

# ABS dry-installed sewage pump AFC ! POMP DIRECT

Dry-installed sewage pump for horizontal or vertical installation, with air-cooled IEC motor from 3 to 22 kW. Suitable for the pumping of wastewater and sewage from buildings and sites in domestic, commercial, industrial and municipal areas in accordance with EN 12050-1.

## Construction

- Horizontal version mounted on steel baseplate, vertical version on skirt base.
- Pull-out design allows easy removal of motor without disconnecting pump from pipework.
- PTC thermistor in windings to protect against overheating of motor.
- Motor and rotor shaft dynamically balanced, with lubricated-for-life, maintenance-free upper and lower bearings.
- Oil-free; glycol/water mixture in seal chamber.
- Shaft sealing with double mechanical seals (one at motor side, one at medium side), independent of rotation direction.
- Separation chamber with seal monitor sensor to indicate water leakage through mechanical seal.
- Tappings for lubricant draining and re-filling, priming, and pressure gauge.
- Hydraulic parts with Contrablock or vortex impellers. Option of hardened Contrablock impeller and bottomplate.
- Available in standard and explosion-proof versions in accordance with international standard ATEX.
- Hydraulic bearing with a calculated lifetime of  $L_{10} > 100,000$  hours.
- Maximum ambient temperature: +40 °C.
- Maximum temperature of the medium: +80 °C.



## Motor

Three-phase, squirrel cage induction motors, 2-, 4- and 6-pole from 3 to 22 kW.  
 Voltage: 230/400 V, 3~, 50 Hz (other voltages on request).  
 Insulation class: F to 155 °C.  
 Protection type: IP 55.  
 Start-up: direct on line (DOL) or star-delta.

## Hydraulics

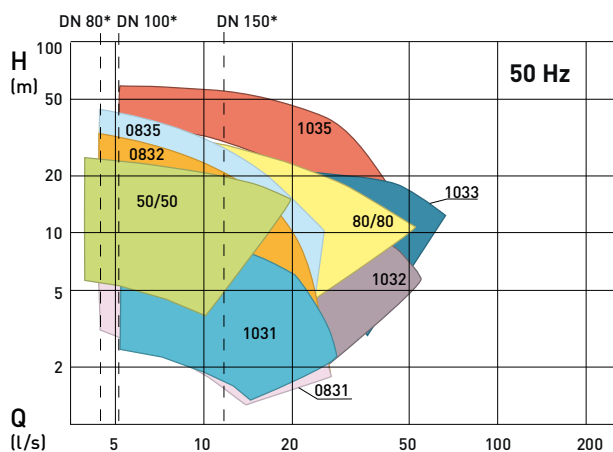
AFC	Impeller	DN	AFC	Impeller	DN
50/50	Vortex	50	1033	Vortex	100
0831	Vortex	80	1035	Vortex	100
0832	Vortex	80	1041	Contrablock	100
0835	Vortex	80	1045	Contrablock	100
80/80	Vortex	80	1049	Contrablock	100
0841	Contrablock	80	1541	Contrablock	150
0844	Contrablock	80	1543	Contrablock	150
1031	Vortex	100	1546	Contrablock*	150
1032	Vortex	100	2046	Contrablock*	200

\* 2-channel

## Pump selection

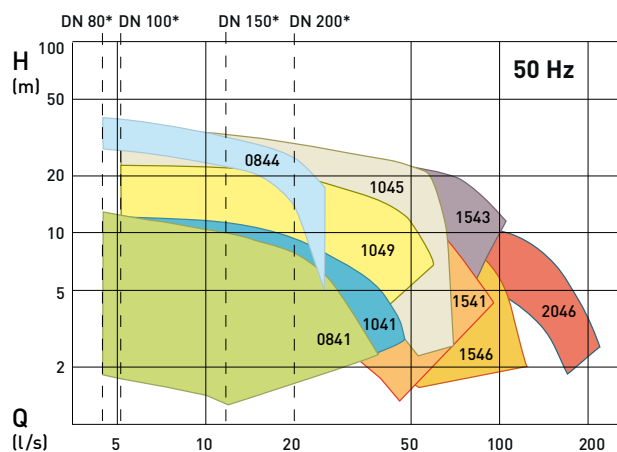
Please use the Absel program as the only valid selection tool.

## Performance curves vortex



\* Minimum flow rate Q

## Performance curves Contrablock



## Standard and options

Description	Standard	Option
Mains voltage	400 V	230; 230/400; 400/695; 690 V
Voltage tolerance	± 10%	
Motor efficiency	EFF 2	EFF 1 (selected models)
PTC thermistor	Yes	
Mechanical seal (at medium side)	SiC-SiC (NBR)	SiC-SiC (Viton)
Seal monitor (DI)	Yes	
O-rings	NBR	Viton
Protective coating	Two-component epoxy resin coating	Special coatings on request
Cathodic protection	No	Yes
Bearing monitor	No	Yes
Lubricant monitor	No	Yes

## Hydraulic / Motor configuration

AFC	Motor	Motor Frame	AFC	Motor	Motor Frame	AFC	Motor	Motor Frame
50/50	3/6	132S	0841	3/6	132S	1045	15/4, 9.2/6	160L
	7.5/4	132M		3/4	100L		18.5/4	180M
	15/2	160M	0844	7.5/2	132S		22/4	180L
	22/2	180M		11/2	160M		1049	3/6
0831	3/4	100L	1031	3/6	132S	7.5/4, 9.2/4		132M
	3/6	132S		3/4	100L	1541	3/6	132S
0832	4/2	112M	1032	3/6	132S		7.5/4, 9.2/4	132M
	7.5/2	132S		7.5/4, 9.2/4	132M	1543	15/4, 9.2/6	160L
0835	7.5/2	132S	1033	15/4, 9.2/6	160L		18.5/4	180M
	11/2	160M		18.5/4	180M	22/4	180L	
80/80	3/6	132S	1035	22/2	180M	1546	3/6	132S
	7.5/4	132M		1041	3/4		100L	7.5/4, 9.2/4
	9.2/6	160L	3/6		132S	2046	11/6, 9.2/6	160L
	9.2/4	132M	15/6		180L			
	15/4	160L						
22/2	180M							

## Materials

Motor	Standard	Option
Seal chamber	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)
Hydraulics		
Volute	Cast iron EN-GJL-250	
Impeller	Cast iron EN-GJL-250	Stainless steel 1.4460 (AISI 329) *
Bottom plate	Cast iron EN-GJL-250	
Mounting		
Skirt base	Steel EN-3B (painted)	
Baseplate	Steel EN-3B (painted)	

\* not available for AFC 0835, 1035, 1546 (9.2/4 motor), 50/50 and 80/80.

