

KRTF 40-252/52WEG-P IE3**Operating data**

Pumped medium	+ Eau avec traces de sulfates + H ₂ SO ₄ + K ₂ SO ₄ + MEG + sels (avec hydrocarbures) Not containing chemical and mechanical substances which affect the materials	Actual flow rate	5.09 m ³ /h
		Actual developed head	31.06 m
		Efficiency	18.8 %
		Power absorbed	2.26 kW
		Pump speed of rotation	2957 rpm
		Max. power on curve	5.70 kW
		Shutoff head	32.18 m
		Design	Single system 1 x 100 %
Max. ambient air temperature	20.0 °C		
Min. ambient air temperature	20.0 °C		
Fluid temperature	60.0 °C		
Fluid density	983 kg/m ³	Performance test	No
Fluid viscosity	0.48 mm ² /s		Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

Design

Design	Close-coupled submersible	Type	4STQ
Orientation	Vertical	Material code	SIC/SIC/FPM
Suction flange pump drilled according to(DN1)	unmachined	Impeller type	Free flow (vortex) impeller (F-max)
Discharge flange pump drilled according to(DN2)	DN 40 / PN 10 / Drilled according to EN 1092-2	Impeller diameter	150.0 mm
Shaft seal	Double acting shaft seal cartridge in tandem arrangement with oil reservoir.	Free passage size	25.0 mm
		Direction of rotation from drive	Clockwise
Manufacturer	KSB		

Driver, accessories

Driver type	Electric motor	Temperature sensor	Bimetal switch 2x
Model (make)	KSB	Motor winding	400 / 690 V
Motor const. type	KSB Sub. motor	Number of poles	2
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1	Starting mode	Direct/Star-delta possible
Frequency	50 Hz	Connection mode	Delta
Rated voltage	400 V	Motor cooling method	Surface cooling
Rated power P ₂	4.00 kW	Motor version	W
Available reserve	76.75 %	Cable design	Tefzel cable
Rated current	8.7 A	Cable entry	Sealed along entire length
Starting current ratio	6.6	Power cable	TEHSITE 7x6+5x1.5
Insulation class	H according IEC 34-1	Number of power cables	1
Motor enclosure	IP68	Moisture sensor	With
Cos phi at 4/4 load	0.75	Cable length	10.00 m
Motor efficiency at 4/4 load	88.1 %		

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Materials G

Pump casing (101)	Grey cast iron EN-GJL-250	O-Ring (412)	Nitrile rubber NBR
Discharge cover (163)	Grey cast iron EN-GJL-250	Motor housing (811)	Grey cast iron EN-GJL-250
Shaft (210)	Chrome steel 1.4021+QT800	Motor cable (824)	ETFE (Tefzel)
Impeller (230)	Grey cast iron EN-GJL-250	Screw (900)	CrNiMo steel A4
Bearing bracket (330)	Grey cast iron EN-GJL-250		

Nameplates

Nameplates language	International	Supplementary text	19-P-04 / 19-P-05
Duplicate nameplate	With	Individual text per piece	Without

Order documentation

The following documents will be supplied with the order:
 Manufacturer's or conformity declaration
 Motor data sheet
 Operating manual
 Performance curve
 Parts list pump
 DIN spare parts list of pump

Installation manual
 Sectional drawing of pump
 Technical data sheet
 General arrangement drawing
 Languages French, English
 Procedure for unsupported languages Supply the document in English instead

Installation parts

Installation type	Portable
Scope of supply	Pump with installation parts
Installation depth	4.50 m
Material concept	G
Foot	
Size	
Foot type	Footplate
Material	

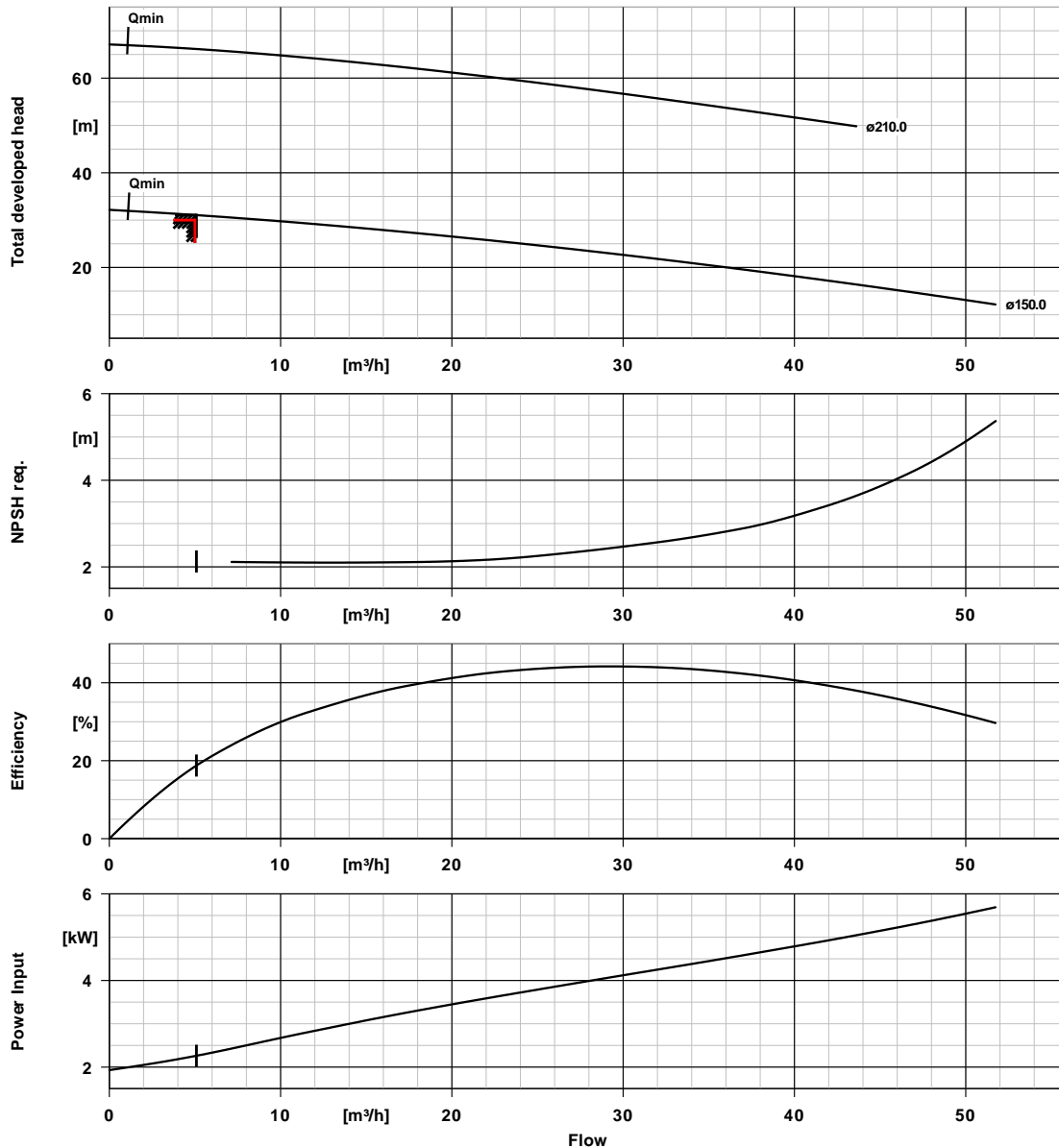
Lifting chain / -rope

Type	Chain
Material	CrNiMo steel 1.4404
Length	5.00 m
Max. load	200 kg
Lifting Bail	With

Coating

KSB coating code	S2 to AA-0080-06-01 / 2	Final coating	2-component epoxy resin
Surface preparation	Free from dirt, grease, rust	Color	high solid Ultramarine blue (RAL 5002)
Primer	Zinc phosphate synthetic resin	Total film thickness approx.	KSB-blue 300 µm
Intermediate coating	2-component epoxy resin high solid		

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Curve data

Speed of rotation	2957 rpm	Efficiency	18.8 %
Fluid density	983 kg/m ³	Power absorbed	2.26 kW
Viscosity	0.48 mm ² /s	NPSH req. 3%	2.13 m
Flow rate	5.09 m ³ /h	Curve number	K43388s
Requested flow rate	5.00 m ³ /h	Effective impeller diameter	150.0 mm
Total developed head	31.06 m	Acceptance standard	Tolerances to ISO 9906
Requested developed head	30.00 m		Class 3B; below 10 kW
			acc. to paragraph 4.4.2

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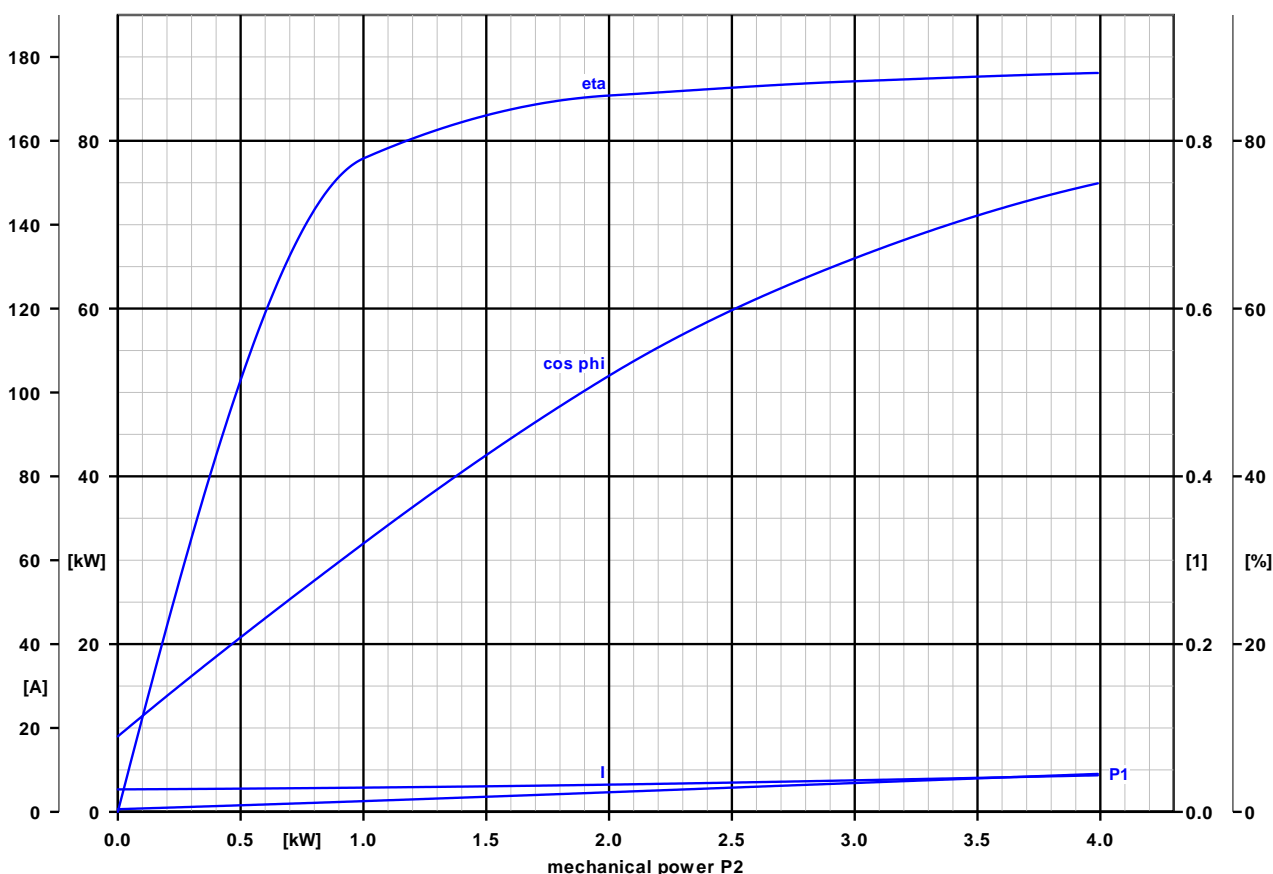
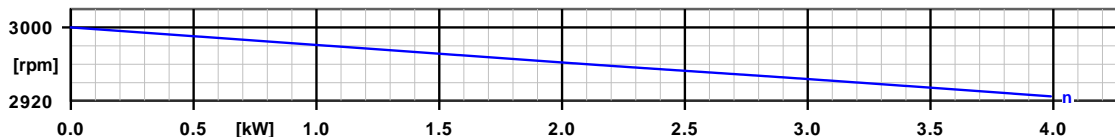
Motor data

Motor manufacturer	KSB	Rated speed	2925 rpm
Motor size	5E	Starting current ratio	6.6
Motor construction type	KSB Sub. motor	Starting mode	Direct/Star-delta possible
Motor material	Grey cast iron EN-GJL-250	Power cable	TEHSITE 7x6+5x1.5
Efficiency class	IE3 acc. to IEC 60034-30	Number of power cables	1
Rated voltage	400 V	Power cable Ø min.	19.5 mm
Frequency	50 Hz	Power cable Ø max.	20.5 mm
Motor power	4.00 kW	Cable standard	VDE
Rated current	8.7 A	Switching frequency	30.00 1/h

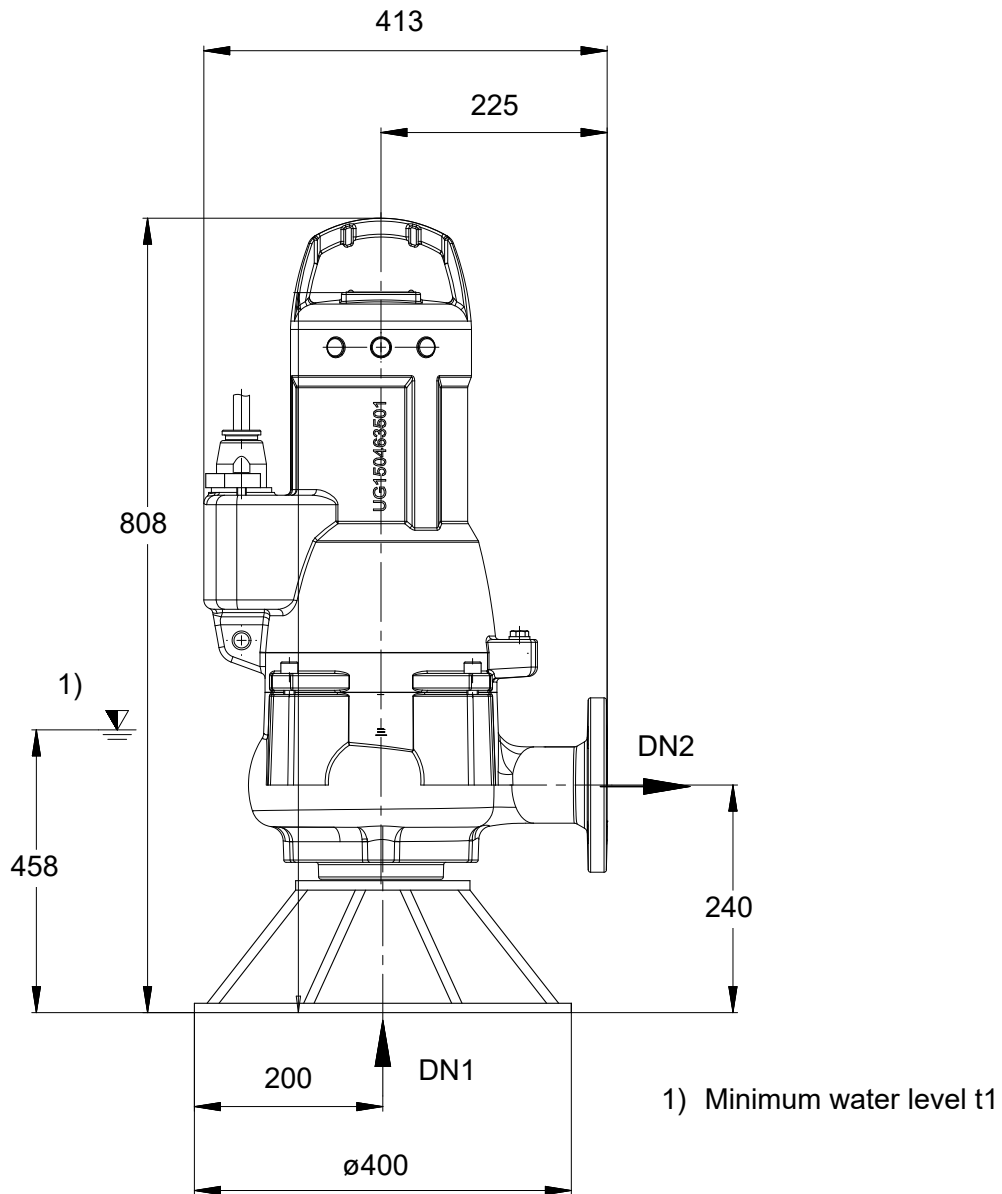
Curve data

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 kW	1.00 kW	2.00 kW	3.00 kW	4.00 kW
n	3000 rpm	2981 rpm	2962 rpm	2944 rpm	2925 rpm
P1	0.32 kW	1.28 kW	2.34 kW	3.44 kW	4.54 kW
I	5.4 A	5.8 A	6.5 A	7.5 A	8.7 A
Eta	0.0 %	77.9 %	85.4 %	87.1 %	88.1 %
cos phi	0.09	0.32	0.52	0.66	0.75



KRTF 40-252/52WEG-P IE3



Drawing is not to scale

Dimensions in mm

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Motor

Motor manufacturer	KSB
Motor size	5E
Motor power	4.00 kW
Number of poles	2
Speed of rotation	2925 rpm

Connections

Suction flange pump drilled according to(DN1)	unmachined
Discharge flange pump drilled according to(DN2)	DN 40 / PN 10 / Drilled according to EN 1092-2

Weight net

Pump, Motor, Cable	111 kg
Claw / Foot	5 kg
Total	116 kg

Connect pipes without stress or strain!

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

DIN 747
ISO 2768-m
EN735
ISO 13920-B
ISO 8062-CT9

For auxiliary connections see separate drawing.