

DATE SUBMITTED 11/29/2022
 SUBMITTED BY Public Services
 DATE ACTION REQUIRED 12/07/2022

COUNCIL ACTION ()
 PUBLIC HEARING REQUIRED ()
 RESOLUTION ()
 ORDINANCE 1ST READING ()
 ORDINANCE 2ND READING ()
 CITY CLERK'S INITIALS AB

IMPERIAL CITY COUNCIL AGENDA ITEM

| | |
|---|---|
| SUBJECT: DISCUSSION/ACTION: Purchase of 1. Discuss, Approve/Disapprove purchase of Submersible Pump for WWTP Submersible WW Pump | |
| DEPARTMENT INVOLVED: Waste Water – Public Services | |
| BACKGROUND/SUMMARY: A submersible pump has failed at the Waste Water Treatment Plant that is currently covered under warranty. Public Services would like to purchase a replacement/back-up pump to have plant running at full capacity; Plant is currently running on 2 pumps out of 3. | |
| FISCAL IMPACT: To not exceed \$60,000 | FINANCE INITIALS <u> </u> |
| STAFF RECOMMENDATION: | DEPT. INITIALS <u> </u> |
| MANAGER'S RECOMMENDATION: <i>approve</i> | CITY MANAGER'S INITIALS <u> </u> |
| MOTION: | |
| SECONDED: AYES: NAYES: ABSENT: | APPROVED () REJECTED () DISAPPROVED () DEFERRED () REFERRED TO: |

DXP

cortechdxp.com

PROPOSAL



KSB KRT K 300-400 PUMP REPLACEMENT

Company City of Imperial

Attention Chris Kemp

From Jorge Contreras / 760 415.5523 / jorge.contreras@dxpe.com

Quote Number 12912104

Date 10/25/2022

ANAHEIM

1340 N. Jefferson St.
Anaheim, CA 92807
(714) 779-0911

BAKERSFIELD

1122 Carrier Parkway Ave.
Bakersfield, CA 93308
(661) 322-9800

RICHMOND

1130 Potrero Ave.
Richmond, CA 94804
(510) 236-5481

SAN DIEGO

2525 Southport Way Ste A
National City, CA 91959
(714) 779-0911

QUOTATION



1340 N. Jefferson St.
Anaheim, CA 92807

Phone 714-779-0911
Fax 714-912-7330

| | |
|--------------------------|----------------|
| Order Number 12912104 | |
| | |
| Order Date 10/25/2022 | Page 1 of 1 |

Quote Expires On 11/4/2022

Bill To:

CITY OF IMPERIAL
420 S Imperial Ave
Imperial, CA 92251-1637
US

Ship To:

CITY OF IMPERIAL
420 S Imperial Ave
Imperial, CA 92251-1637
US

760-355-0350

Customer ID: 512786 Requested By: Chris Kemp Order Required Date: 10/25/2022

| PO Number | | | | | Ship Route | Taker | SalesRep | |
|------------|-----------|-----------|---------------|-------|------------------|---------------|-------------------|----------------|
| | | | | | | HECTOR.HUERTA | Jorge A Contreras | |
| Quantities | | | | | Item ID | Pricing UOM | Unit Price | Extended Price |
| Ordered | Allocated | Remaining | UOM Unit Size | Disp. | Item Description | Unit Size | | |

Order Note: FOB: Shipping point - VA Estimated Lead time 12-14 weeks to ship / ARO + Transit time to Imperial, CA & Subject to material availability at time of order. Prices quoted are valid until 11/04/2022 and subject to change without notice. Freight charges & Sales Tax are Not included in prices quoted. Please Note that due to the Global COVID-19 Pandemic there are significant logistic delays and therefore the leadtimes provided cannot be guaranteed. We will do our best to meet the delivery dates specified and will notify you as soon as possible with any delays. Order Cancellation fees will apply. Thank you for your patience and understanding.

| | | | | | | | | |
|--------------------------------|-------|-------|-----|--|--|-----|-------------|-----------|
| 1.000 | 0.000 | 1.000 | EA | | (002) KSB K300-400/308XEG-S | EA | 48,924.0000 | 48,924.00 |
| Item Required Date: 10/25/2022 | | | 1.0 | | SUBMERSIBLE PUMP ONLY GRAY IRON CONST., SS IMPELLER WEAR RING, STD MECH-SEAL, NBR O-RINGS, MOD "A" MOIST RELAY, 40HP, 3/60/460V X-PROOF MOTOR WITH 50' POWER CABLE. COS: 5200 GPM @ 16' TDH | 1.0 | | |

Total Lines: 1

SUB-TOTAL: 48,924.00
TAX: 3,791.61
AMOUNT DUE: 52,715.61
USD

Project
 Customer pos.no
 Project ID
 Pos.no
 Created by



Page 1 / 5
 Created 2022-10-25
 Update 2022-10-25

Data sheet

Pump type **KRT K 300-400/308XEG-S**

Operating data

| | | | | | |
|--------------------|-------|-----------|---------------------------|------------|-----------|
| Flow | 5,200 | US g.p.m. | Fluid | | |
| Head | 16 | ft | Density of fluid | 62.3 | lb/ft³ |
| Operating speed | 890.8 | rpm | Viscosity | 1.08E-5 | ft²/s |
| Shaft power | 27.9 | hp | Temperature | 68 | °F |
| Efficiency | 75.3 | % | Hydraulic acceptance acc. | ANSI HI 2B | |
| Required pump NPSH | 17.6 | ft | | | |
| Head H(Q=0) | 41 | ft | | | |
| Application range | Head | | Flow | | |
| | From | 33.6 | ft | 1,760 | US g.p.m. |
| | To | 9.56 | ft | 6,050 | US g.p.m. |

Design

| | | | |
|--------------------------|---|---------------|---------------------------------------|
| Make | KSB | Impeller type | Multi channel impeller |
| Design | Submersible pump | | Closed |
| Series | KRT K | Impeller size | (363) 14 1/4 inch |
| Frame size | 300-400 | | Max. (408) 16 1/16 inch |
| Stages | 1 | | Min. (332) 13 1/16 inch |
| Curve number | K41683s/5 | Free passage | 3 15/16 inch |
| | | Weight | 2,030.4 lb |
| Type of bearings | Antifriction | | |
| Nos. of bearings | 1 / 1 | | |
| Lubrication | Grease lubrication. lubricated for lifetime | | |
| Suction port | Pressure rating | | -- |
| | Flange size | DN0 | --- |
| | Flange size | DN1 | 12" |
| | Norm | | -- |
| Discharge port | Pressure rating | | CLASS 125 |
| | Flange size | DN2 | 12 inch |
| | Flange size | DN3 | 12 inch |
| | Norm | | ASME/ANSI B16.1 |
| Suction port: pump (DN1) | | | Discharge port: discharge elbow (DN3) |

Materials

| | |
|-------------------------|--|
| Pump casing | Grey cast iron EN-GJL-250 (A 48 Class 35B) |
| Discharge cover | Grey cast iron EN-GJL-250 (A 48 Class 35B) |
| Impeller | Grey cast iron EN-GJL-250 (A 48 Class 35B) |
| Shaft | Stainless steel EN-1.4021+QT800 (A 276 Type 420) |
| Bearing bracket | Grey cast iron EN-GJL-250 (A 48 Class 35B) |
| Motor casing | Grey cast iron EN-GJL-250 (A 48 Class 35B) |
| Bolts. nuts | Stainless steel A4 (EN-1.4571) (A 276 Type 316) |
| Cooling jacket | --- |
| Shaft protection sleeve | --- |
| Casing wear ring | Grey cast iron EN-GJL-250 (A 48 Class 35B) |
| Impeller wear ring | --- |
| O-Rings | Nitrile rubber (NBR) |

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Project
Customer pos.no
Project ID
Pos.no
Created by



Data sheet

Pump type

KRT K 300-400/308XEG-S

Shaft seal

| | |
|-------------------------------|-----------------------------------|
| Type of seal | Double mechanical seal |
| Arrangement: | Tandem |
| Seal on medium side | with elastomer bellows |
| Mechanical seal. pump-side | Silicon carbide / Silicon carbide |
| Mechanical seal. bearing-side | Carbon / Silicon carbide |

Monitoring

| | |
|-----------------------------------|---|
| Thermal winding protection | By temperature sensitive switches |
| Explosion proof protection | By PTC (Explosion proof models only) |
| Motor housing monitoring | By conductive moisture sensor electrode |
| Mechanical seal leakage detection | --- |
| Bearing temperature monitoring | --- |

Coating

| | |
|-----------------------------|---|
| Preparatory treatment | SSPC near white SP 10 |
| Blasting method | Steel grit blasting |
| Primer | Zinc phosphate or Zinc dust |
| Dry film thickness primer | > 1 1/2 mils (35 microns) |
| Top coat | 2-component epoxy resin |
| Solids content | > 82 % |
| Dry film thickness top coat | > 6 mils (150 microns) |
| Color | Ultramarine Blue (RAL 5002 to DIN 6174) |

Installation

INSTALLATION: **These parts are Not included**

Type of installation: Wet well installation designed for automatic connection to a permanently installed discharge elbow

Discharge elbow size (DN2/DN3): 12 inch / 12 inch

Flange to suit : ASME/ANSI B16.1, CLASS 125

Claw : Bolted to the pump

Guide system : Double guide bars, by contractor

Guide bar : 3" diameter pipes

dimension

Installation depth : 15 ft (4.5 m)

Lifting device : stainless steel lifting chain

Length of : 33 ft (10 m)

lifting device

Lifting loops : Every 8 ft (2.5 m)

Installation : Discharge elbow, 12 inch / {P.PartNo[Co,

accessories GuideRail].Bend DN DS[Co];;0}

fasteners,

claw, bracket, lifting chain,

but without guide bars

Materials:

Discharge elbow : Greycast iron EN-GJL-250 (A 48 Class 35B)

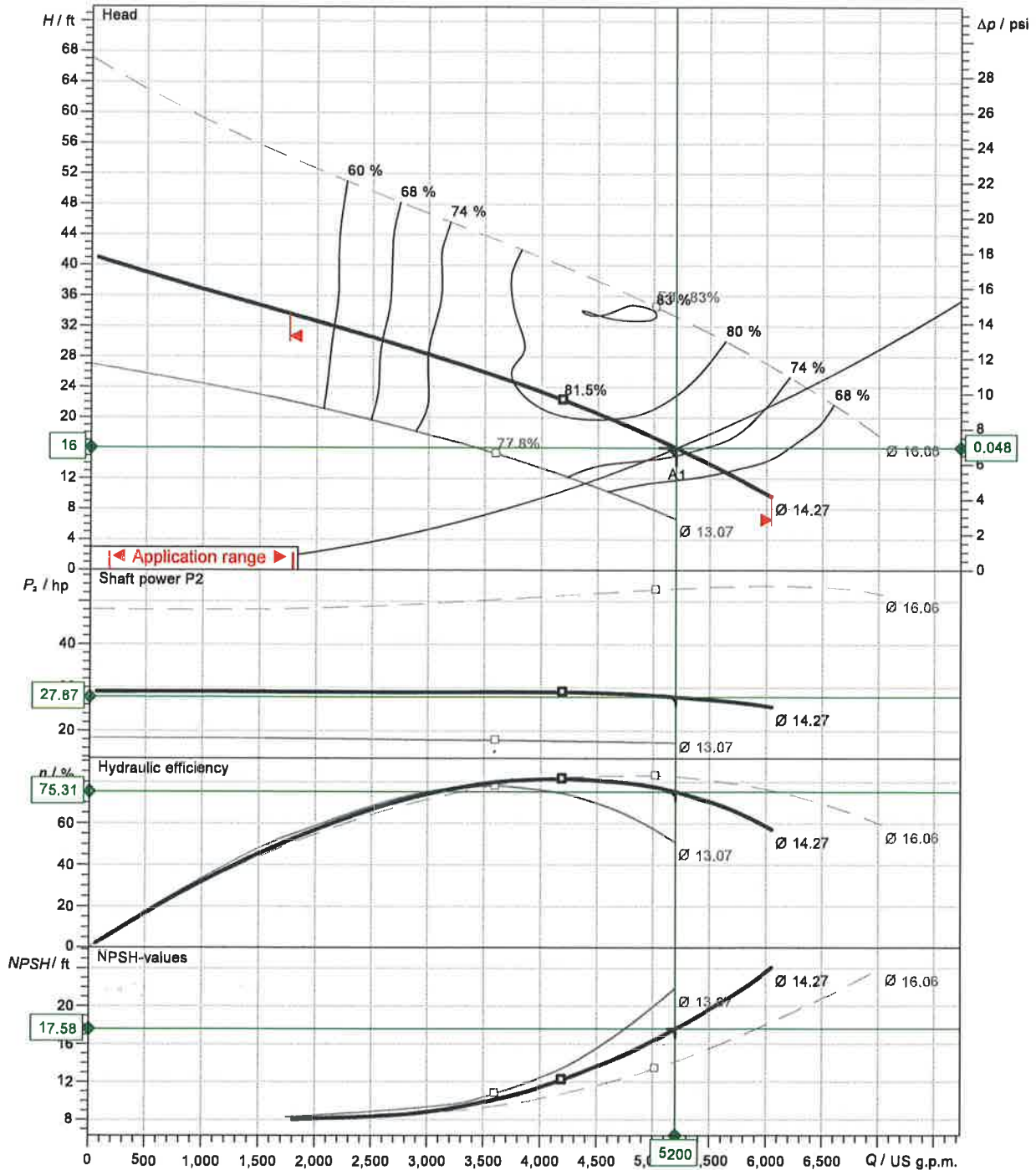
Project
 Customer pos.no
 Project ID
 Pos.no
 Created by



Page 3 / 6
 Created 2022-10-25
 Update 2022-10-25

Performance curve

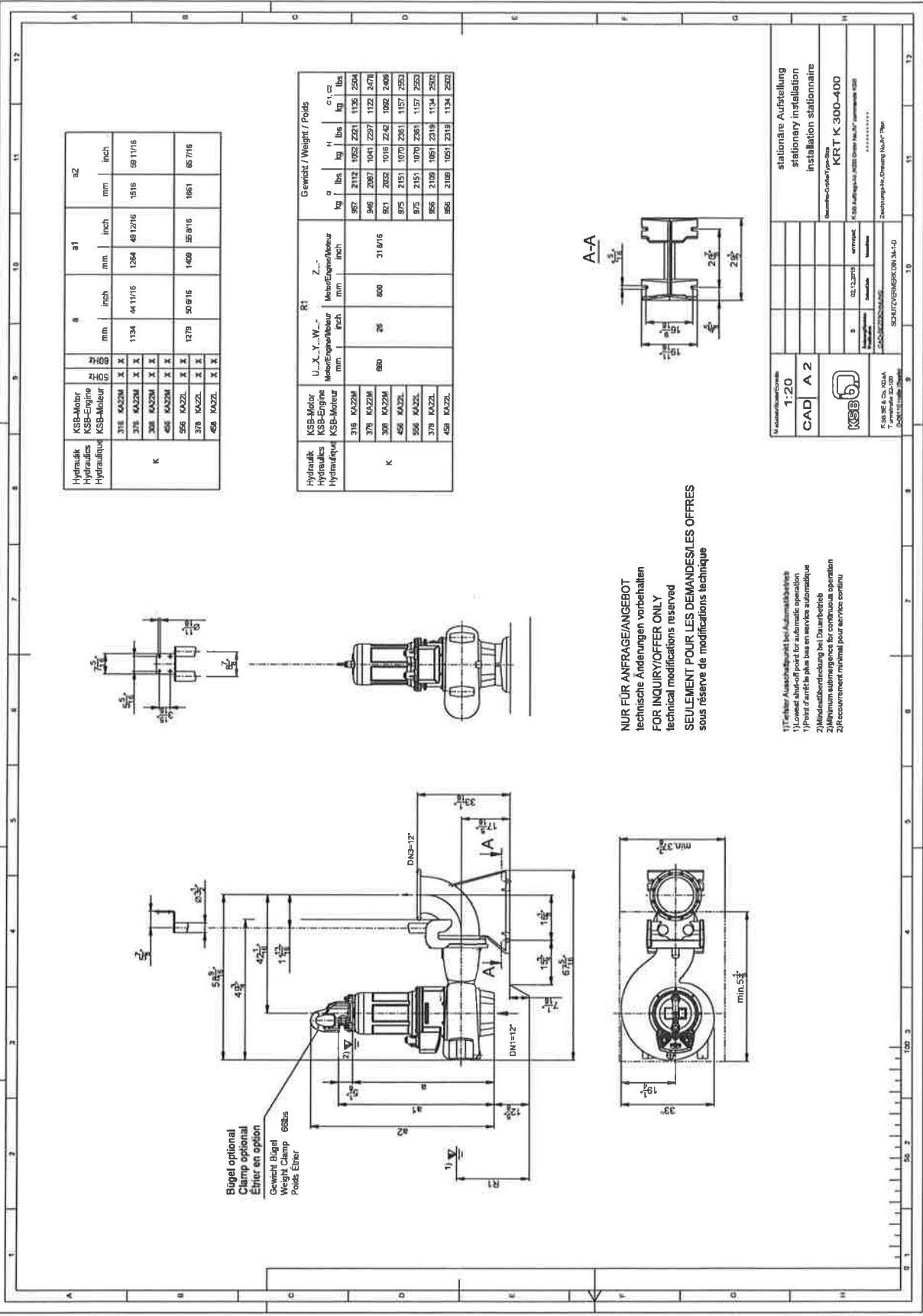
Pump type KRT K 300-400/308XEG-S



| | | | |
|---------------|--------------------------------|--------------|-------------------|
| Impeller type | Multi channel impeller, Closed | Curve number | K41683s/5 |
| Free passage | 3 15/16 inch | Frequency | 60 Hz |
| Impeller size | 14 1/4 inch (3636) | Speed | 890.8 1/min |
| | | | ANSI HI 2B |

Density of fluid 62.322 lb/ft³
 Viscosity 1.082E-5 ft²/s

2021/04/26 (Build 216), 02.01.19.10.07.01 - 05-05-2021 AVALIATION



| Hydraulik Hydraulics Hydraulique | KSB-Motor KSB-Engine KSB-Moteur | H | | a1 | | a2 | | | |
|--|---------------------------------------|----|------|------|----------|------|----------|------|----------|
| | | mm | inch | mm | inch | mm | inch | | |
| K | 376 KX22M | X | X | 1134 | 44 11/16 | 1264 | 49 12/16 | 1516 | 59 11/16 |
| | 376 KX22M | X | X | | | | | | |
| | 376 KX22M | X | X | | | | | | |
| | 456 KX22M | X | X | | | | | | |
| | 456 KX22M | X | X | | | | | | |
| K | 378 KX22L | X | X | 1275 | 50 9/16 | 1409 | 55 9/16 | 1661 | 65 7/16 |
| | 458 KX22L | X | X | | | | | | |

| Hydraulik Hydraulics Hydraulique | KSB-Motor KSB-Engine KSB-Moteur | U...X...Y...W... | | R1 | | Z... | | Gewicht / Weight / Poids | | | | | |
|--|---------------------------------------|------------------|------|-----|------|---------------------------|---------|--------------------------|------|------|------------------|------|------|
| | | mm | inch | mm | inch | Motor/Engine/Moteur mm | inch | kg | lbs | H | c1, c2 kg lbs | | |
| K | 376 KX22M | | | 880 | 26 | 800 | 31 8/16 | 967 | 2112 | 1952 | 2221 | 1135 | 2504 |
| | 378 KX22M | | | | | | | 946 | 2087 | 1041 | 2297 | 1122 | 2470 |
| | 378 KX22M | | | | | | | 921 | 2052 | 1016 | 2242 | 1092 | 2408 |
| | 458 KX22L | | | | | | | 975 | 2151 | 1070 | 2381 | 1157 | 2552 |
| | 458 KX22L | | | | | | | 975 | 2151 | 1070 | 2381 | 1157 | 2552 |
| K | 378 KX22L | | | | | | | 856 | 2108 | 1051 | 2319 | 1134 | 2502 |
| K | 458 KX22L | | | | | | | 856 | 2108 | 1051 | 2319 | 1134 | 2502 |

NUR FÜR ANFRAGE/ANGEBOT
technische Änderungen vorbehalten
FOR INQUIRY/OFFER ONLY
technical modifications reserved
SEULEMENT POUR LES DEMANDES/OFFRES
sous réserve de modifications technique

- 1) Lowerest shut-off point for automatic operation
- 1) Point d'arrêt le plus bas en service automatique
- 2) Minimum submergence for continuous operation
- 2) Recouvrement minimal pour service continu

| | | | |
|--|---------|---|-------------------------|
| Scale 1:20 | CAD A 2 | Stationery installation stationnaire | Model KRT K 300-400 |
| KSB logo | | Stationery installation stationnaire | Weight KRT K 300-400 |
| K 308 XEG S, Cn. 102AA T. 1.000000, 02.1001 A001111, 01.0111 | | SCHAFFNER/GRUNDFOS 308-X-10 | |

202106A02 (Rev. 2.13), 02.14

Project
 Customer pos.no
 Project ID
 Created by
 Pos.no



Page 5 / 6
 2022-10-25
 2022-10-25

Created
 Update

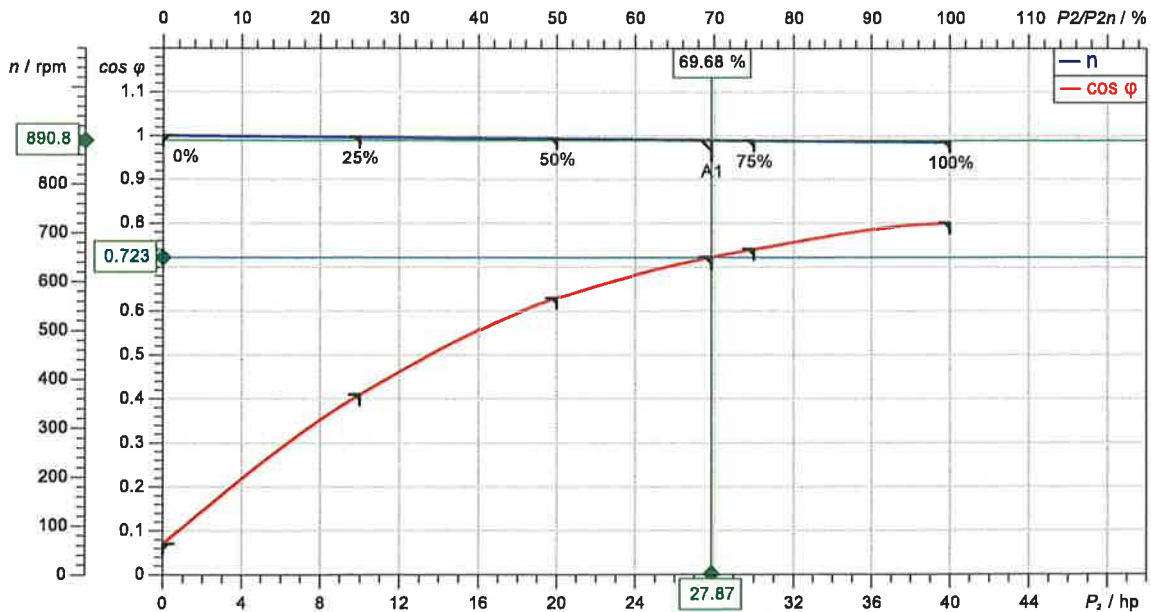
Data sheet: Motor data

Motor type **308XEG**

| | | | | |
|----------------------|--|---------------------------|-------|-----|
| Motor manufacturer | KSB SE & Co. KGaA | Rated voltage | 460 | V |
| Design acc. standard | - | Rated frequency | 60 | Hz |
| Service factor | 1.14 | Rated HP (D.O.L) or VFD | 40 | hp |
| Degree of protection | IP68 | Rated current | 52.2 | A |
| Insulation class | | Nominal speed | 887 | rpm |
| Starting mode | Direct starting | NEMA code letter | G | |
| No. starts / h | 10 | Starting to rated current | 5.7 | |
| Coolant temperature | < / = 104 °F (40 °C) | Starting current | 297.5 | A |
| Motor casing | Grey cast iron EN-GJL-250 (A 48 Class 35B) | | | |
| Explosion protection | Class I, Div. 1, Groups C&D T ₃ | | | |
| Pump type | KRT K 300-400/308XEG-S | | | |

| Load | P1 kW | P2 hp | eta % | cos phi | I A |
|------|----------|----------|----------|---------|--------|
| 4/4 | 33.29 | 40.0 | 89.6 | 0.8 | 52.2 |
| 3/4 | 25.02 | 30.0 | 89.4 | 0.74 | 42.4 |
| 2/4 | 16.90 | 20.0 | 88.2 | 0.63 | 33.7 |
| 1/4 | 9.11 | 10.0 | 81.9 | 0.41 | 27.9 |

| | | | |
|---------------------|--------------------------------------|----------|-----------------------|
| Main cable | 2 x AWG 9-4 | Diameter | 0.56 inch...0.60 inch |
| Control cable | 1 x AWG 15-8 | Diameter | 0.56 inch...0.60 inch |
| Cable. outer sheath | Waterproof synthetic rubber compound | | |
| Cable length | 50 ft (15 m) | | |



KSB Inc., 4415 Sarellen Road, Richmond, Virginia 23231, Phone: 001-804-222-1818, Fax: 001-804-226-6961
 KSB Pumps Inc, 5885 Kennedy Road, Mississauga, Ontario L4Z 2G3 (Canada), Phone: (0905) 568-9200, Fax: (0905) 568-9120

KSB SE & Co. KGaA, Turmstrasse 92, 06110 Halle (Germany), Phone +49 (345) 48260, Fax +49 (345) 4826 4699, www.ksb.com

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Project
 Customer pos.no
 Project ID
 Pos.no
 Created by



Created
 Update

Page 1 / 5
 2022-10-25
 2022-10-25

BERLCC_

Pump type KRT K 300-400/308XEG-S

Calculation of energy costs

BERCO2

Calculation specifications

Evaluation period 10 Year(s)
 Operating hours 6,840.00 h/a
 Lastprofil ill-load operation
 Electricity tariff 0.20 EUR/kWh
 JaeStromSt 6 %
 JaeKostSt 3 %
 ZinsS 7 %
 CO2-factor 0.62 kg/kWh

JAECO2 218.27 t/a
 Co2 emission for 10 years 2,182.71 t

| Qp % | Qui | Q US g.p.l | H ft | P1 hp | E kWh/a | K EUR/a |
|---------------------|-----|------------|------|-------|-----------------|-----------|
| 100 | 1 | 5,200 | 16 | 31.2 | 159,000 | 31,835.33 |
| Energy requirements | | | | | 159,200 kWh/a | |
| Annual energy costs | | | | | 31,835.33 EUR/a | |

BERLCC

Pump and accessories On req. EUR
 De-installation / installation 0.00 EUR
 Disposal 0.00 EUR
 Sum of investment EUR

Energy requirements 159,176.64 kWh/a
 Energy costs 31,835.33 EUR
 Routine maintenance 0.00 EUR
 Servicing 0.00 EUR
 Environ. contamin. 0.00 EUR
 Costs for loss of production 0.00 EUR
 Other costs 0.00 EUR
 Sum of annual costs 31,835.33 EUR
 Life cycle cost (LCC) for 10 years EUR

Energy costs for 10 years 301,522.08 EUR



DXP Enterprises, Inc.

THE INDUSTRIAL DISTRIBUTION EXPERTS

DXP Terms & Conditions

PLEASE READ THESE TERMS AND CONDITIONS VERY CAREFULLY.

THE TERMS AND CONDITIONS ARE LIMITED TO THOSE CONTAINED HEREIN. ANY ADDITIONAL OR DIFFERENT TERMS IN ANY FORMS DELIVERED BY YOU ("CUSTOMER") ARE HEREBY DEEMED TO BE MATERIAL ALTERATIONS AND NOTICE OF OBJECTION TO THEM AND REJECTION OF THEM IS HEREBY GIVEN.

BY ACCEPTING DELIVERY OF THE PRODUCTS DESCRIBED IN DXP'S INVOICE OR OTHER DXP DOCUMENTATION, CUSTOMER AGREES TO BE BOUND BY AND ACCEPTS THESE TERMS AND CONDITIONS.

Important Information About DXP Terms and Conditions:

These Terms and Conditions constitute a binding contract between Customer and the DXP Entity identified on Customer's invoice ("DXP") and are referred to herein as the "Agreement". Customer accepts

I. CONDITIONS

- (a) No terms and conditions contained in any order placed with DXP Enterprises, Inc. other than those stated herein shall be binding on DXP Enterprises, Inc. unless hereafter agreed in writing.
- (b) All orders are subject to acceptance by an officer of DXP Enterprises, Inc.

II. PRICES

All prices quoted herein will be subject to the prices in effect at time of shipment. All prices are subject to change without notice. DXP is not responsible for typographical errors.

III. TERMS OF PAYMENT

- (a) Net 30 days unless otherwise stated in writing.
- (b) All orders subject to approval of credit. **All** orders paid in cash should be payable in U.S Dollars.
- (c) The finance charge on Past Due Balances is computed by a periodic rate of 1 ½% per month (Annual percentage rate of 18%).
- (d) All quotes are for immediate acceptance and expire after 30 days unless otherwise stated in writing.

IV. ST AND ARD WARRANTY

- (a) DXP will convey to the Purchaser the manufacturer's warranty that applies to the purchased goods.

INNOVATIVE PUMPING SOLUTIONS • SUPPLY CHAIN SERVICES • SERVICE CENTERS

1340 N. Jefferson Street
Anaheim, CA 92807
Phone 714-779-0911



DXP Enterprises, Inc.

THE INDUSTRIAL DISTRIBUTION EXPERTS

(b) This warranty does not obligate DXP to bear the cost of labor or transportation charges in connection with the replacement or repair of defective parts without approval by an officer of DXP prior to the time repairs are made. The obligation under this warranty may be limited to the repair or replacement of parts F.O.B. its factory provided that upon inspection at such point they shall be determined by DXP to have been defective in material or workmanship.

(c) If DXP agrees that circumstances require the replacement or repair of defective parts on the jobsite, after a DXP representative has determined that a warranty situation does exist, and that no revisions or alterations have been made to the equipment by others, a DXP representative will implement the required repairs on an eight-hour straight time basis only.

(d) Statistical information contained in this catalog is derived from tables compiled by the manufacturers and is reprinted by us for your convenience. We do not assume responsibility for the precise accuracy of such information.

(e) Acceptance of the material from a common carrier constitutes a waiver of any claim against DXP for delay or damages in transit.

(t) Seller makes no warranty of any kind whatsoever, expressed or implied, unless expressly set forth in writing. No agent, employee or representative of the Seller has any authority to bind the Seller to any affirmation, representation, or warranty concerning the goods that we sell beyond that specifically included in writing.

(g) DXP shall not be responsible for exemplary or consequential damages.

V. SHIPMENT

(a) Shipment quoted is effective as of proposal date and will be confirmed upon receipt of order, subject to availability of materials and production space. DXP shall not be held responsible for delays due to causes beyond DXP's control such as strikes, riots, carrier delays, etc.

(b) All freight charges are billed to purchaser. All merchandise becomes the property of the Purchaser upon delivery to the carrier.

(c) Delivery terms are F.O.B. shipping point, unless otherwise noted. Unless specific shipping instructions are given, we will use our judgment to determine the most satisfactory routing.

(d) In the event a package becomes lost or damaged in shipment, please make appropriate notations on your delivery receipt before signing. If the carrier is a truckline, obtain an inspection report immediately. Contact DXP for additional information.

VI. TAXES

The Purchaser shall pay to DXP, in addition to the purchase price, the amount of all Sales, Use, Privilege, Occupation, Excise, or other taxes, Federal, State, local or foreign which DXP is required to pay in connection with furnishing goods or services to the Purchaser.

VII. INSTALLATION

Equipment shall be transported, installed and connected at Purchaser's risk and expense. DXP will furnish a service representative to assist in initial installation and start-up. This service will be invoiced separately at our current published rates plus living and traveling expenses.

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Anaheim, CA 92807
Phone 714-779-0911