

Data sheet



Customer item no.:
Communication dated: 16/05/2024
Doc. no.: Co Laredo - Replac. For SN 99735872
Quantity: 1

Number: ES 8002976230
Item no.: 100
Date: 08/08/2024
Page: 1 / 6

KRTK 350-500/R1906XNG-S

Version no.: 2

Operating data

Requested flow rate	8333.00 US GPM	Actual flow rate	8333.65 US GPM
Requested developed head	83.29 ft	Actual developed head	83.30 ft
Pumped medium	Wastewater, municipal untreated	Efficiency	77.0 %
Pumped medium details	Not containing chemical and mechanical substances which affect the materials	Power absorbed	234.57 HP
Ambient air temperature	68.0 °F	Pump speed of rotation	1191 rpm
Fluid temperature	104.0 °F	Shutoff head	135.20 ft
Fluid density	64.175984 lb/ft ³	Design	Single system 1 x 100 %
Fluid viscosity	0.0010 in ² /s	Performance test	No
Max. power on curve	240.31 HP		
			Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

Design

Design	Close-coupled submersible	Impeller type	Multivane radial flow impeller (K)
Orientation	Vertical	Wear ring	Casing/impeller wear ring
Suction flange pump drilled according to(DN1)	unmachined	Impeller diameter	17.56 in
Discharge flange pump drilled according to(DN2)	EN 1092-2 / DN 350 / PN 10	Free passage size	4.3 in
Shaft seal	2 mech. seals in tandem arrangement with oil reservoir	Direction of rotation from drive	Clockwise
Shaft seal manufacturer	KSB	Ex protection	Explosion protection to NEC Class1, Div 1, Gr.C, D T3
Type	MG	Temperature sensor PT100 inboard	With
Material code	SIC/SIC/NBR		

Driver, accessories

Driver type	Electric motor	Motor winding	460 V
Model (make)	KSB	Number of poles	6
Motor const. type	KSB Sub. motor	Starting mode	Direct-on-line starting
NEMA code letter	F	Connection mode	Delta
Frequency	60 Hz	Motor cooling method	Surface cooling
Rated voltage	460 V	Motor version	X
Rated power P2	250.00 HP	Cable design	Rubber hose
Available reserve	5.70 %	Cable entry	Sealed along entire length
Rated current	275.0 A	Power cable	AWG 3/0-4
Starting current ratio	6	Number of power cables	2
Insulation class	H according IEC 34-1	Control cable	AWG 15-10
Type of protection	XP/II/1/CD	Number of control cables	1
Motor enclosure	IP68	Moisture sensor	With
Cos phi at 4/4 load	0.91	Float switch mechanical seal	With
Motor efficiency at 4/4 load	93.7 %		
Motor service factor	1.15	Cable length	98.43 ft
Temperature sensor	Bimetal switch / PTC		

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Page: 2 / 6

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Materials G

Pump casing (101)	Cast iron A 48 Class 35 B	Casing wear ring (502.1)	Cast iron A 48 Class 35 B
Discharge cover (163)	Cast iron A 48 Class 35 B	Impeller wear ring (503)	Wear resistant duplex stainless steel
Shaft (210)	Chrome steel ASTM A276 Type 420 T	Shaft protecting sleeve (524)	Chrome steel A 276 Type 420
Impeller (230)	Cast iron A 48 Class 35 B	Motor housing (811)	Cast iron A 48 Class 35 B
Bearing bracket (330)	Cast iron A 48 Class 35 B	Motor cable (824)	Chloroprene rubber
O-Ring (412)	Nitrile rubber NBR	Screw (900)	Stainless steel A 193 B8M

Packaging

Packaging category	A0 Packing acc. to KSB choice	Packaging for transport	Truck
Packaging for storage	Indoor	IPPC Standard ISPM 15	Yes

Nameplates

Nameplates language	International	Duplicate nameplate	With
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Installation parts

Installation type	Stationary with guide wire
Scope of supply	Pump with installation parts
Installation depth	14.76 ft
Material concept	G

Duckfoot bend	Without
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Claw

Design	Straight
Size	DN 350

Lifting chain / -rope	Without
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Coating

KSB coating code	S2 to AA-0080-06-01 / 2	Final coating	2-component epoxy resin high solid
Surface preparation	Free from dirt, grease, rust	Color	Ultramarine blue (RAL 5002)
Primer	Zincphosphate synthetic resin	Total film thickness approx.	KSB-blue
Intermediate coating	2-component epoxy resin high solid		0.0117 in

Performance curve

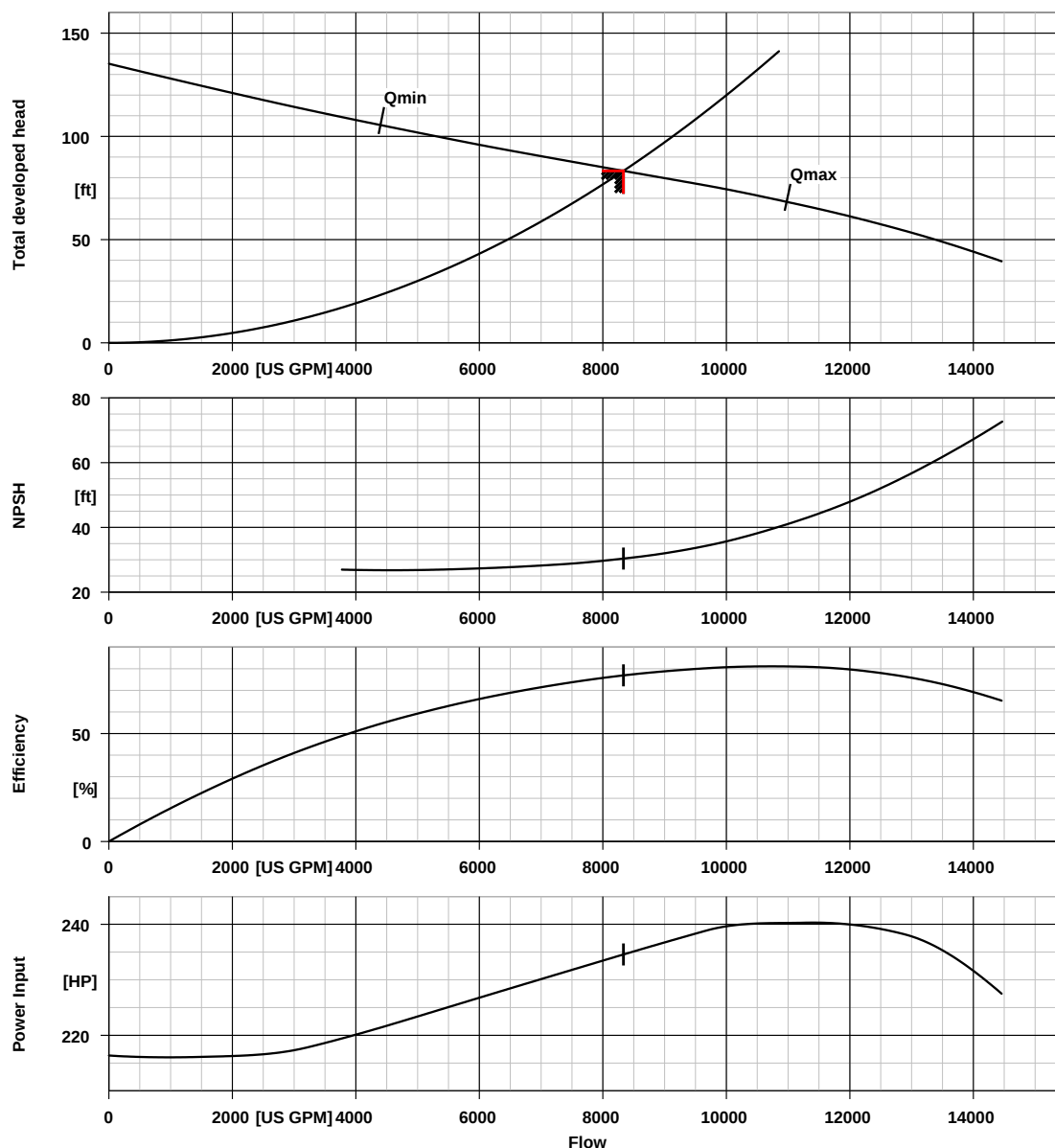


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Item no.:100
Date: 08/08/2024
Page: 3 / 6

KRTK 350-500/R1906XNG-S

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Curve data

Speed of rotation	1191 rpm
Fluid density	64.175984 lb/ft ³
Viscosity	0.0010 in ² /s
Flow rate	8333.65 US GPM
Requested flow rate	8333.00 US GPM
Total developed head	83.30 ft
Requested developed head	83.29 ft

Efficiency	77.0 %
Power absorbed	234.57 HP
NPSH 3%	30.38 ft
Curve number	K41689s/5
Effective impeller diameter	17.56 in
Acceptance standard	Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

Motor data sheet



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Date: 08/08/2024
Page: 4 / 6

KRTK 350-500/R1906XNG-S

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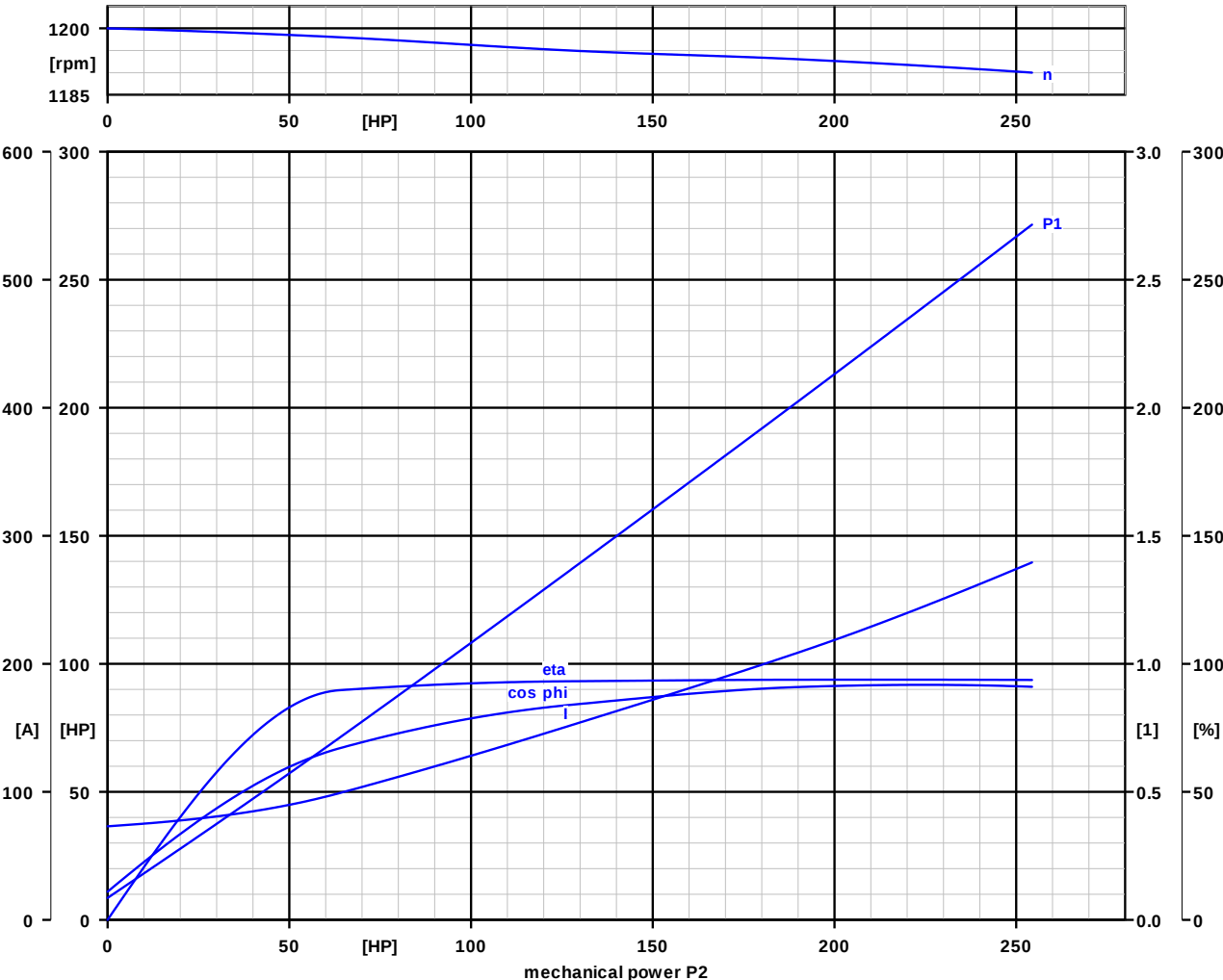
Motor data

Motor manufacturer	KSB	Starting mode	Direct-on-line starting
Motor size	190N	Power cable	AWG 3/0-4
Motor construction type	KSB Sub. motor	Number of power cables	2
Motor material	Grey cast iron EN-GJL-250	Power cable Ø min.	1.52 in
Efficiency class	not classified	Power cable Ø max.	1.64 in
Rated voltage	460 V	Control cable	AWG 15-10
Frequency	60 Hz	Number of control cables	1
Motor power	255.00 HP	Ctrl. cable diameter, min.	0.63 in
Rated current	280.0 A	Ctrl. cable diameter, max.	0.67 in
Rated speed	1190 rpm	Cable standard	NEC
Starting current ratio	5.9	Switching frequency	10.00 1/h

Curve data

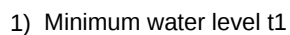
The no-load point is not a guarantee point within the meaning of IEC 60034

Load	0.0 %	25.0 %	50.0 %	75.0 %	100.0 %
P2	0.00 HP	63.75 HP	127.50 HP	191.26 HP	255.00 HP
n	1200 rpm	1198 rpm	1195 rpm	1193 rpm	1190 rpm
P1	8.59 HP	71.07 HP	136.78 HP	203.84 HP	272.23 HP
I	73.1 A	99.0 A	152.0 A	210.0 A	280.0 A
Eta	0.0 %	89.7 %	93.2 %	93.8 %	93.7 %
cos phi	0.11	0.67	0.84	0.91	0.91



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Date: 08/08/2024
Page: 5 / 6

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Dimensions in in

Installation plan



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Date: 08/08/2024
Page: 6 / 6

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Motor

Motor manufacturer	KSB
Motor size	R190N
Motor power	250.00 HP
Number of poles	6
Speed of rotation	1190 rpm
Motor enclosure	IP68

Connections

Suction flange pump drilled according to(DN1)	unmachined
Discharge flange pump drilled according to(DN2)	EN 1092-2 / DN 350 / PN 10

Connect pipes without stress or strain!

Dimensional tolerances for shaft axis height: DIN 747
Dimensions without tolerances, middle tolerances to:
Connection dimensions for pumps:
Dimensions without tolerances - welded parts:
Dimensions without tolerances - gray cast iron parts:
Dimensions without tolerances - stainless steel parts:

Weight net

Pump, Motor, Cable , Claw	6558 lbm
Total	6558 lbm

For auxiliary connections see separate drawing.

ISO 2768-m
EN735
ISO 13920-B
ISO 8062-CT11
ISO 8062-CT12