



SULZER XFP80E SUBMERSIBLE DEWATERING PUMP

Pos.no	Description	Item no.	Quant.																								
1	XFP 80E CB1 50HZ																										
1.1	<p>Centrifugal pump: XFP80E CB1 XFP PE1-3 Type: XFP80E CB1</p> <p>Submersible sewage pump type ABS XFP is designed for municipal and industrial wastewater equipped with Premium Efficiency (IE3 level) motor for:</p> <p>Main applications</p> <ul style="list-style-type: none"> <input type="checkbox"/> Water and wastewater <input type="checkbox"/> Sewage containing solids and fibrous material <input type="checkbox"/> Sewage with sludge and high content of rags <input type="checkbox"/> Industrial raw water <input type="checkbox"/> Municipal combined sewage and storm water systems. <p>Main design features</p> <ul style="list-style-type: none"> <input type="checkbox"/> Premium efficiency IE3 motors in acc. with IEC60034-30 <input type="checkbox"/> Approval for ATEX (Ex II 2G k Ex db IIB T4 GB), FM and CSA as standard <input type="checkbox"/> Water pressure-tight encapsulated fully flood-proof motor <input type="checkbox"/> Motor insulation according to Class H (140°C temperature sensors) <input type="checkbox"/> Temperature rise according to NEMA Class A <input type="checkbox"/> Continuously rated motor suitable for wet and dry installation as standard for PE1 and PE2 in 50Hz. Optional for 60Hz <input type="checkbox"/> PE3 has the option of internal closed loop cooling system for dry installation <input type="checkbox"/> EMC version as option for PE1-3 <input type="checkbox"/> Condition monitoring of temperature and water ingress. <input type="checkbox"/> Solid passage min. 75 mm and greater for CB Plus <input type="checkbox"/> Hydraulics with open CB Plus type single and multi-vane (PE3) or vortex impellers suitable for handling of water, polluted water, sewage containing solids, faecal slurry and sludge <p>50Hz Capacity up to 750 m3/h Head, max. 74 m</p> <p>60Hz Capacity up to 3500 US g.p.m. Head, max. 330ft</p> <p>Type: XFP80E CB1</p> <p>Technical data</p> <table style="width: 100%; border: none;"> <tr><td>Delivery rate</td><td>: 21.86 l/s</td></tr> <tr><td>Delivery head</td><td>: 23.9 m</td></tr> <tr><td>Hydr. Efficiency</td><td>: 49.57 %</td></tr> <tr><td>Total efficiency</td><td>: 45.27 %</td></tr> <tr><td>Shaft power</td><td>: 10.39 kW</td></tr> <tr><td>Speed</td><td>: 2933 1/min</td></tr> <tr><td>Impeller type</td><td>: Contrabloc impeller, 1 vane</td></tr> <tr><td>Motor output</td><td>: 11 kW</td></tr> <tr><td>Voltage</td><td>: 400 V</td></tr> <tr><td>Frequency</td><td>: 50 Hz</td></tr> <tr><td>Suction outlet</td><td>: DN80</td></tr> <tr><td>Discharge outlet</td><td>: DN80</td></tr> </table> <p>Selected configuration of the pump: Product code: GX5A1G21111211</p> <p>1-2 Factory and family -> static: GX 3 Hydraulic Type: 5 = XFP80E CB1 4 Motor Size: A = PE110/2-E-50HZ 5 Explosion Proof / Di: 1 = Ex / DI and Klixon</p>	Delivery rate	: 21.86 l/s	Delivery head	: 23.9 m	Hydr. Efficiency	: 49.57 %	Total efficiency	: 45.27 %	Shaft power	: 10.39 kW	Speed	: 2933 1/min	Impeller type	: Contrabloc impeller, 1 vane	Motor output	: 11 kW	Voltage	: 400 V	Frequency	: 50 Hz	Suction outlet	: DN80	Discharge outlet	: DN80		1
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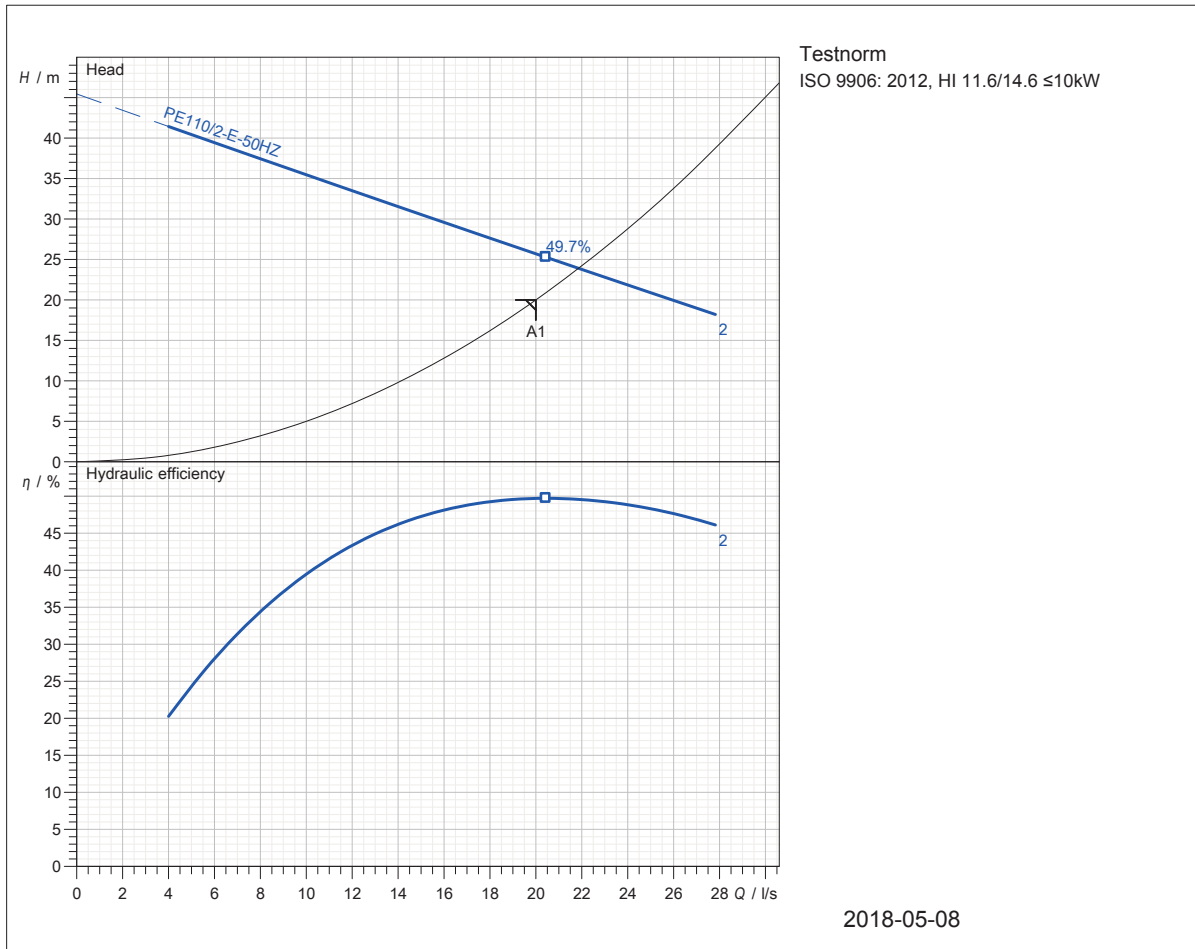


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Pos.no	Description	Item no.	Quant.
	6 Voltage: G = 230/400/3/50 (D20) 7 Impeller Size - Material: 2 = .2 Cast iron 8 Cable Length: 1 = 10m 9 Shaft Material / Hydraulics: 1 = Shaft 1.4021 / Standard Hydraulics 10 Seal type: 1 = NBR Seals 11 Paint finish: 1 = 120µ 12 2nd Mechanical option: 1 = Yes 13 Installation type: 2 = Suction inlet DIN 14 Motor Oil Fill / Cooling: 1 = Oil Filled 15 Blank / Bearing Monitor: 1 = Not Applicable		



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Operating data specification		Power input	11.4 kW
Flow	21.9 l/s	Head	23.9 m
Efficiency	49.6 %	Shaft power	10.4 kW
NPSH	7.73 m	Fluid	Water
Temperature	20 °C	Nature of system	Single head pump
No. of pumps	1		
Pump data		Make	SULZER
Type	XFP 80E CB1 50HZ	Impeller	Contrabloc impeller, 1 vane
Series	XFP PE1-PE3	Impeller size	180 mm
N° of vanes	1	Suction flange	DN80
Free passage	45 mm	Type of installation	Wet Well installation with pedestal
Discharge flange	DN80		
Moment of inertia	0.013 kg m ²		
Motor data		Frequency	50 Hz
Rated voltage	400 V	Nominal Speed	2930 1/min
Rated power P2	11 kW	Efficiency	91.2 %
Number of poles	2	Rated current	20.1 A
Power factor	0.87	Rated torque	35.9 Nm
Starting current	156 A	Degree of protection	IP 68
Starting torque	84.7 Nm	No. starts per hour	15
Insulation class	H		

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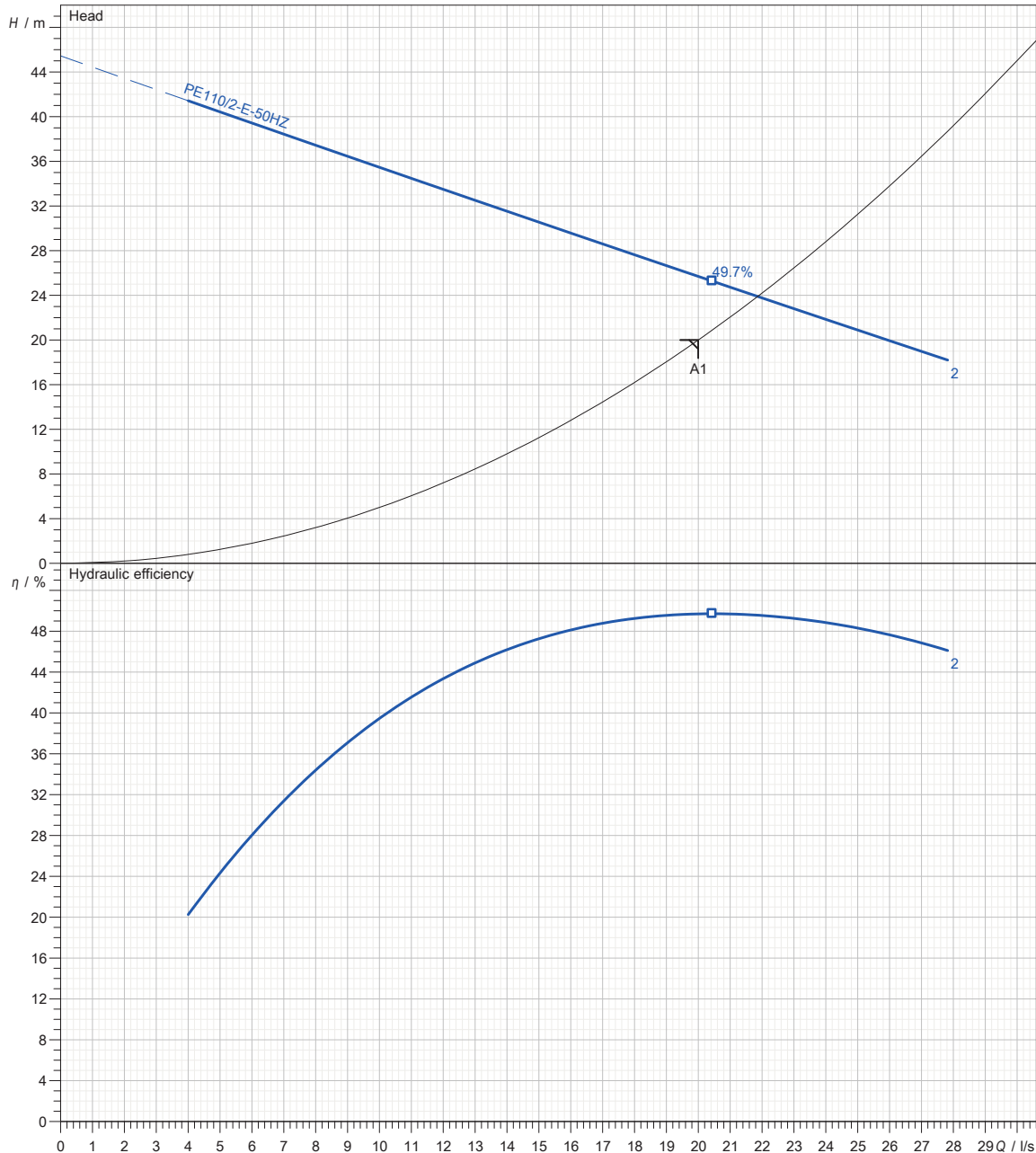
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Data version Dec-2017





SULZER XFP80E SUBMERSIBLE DEWATERING PUMP

				Discharge DN80	Frequency 50 Hz
Density 998.3 kg/m³	Viscosity 1.005 mm²/s	Testnorm ISO 9906: 2012, HI 11.6/14.6 ≤10kW	Rated speed 2933 1/min		Date 2018-05-08
Flow 21.9 l/s	Head 23.9 m	Shaft power 10.4 kW	Power input 11.4 kW	Hydraulic efficiency 49.6 %	NPSH 7.73 m



Impeller size 180 mm	N° of vanes 1	Impeller Contrabloc impeller, 1 vane	Solid size 45 mm	Revision
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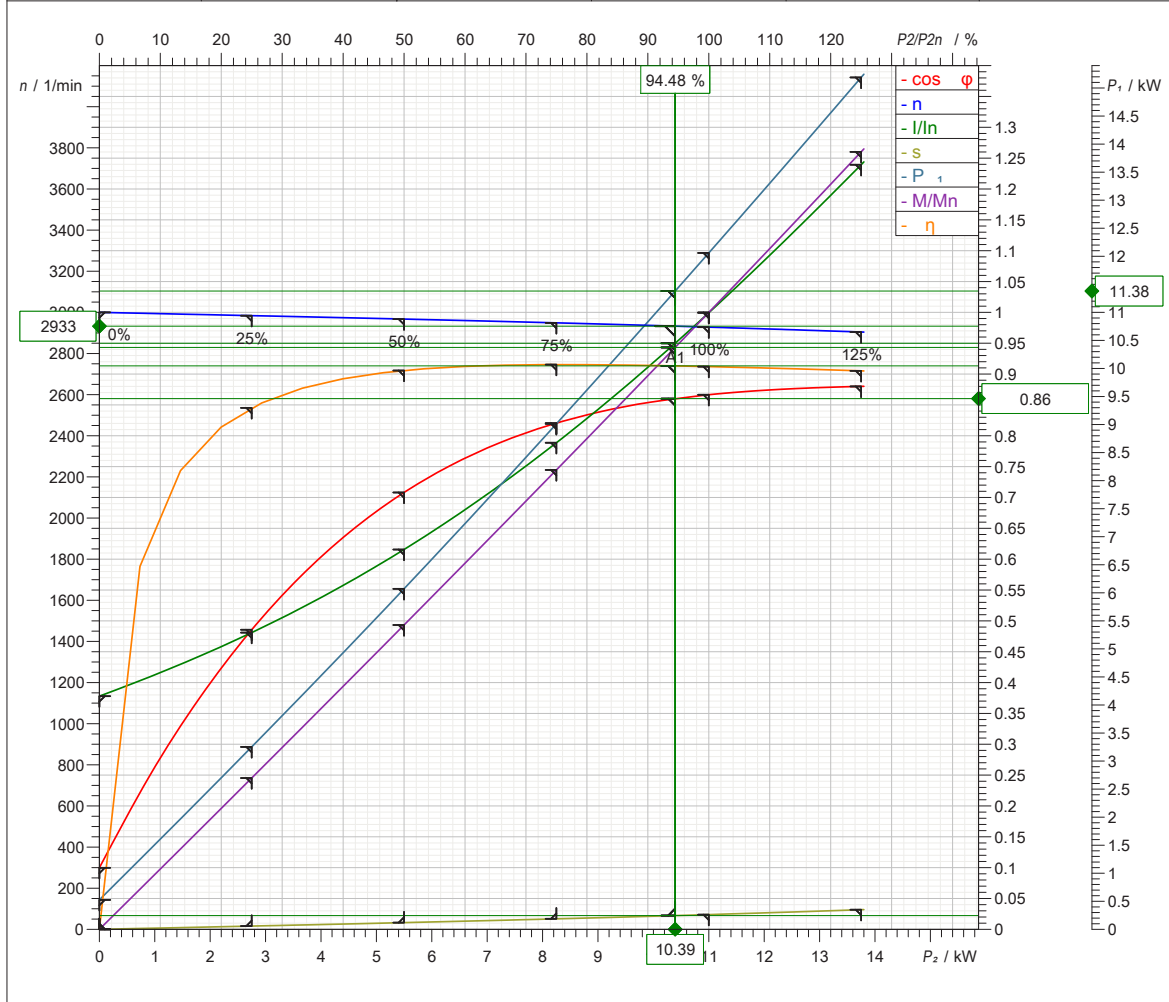
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SULZER XFP80E SUBMERSIBLE DEWATERING PUMP

Rated power 11 kW	Service factor 1.3	Nominal Speed 2930 1/min	Number of poles 2	Rated voltage 400 V	Date 2018-05-08
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Symbol	No load	25 %	50 %	75 %	100 %	125 %
P ₂ / kW	0	2.75	5.5	8.25	11	13.75
P ₁ / kW	0.5254	3.253	6.072	9.013	12.06	15.19
η / %	0	84.53	90.59	91.54	91.21	90.53
n / 1/min	3000	2984	2967	2949	2928	2904
cos φ	0.09982	0.4856	0.7081	0.8206	0.8666	0.8801
I / A	7.598	9.669	12.38	15.85	20.09	24.91
s / %	0	0.5298	1.088	1.701	2.394	3.186
M / Nm	0	8.8	17.7	26.71	35.87	45.21

Tolerance according to VDE 0530 T1 12.84 for rated power

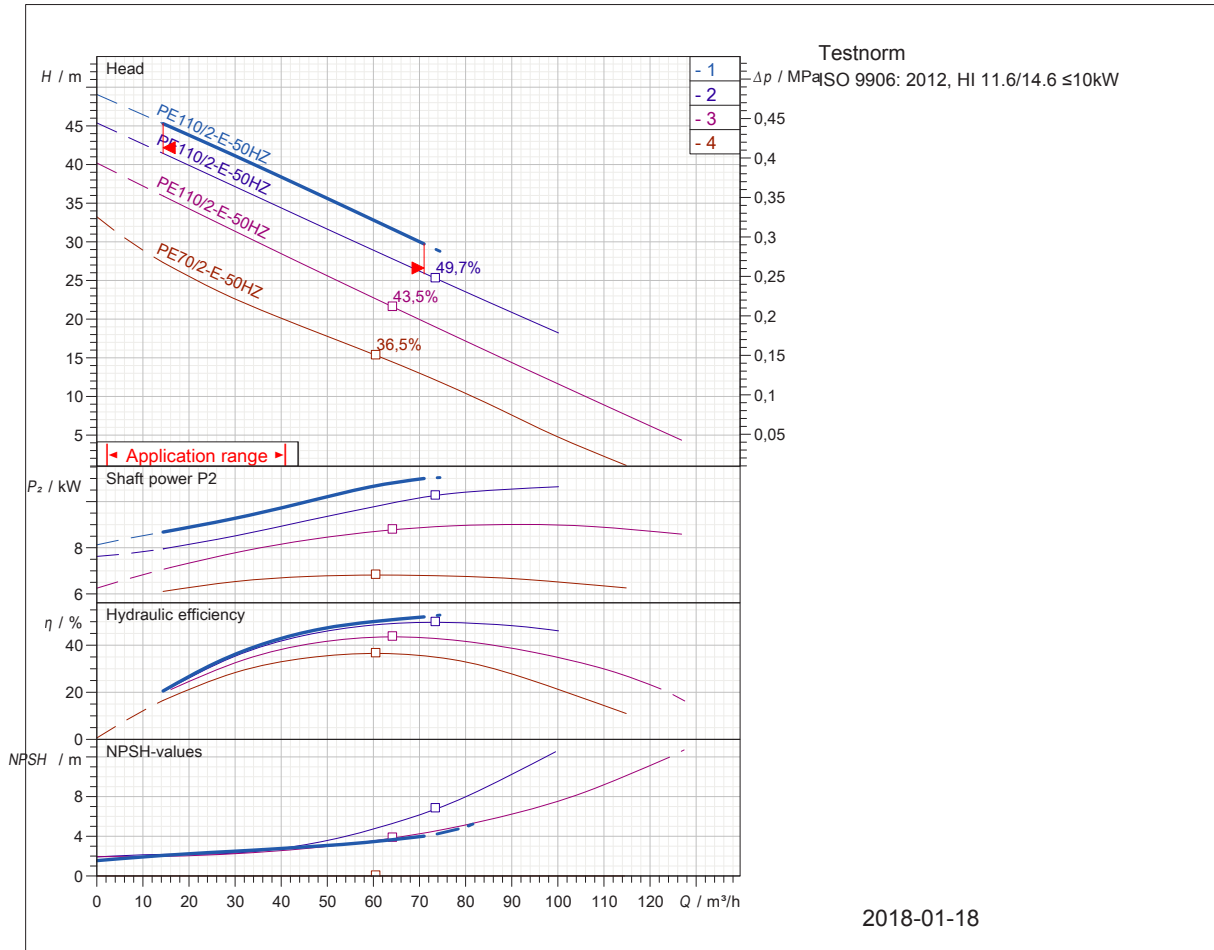
Starting current 156 A	Starting torque 84.7 Nm	Moment of inertia 0.0212 kg m ²	No. starts per hour 15
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SULZER XFP80E SUBMERSIBLE DEWATERING PUMP



Operating data specification		Head	
Flow		Shaft power	
Efficiency		Fluid	Water
NPSH		Nature of system	Single head pump
Temperature	20 °C		
No. of pumps	1		
Pump data		Make	
Type	XFP 80E CB1 50HZ	Impeller	SULZER
Series	XFP PE1-PE3	Impeller size	Contrabloc impeller, 1 vane
N° of vanes	1	Suction flange	185 mm
Free passage	45 mm	Type of installation	DN80
Discharge flange	DN80		
Moment of inertia	0,0131 kg m²		Wet Well installation with pedestal
Motor data		Frequency	
Rated voltage	400 V	Nominal Speed	50 Hz
Rated power P2	11 kW	Efficiency	2930 1/min
Number of poles	2	Rated current	91,2 %
Power factor	0,87	Rated torque	20,1 A
Starting current	156 A	Degree of protection	35,9 Nm
Starting torque	84,7 Nm	No. starts per hour	IP 68
Insulation class	H		15

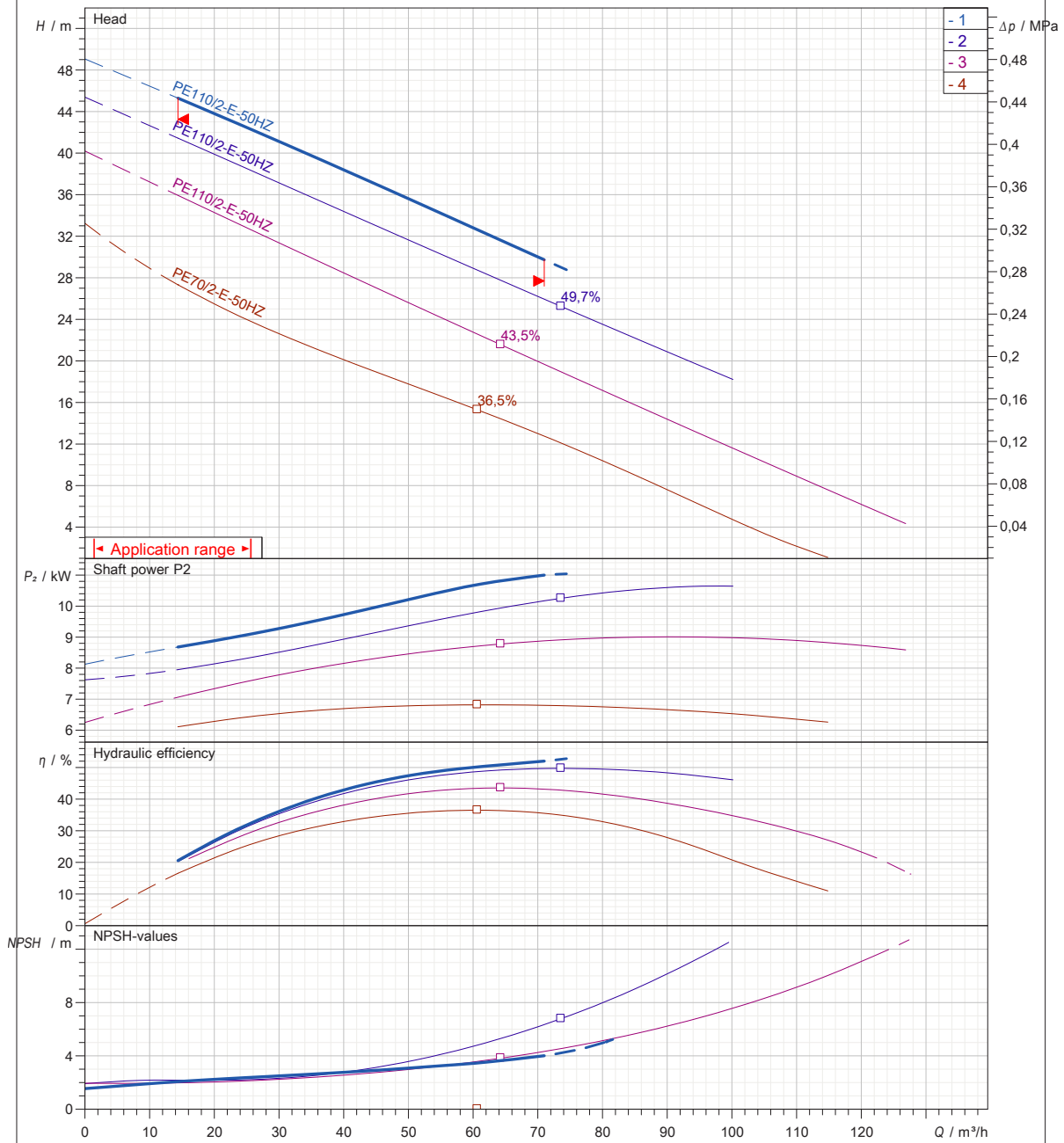
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Data version Mar-2017



SULZER XFP80E SUBMERSIBLE DEWATERING PUMP

			Discharge DN80	Frequency 50 Hz
Density 998,3 kg/m ³	Viscosity 1,005 mm ² /s	Testnorm ISO 9906: 2012, HI 11.6/14.6 ≤10kW	Rated speed 2929 1/min	Date 2018-01-18
Flow	Head	Rated power	Hydraulic efficiency	NPSH



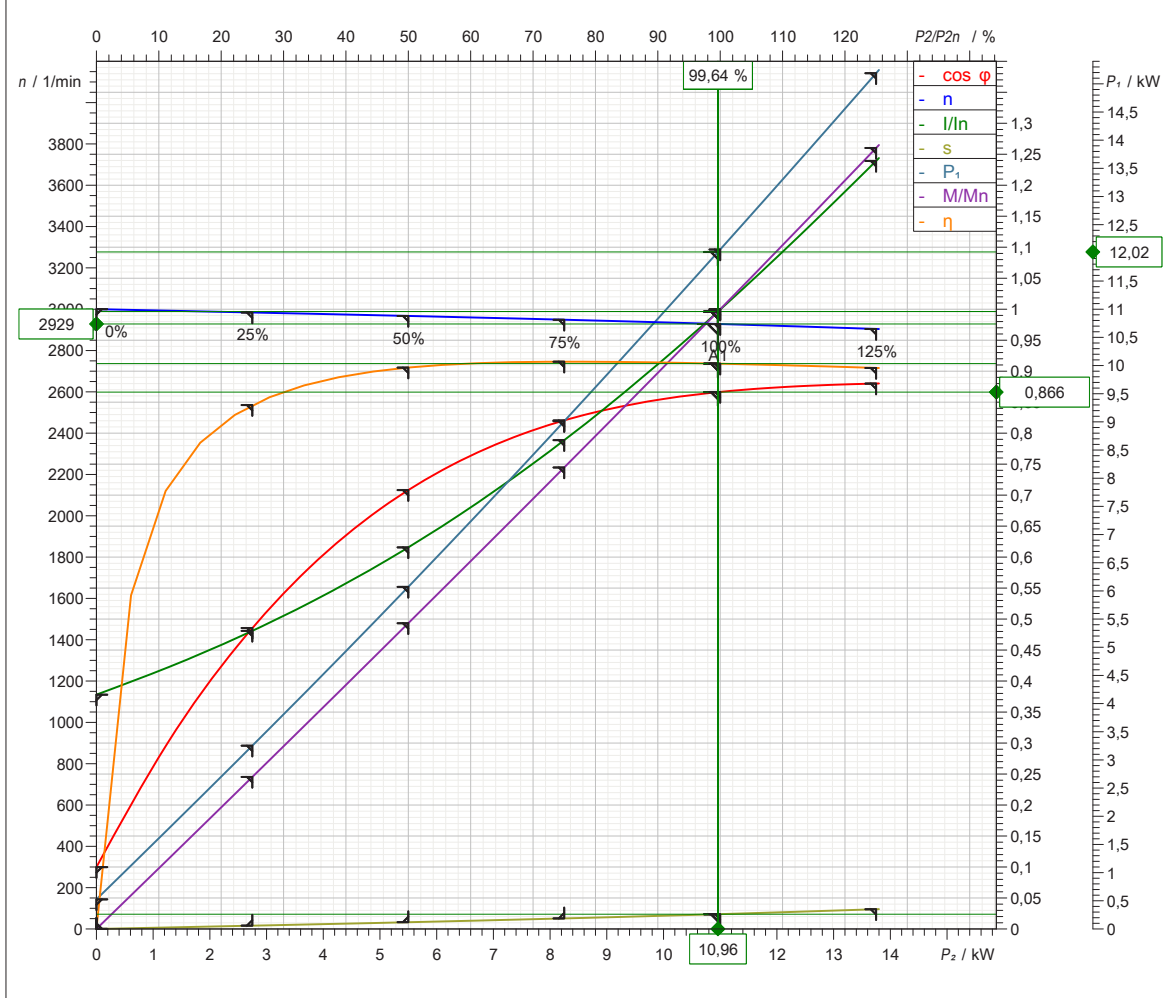
Impeller size 185 mm	N° of vanes 1	Impeller Contrabloc impeller, 1 vane	Solid size 45 mm	Revision
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SULZER XFP80E SUBMERSIBLE DEWATERING PUMP

Rated power 11 kW	Service factor 1,3	Nominal Speed 2930 1/min	Number of poles 2	Rated voltage 400 V	Date 2018-01-18
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Symbol	No load	25 %	50 %	75 %	100 %	125 %
P_2 / kW	0	2,75	5,5	8,25	11	13,75
P_1 / kW	0,5254	3,253	6,072	9,013	12,06	15,19
η / %	0	84,53	90,59	91,54	91,21	90,53
n / 1/min	3000	2984	2967	2949	2928	2904
$\cos \varphi$	0,09982	0,4856	0,7081	0,8206	0,8666	0,8801
I / A	7,598	9,669	12,38	15,85	20,09	24,91
s / %	0	0,5298	1,088	1,701	2,394	3,186
M / Nm	0	8,8	17,7	26,71	35,87	45,21

Tolerance according to VDE 0530 T1 12.84 for rated power

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Spaix® 4, Version 4.3.4 - 2017/04/12 (Build 580)
Data version Mar-2017

