

# ABS submersible sewage pump AFP(K) 0831-2046

ABS submersible pumps of the AFP series are suitable for clear and waste water, and for sewage with sludge containing solids and fibrous material.



## Construction

- Bi-metallic thermal sensors in the stator which open at 140 °C.
- Upper and lower bearings, lubricated-for-life, maintenance-free.
- Option of sealing by means of a seal cartridge with double mechanical seal.
- Double shaft sealing by means of a high quality sealing unit using a silicon carbide mechanical seal, independent of the direction of rotation.
- Separation chamber with seal monitor sensor to indicate water leakage through mechanical seal.
- Option of closed cooling system. Cooling medium: Glycol / Water mixture. Blockage and maintenance-free.
- Hydraulic parts with Contrablock or vortex impellers.
- Available in standard and explosion-proof versions in accordance with international standards e.g. EEXd II BT4 and ATEX.
- Maximum ambient temperature: +40 °C
- Maximum submergence depth: 20 m



## Hydraulics

AFP	Impeller	DN	AFP	Impeller	DN
0831	Vortex	80	1041	Contrablock	100
0832	Vortex	80	1042	Contrablock	100
0834	Vortex	80	1043	Contrablock	100
0835	Vortex	80	1045	Contrablock	100
0841	Contrablock	80	1048	Contrablock	100
0842	Contrablock	80	1049	Contrablock	100
0844	Contrablock	80	1533	Vortex	150
1031	Vortex	100	1541	Contrablock	150
1032	Vortex	100	1543	Contrablock	150
1033	Vortex	100	1546	Contrablock*	150
1034	Vortex	100	2045	Contrablock	200
1035	Vortex	100	2046	Contrablock*	200

\* 2-channel

## Motor

Water pressure sealed, 3-phase, squirrel cage induction motors as 2-, 4- and 6-pole versions from 1.3 - 30 kW.  
 Voltage: 400 V 3~ 50Hz (other voltages on request).  
 Insulation class: H for 180 °C.  
 Protection type: IP 68.  
 Start-up: Direct on line (DOL) or Star-Delta.

**Identification Code:** e.g. AFP(K) 1035.3 ME 250/2

Hydraulics:

AFP(K) ... Product range. K with seal and cooling options.

10 ..... Discharge outlet DN (cm)

35 ..... Hydraulic number

.3 ..... Impeller

Motor:

ME ..... M = modular motor; E = high efficiency

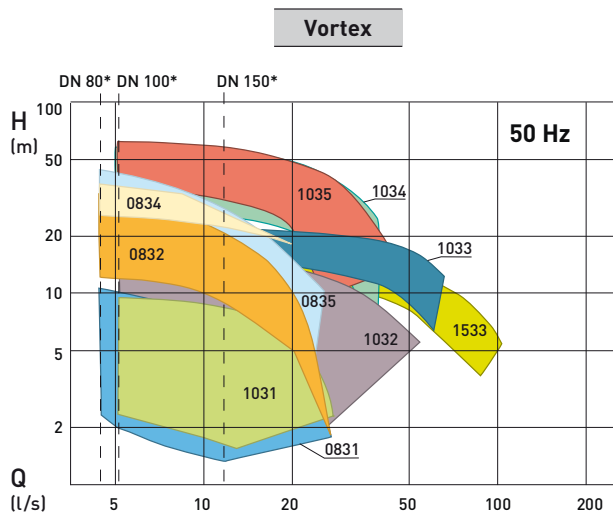
250 ..... Motor power  $P_2$  kW x 10

/2 ..... Number of poles

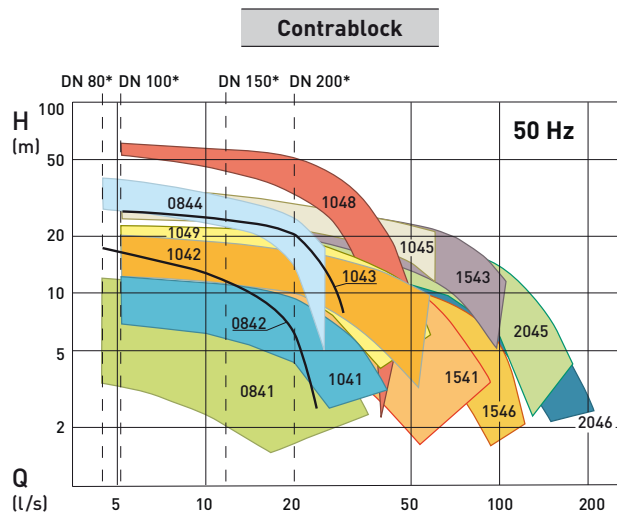
## Pump selection

Please use the ABSEL program as the only valid selection tool.  
 Duty point > selection of hydraulics > choice of motor

## Performance Curves



\* Minimum flow rate Q for discharge pipe



## Standard and options

Description	Standard	Option
Mains voltage	400 V 3~	230; 230/400; 400/695; 500/866; 500; 695 V
Voltage tolerance	±10%	-
Start-up	DOL or Star-Delta *	-
Approvals		EEx / ATEX
EMC version	No	Yes
Cable	H07RN-F: 4G1.5, 4G1.5 + 3 x 0.5, 10G1.5, 10G2.5, 4G4 + 2 x 0.75	-
Cable length	10 m	20, 30, 40, 50 m
Mechanical seal (medium side)	SiC-SiC (NBR)	Seal Cartridge with double mechanical seal: SiC/SiC - SiC/C with NBR or Viton
Mechanical seal (motor side)	Carbon- chrome steel (NBR)	
O-rings	NBR	Viton
Preparation for lifting hoist	Lifting hoop	Eye bolts
Protective coating	Two component coating epoxy resin	Special coatings on request
Cathodic protection	No	Yes
Installation	Wet-well	Dry-well, vertical or horizontal
Cooling	No	Closed cooling **
Cooling and lubricant	Oil	Glycol/Water (in version with seal cartridge)

\* Star-Delta available on motors above 3 kW only.

\*\* Requires seal cartridge.

## Pump protection

X = standard O = option

		Standard version	Explosion-proof version
<b>Motor</b>	Bi-metallic switch	X	X
	Thermistor (PTC)	O	O
	PT 100	O	O
<b>Seals</b>	Motor chamber	X	X
	Seal chamber	X	n.a.

## Materials

Motor	Standard	Option
Seal chamber	Cast iron EN-GJL-250	-
Cooling jacket	Cast iron EN-GJL-250	-
Motor housing	Cast iron EN-GJL-250	-
Motor shaft	Stainless steel 1.4021 (AISI 420)	Stainless steel 1.4401 (AISI 316)
Fasteners (medium contacted)	Stainless steel 1.4401 (AISI 316)	-
<b>Hydraulics</b>		
Volute	Cast iron EN-GJL-250	Stainless steel 1.4460 (AISI 329)
Impeller	Cast iron EN-GJL-250	Stainless steel 1.4460 (AISI 329)
Bottom plate	Cast iron EN-GJL-250	Stainless steel 1.4460 (AISI 329)
<b>Mounting</b>		
Pedestal	Cast iron EN-GJL-250	
Fasteners	Galvanized steel	Stainless steel 1.4401 (AISI 316)

