

Data sheet



Customer item no.:
Communication dated: 14/09/2020
Doc. no.: Licitatie ANP
Quantity: 2

Number: 4004141280
Item no.: 200
Date: 14/09/2020
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Amarex NS 50-222/042ULG-190

Version no.: 1

Operating data

Requested flow rate	16.00 m ³ /h	Actual flow rate	17.44 m ³ /h
Requested developed head	24.00 m	Actual developed head	28.50 m
Pumped medium	Wastewater, municipal untreated Not containing chemical and mechanical substances which affect the materials	Efficiency	41.8 %
Ambient air temperature	20.0 °C	Power absorbed	3.34 kW
Fluid temperature	20.0 °C	Pump speed of rotation	2869 rpm
Fluid density	1030 kg/m ³	Shutoff head	48.73 m
Fluid viscosity	1.00 mm ² /s	Design	Single system 1 x 100 %
Max. power on curve	3.36 kW	Performance test	No
			Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

Design

Design	Close-coupled submersible	Shaft seal	2 mech. seals in tandem arrangement with oil reservoir
Orientation	Vertical	Manufacturer	KSB
Suction nominal dia.	DN 50	Type	FG
Suction nominal pressure	unmachined	Material code	SIC/SIC/NBR
Suction position	axial	Impeller type	Cutting device
Suction flange drilled according to standard	DIN2501/ISO7005	Impeller diameter	190.0 mm
Discharge nominal dia.	DN 50	Free passage size	6.0 mm
Discharge nominal pressure	PN 16	Direction of rotation from drive	Clockwise
Discharge position	radial	Color	Ultramarine blue (RAL 5002)
Discharge flange drilled according to standard	DIN2501/ISO7005		KSB-blue

Driver, accessories

Driver type	Electric motor	Motor winding	400 V
Model (make)	KSB	Number of poles	2
Motor const. type	KSB Sub. motor	Starting mode	Direct-on-line starting
Frequency	50 Hz	Connection mode	Star
Rated voltage	400 V	Motor cooling method	Surface cooling
Rated power P ₂	4.20 kW	Motor version	U
Available reserve	25.57 %	Cable design	Rubber hose
Rated current	9.0 A	Cable entry	Sealed along entire length
Starting current ratio	5.7	Power cable	H07RN-F 7G1.5
Insulation class	F to IEC 34-1	Number of power cables	1
Motor enclosure	IP68	Moisture sensor	Without
Cos phi at 4/4 load	0.87	Motor bearings	Anti-friction bearings
Motor efficiency at 4/4 load	77.8 %	Cable length	10.00 m
Temperature sensor	Bimetal switch 2x		

Materials G

Pump casing (101)	Grey cast iron EN-GJL-250	Impeller (230)	Grey cast iron EN-GJL-250
Intermediate casing (113)	Grey cast iron EN-GJL-250	O-Ring (412)	Nitrile rubber NBR
Shaft (210)	Chrome steel 1.4021+QT800	Motor cable (824)	Chloroprene rubber
Cutter (23-14)	Forged steel X210CR 12G	Hexagon socket head cap screw (914)	CrNiMo steel A2

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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	4.50 m
Material concept	G
Installation part kit ident-number	39022200

Lifting chain / -rope

Type	Chain
Material	CrNiMo steel 1.4404
Length	5.00 m
Max. load	200 kg
Ident-number	39024058

Duckfoot bend

Size	DN 50
Flange design	EN
Duckfoot bend size (DN2 / DN3)	DN 50 Drilled according to EN
Material	Grey cast iron EN-GJL-250
Mounting type	Composite anchor bolts
Foundation rail	Without

Claw

Design	inclined
Size	DN 50
Ident-number	

Performance curve

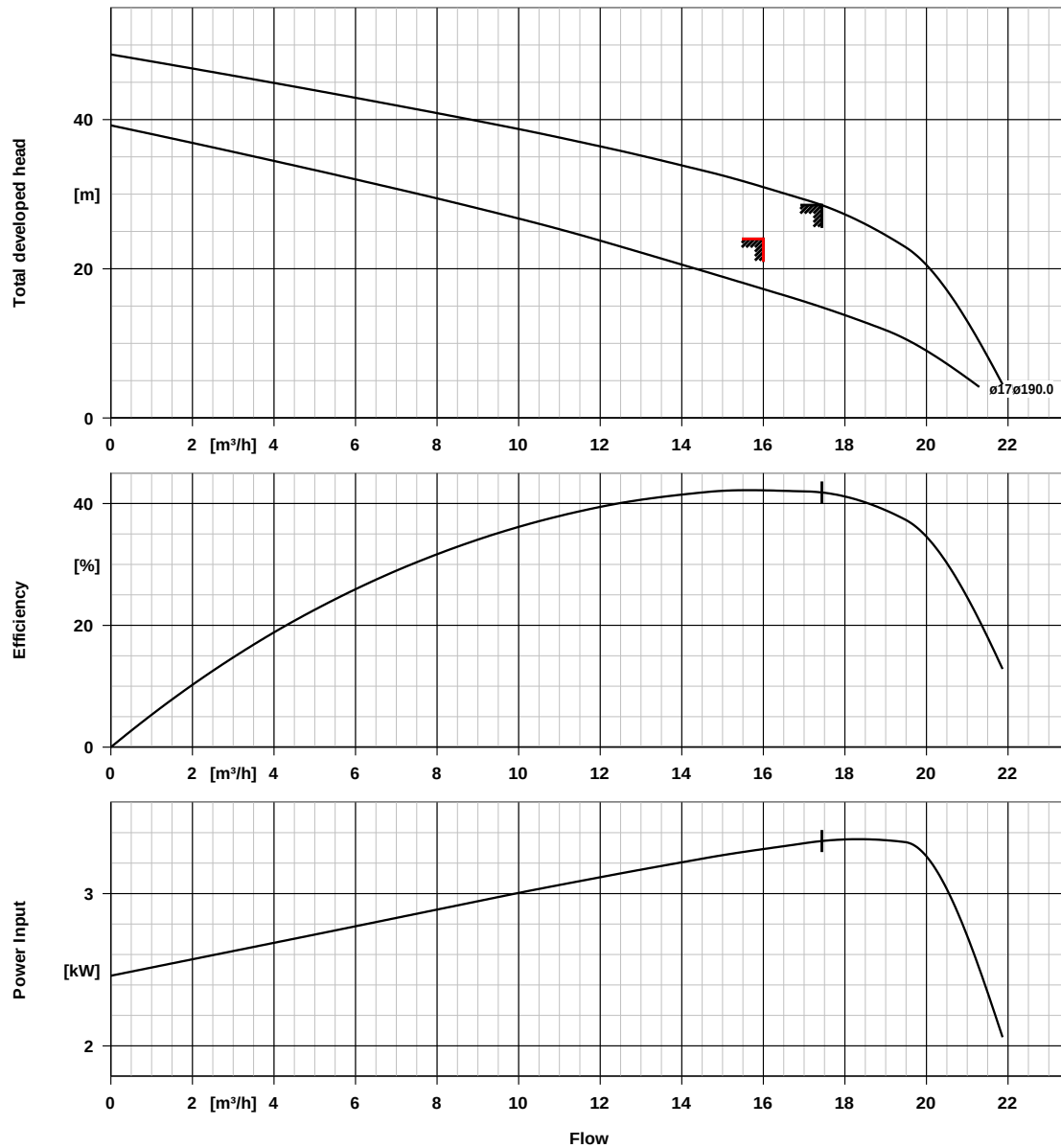


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Curve data

Speed of rotation	2869 rpm	Efficiency	41.8 %
Fluid density	1030 kg/m³	Power absorbed	3.34 kW
Viscosity	1.00 mm²/s	NPSH req. 3%	0.00 m
Flow rate	17.44 m³/h	Curve number	K2563-52-15S
Requested flow rate	16.00 m³/h	Effective impeller diameter	190.0 mm
Total developed head	28.50 m	Acceptance standard	Tolerances to ISO 9906
Requested developed head	24.00 m		Class 3B; below 10 kW
			acc. to paragraph 4.4.2

Installation plan



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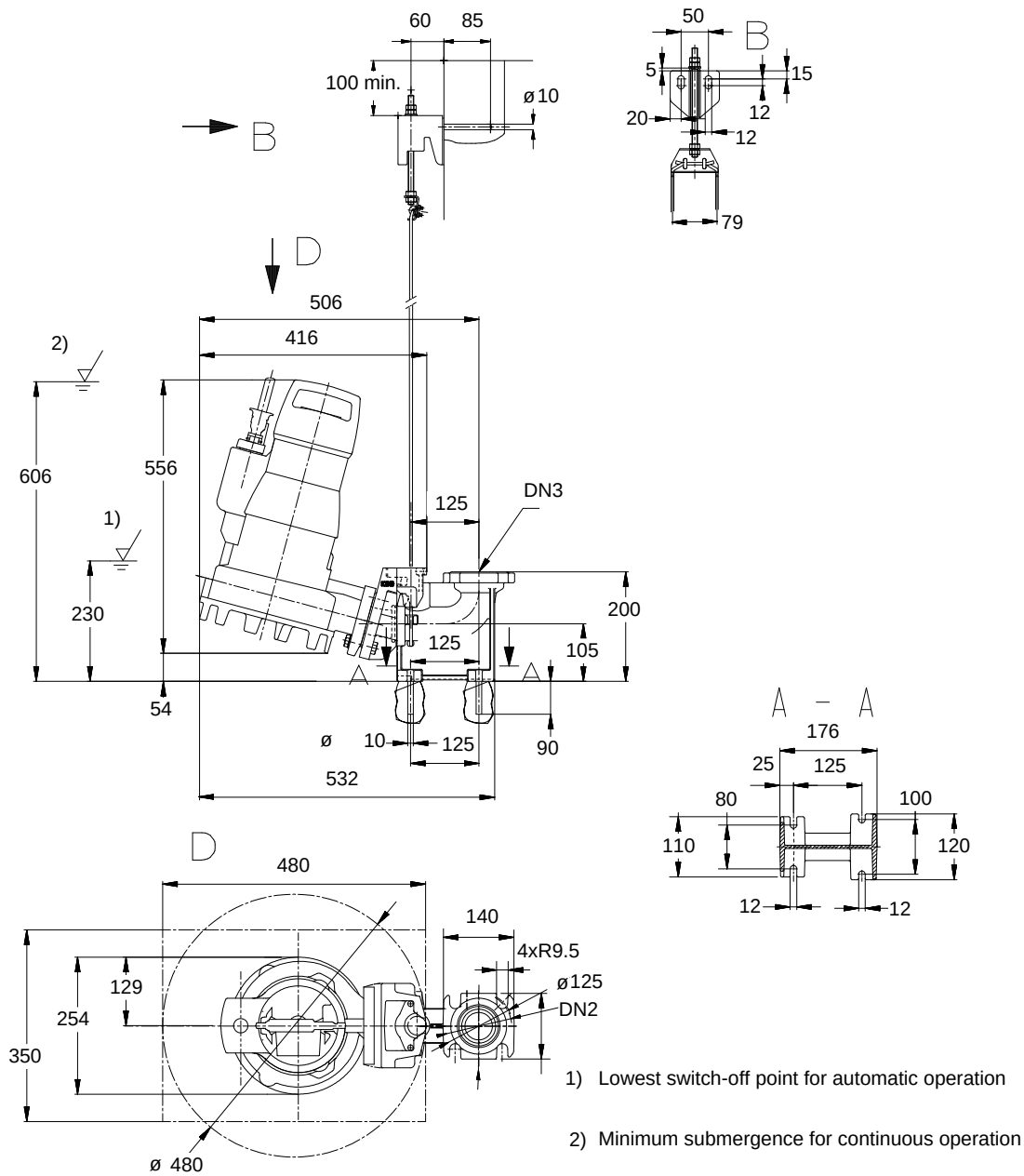
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Drawing is not to scale

Dimensions in mm

Installation plan



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Motor

Motor manufacturer	KSB
Motor size	04L
Motor power	4.20 kW
Number of poles	2
Speed of rotation	2835 rpm

Connections

Suction nominal size DN1	DN 50 / DIN2501/ISO7005
Discharge nominal size DN2	DN 50 / DIN2501/ISO7005
Nominal size DN3	DN 50 / EN
Nominal pressure suct.	unmachined
Rated pressure disch.	PN 16

Weight net

Pump, Motor, Cable	54 kg
Claw / Foot	5 kg
Total	59 kg

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:

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

**For auxiliary connections see
separate drawing.**