ABS submersible sewage pump XFP CB Plus

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ABS submersible sewage pumps, series XFP CB Plus, are suitable for clear- and wastewater, for sewage with sludge containing solids and fibrous material.

Construction

- Energy saving premium efficiency motor in accordance with IE3 of IEC 60034-30.
- The water-tight fully flood-proof motor and the pump section form a compact and robust unit, easy to clean and easy to service.
- Water pressure sealed connection chamber, with two stage cable entry, protected against excessive cable tension and bending.
- Bimetallic thermal sensors in the stator which open at 140 °C.
- Rotor and shaft dynamically balanced, upper and lower bearings lubricated-for-life, maintenance-free.
- Triple shaft sealing.
- Upper and lower sealing by means of a silicon carbide mechanical seal, independent of the direction of rotation.
- Inspection chamber with sensor for moisture protection to indicate water leakage through mechanical seal.
- Option: Blockage- and maintenance-free internal closed looped cooling system. Cooling medium: Glycol - water mixture (standard for PE6 range).
- Hydraulic parts with various impeller options: 2-or 3-channel Contrablock.
- These pumps are available as standard and ATEX explosion-proof version in accordance with international standards e.g. Ex d IIB T4/ATEX II 2Gk.

Hydraulics

You have the choice of the following hydraulics in the range of DN 100 and DN 150 discharge:

Hydraulics / Impeller type

XFP 105J	CB2
XFP 155J	CB2

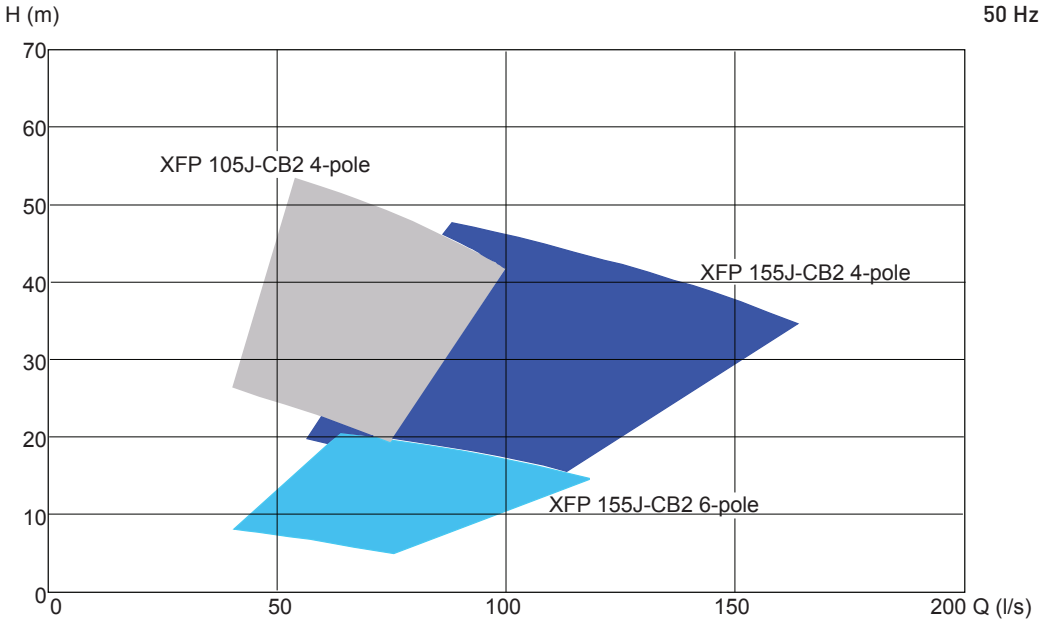
CB... = Contrablock.
last digit (2 or 3) = Number of impeller vanes

Motor

Water pressure sealed premium efficiency motors, (3-phase, squirrel cage induction motors), from 15 to 110 kW and, depending on hydraulic requirements as 4- to 6-pole versions.

Voltage: 380...420 V3~, 50 Hz (other voltages on request).
Insulation material: H (motor winding protected by temperature sensor 140 °C).
Temperature rise: According to class B.
Protection type: IP68.
DOL (direct on line), star-delta, VFD or soft starter.

Performance fields with Contrablock system



Standard and options

Description	Standard	Option
Max. ambient temperature	40 °C	60 °C
Max. submergence depth	20 m	
Mains voltage	380...420 V/50 Hz	230 V, 690 V/50 Hz
Voltage tolerance	± 10 % at 400 V	
Insulation class	H (140)	H (160) (not for explosion-proof)
Start-up	DOL (direct on line), star-delta, VFD or soft	
Approval	Standard/ATEX	
Cables	S1BN8-F	EMC shielded cables
Cable length	10 m	15 m, 20 m, other length on request
Mechanical seal (medium side)	SiC-SiC (NBR)	SiC-SiC (Viton execution)
Mechanical seal (motor side)	SiC-SiC	
O-rings	NBR	Viton
Preparation for lifting hoist	Lifting hoop	Lifting hoop in stainless steel
Protective coating	Two component coating epoxy resin	Special coatings on request
Cathodic protection		Zinc anodes on request
Installation	Wet-well	Dry-well vertical/horizontal
Motor cooling	Cooling by surrounding medium	Closed loop cooling system*
Moisture sensor motor housing		DI (sensor for moisture detection)*
Moisture sensor inspection chamber	DI (sensor for moisture detection)	

* standard for PE6 motor range

Motor protection

X = Standard; O = Option; - = not possible

PE4 to PE6		ATEX	ATEX VFD drive
Winding	Bi-metallic switch	X	-
	Thermistor (PTC)	O	X
	PT 100	O	O
Seal protection	Inspection chamber	X	X
	Motor housing	O (X for PE6)	O
	Connection box	O (X for PE6)	O
Temperature bearing upper/lower	Bi-metallic switch	O (X for PE6)	O
	Thermistor (PTC)	O	O
	PT 100	O	O
	Vibration sensor	O	O

Materials

Motor	Standard	Option
Connection chamber	EN-GJL-250	
Cooling chamber	EN-GJL-250	
Cooling jacket	1.0036	
Motor housing	EN-GJL-250	
Motor shaft	1.4021	1.4462
Fasteners (medium contacted)	1.4401	
Lifting hoop (PE4 & 5)	EN-GJS-400-18	1.4470
Lifting hoop (PE6)	1.0060	1.4462
Hydraulics	**Standard**	**Option**
Volute	EN-GJL-250	
Impeller	EN-GJL-250	1.4470
Bottom plate (not all versions)	EN-GJL-250	1.4470

Connection sys. (wet)	Standard	Option
Pedestal	EN-GJL-250	Non sparking
Fastening elements	Stainless steel	
Protective coating	Epoxy resin based	
Guide rail	Galv. steel	Stainless steel
Pipe retainer	EN-GJS-400-18	1.4470
Connection sys. (dry)	**Standard**	**Option**
Support frame	1.0036	Galv. steel

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50 Hz

Construction

- Energy saving premium efficiency motor in accordance with IE3 of IEC 60034-30, exceeding EFF1 of CEMEP regulation.
- The water-tight fully flood-proof motor and the pump section form a compact and robust unit, easy to clean and easy to service.
- Water pressure sealed connection chamber, with two stage cable entry, protected against excessive cable tension and bending.
- Bimetallic thermal sensors in the stator which open at 140 °C.
- Rotor and rotor shaft dynamically balanced, upper and lower bearings lubricated-for-life, maintenance-free.
- Triple shaft sealing.
- Upper and lower sealing by means of a silicon carbide mechanical seal, independent of the direction of rotation.
- Inspection chamber with sensor for moisture protection to indicate water leakage through mechanical seal.
- Option: Blockage- and maintenance-free internal closed looped cooling system. Cooling medium: Glycol - water mixture (standard for PE6 range).
- Hydraulic parts with various impeller options: 2-or 3-channel Contrablock, 2-or 3-channel closed or 3-channel skew.
- These pumps are built as standard in ATEX explosion-proof version in accordance with international standards e.g. Ex d IIB T4/ATEX II 2Gk.

Hydraulics

You have the choice of the following hydraulics in the range of DN 100 to DN 600 discharge:

Hydraulics / Impeller type

XFP 100J	CB2	XFP 300J	CH2
XFP 100J	CH2	XFP 300M	CH2
XFP 150J	CB2	XFP 301M	CH2
XFP 150M	CB2	XFP 350M	CH3
XFP 150J	CH2	XFP 351M	CH3
XFP 200J	CB2	XFP 400M	CH2
XFP 200J	CH2	XFP 400R	CH3
XFP 200M	CH2	XFP 500U	CH3
XFP 201J	CB2	XFP 501U	SK3
XFP 250J	CB2	XFP 600V	CH3
XFP 250M	CH2	XFP 600X	SK3
XFP 300J	CB3		

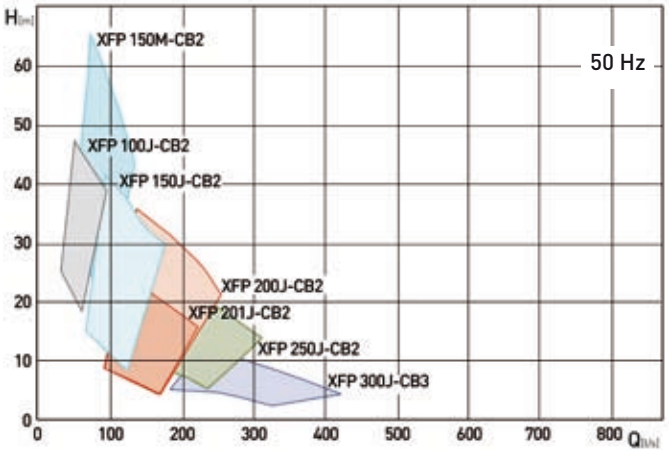
CB... = Contrablock, CH...= closed channel, SK...= skew;
last digit (2 or 3) = Number of impeller vanes

Motor

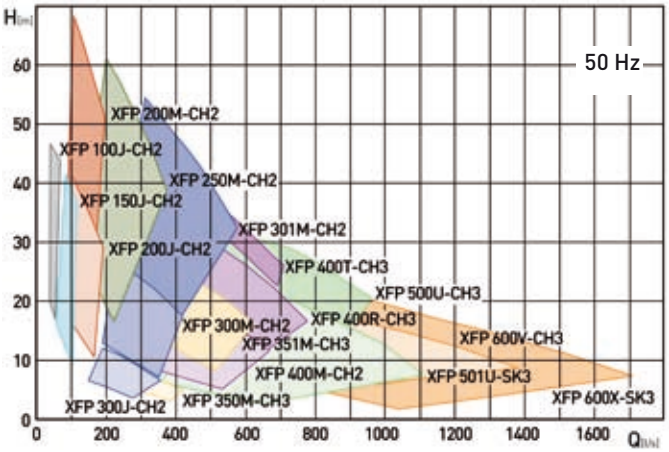
Water pressure sealed premium efficiency motors, (3-phase, squirrel cage induction motors), from 15 to 350 kW and, depending on hydraulic requirements as 4- to 12-pole versions.

Voltage: 400 V3~, 50 Hz (other voltages on request).
Insulation material: H (motor winding protected by temperature sensor 140 °C).
Temperature rise: According to class A.
Protection type: IP68.
Start-up: direct on line (DOL), soft starter or star-delta.

Performance fields with Contrablock system



Performance field with channel impeller



Standard and options

Description	Standard	Option
Max. ambient temperature	40 °C	60 °C
Max. submergence depth	20 m	
Mains voltage	380...420 V/50 Hz	230 V, 690 V/50 Hz
Voltage tolerance	± 10 % at 400 V	
Insulation class	H (140)	H (160) (not for explosion-proof)
Start-up	DOL (direct on line), star-delta or soft starter	
Approval	Ex/ATEX	
Cables	S1BN8-F	EMC shielded cables
Cable length	10 m	15 m, 20 m, other length on request
Mechanical seal (medium side)	SiC-SiC (NBR)	SiC-SiC (Viton execution)
Mechanical seal (motor side)	SiC-SiC	
O-rings	NBR	Viton
Preparation for lifting hoist	Lifting hoop	Lifting hoop in stainless steel
Protective coating	Two component coating epoxy resin	Special coatings on request
Cathodic protection		Zinc anodes on request
Installation	Wet-well	Dry-well vertical/horizontal
Motor cooling	Cooling by surrounding medium	Closed loop cooling system*
Moisture sensor motor housing		DI (sensor for moisture detection)*
Moisture sensor inspection chamber	DI (sensor for moisture detection)	

* standard for PE6 motor range

Motor protection

X = Standard; O = Option; - = not possible

PE4 to PE6		Ex	Ex VFD drive
Winding	Bi-metallic switch	X	-
	Thermistor (PTC)	O	X
	PT 100	O	O
Seal protection	Inspection chamber	X	X
	Motor housing	O (X for PE6)	O
	Connection box	O (X for PE6)	O
Temperature bearing upper/lower	Bi-metallic switch	O (X for PE6)	O
	Thermistor (PTC)	O	O
	PT 100	O	O
	Vibration sensor	O	O

Materials

Motor	Standard	Option
Connection chamber	EN-GJL-250	
Cooling chamber	EN-GJL-250	
Cooling jacket	1.0036	
Motor housing	EN-GJL-250	
Motor shaft	1.4021	1.4462
Fasteners (medium contacted)	1.4401	
Lifting hoop (PE4 & 5)	EN-GJS-400-18	1.4470
Lifting hoop (PE6)	1.0060	1.4462
Hydraulics	**Standard**	**Option**
Volute	EN-GJL-250	
Impeller	EN-GJL-250	1.4470
Bottom plate (not all versions)	EN-GJL-250	1.4470
Shroud (XFP 501U and 600X)	EN-GJL-250	
Wear ring (not all versions)	EN-GJL-300	1.4581

Connection sys. (wet)	Standard	Option
Pedestal	EN-GJL-250	Non sparking
Fastening elements	Stainless steel	
Protective coating	Epoxy resin	
Guide rail	Galv. steel	Stainless steel
Pipe retainer	EN-GJS-400-18	1.4470
Connection sys. (dry)	**Standard**	**Option**
Support frame	1.0036	Galv. steel