

**Tender text**

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Pos.no	Description	Item no.
	<b>Submersible dirty water motor pumps</b>	
	Amarex Fmax 080-220/084 F 2 YS G	39120176
	<b>Amarex KSB submersible motor pump for waste water applications, in grey cast iron and special materials</b>	

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  
 Impeller : Amarex F / 080-220  
 type : F-max vortex impeller

F-max is a vortex impeller optimised for operating reliability. With its large free passage of 100 mm max. it is especially suitable for handling waste water containing all kinds of solids and fibres.

Impeller diameter : 200 mm  
 Free passage : 80 mm

**Operating data:**

Fluid handled : Water  
 Flow rate :  
 Head :  
 Power input : 9,85 kW  
 Operating temperature : 40 °C max.

**Drive:**

Nominal voltage : 3~400 V  
 Nominal frequency : 50 Hz  
 Starting method : DOL / star-delta starting is also possible  
 Enclosure : IP68 to EN 60529 / IEC 529,

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Pos.no	Description	Item no.	Qty.	UP / EUR	TP / EUR
		thermal class H			
	Explosion protection	: ATEX II 2G Ex db h IIB T4 Gb			
	Max. fluid temperature	: 40 °C			
	Thermal motor protection	: Temperature sensor			
	Leakage sensor in the motor space	: no			
	Efficiency class	:			
	Duty type	: S1 submerged / with motor section partly outside the fluid			
	Motor rating P2	: 8,4 kW			
	Motor rating P1	: 9,85 kW			
	Motor efficiency	: 85,3%			
	Nominal current	: 16,80 A			
	Speed	: 2.871 1/min			
	Cable length	: 10 m			
	Cable entry with individually stripped, friendly plug-type	: Screwed cable entry / cable entry resin-embedded cores and service-connection inside the motor			
	<b>Materials:</b>				
	Pump casing Class 35B)	: Grey cast iron EN-GJL-250 (A 48			
	Handle	: 1.4306			
	Impeller Class 35B)	: Grey cast iron EN-GJL-250 (A 48			
	Discharge cover Class 35B)	: Grey cast iron EN-GJL-250 (A 48			
	Suction cover Class 35B)	: Grey cast iron EN-GJL-250 (A 48			
	Shaft	: 1.4021			
	Cable sheath	: Chloroprene rubber			
	Elastomer seals	: Nitrile-butadiene-rubber NBR			
	Coating	: Two-component high-solid epoxy resin			
	Colour	: RAL 5002			
	<b>Shaft seal:</b>				
	2 independent mechanical seals arranged in the oil reservoir				
	Pump end	: Bellows-type mechanical seal			

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Pos.no	Description	Item no.	Qty.	UP / EUR	TP / EUR
	Motor end Carbon-Al2O3 Oil fill	: Bellows-type mechanical seal, : Environmentally friendly, non-toxic oil			
	<b>Dimensions and connections:</b>				
	Nominal size	: PN 16			
	Discharge side				
	Nominal size	: DN 80			
	Suction side				
	Weight	: 103 kg			
	Pump				
	<b>Purchase order information:</b>				
	Make	: KSB			
	Type series / size	: Amarex F080-220			
	Material price group	: 18			
	Weight	: 103 kg			
	<b>Item number</b>	<b>: 39120176</b>			
	Motor: 842YSG		1		
	MOTOR				
	The motor shall be three-phase, dry squirrel-cage induction type in design conforming to IEC / VDE / EN standards. The motor shall be adequately sized and rated for continuous operation to maximum a fluid temperature of 40 °C (104 °F).				
	The motor housing shall be both air filled and watertight. Motor protection shall be at minimum IP 68. Allowable maximum submergence shall be not less than 25 m.				
	The motor shall be rated for supply voltage of 400 V and frequency of 50 Hz and accept voltage fluctuations as per range A of DIN EN 60 034-1 (Supply voltage +/-10 supply frequency -5%/+3%). The motor shall be explosionproof to ATEX II 2G T4, EEX d II B.				
	The motor shall be designed for a maximum of 30 number of starts per hour. Starting of the motor shall be direct.				
	The motor stator shall be wound to have an overall motor rating of 155°C, Class H. The rotor bars and short circuit rings shall be made of cast aluminum.				
	The motor and pump set complete shall be designed and manufactured by the same company.				
	<b>MOTOR THERMAL PROTECTION</b>				
	Temperature monitors shall be embedded in the motor windings for use in conjunction with and supplemental to external motor overload protection.				



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	<p>These temperature sensitive switches shall allow for direct integration with the motor control circuit to shut down the pump if high temperatures are detected. The switches shall be normally closed rated for 250 V AC and a current of not less than 2 A. Additional temperature sensitive switches shall be embedded in the motor winding to limit temperatures of the motor as per explosion-proof certification. The pump's control shall shut down the pump should any of the monitors detect high temperature. Automatic reset shall not be allowed.</p> <p>MOTOR HOUSING MOISTURE PROTECTION A moisture detector shall be mounted in the motor's stator cavity allowing a control panel mounted relay to de-energize the motor when a leakage occurs.</p>				

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**Data sheet: technical data**

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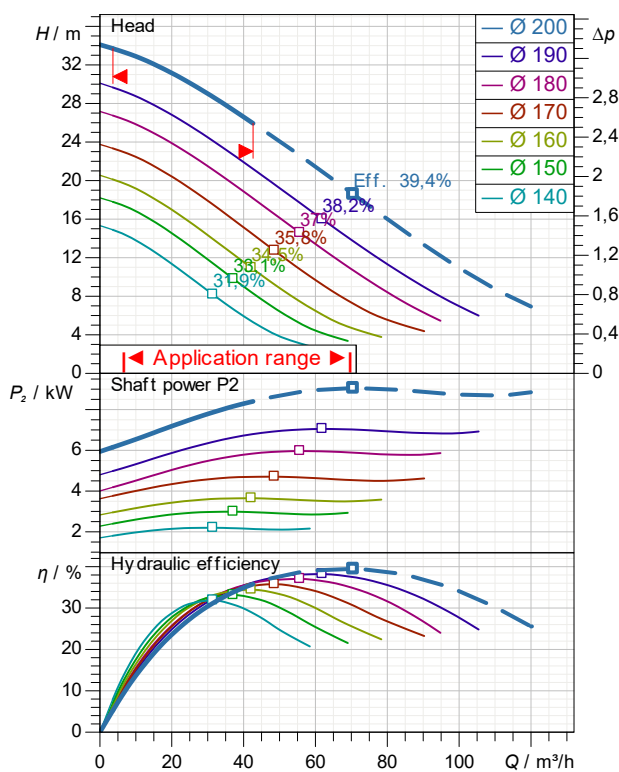
**Item-No.**  
**Design**                      **Submersible dirty water motor pumps**  
**Type / Coding**              **Amarex Fmax 080-220/084 F 2 YS G**

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**demand data**

Flow  
Total head  
Geodetic head  
Media                              Water  
Liquid temperature              20 °C

**Pump data**

Make                                      KSB  
Type                                      Amarex Fmax 080-220/084 F 2 YS G  
Design                                  Submersible dirty water motor p  
Specific design                      Single head pump  
No. of pumps                          1  
Standby pump                          No  
Max. fluid temperature              40 °C

**Hydraulic data (Duty point)**

Flow  
Head

**Material / sealing element**

Casing                                      Grey cast iron EN-GJL-250 (A 48 Class 35B)  
Cover                                        Grey cast iron EN-GJL-250 (A 48 Class 35B)  
Suction cover material              Grey cast iron EN-GJL-250 (A 48 Class 35B)  
Discharge cover                        Grey cast iron EN-GJL-250 (A 48 Class 35B)  
Shaft                                         1.4021  
Impeller                                    Grey cast iron EN-GJL-250 (A 48 Class 35B)  
O-Rings                                    Nitrile-butadiene-rubber NBR

**Dimensions**

Discharge flange standard              DN 80

**Rated motor data**

Power input (P1)                        9,85 kW  
Rated power (Pn)                        8,4 kW  
Speed                                        2.871 1/min  
Rated voltage                              400 V  
Rated current (In)                        16,8 A

**Product information**

Ident. No./ type key                      39120176  
Weight loaded                              103 kg  
Gross price                                 10.700,73 EUR  
PL 2025-01-20  
Price group

