xylem
Let's Solve Water

Pumped fluid	Water	Antall pumper	1
Mengde	50 l/s	Anleggstype	En pumpe i drift
Statisk Trykk	39 m	Layout	Tørt oppstilt installasjon
Viskositet	1,569 mm²/s	Beregningsmodell	Colebrook-White

friction loss

Felles rørledning sugside

Rør 1 (3)

Type	Ø / mm	? or L	Antall	v / m/s	k / mm	H / m
Rør: Metal#Stainless steel DN 250 (256x3,0 mm	250	5 m	1	1,019	0,23	0,02221
Tilkobling: DN 250 (256x3,0 mm)	250	0,3	1	1,019		0,01586
Innløp: DN 250 (256x3,0 mm)	250	1	1	1,019		0,05288
Total friction head						**0,09096**

Felles rørledning trykkside

Rør 1 (5)

Type	Ø / mm	? or L	Antall	v / m/s	k / mm	H / m
Rør: Plastic#PVC DN 150 (160x7,7 mm) / PN 1(	144,6	850 m	1	3,045	0,3	67,39
Tilkobling: DN 150 (160x7,7 mm)	144,6	0,3	1	3,045		0,1417
Bend: DN 150 (160x7,7 mm)	144,6	0,3	1	3,045		0,1417
Tilbakeslagsventil: DN 150 (160x7,7 mm)	144,6	0,9	1	3,045		0,4252
Ventil: DN 150 (160x7,7 mm)	144,6	0,3	1	3,045		0,1417
Total friction head						**68,24**

Friksjonstap	68,33 m
Total static head	39 m
Total trykk	**107,3 m**

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Technical Data

MPA125B/05X/BD750/W45VCCC4

Item no. | Rev.
Name

	Receiver	From
Company name		
Issued by		
Phone number		
Fax no.		
e-mail address		

Operating data

1	Pumpe type	Single pump operation		Fluid			Water, pure	
2	No. of pumps		1	Operating temperature t A	°C		4	
3	Nominal flow	l/s	50	pH-value at t A			7	
4	Nominal head	m	107,3	Density at t A	kg/dm³		1	
5	Static head	m	0	Kin. viscosity at t A	mm²/s		1,569	
6	Inlet pressure	bar	0,098	Vapor pressure at t A	bar		0,00789	
7	Environmental temperature	°C	4	Content of solid%	Solid size	mm	0	0
8	Available system NPSH	m	0	Altitude	m		0	

Pump data

9	Design	Horizontal Multistage pump, axial DNs, radial DNd, 1 Slide bearing DNs, 1 Roller bearings DNd						
10	Execution	AO / DNs - axial, DNd - above (Standard)		Impeller Ø	Max.	mm	295	
11	Operating speed	1/min	1485		designed	mm	283,2	
12	Number of stages		5		Min.	mm	295	
13	Suction nozzle		DNs 200 / PN16 / EN1092-2 (C-MPA)	Flow	Nominal	l/s	50	(50)
14	Discharge nozzle		DNd 125 / PN25/40 / EN1092-2 (C-MPA)		Max-	l/s	74,7	
15	Max. casing pressure	bar	40		Min-	l/s	11,9	
16	Max. working pressure	bar	14,4	Head	Nominal	m	107,3	
17	Impeller type		Radialrad		at Qmax	m	50,5	
18	Head H(Q=0)	m	150		at Qmin	m	143,9	
19	Max. shaft power	kW	69,8	Shaft power		kW	66,9	(66,9)
20	Pump weight	kg	631	Efficiency		%	79,23	
21	Total weight	kg	1 546,6	NPSH 3%		m	1,8	

Materials

		Pump		Shaft Seal	
22				Single mechanical seal, with shaft sleeve (unbalanced)	
23	Suction Impeller	Cast Iron , EN-GJL-200 , ASTM-CLASS 30		EMG12/65	BQ7EGG-WA
24	impeller	Cast Iron , EN-GJL-200 , ASTM-CLASS 30		Mechanical seal diameter	65 mm
25	Diffuser	Cast Iron , EN-GJL-150 , ASTM-CLASS 25		1. Rotating ring	Carbon graphite resin impregnated
26	Stage casing	Cast Iron , EN-GJL-250 , ASTM-CLASS 35		2. Stationary ring	SiC, silicon carbide, sintered pressureless
27	Suction casing	Cast Iron , EN-GJL-250 , ASTM-CLASS 35		3. Secondary seal	Ethylene propylene rubber (EPDM)
28	Discharge casing	Cast Iron , EN-GJL-250 , ASTM-CLASS 35		4. Springs	CrNiMo - Steel
29	Seal Cover	Cast Iron , EN-GJL-250 , ASTM-CLASS 35		5. Others	EPDM - WRAS
30	Bearing Bracket / Motor Adapter	Cast Iron , EN-GJL-250 , ASTM-CLASS 35		Gaskets of the pump	Ethylene propylene rubber (EPDM)
31	Pump Foot	Cast Iron , EN-GJL-250 , ASTM-CLASS 35		Code	B/ESIC-Q7EGG/Y10-WA
32	Wear ring	without (standard)			
33	Drum	Stainless Steel , 1.4057 , ASTM-431			
34	Drum Bush	Cast Iron , EN-GJL-250 , ASTM-CLASS 35			
35	Shaft	Stainless Steel , 1.4057 , ASTM-431			
36	Shaft Sleeve	Stainless Steel , 1.4057 , ASTM-431			
37	Spacer Sleeve	Stainless Steel , 1.4057 , ASTM-431			
38	Shaft Nut	Stainless Steel , 1.4057 , ASTM-431			
39	Impeller nut	A4			
40					
41					

Motor data

42	Manufacturer	WEG	Electric voltage	400 V	Manufacturer	Flender	
43	Specific design	IE3 motors - Cast Iron Frame - Premium Efficiency			Series	N-EUPEX - Type B	
44	Type	W22 - 280 S/M - 75kW			Type	B 180/0-52/75	
45	Rated power	75 kW	Electric current	134 A	Frame size	180	
46	Nominal speed	1485 1/min	Degree of protection	IP55	Spacer length mm	4	
47	Frame size	280 S/M	Explosion protection	-- -- --	Weight kg	11,5	
48	Weight kg	705,0	Shaft diameter	75 mm	Coupling protection	yes	Weight: 2,4 kg

Base plate

49	Name	FRAME EMP125-E-280	
50	Weight kg	196,7	
51			
52			
53			

Remarks

Project	Project ID	Created by	Created on	Last update
			09.01.2019	09.01.2019

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hydraulic

MPA125B/05X/BD750/W45VCCC4

Item no. | Rev.

Name

	Receiver	From
Company name		
Issued by		
Phone number		
Fax no.		
e-mail address		

Impeller

	Ø	Pump capacity Operating range Min.	Max.	η Max.	Pump head H(Q=0)	η Max.	Shaft power P2 P2(Q=0)	Max.	η Max.
	mm	l/s	l/s	l/s	m	m	kW	kW	kW
actual	283	11,9	74,7	45,9	146	114		69,8	65
Min.	295	/	/	48	157	124		/	71,7
Max.	295	/	/	48	157	124		/	71,7

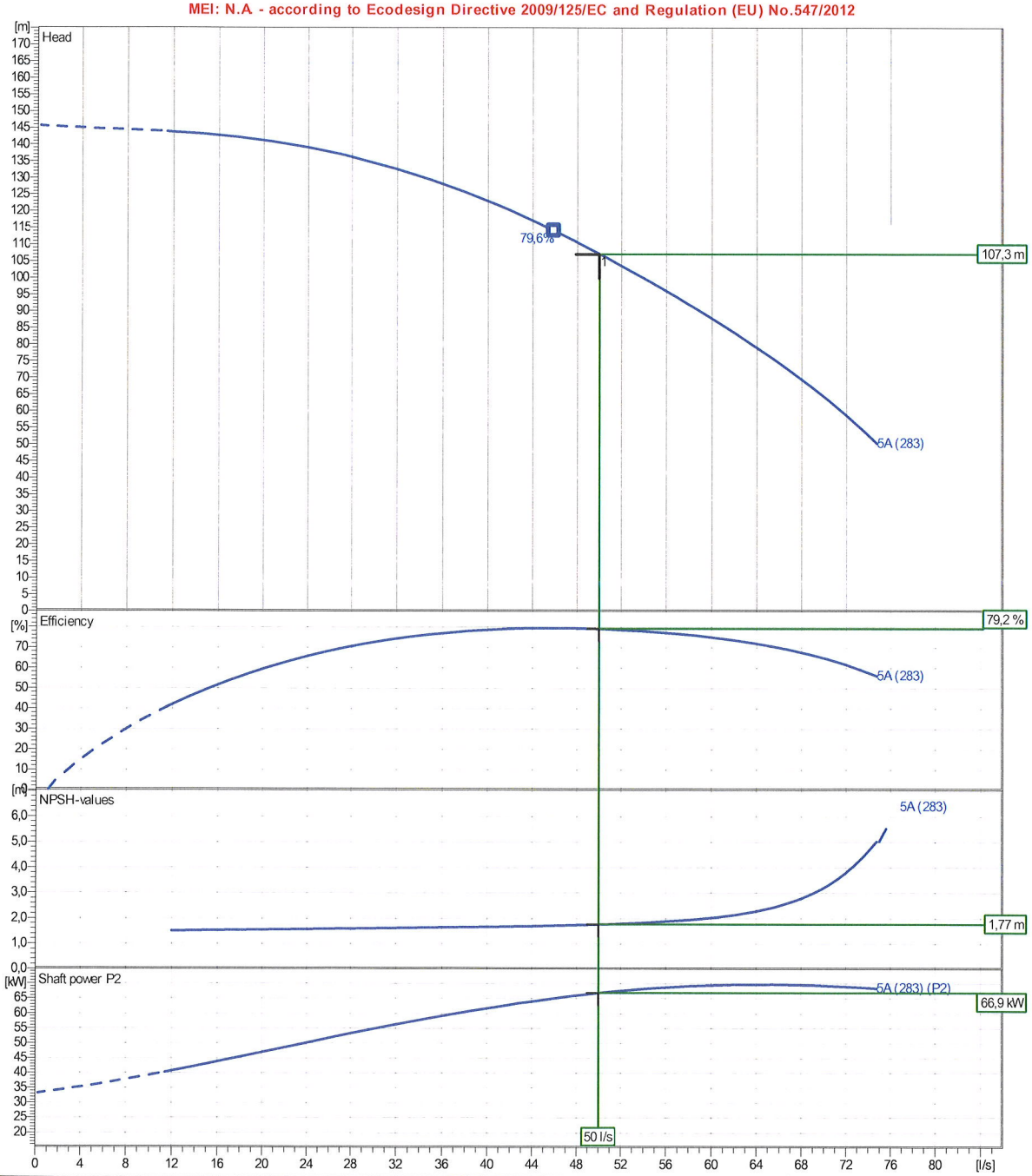
Impeller type	Radialrad
Sense of rotation	Clockwise from the drive end
Frequency Hz	50
Operating speed 1/min	1485

Power datas referced to:

Water, pure [100%] ; 4°C; 1kg/dm³; 1,57mm²/s

hydr. Performance acceptance acc. To EN ISO 9906 Class Grade 2B

MEI: N.A - according to Ecodesign Directive 2009/125/EC and Regulation (EU) No.547/2012



Project	Project ID	Created by	Created on	Last update
			09.01.2019	09.01.2019

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Item no.
Name
Rev.

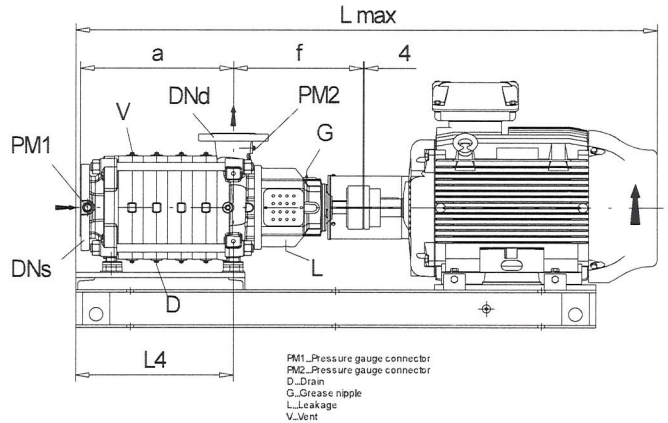
Dimensions

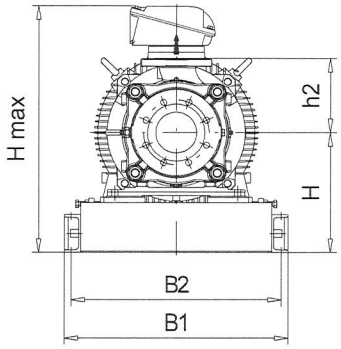
MPA125B/05X/BD750/W45VCCC4

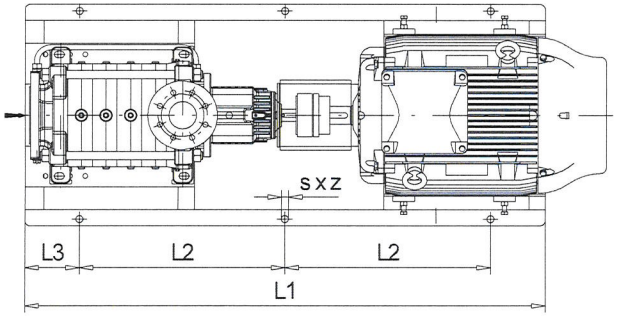
	Receiver	From
Company name		
Issued by		
Phone number		
Fax no.		
e-mail address		

Unit with motor and accessories
WEG W22 - 280 S/M - 75kW
IE3 motors - Cast Iron Frame - Premium Efficiency

AO / DNs - axial, DNd - above (Standard)





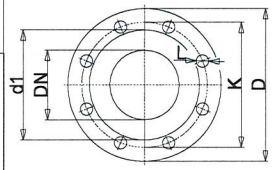


Dimensions	[mm] / [m³]		
a	724	s	26
B1	820	V	G1/4
B2	770	Volumen	1,7512
D	G1/4	z	6
DNd	125		
DNs	200		
f	488		
G	M8		
H	468		
h2	325		
Hmax	933		
L	G1/2		
L1	2050		
L2	825		
L3	200		
L4	726		
Lmax	2289		
PM1	G1/4		
PM2	G1/4		

Weight (+/- 5%)	[kg]
Pump	631
Coupling	11,5
Coupling protection	2,4
Base plate	196,7
Motor	705,0
Total weight	~ 1 546,6

Connections [mm]

Suction nozzle DNs 200 PN16 EN1092-2 (C-MPA)		Discharge nozzle DNd 125 PN25/40 EN1092-2 (C-MPA)	
C	40	C	30
D	380	D	280
d1	266	d1	184
K	295	K	220
L	23	L	28
z	12	z	8



Note: Value D, C and d may vary from standard

Dimensions and weight without obligation

Project	Project ID	Created by	Created on	Last update
			09.01.2019	09.01.2019

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Technical Data

Customer	Dato 1/17/2019
Contact	Project
Phone number	Project no.
Epost	

46SV4N150T

Driftsdata

Pumpe type	En pumpe i drift		Væske		Vann	
Antall pumper / Reserve		1 / 0	Operating temperature t A	°C	4	
Nominal flow	l/s	10	Pumpehjulsmaterial		7	
Nominal head	m	83	Density at t A	kg/m³	1000	
Statisk trykk	m	22	Kin. viscosity at t A	mm²/s	1,569	
Innløpstrykk	kPa	0	Vapor pressure at t A	kPa	100	
Omgivelsestemperatur	°C	20	Partikler		0	
Available system NPSH	m	0	Altitude	m	0	

Pumpedata

Fabrikat	Lowara			Nominal	l/s	10,5	(10,5)
Speed	1/min	2900	Mengde	Max-	l/s	16,7	
Number of stages		4		Min-	l/s		
Max. casing pressure	kPa			Nominal	m	89,5	
Max. working pressure	kPa	1052,4	Trykk	at Qmax	m	55,9	
Head H(Q=0)	m	110		at Qmin	m	107,3	
Vekt	kg	180	Akseleffekt		kW	11,9	(11,9)
Max.	mm	133	Maks Akseleffekt P2		kW	14,1	
Impeller R designed	mm	133	Virkningsgrad		%	77,83	
Min.	mm	133	NPSH 3%		m	2,2	

Pump Materialer

Pump body	Stainless steel / AISI 316 cast
Lower support	Stainless steel / AISI 316 cast
Impeller	Stainless steel / AISI 316L
DIFFUSER	Stainless steel / AISI 316L
Outer sleeve	Stainless steel / AISI 316L
Aksel	Duplex Stainless steel
ADAPTER	Støpejern
Slitering	Technopolymer PPS
COUPLING	Støpejern
Upper head	Stainless steel / AISI 316 cast
SEAL HOUSING	Stainless steel / AISI 316 cast
Coupling protection	Stainless steel / AISI 304
Shaft sleeve and bushing	Wolframkarbid
Bushing for diffuser	Carbon
Fill / drain plugs	Stainless steel / AISI 316

Akseltetning

e-SV Mechanical seal	Roten
e-SV - Uniten (-30 / +120 °C)	
1 - Rotating part	Silicon Carbide
2 - Stationary part	Resin impregnated carbon
3 - Elastomers	EPDM
4 - Springs	AISI 316
5 - Other components	AISI 316

Motor data

Fabrikat	Lowara	Elektrisk spenning	400 V	Turtall	2950 1/min	Isolasjonsklass	155 (F)
Spesifik design	IE3 Three phase surface motor (e-SV)			Byggestørrelse	160	Colour	RAL 5010
Type	PLM160B5/3150 E3 (380-415/660-690V)						
Merkeeffekt	15 kW	Beskyttelseform	IP55				
Strømstyrke	26,6 A						

Remarks:

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Tender Hydraulic

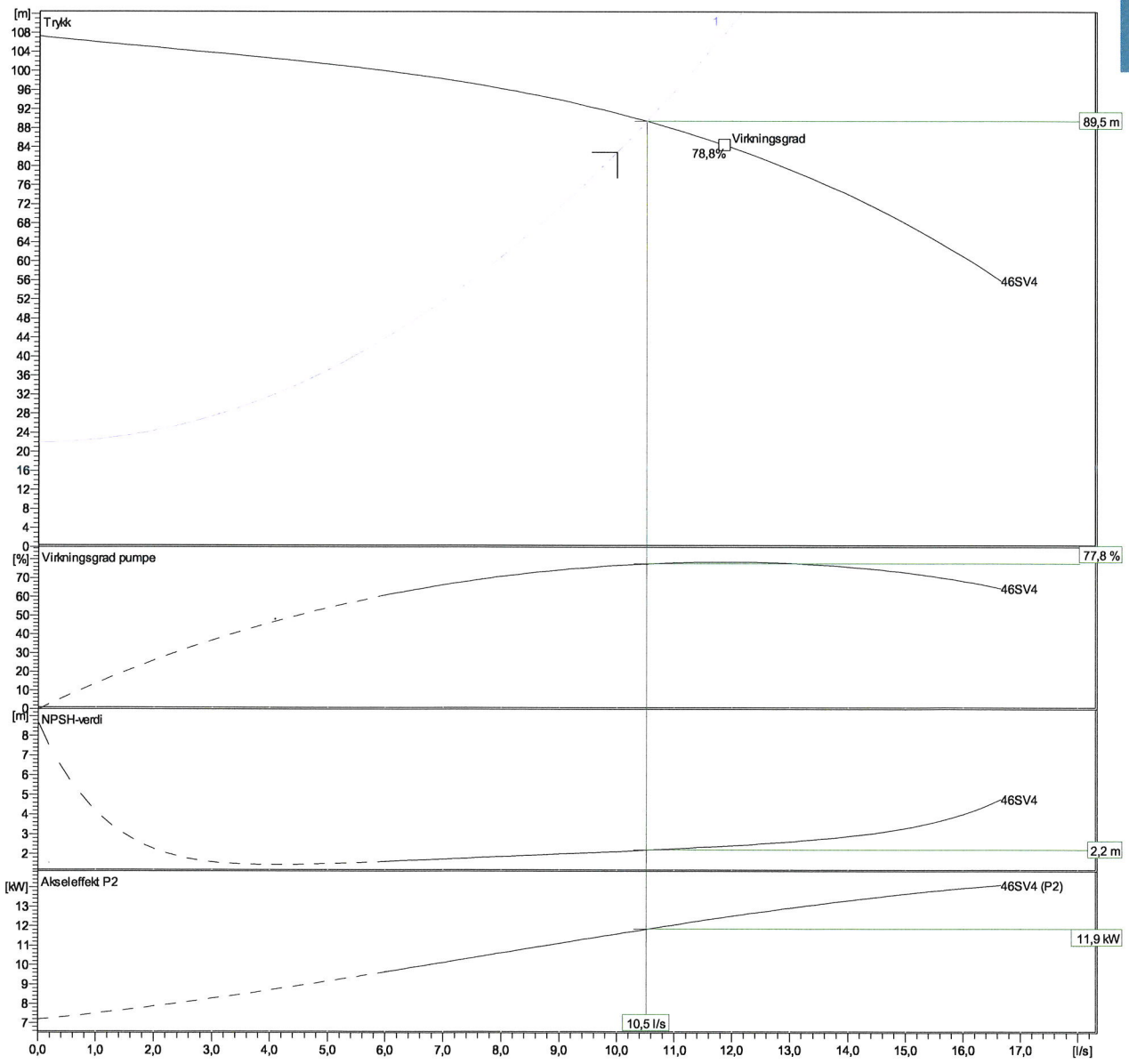
Customer		Dato	1/17/2019
Contact		Project	
Phone number		Project no.	
Epost			

46SV4N150T

Hydraulic data

Driftsdata spesifisert		Hydraulisk data (driftspunkt)		Impeller design	
Mengde	10 l/s	Mengde	10,5 l/s	Impeller R	133 mm
Trykk	83 m	Trykk	89,5 m	Frekvens	50 Hz
Statisk trykk	22 m	MEI >=0,7		Speed	2900 1/min

Power datas referced to:
Vann [100%] ; 4°C; 1000kg/m³; 1,57mm²/s
Performance according to ISO 9906:2012 – Grade 3B



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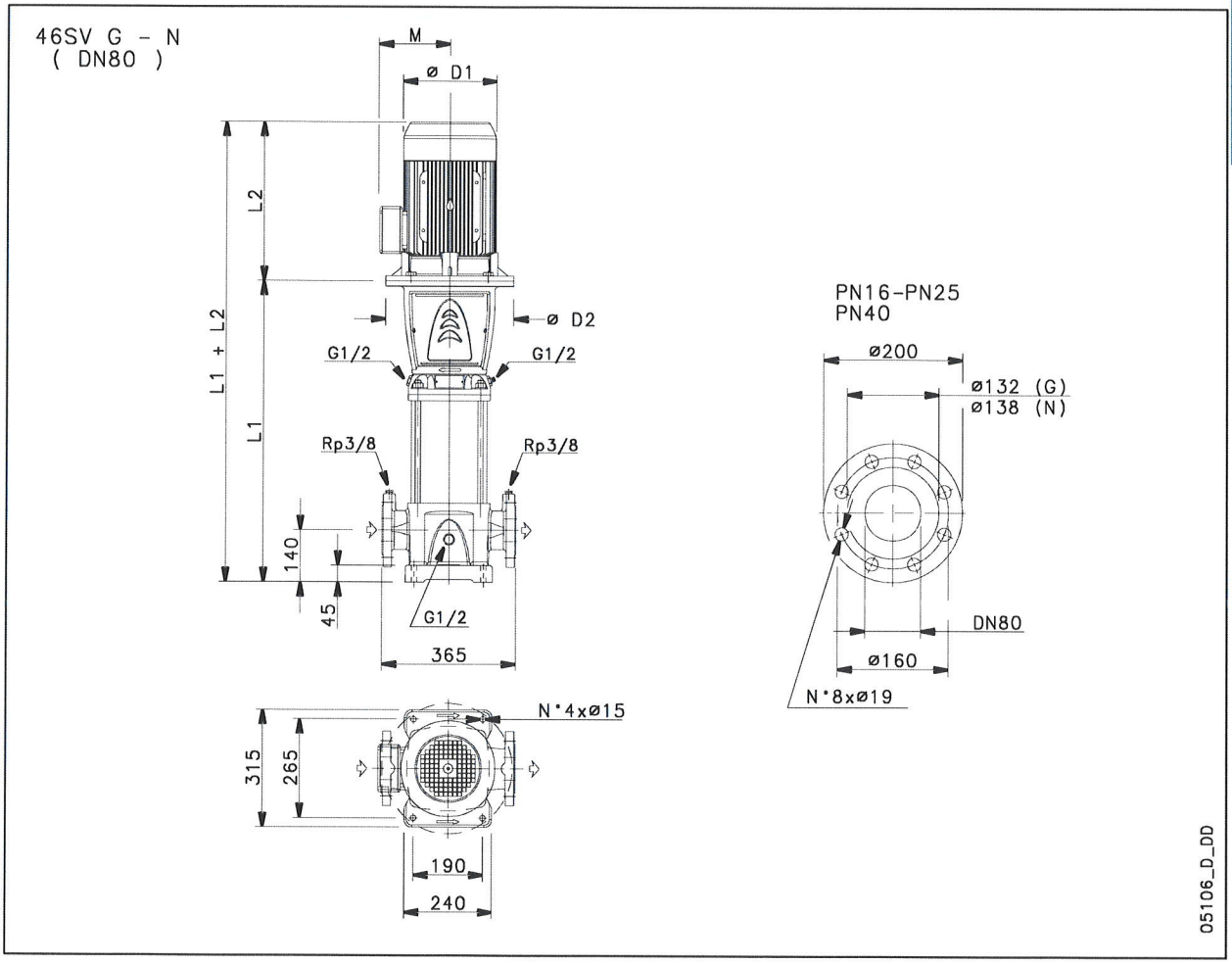
Dimensional Data

Customer Contact Phone number Epost	Dato 1/17/2019 Project Project no.

46SV4N150T

Tegning



Dimensjoner mm

D1 D2 L1 L2 M	313 350 809 494 240					Vekt 180 kg