

# Dykkede spildevandspumpe type ABS XFP 80C - 201G

**SULZER**

Solid og driftssikre spildevandspumper med premium efficiency motorer fra 1,3 til 25 kW. De bruges til at pumpe spildevand fra bygninger og private, kommercielle, industrielle og kommunale områder.

## Egenskaber

- Den vandtrykstætte, indkapslede og oversvømmelsessikrede motor, samt pumpesnittet udgør en komplet and solid modulkonstruktion.
- NEMA klasse A temperatur stigning.
- Premium Efficiency motorer i overensstemmelse med IEC60034-30 på niveau med IE3 test i overensstemmelse med IEC60034-2-1.
- Kontinuerlig bedømt motor til dykkede og tørtopstillede anvendelsesområder.
- Dobbelt mekanisk tætning; SiC-Six ved medium størrelse, SiC-C ved motoren. Alle tætninger er uafhængig af rotationsretningen and modstandsdygtig overfor temperatur chok.
- Anti-wicking kablestikløsning (80C-150E) eller vandtryksforseglet forbindelses kammer (100G-201G).
- Hydrauliske muligheder til Contrablock og Contrablock Plus pumpehjul for større effektivitet eller vortex pumpehjul for den bedste håndtering af faste materialer.
- Livstidssmurte lejer med en beregnet levetid på minimum 50.000 timer (80C-150E), og 100.000 timer (100G-201G).
- Rustfri stålaksel. Designet med højsikkerhedsfaktor for at undgå træthedsbrud.
- Temperaturovervågning med termiske sensorer (140 °C) i stator viklingerne.
- Tætningsovervågning med en fugtighedsføler (DI) i tætningskammeret (80C-150E), eller i det tørre kammer, der sender en inspektionsalarm, hvis der er en lækage i akslens tætninger.
- Glat udvendigt design for at undgå ophobning af ristegods.
- Løftering i rustfrit stål.
- DN 80, DN 100, DN 150 og DN 200 radial åben DIN flange afledning.
- Maximal tilladt temperatur på mediet ved kontinuert drift er 40 °C.
- Maximal dykket dybde på 20,m.
- Eksplosions sikker som standard i henhold med de international standard ATEX II 2G Ex db IIB T4 Gb.



## Motor

Premium Efficiency IE3, three-phase, squirrel-cage motor; 400 V; 50 Hz; 2-pole (2900 r/min), 4-pole (1450) and 6-pole (980). Protection type IP 68, with stator insulation Class H.

Start-up: 1.3 - 3.0 kW = direct on line (DOL)  
4.0 - 25.0 kW and 3.0 kW 6-pole = star-delta (YΔ).

Service factor: 1.3

Motors with other operating voltages and frequencies are also available.

**Identification Code:** e.g. XFP 80C CB1.3 PE22/4-C-50

Hydraulics:

XFP ..... Product range

8 ..... Discharge outlet DN (cm)

0 . .....Hydraulic type

C ..... Volute opening (dia. mm)

CB..... Impeller type: CB = Contrablock, VX = vortex

1 ..... Number of impeller vanes

3 ..... Impeller size

Motor:

PE ..... Premium Efficiency

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

4 ..... Number of poles

C ..... Volute opening (dia. mm)

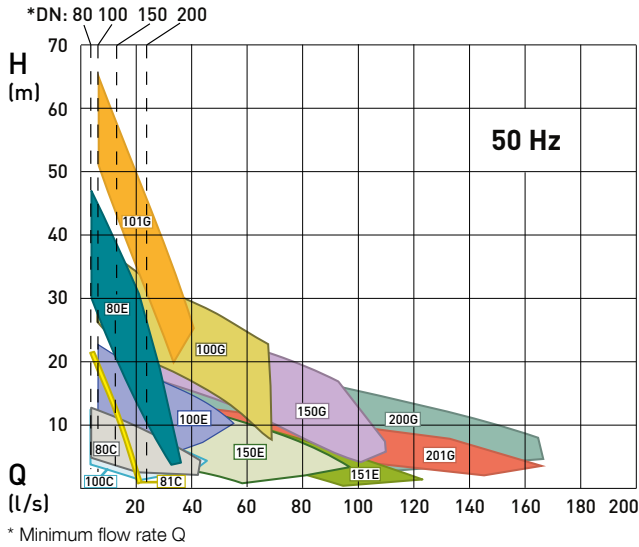
50 ..... Frequency

## Technical data

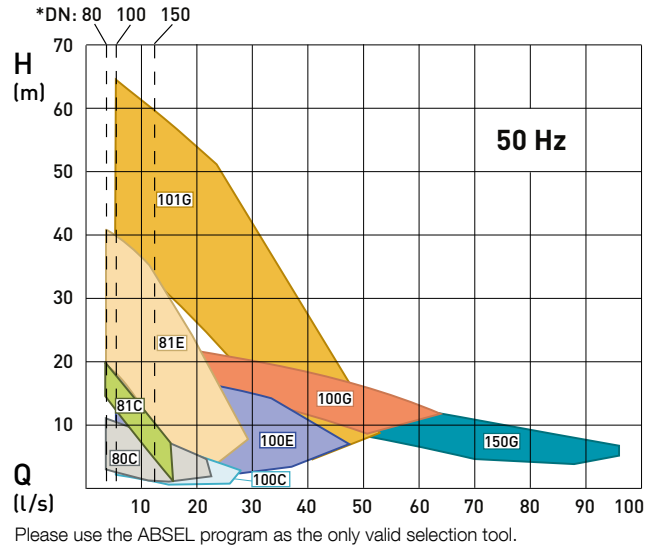
XFP	Motor	Impeller size	Rated voltage (V)	Motor power* (kW)		Rated current (A)	Speed (r/min)	Cable size	Weight** (kg)
				P <sub>1</sub>	P <sub>2</sub>				
80C-CB1	PE 22/4	3, 4	400 3~	2.5	2.2	4.6	1450	7G1.5	110 / n.a.
	PE 29/4	2	400 3~	3.4	3.0	6.4	1450	7G1.5	110 / n.a.
	PE 13/6	1, 2, 4	400 3~	1.6	1.3	3.6	980	7G1.5	110 / n.a.
80C-VX	PE 15/4	4, 5, 6, 7	400 3~	1.8	1.5	3.2	1450	7G1.5	100 / n.a.
	PE 22/4	2, 3,	400 3~	2.5	2.2	4.6	1450	7G1.5	110 / n.a.
	PE 29/4	1	400 3~	3.4	3.0	6.4	1450	7G1.5	110 / n.a.
80E-CB1	PE 70/2	4	400 3~	7.7	7.0	13.5	2900	10G1.5	150 / n.a.
	PE 110/2	1, 2, 3	400 3~	12.1	11.0	20.1	2900	10G1.5	180 / n.a.
81C-CB1	PE 40/2	1	400 3~	4.5	4.0	7.4	2900	10G1.5	120 / n.a.
81C-VX	PE 30/2	2	400 3~	3.4	3.0	5.6	2900	7G1.5	110 / n.a.
	PE 40/2	1, 2	400 3~	4.5	4.0	7.4	2900	10G1.5	120 / n.a.
81E-VX	PE 55/2	5	400 3~	6.1	5.5	10.3	2900	10G1.5	140 / n.a.
	PE 70/2	4	400 3~	7.7	7.0	13.5	2900	10G1.5	140 / n.a.
	PE 110/2	1, 2, 3	400 3~	12.1	11.0	20.1	2900	10G1.5	160 / n.a.
100C-CB1	PE 22/4	3, 4	400 3~	2.5	2.2	4.6	1450	7G1.5	110 / n.a.
	PE 29/4	2	400 3~	3.4	3.0	6.4	1450	7G1.5	110 / n.a.
	PE 13/6	1, 2, 4	400 3~	1.6	1.3	3.6	980	7G1.5	110 / n.a.
100C-VX	PE 15/4	4, 5, 6	400 3~	1.8	1.5	3.2	1450	7G1.5	100 / n.a.
	PE 22/4	2, 3,	400 3~	2.5	2.2	4.6	1450	7G1.5	110 / n.a.
	PE 29/4	1	400 3~	3.4	3.0	6.4	1450	7G1.5	110 / n.a.
100E-CB1	PE 40/4	5	400 3~	4.4	4.0	8.4	1450	10G1.5	160 / n.a.
	PE 60/4	3, 4	400 3~	6.7	6.0	13.6	1450	10G1.5	170 / n.a.
	PE 90/4	1, 2	400 3~	9.9	9.0	18.1	1450	10G1.5	190 / n.a.
100E-VX	PE 40/4	4, 5, 6	400 3~	4.4	4.0	8.4	1450	10G1.5	140 / n.a.
	PE 60/4	2, 3, 4	400 3~	6.7	6.0	13.6	1450	10G1.5	150 / n.a.
	PE 90/4	1, 2, 3	400 3~	9.9	9.0	18.1	1450	10G1.5	170 / n.a.
100G-CB1	PE 110/4	5	400 3~	12.0	11.0	23.4	1450	10G1.5	340 / 380
	PE 140/4	4	400 3~	15.2	14.0	27.8	1450	10G2.5	340 / 380
	PE 160/4	3	400 3~	17.4	16.0	33.1	1450	2x4G4 + 2x0.75	360 / 400
	PE 185/4	2	400 3~	20.0	18.5	36.9	1450	10G2.5	360 / 400
100G-VX	PE 110/4	4	400 3~	12.0	11.0	23.4	1450	10G1.5	330 / 370
	PE 140/4	3	400 3~	15.2	14.0	27.8	1450	10G2.5	330 / 370
	PE 160/4	2	400 3~	17.4	16.0	33.1	1450	2x4G4 + 2x0.75	350 / 390
	PE 185/4	1	400 3~	20.0	18.5	36.9	1450	c	350 / 390
101G-CB1	PE 150/2	2, 3	400 3~	16.0	15.0	27.5	2900	10G2.5	320 / 360
	PE 185/2	1	400 3~	20.0	18.5	33.7	2900	2x4G4 + 2x0.75	320 / 360
	PE 250/2	1	400 3~	26.9	25.0	44.0	2900	2x4G4 + 2x0.75	340 / 380
101G-VX	PE 150/2	6, 7	400 3~	16.0	15.0	27.5	2900	10G2.5	330 / 370
	PE 185/2	4, 5, 6, 7	400 3~	20.0	18.5	33.7	2900	2x4G4 + 2x0.75	330 / 370
	PE 250/2	1, 2, 3, 4, 5	400 3~	26.9	25.0	44.0	2900	2x4G4 + 2x0.75	350 / 390
150E-CB1	PE 40/4	5, 6	400 3~	4.4	4.0	8.4	1450	10G1.5	170 / n.a.
	PE 60/4	3, 4, 5	400 3~	6.7	6.0	13.6	1450	10G1.5	170 / n.a.
	PE 90/4	1, 2, 3	400 3~	9.9	9.0	18.1	1450	10G1.5	190 / n.a.
	PE 30/6	1, 2, 3, 4	400 3~	3.5	3.0	6.4	980	10G1.5	170 / n.a.
150G-CB1	PE 110/4	5	400 3~	12.0	11.0	23.4	1450	10G1.5	340 / 390
	PE 140/4	4	400 3~	15.2	14.0	27.8	1450	10G2.5	340 / 390
	PE 160/4	3	400 3~	17.4	16.0	33.1	1450	2x4G4 + 2x0.75	370 / 410
	PE 185/4	2	400 3~	20.0	18.5	36.9	1450	2x4G4 + 2x0.75	370 / 410
	PE 220/4	1	400 3~	23.7	22.0	42.5	1450	2x4G4 + 2x0.75	380 / 430
150G-VX	PE 110/4	4	400 3~	12.0	11.0	23.4	1450	10G1.5	330 / 380
	PE 140/4	3	400 3~	15.2	14.0	27.8	1450	10G2.5	330 / 380
	PE 160/4	2	400 3~	17.4	16.0	33.1	1450	2x4G4 + 2x0.75	360 / 400
	PE 185/4	1, 2	400 3~	20.0	18.5	36.9	1450	2x4G4 + 2x0.75	360 / 400
151E-CB2	PE 49/4	5	400 3~	5.5	4.9	10.2	1450	10G1.5	180 / n.a.
	PE 60/4	4	400 3~	6.7	6.0	13.6	1450	10G1.5	180 / n.a.
	PE 90/4	2, 4	400 3~	9.9	9.0	18.1	1450	10G1.5	200 / n.a.
200G-CB1	PE 110/4	5	400 3~	12.0	11.0	23.4	1450	10G1.5	380 / 420
	PE 140/4	4	400 3~	15.2	14.0	27.8	1450	10G2.5	380 / 420
	PE 160/4	3	400 3~	17.4	16.0	33.1	1450	2x4G4 + 2x0.75	400 / 450
	PE 185/4	2	400 3~	20.0	18.5	36.9	1450	2x4G4 + 2x0.75	400 / 450
	PE 220/4	1	400 3~	23.7	22.0	42.5	1450	2x4G4 + 2x0.75	410 / 470
	PE 90/6	1, 2, 3	400 3~	10.1	9.0	20.9	980	10G1.5	380 / 430
201G-CB2	PE 90/6	5, 6	400 3~	10.1	9.0	20.9	980	10G1.5	380 / 430
	PE 110/6	3	400 3~	12.2	11.0	23.8	980	10G1.5	380 / 430
	PE 140/6	1	400 3~	15.4	14.0	29.4	980	10G2.5	400 / 440

\* P<sub>1</sub> = power at mains. P<sub>2</sub> = power at motor shaft. \*\*Without / with cooling jacket; includes 10 m cable. Data for alternative voltages available on request.

## Performance fields with Contrablock impeller



## Performance fields with vortex impeller



## Standard and options

Description	Standard	Option
Mains voltage	400 V 3~	230, 500, 695 V *
Voltage tolerance	± 10%	-
Motor efficiency	Premium Eff. IE3	-
Insulation class	H	-
Start-up	Direct on line (DOL), star-delta (YΔ)	-
Approvals	Ex / ATEX	-
Mechanical seal (at medium side)	SiC-SiC-NBR	SiC-SiC-Viton
Mechanical seal (at motor side)	SiC-C-NBR	-
O-rings	NBR	Viton (external seals)
Cables	HO7RN8-F	EMC
Cable length (m)	10	20, 30, 40, 50
Protective coating	2k Epoxy 120 µm	2k Epoxy 400 µm
Preparation for lifting hoist	Lifting hoop	-
Cooling	Self-cooling (80C - 150E); by the medium (100G - 201G)	Closed cooling (100G - 201G)
Installation	Wet-well	Dry well or transportable

\* Selected motors only. Contact Sulzer for details.

## Monitoring

Description		Standard	Option
<b>Motor</b> (temperature)	Bi-metallic switch in windings	●	-
	PTC thermistor in windings	-	●
<b>Seals</b> (leakage)	Moisture sensor (DI) in oil chamber (80C - 150E)	●	-
	Moisture sensor (DI) in dry chamber (100G - 201G)	●	-
	Moisture sensor (DI) in connection chamber (100G - 201G)	-	●

Temperature and leakage relays are required. See accessories table.

## Materials

Description	Material	Option
Motor housing	Cast iron EN-GJL-250	-
Volute	Cast iron EN-GJL-250	Ceramic coated EN-GJL-250**
Impeller	Cast iron EN-GJL-250	Stainless steel 1.4470 (AISI 329)**, Flame hardened or ceramic coated EN-GJL-250**
Bottom plate	Cast iron EN-GJL-250	Stainless steel 1.4470 (AISI 329)**, Flame hardened or ceramic coated EN-GJL-250**
Motor shaft	Stainless steel 1.4021 (AISI 420)	-
Lifting hoop	Stainless steel 1.4401 (AISI 316)	-
Fasteners	Stainless steel 1.4401 (AISI 316)	-

\*\* Selected models only. Contact Sulzer for details.

## Accessories

	Description	Size	XFP	Part no.
<b>Fixed installation - wet well with Sulzer Automatic Coupling System</b>	<b>Pedestal*</b> (cast iron EN-GJL-250) 90° cast bend (single guide rail) - DIN flange connection	DN 80	80C - 81E	62320649
		DN 100	100C - 100G	62320652
		DN 100 (high-head)	101G	DPR31211A
		DN 150	150E - 150G	62320655
		DN 200	200G	DPT91211A
		DN 200	201G	62320658
	90° cast bend (single guide rail) - plug/clamp connection	DN 80 (pipe Ø90 mm)	80C - 81E	62320650
		DN 100 (pipe Ø109 mm)	100C - 100G	62320653
		DN 100 high head (Ø109 mm)	101G	DPR32211A
		DN 100 (pipe Ø115 mm)	100C - 100G	62320654
		DN 150 (pipe Ø160 mm)	150E - 150G	62320656
	90° cast bend (twin guide rail) - DIN flange connection	DN 80	80C - 81E	62325025
		DN 100	100C - 101G	62325026
		DN 150	150E - 150G	62325027
		DN 200	200G & 201G	62325028
	<b>Pedestal bracket fasteners</b> single guide rail version (galvanised steel)		80C - 81E	62610632
		100C - 101G	62610633	
		150E - 150G	62610635	
		200G & 201G	62610883	
single guide rail version (stainless steel)		80C - 81E	62610899	
		100C - 101G	62610637	
		150E - 150G	62610639	
		200G & 201G	62610862	
twin guide rail version (galvanised steel)		80C - 81E	62615053	
		100C - 101G	62615054	
		150E - 150G	62615055	
		200G & 201G	62615056	
<b>Pedestal base anchor bolts</b> single and twin guide rail (galvanised steel)		80C - 101G	62610775	
		150E - 150G	62610784	
		200G & 201G	62610785	
<b>Chain Kit</b> (galvanized steel) including shackle	3 m	80C - 201G	61265065	
	4 m		61265093	
	6 m		61265069	
	7 m		61265096	
<b>Chain Kit</b> (stainless steel) including shackle	3 m	80C - 201G	61265081	
	4 m		61265099	
	6 m		61265085	
	7 m		61265102	
<b>Fixed installation - dry well,</b> (horizontal)	<b>Pump Support Kit</b> (EN-GJL-250) head and volute supports with fixing bolts and vibration damper		80C, 81C.	61825023
			80C, 81C, 100C.	61825033**
			80E.	61825029
			81E.	61825038
			100C.	61825024
			100E.	61825030
			150E, 151E.	61825031
			101G.	61825036***
			100G, 101G, 150G, 200G, 201G.	61825037
(vertical)	<b>Ground Support Stand</b>		80C, 81C.	61355014
			80E & 81E.	61355020
			100C.	61355015
			100E.	61355021
			150E, 151E.	61355022
	101G.	61355024***		
	100G, 101G, 150G, 200G, 201G.	61355023		
<b>Adapter kit</b> (required with support stand)		80C.	62665347***	
		100C.	62665348***	
<b>Transportable</b>	<b>Skirtbase</b>		80C, 81C, 100C.	61355016
			80E & 81E.	61355017
			100E.	61355018
			150E, 151E.	61355019
			101G.	61355026***
			100G, 101G, 150G, 200G, 201G	61355025
<b>General</b>	<b>Cathodic Protection</b> (zinc anodes)		80C - 201G	13905000
	<b>Leakage Relay Type ABS CA 461</b>	110 - 230 VAC	80C - 201G	16907010
		18 - 36 VDC, SELV		16907011
<b>Temperature and Leakage Relay Type ABS CA 462</b>	110 - 230 VAC	80C - 201G	16907006	
	18 - 36 VDC, SELV		16907007	

\*Guide rail not included \*\*Vortex version of pumps (VX) \*\*\* Contrablock version of pump (CB)