment. Completed goods shall be held at your cost and risk and we shall have the right to bill you for reasonable storage and insurance expenses. Regardless of price quoted, all orders will be invoiced in the minimum amount of \$50.00 net.

9. **INSPECTION.** Inspection of goods in our plant by you or your representative will be permitted insofar as this does not unduly interfere with our workflow, provided that complete details of the inspection you desire are submitted to us in writing in advance.

10. **RECORDS, AUDITS AND PROPRIETARY DATA.** Unless otherwise specifically agreed in writing signed by an authorized officer, neither you nor any representative of yours, nor any other person, shall have any right to examine or audit our cost accounts, books or records of any kind or on any matter, or be entitled to, or have control over, any engineering or production prints, drawings or technical data which we, in our sale discretion, may consider in whole or part proprietary to ourselves.

The undersigned accepts this quotation and agrees to the warranty terms and conditions printed on this sheet, and acknowledges that he and, or she is bound thereby and it is fully understood and agreed that ownership, title and right of unrestricted repossession of property, shall remain with the Nickerson Company, Inc., until paid for in full. The signers hereof agree that if any default of this contract occurs, they will return all above merchandise in good order upon demand, and all payments previously made are to be forfeited for rental and use thereof, plus an additional sum for any legal or attorney fees incurred in the enforcement of above provisions.

SIGNED \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
Please sign and return to Nickerson Co. with order.

Company: National Pump Company  
 Name: NICKERSON CO  
 Date: 6/28/2024



**Pump:**

Size: K10LC (7 stage)  
 Type: VERT.TURB.ENCLOSED  
 Synch Speed: 3600 rpm  
 Curve: CVK10LC2P6CY  
 Specific Speeds:  
 Dimensions:  
 Vertical Turbine:  
 Speed: 3540 rpm  
 Dia: 7.62 in  
 Impeller: K10LC (1/8 )  
 Ns: 2501  
 Nss: 7501  
 Suction: ---  
 Discharge: ---  
 Bowl Size: 9.75 in  
 Max Lateral: 1 in  
 Thrust K Factor: 6.6 lbf/ft

**Search Criteria:**

Flow: 925 US gpm Head: 1180 ft

**Fluid:**

Water  
 SG: 1  
 Viscosity: 0.9946 cP  
 NPSHa: ---  
 Temperature: 68 °F  
 Vapor Pressure: 0.3391 psi a  
 Atm Pressure: 14.7 psi a

**Motor:**

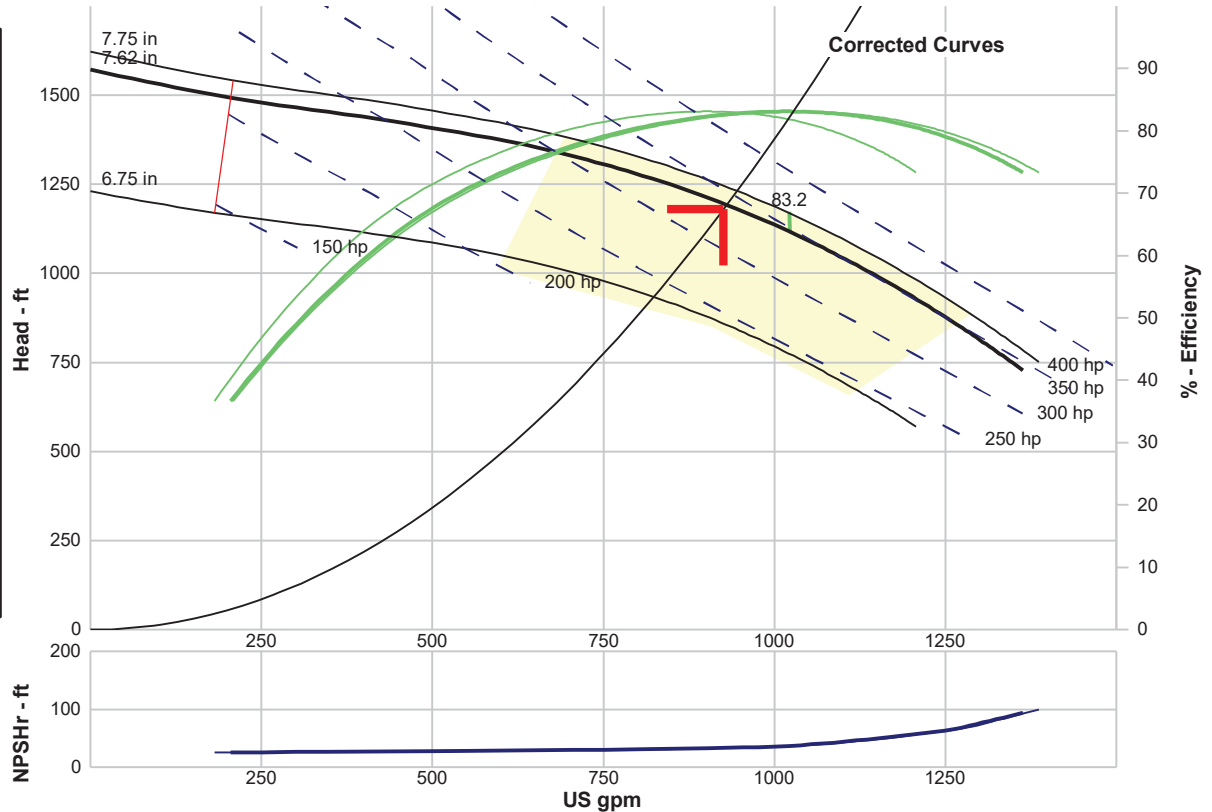
Standard: NEMA  
 Enclosure: WP-I  
 Sizing Criteria: Max Power on Design Curve  
 Size: 400 hp  
 Speed: 3600 rpm  
 Frame: 5008

**Pump Limits:**

Temperature: 180 °F  
 Pressure: 370 psi g  
 Sphere Size: 0.63 in  
 Power: 569 hp  
 Eye Area: 12.8 in<sup>2</sup>

**Curve Corrections:**

---- Duty Point ----	
Flow:	925 US gpm
Head:	1195 ft
Eff:	82.6%
Power:	338 hp
NPSHr:	34.2 ft
---- Design Curve ----	
Shutoff Head:	1573 ft
Shutoff dP:	681 psi
Min Flow:	204 US gpm
BEP:	83.2% @ 1022 US gpm
NOL Power:	351 hp @ 1185 US gpm
-- Max Curve --	
Max Power:	369 hp @ 1205 US gpm



UNLESS OTHERWISE SPECIFIED: [1] LIMITS AND PERFORMANCE BASED ON STANDARD MATERIALS. [2] PERFORMANCE SHOWN MEETS HI 14.6-2011 GRADE 1B TOLERANCES AT THE RATED CONDITION WITHIN THE SELECTION WINDOW. [3] NPSHR AT 1ST STAGE IMPELLER CENTERLINE.

**Performance Evaluation:**

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
1110	3540	1034	82.5	351	45.5
925	3540	1195	82.6	338	34.2
740	3540	1311	78.7	310	30.6
555	3540	1387	69.7	274	28.9
370	3540	1448	55.2	239	27.3