

# Amarex

## KSB submersible motor pump for wastewater applications, in grey cast iron and special materials

Vertical submersible motor pump set for wet installation, single-stage, with three-phase motor to IEC standards. Temperature sensor for protection against overheating, optional leakage sensor in the motor space, power cable with resin-sealed, absolutely water-tight cable entry and service-friendly plug-type connection in the motor space.

### Pump set:

Make:	KSB
Type:	Amarex ARX D-max
Impeller:	Open two-vane impeller D-max  D-max is an open two-vane impeller of the latest generation. The D-max impeller ensures a non-clogging flow and an excellent hydraulic efficiency.  The D-flector technology is specially designed to drastically reduce the risk of clogging by items such as wet wipes contained in the waste water.
Impeller diameter:	180 mm
<b>Operating data:</b>	
Fluid handled:	Waste water containing faeces
Flow rate:	100 m <sup>3</sup> /h
Head:	8 m
Power input:	1.78 kW
Operating temperature:	max. 40 °C
<b>Drive:</b>	
Nominal voltage:	400 V
Nominal frequency:	50 Hz
Starting method:	DOL / star-delta starting is also possible
Enclosure:	IP68 to EN 60529 / IEC 529, thermal class H
Explosion protection:	ATEX II 2G Ex db h IIB T4 Gb / without
Max. fluid temperature:	40 °C
Thermal motor protection:	Temperature bimetal switch
Leakage sensor in the motor space:	Yes / No
Efficiency class:	Equivalent IE3 to IEC standard / Not specified
Duty type:	S1 submerged / S1 with motor partially outside the fluid
Nominal motor power P2:	2.3 kW
Nominal motor power P1:	2.6 kW
Motor efficiency:	82.6 %
Nominal current:	5.5 A
Speed:	1430 rpm
Cable length:	10 m
Cable entry:	Screwed cable entry / Cable entry with individually stripped, resin-embedded cores and service-friendly plug-type connection inside the motor

Yellow marking: To be adjusted for each design variant.

## Materials:

Pump casing:	EN-GJL-250
Handle:	1.4306
Impeller:	EN-GJS-600-3 / EN-GJN-555[CR14]
Discharge cover:	EN-GJL-250 / EN-GJN-555[CR14]
Suction cover:	EN-GJS-600-3 / EN-GJN-555[CR14]
Shaft:	1.4021 + QT800
Cable sheath:	Chloroprene rubber / TEFZEL
Elastomers:	Nitrile rubber (NBR)/ encapsulated seal (FEP/FKM) / fluorocarbon rubber (FPM) = Viton
Coating:	Two-component high-solid epoxy resin
Colour:	RAL 5002

## Shaft seal:

2 independent mechanical seals fitted in an oil reservoir

Pump-end:	Bellows-type mechanical seal / Mechanical seal with covered spring SiC-SiC
Motor-end:	Bellows-type mechanical seal, Carbon-Al2O3
Oil fill:	Environment-friendly, non-toxic oil

## Dimensions and connections:

Nominal diameter, discharge side:	DN 80, drilled to EN 1092-2 PN 16
Nominal diameter, suction side:	DN 80, unmachined / drilled to EN 1092-2 PN 16
Net pump weight approx.:	78 kg

## Installation parts:

Installation depth From lower manhole edge to pump sump bottom	4.5 / 6 m
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## Stationary installation

### - Duckfoot bend for **guide wire arrangement**

Consisting of duckfoot bend, mounting bracket, 10 m guide wire, screws/bolts and anchor bolts  
Spacer for installation depth > 4.5 m

### - Duckfoot bend for **single guide rail arrangement**

Consisting of duckfoot bend, mounting bracket, screws/bolts and anchor bolts (guide rail supplied by the operator)  
Additional mounting bracket, middle support for installation depth > 6 m

### - Duckfoot bend for **twin guide rail arrangement**

Consisting of duckfoot bend, mounting bracket, screws/bolts and anchor bolts (guide rails supplied by the operator)

Additional mounting bracket, middle support for installation depth > 6 m

## Transportable model

- Feet / foot plate, complete

## Lifting equipment:

-Short-linked chain, tested and marked to Directive 2006/42/EC (Machinery Directive), hook, shackle

Length:	5/10 m
Max. load	200 kg

**Yellow marking:** To be adjusted for each design variant.

**Materials:**

Claw:	EN-GJL-250 + U-profile joint	NBR/Viton
Duckfoot bend (stat.):	EN-GJL-250	
Feet and plate (transp.):	1.4301	
Chain:	1.4404	

**Electrical accessories:**

-Thermistor protection relay Pump without explosion protection	Yes / No
-Thermistor protection relay Pump with explosion protection	Yes / No
-Leakage sensor protection relay	Yes / No

**Typical tender for Amarex D-max****2573.521/02-EN****Subject to technical modification without prior notice****17.09.2020**