



HORIZONTAL SINGLE-STAGE STANDARD CENTRIFUGAL PUMP

NZM SERIES



Golds Pump End-suction Pump			
Model:	NZM 65-40-200	SIN:	50 Hz
7.5 kW	380 V	14.1 A	2950 rpm
η	%	14.1	M
0.88	0.88	55	MADE IN ITALY
I.C.L.	F	IP	55



MADE IN ITALY

Introduction

NZS/NZM Stainless steel horizontal single-stage centrifugal pump is made by advanced techniques, as pressing bulging welding of corrosion resistant plate. It features beautiful appearance, light and handy structure, high efficiency, and energy saving, durable, corrosion proof, low noise.

NZS is stub shaft type, the pump is composed of pump, coupling, shaft and standard motor.

NZM is monobloc type, the extended pump shaft is one piece design.

Pump material

- All the parts in contact with the liquid are made in AISI304 Stainless Steel.
- Standard mechanical seals made in Carbon / Silicon Carbide.
- AISI316 material and counter flange available on request.

Motor

- TEFC motor, 2-pole
- Insulation class: F
- Protection class: IP55
- Voltage: 50Hz, 1x220-240V, 3x220-240V/380-415V
- Single phase pump power up to 2.2kW

Installation requirements

- NZS series shall be installed on the base horizontally. Horizontal direction is the inlet for the pump, and vertical direction is the outlet for the pump.
- The installation of the pump shall ensure that the pump will not be influenced by the tension of the pipeline;
- The pump shall be installed on the ventilation and anti-freezing place to ensure normal operation of the motor;
- Inlet and outlet DN in compliance with EN 733(ex DIN 24255 and UNI 7467).
Flanges in compliance with UNI 2236 and DIN 2532 Rear entry.

Application

Water supply

- Water filter
- Supercharging
- Pressurization of hotels
- Industrial pressurization

Industrial liquid transport

- Cooling air conditioning system
- Boiler feed water
- Condensing system and cooling tower
- Machine tool cooling lubrication system

Industrial boosting

- Cleaning system
- High pressure flushing system
- Firefighting system

Water treatment

- Ultrafiltration system
- Reverse osmosis system
- Distillation system

Irrigation

- Sprinkler irrigation
- Drip irrigation
- Greenhouse irrigation

Pump operating conditions

- Clean, thin, non-flammable and explosive liquid containing the liquid with solid particle and fibre.
- Liquid temperature: -15°C ~ +100°C.
- Ambient temperature: up to +40°C.
- Altitude: up to 1000m.
- Max. pressure of the system is 10 bar.

Performance curves

Following conditions are suitable for the performance curves shown below:

- All curves are based on the measured value of motor 3x380V, 50Hz: under the constant speed of 2900rpm or 2950rpm.
- Curve tolerance is in conformity with ISO9906 Annex A.
- The test medium is clear 20°C water without any solids.
- The motor power shall be adjusted if the viscosity or density of medium is different from water.
- Pumps should not work if the flow is beyond the minimum or the maximum flow in the curves.

Definition of model

NZS 65-50-200/11

NZ S 65 — 50 — 200 / 11

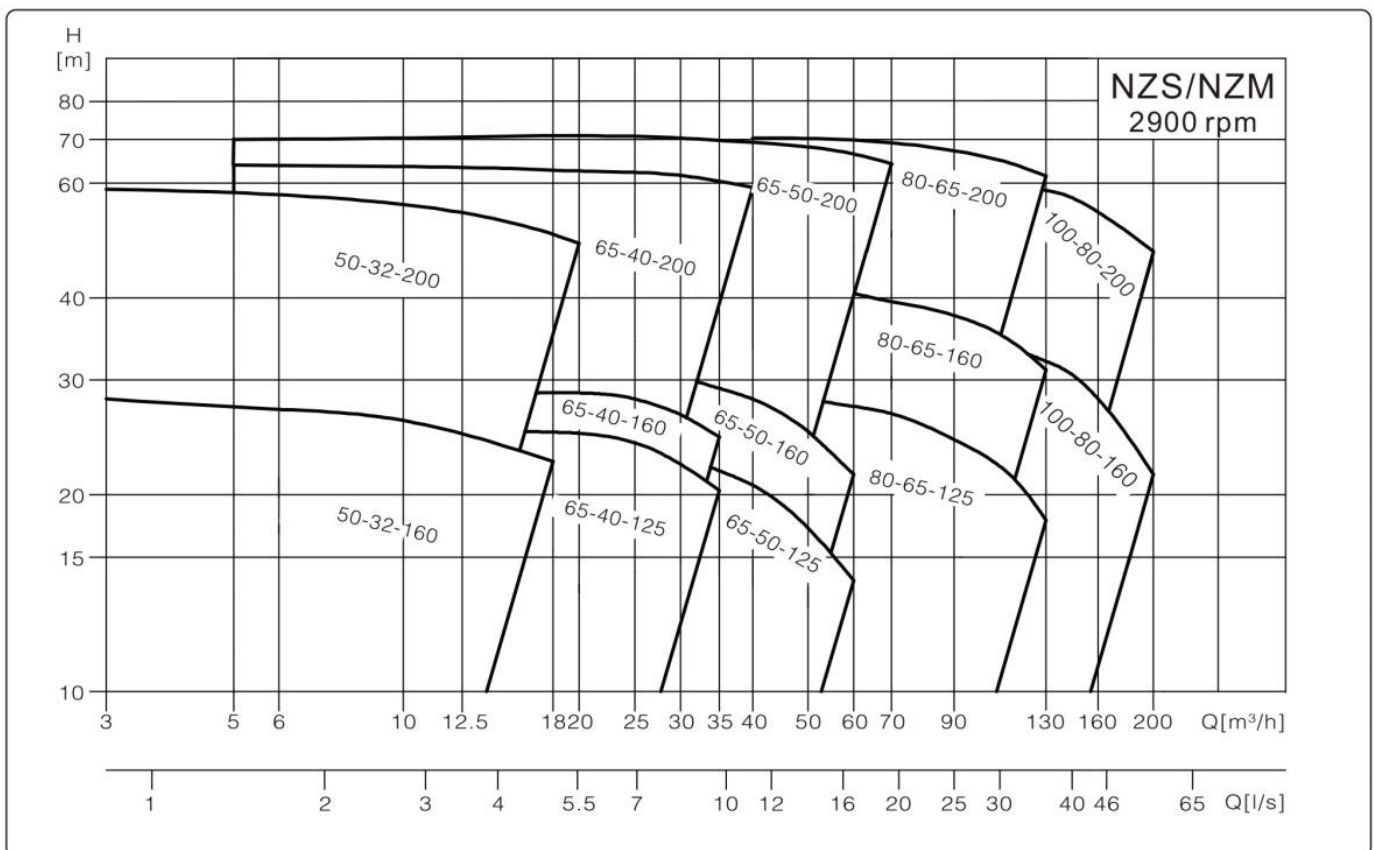
- Motor power (kW)
- Nominal diameter of impeller (mm)
- Diameter of outlet (mm)
- Diameter of inlet (mm)
- Stub shaft type
- Stainless steel horizontal single-stage centrifugal pump

NZM 65-50-200/11

NZ M 65 — 50 — 200 / 11

- Motor power (kW)
- Nominal diameter of impeller (mm)
- Diameter of outlet (mm)
- Diameter of inlet (mm)
- Monobloc type
- Stainless steel horizontal single-stage centrifugal pump

Pump performance range



Minimum Inlet Pressure NPSH

In case that the pressure in pump lower than the steam pressure used to convey liquid, the cavitations will occur. To avoid cavitations, a minimum pressure at the inlet side of the pump shall be guaranteed. The maximum suction stroke can be calculated with following formula:

$$H = P_b \times 10.2 - NPSH - H_f - H_v - H_s$$

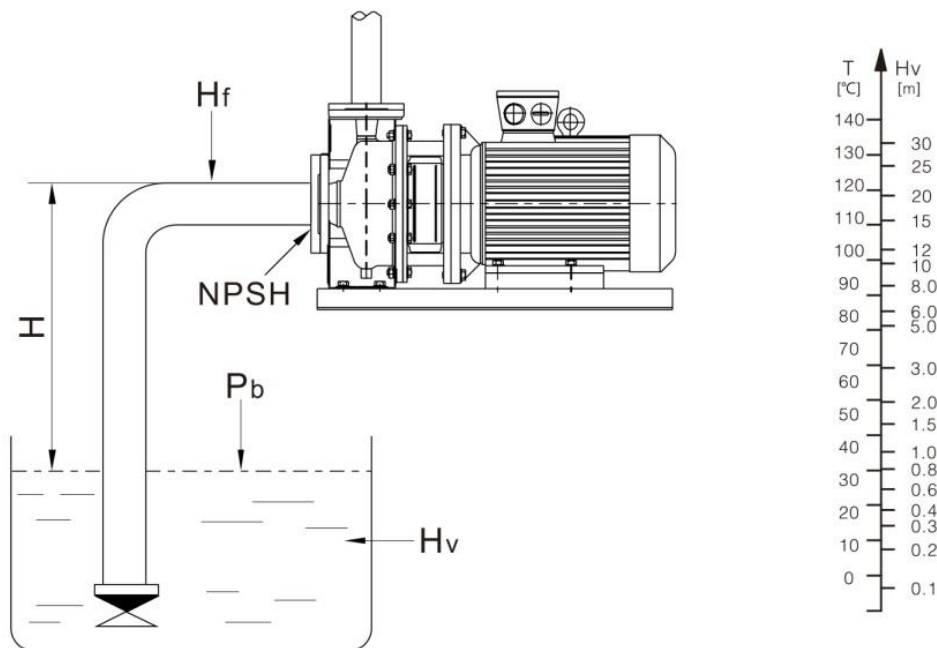
- **P_b**-Atmosphere pressure (bar)
In a closed system, P_b means system pressure (bar).
- **NPSH**-Net positive suction head (m)
It can be read from the point of Max. flow rate shown on NPSH curve.
- **H_f**-Pipeline loss at the inlet (m)
It is in accordance with pipeline possible Max. Flow.
- **H_v**-Steam pressure (m)
It depends on liquid temperature and steam pressure value.
- **H_s**-Safety margin (m)
Minimum 0.5 delivery head

If the calculated result H is positive, the pump may run under the Max. suction head H.

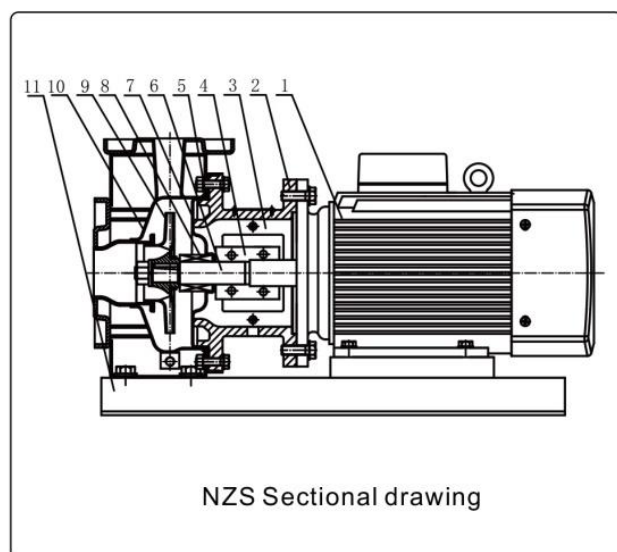
In case the calculated H is negative, a delivery head of Min. inlet pressure is necessary.

Note: Normally, the above calculation will not be done. H is calculated in the following conditions:

1. The liquid temperature is comparatively higher.
2. Liquid flow exceeds rated value
3. Suction head is comparatively large or inlet pipeline long.
4. System pressure is too low.
5. Bad inlet condition.

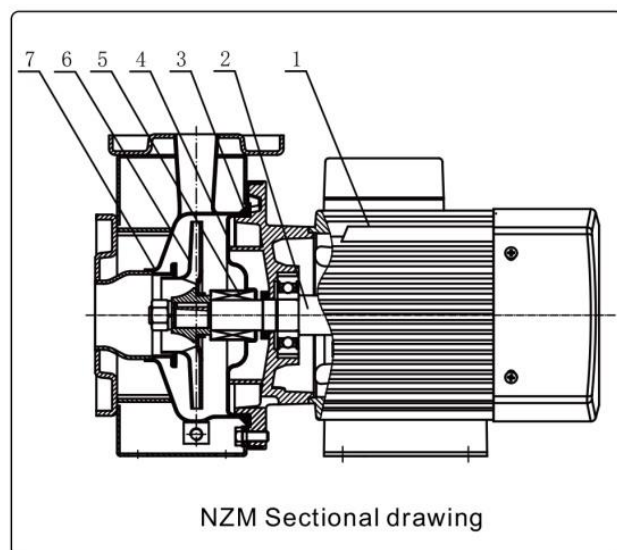


Structure and material of NZS series



NO.	Parts	Material	AISI/ASTM
1	Motor	Assembling unit	
2	Pump head	Cast iron/HT200	ASTM25B
3	Guard plate	Stainless steel	AISI304
4	Coupling	Cast iron	ASTM25B
5	O ring	NBR	
6	Pump Shaft	Stainless steel	AISI304
7	Pump head lining	Stainless steel	AISI304
8	Mechanical seal	Carbon/ Silicon Carbide	
9	Impeller	Stainless steel	AISI304
10	Pump casing	Stainless steel	AISI304
11	Base plate	Steel/Q235	ASTMA570

Structure and material of NZM series



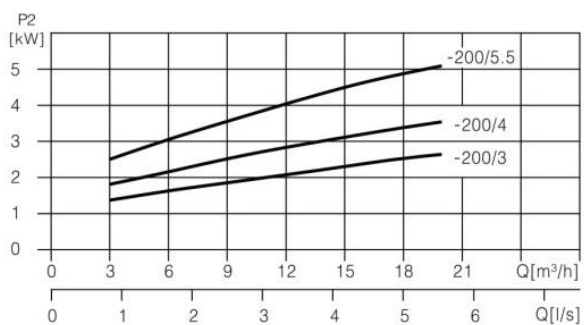
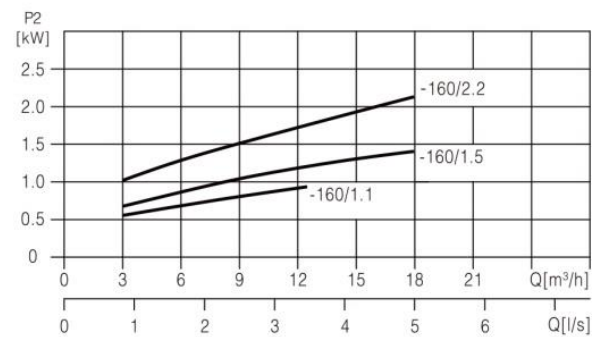
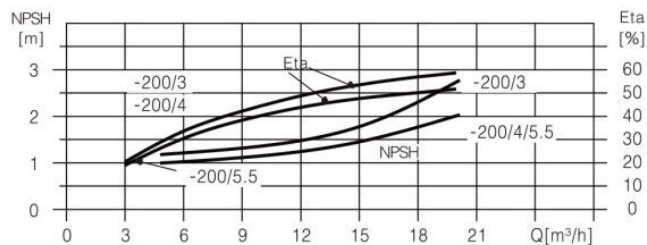
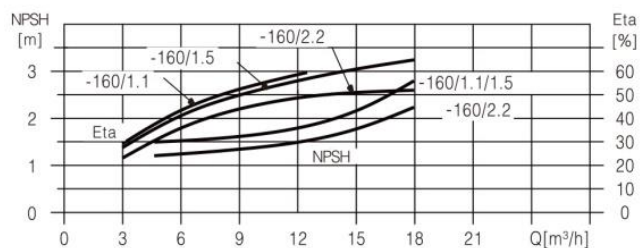
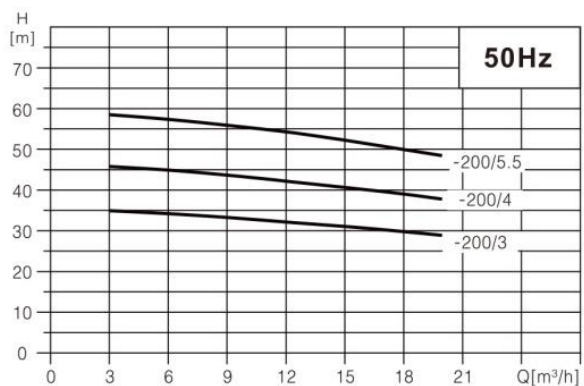
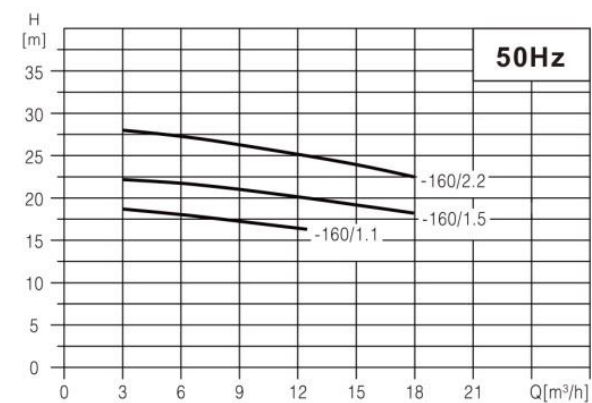
NO.	Parts	Material	AISI/ASTM
1	Motor	Assembling unit	
2	Pump Shaft	Stainless steel	AISI304
3	O ring	NBR	
4	Pump head lining	Stainless steel	AISI304
5	Mechanical seal	Carbon/ Silicon Carbide	
6	Impeller	Stainless steel	AISI304
7	Pump casing	Stainless steel	AISI304

Technical data

NO.	Model	Q (m3/h)	H (m)	r.p.m (r/min)	Standard voltage (V)	
					1x220V	3x380V
					P2 (kW)	P3 (kW)
1	NZS/NZM50-32-160/1.1	6.3	18	2900	1.1	1.1
2	NZS/NZM50-32-160/1.5	12.5	20		1.5	1.5
3	NZS/NZM50-32-160/2.2	12.5	25		2.2	2.2
4	NZS/NZM50-32-200/3	12.5	32			3
5	NZS/NZM50-32-200/4	12.5	42			4
6	NZS/NZM50-32-200/5.5	12.5	54			5.5
7	NZS/NZM65-40-125/1.5	25	13		1.5	1.5
8	NZS/NZM65-40-125/2.2	25	18		2.2	2.2
9	NZS/NZM65-40-125/3	25	24			3
10	NZS/NZM65-40-160/4	25	28			4
11	NZS/NZM65-40-200/5.5	25	36			5.5
12	NZS/NZM65-40-200/7.5	25	46			7.5
13	NZS/NZM65-40-200/11	25	62	2950		11
14	NZS/NZM65-50-125/3	50	13	2900		3
15	NZS/NZM65-50-125/4	50	18			4
16	NZS/NZM65-50-160/5.5	50	25			5.5
17	NZS/NZM65-50-200/7.5	50	32			7.5
18	NZS/NZM65-50-200/9.2	50	40			9.2
19	NZS/NZM65-50-200/11	50	48	2950		11
20	NZS/NZM65-50-200/15	50	58			15
21	NZS/NZM65-50-200/18.5	50	68			18.5
22	NZS/NZM80-65-125/5.5	100	13	2900		5.5
23	NZS/NZM80-65-125/7.5	100	18			7.5
24	NZS/NZM80-65-125/9.2	100	23			9.2
25	NZS/NZM80-65-160/11	100	27	2950		11
26	NZS/NZM80-65-160/15	100	36			15
27	NZS/NZM80-65-200/18.5	100	45			18.5
28	NZS/NZM80-65-200/22	100	53			22
29	NZS80-65-200/30	100	66			30
30	NZS/NZM100-80-160/11	160	15			11
31	NZS/NZM100-80-160/15	160	22			15
32	NZS/NZM100-80-160/18.5	160	28			18.5
33	NZS/NZM100-80-200/22	160	33			22
34	NZS100-80-200/30	160	45			30
35	NZS100-80-200/37	160	54			37

Performance curve

NZS/NZM 50-32-

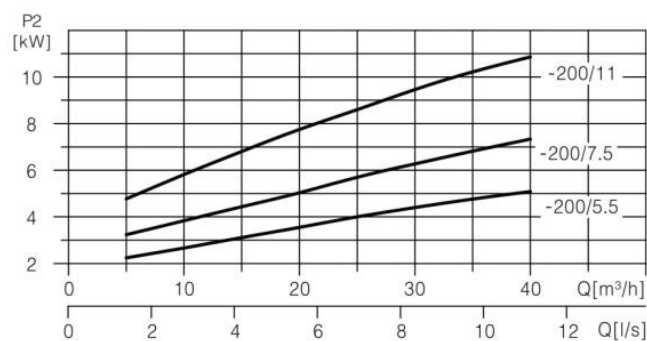
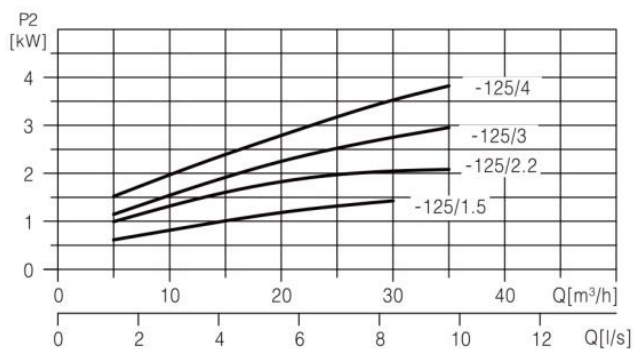
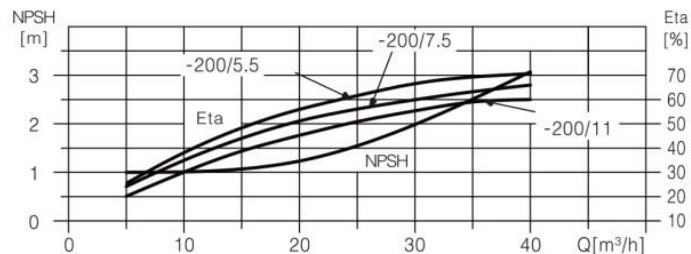
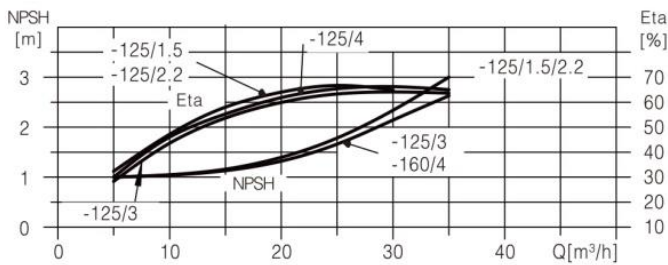
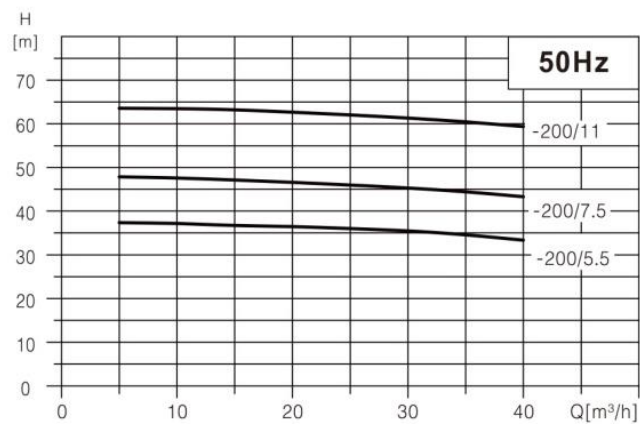
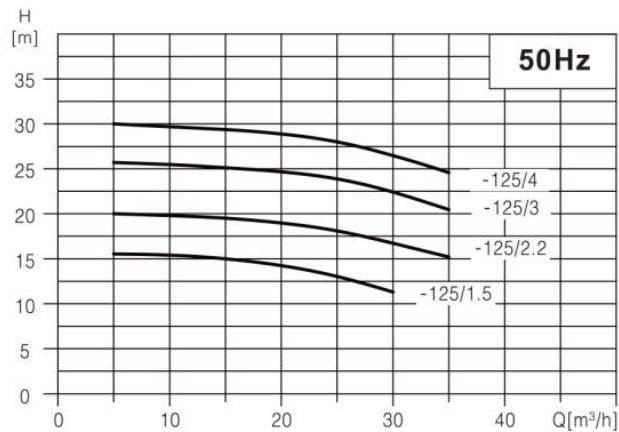


Technical Data

Model	Motor power		Q (m3/h)	3	6.3	9	12.5	15	18	20
	(kW)	(HP)								
NZS/NZM50-32-160/1.1	1.1	1.5	H (m)	18.7	18	17.2	16.4			
NZS/NZM50-32-160/1.5	1.5	2		22.5	22	21	20	19	18	
NZS/NZM50-32-160/2.2	2.2	3		28	27	26.3	25	24	22.5	
NZS/NZM50-32-200/3	3	4		34.9	34.1	33.3	32	31	29.8	28.9
NZS/NZM50-32-200/4	4	5.5		45.7	44.8	43.7	42	40.7	39	37.7
NZS/NZM50-32-200/5.5	5.5	7.5		58.5	57.2	56	54	52.5	50	48.5

Performance curve

NZS/NZM 65-40-

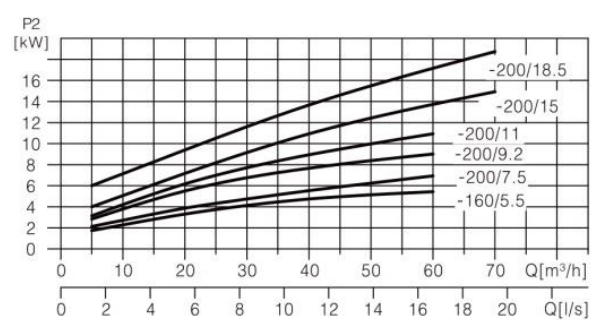
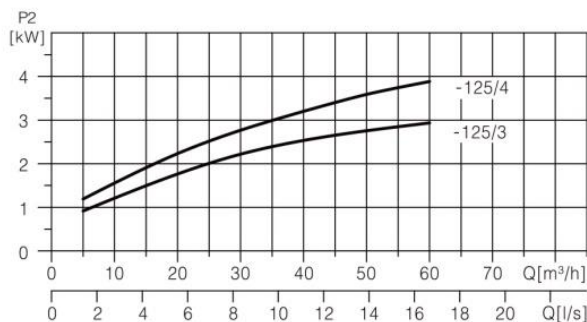
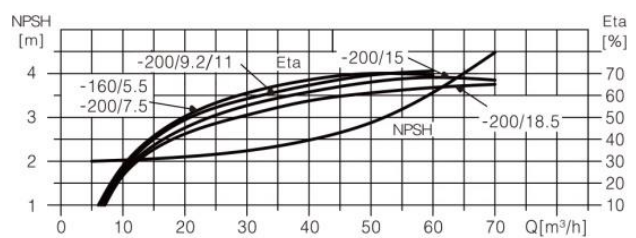
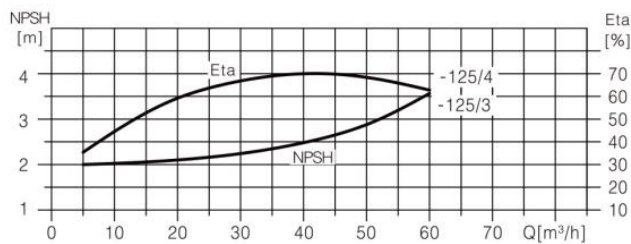
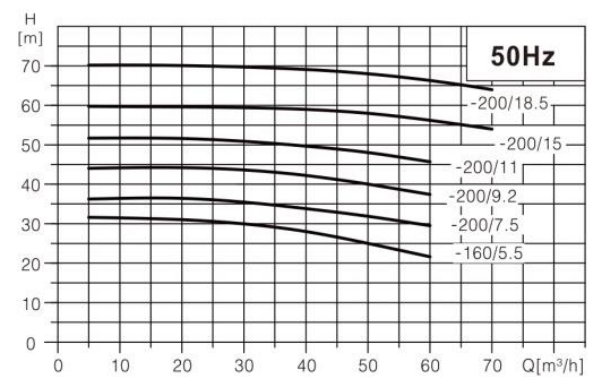
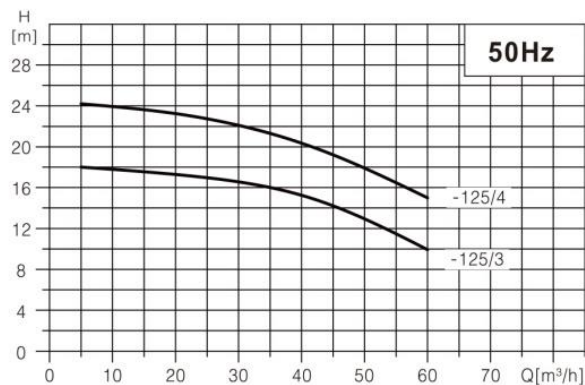


Technical Data

Model	Motor power		Q (m³/h)	5	10	15	20	25	30	35	40
	(kW)	(HP)									
NZS/NZM65-40-125/1.5	1.5	2	H (m)	15.5	15.4	15	14.4	13	11.3		
NZS/NZM65-40-125/2.2	2.2	3		20	19.7	19.5	19	18	16.7	15.2	
NZS/NZM65-40-125/3.0	3	4		25.7	25.3	25.1	24.8	24	22.3	20.3	
NZS/NZM65-40-160/4.0	4	5.5		30	29.7	29.3	28.9	28	26.5	24.5	
NZS/NZM65-40-200/5.5	5.5	7.5		37.4	37.2	36.7	36.4	36	35.5	34.6	33.3
NZS/NZM65-40-200/7.5	7.5	10		48	47.5	47	46.6	46	45.2	44.5	43.3
NZS/NZM65-40-200/11.0	11	15		64	63.5	63	62.5	62	61.5	60.5	59

Performance curve

NZS/NZM 65-50-



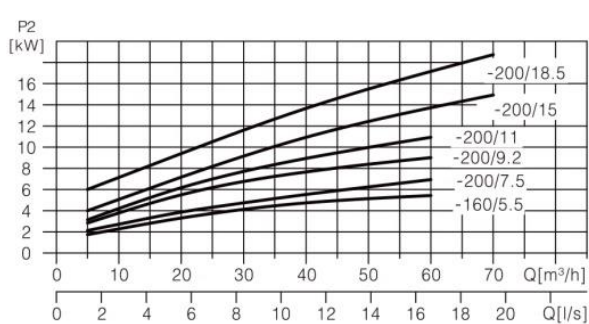
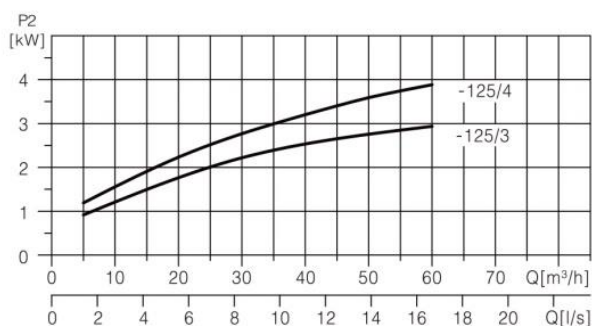
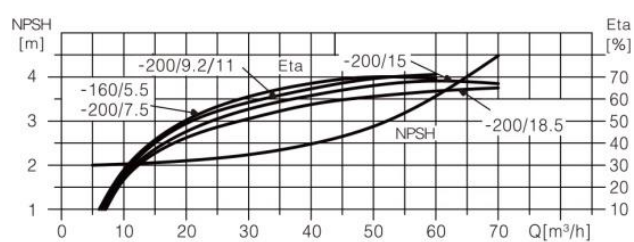
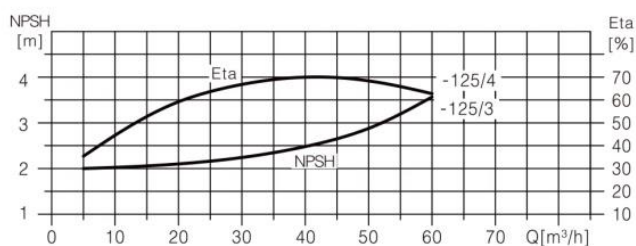
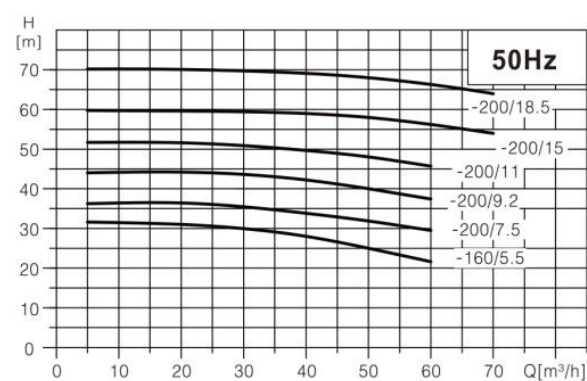
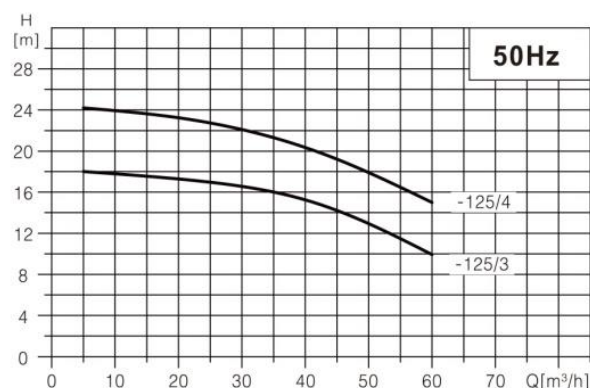
NZS/NZM

Technical Data

Model	Motor power		Q (m³/h)	5	10	20	30	40	50	60	70
	(kW)	(HP)									
NZS/NZM65-50-125/3.0	3	4	H (m)	18	17.8	17.2	16.4	15.1	13	10	
NZS/NZM65-50-125/4.0	4	5.5		24.2	24.2	23.6	22.6	20.7	18	14.8	
NZS/NZM65-50-160/5.5	5.5	7.5		31.6	31.5	31	30	28	25	21.5	
NZS/NZM65-50-200/7.5	7.5	10		36.3	36.6	36.4	35.6	34.1	32	29.6	
NZS/NZM65-50-200/9.2	9.2	12.5		43.5	43.5	43.5	43	42	40	37.5	
NZS/NZM65-50-200/11.0	11	15		51.5	51.5	51	50	49.3	48	45.6	
NZS/NZM65-50-200/15.0	15	20		59.7	59.7	59.6	59.5	59	58	56.2	53
NZS/NZM65-50-200/18.5	18.5	25		70.2	70.2	70.1	70	69.1	68	66.4	64

Performance curve

NZS/NZM 65-50-

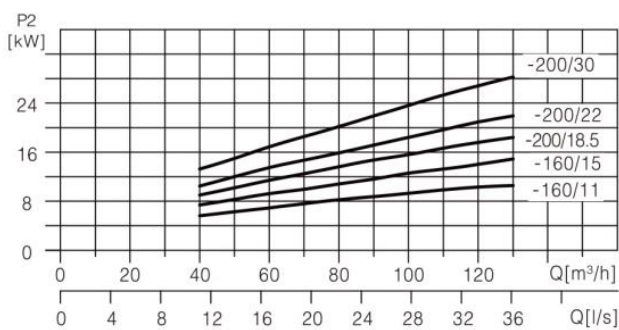
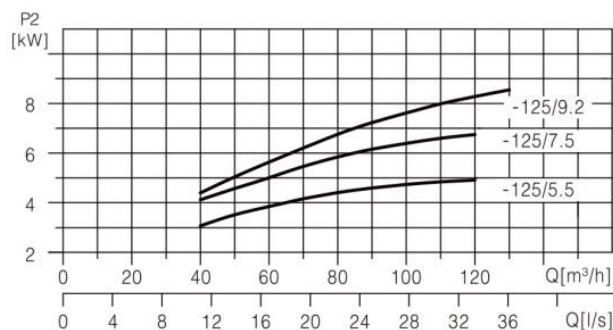
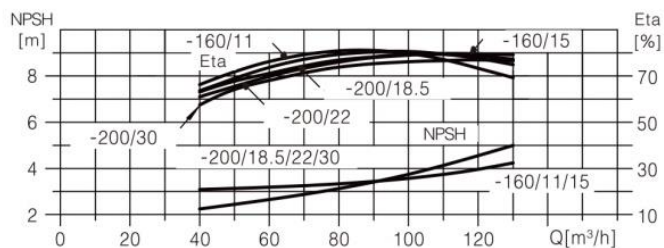
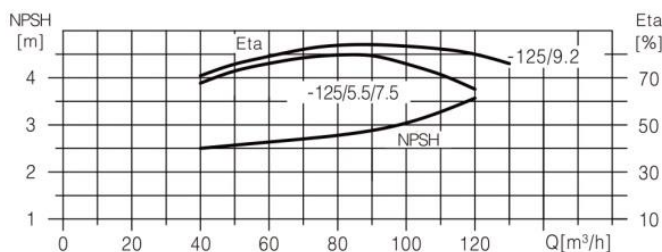
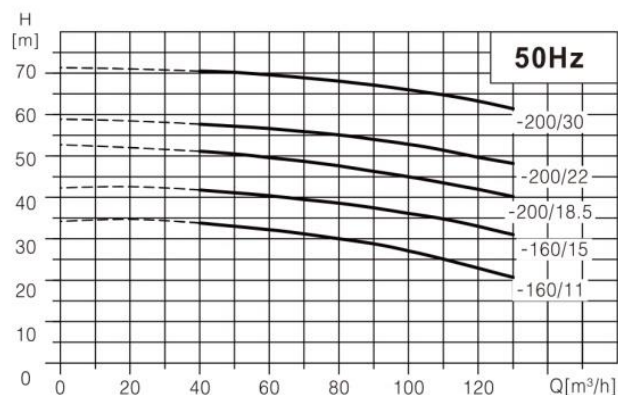
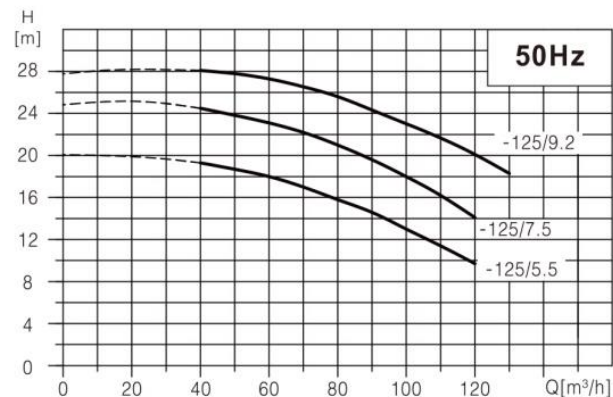


Technical Data

Model	Motor power		Q (m³/h)	5	10	20	30	40	50	60	70
	(kW)	(HP)									
NZS/NZM65-50-125/3.0	3	4	H (m)	18	17.8	17.2	16.4	15.1	13	10	
NZS/NZM65-50-125/4.0	4	5.5		24.2	24.2	23.6	22.6	20.7	18	14.8	
NZS/NZM65-50-160/5.5	5.5	7.5		31.6	31.5	31	30	28	25	21.5	
NZS/NZM65-50-200/7.5	7.5	10		36.3	36.6	36.4	35.6	34.1	32	29.6	
NZS/NZM65-50-200/9.2	9.2	12.5		43.5	43.5	43.5	43	42	40	37.5	
NZS/NZM65-50-200/11.0	11	15		51.5	51.5	51	50	49.3	48	45.6	
NZS/NZM65-50-200/15.0	15	20		59.7	59.7	59.6	59.5	59	58	56.2	53
NZS/NZM65-50-200/18.5	18.5	25		70.2	70.2	70.1	70	69.1	68	66.4	64

Performance curve

NZS/NZM 80-65-

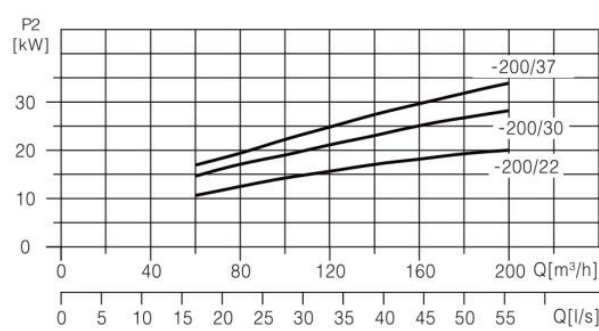
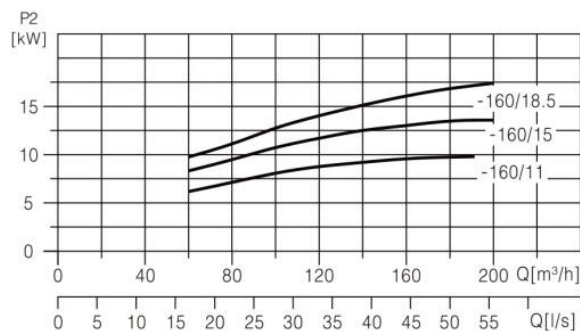
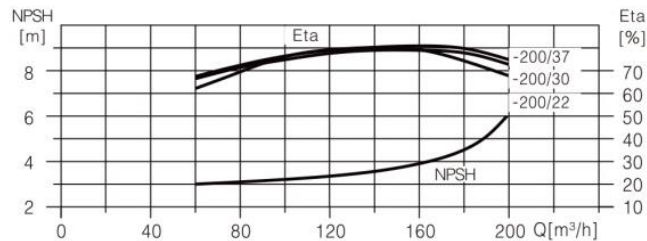
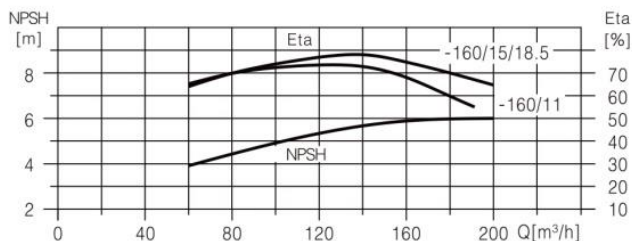
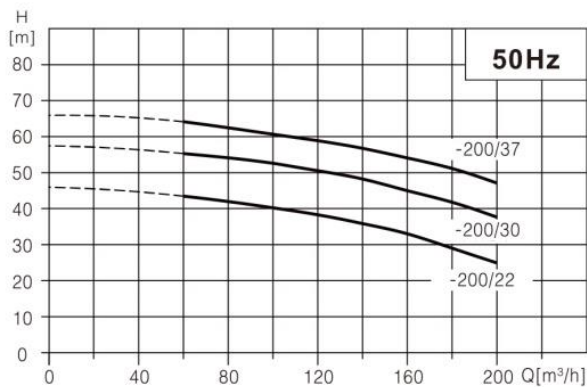
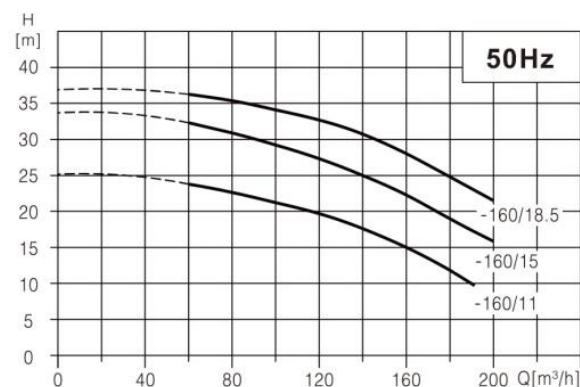


Technical Data

Model	Motor power		Q (m³/h)	40	50	60	70	80	90	100	110	120	130
	(kW)	(HP)											
NZS/NZM80-65-125/5.5	5.5	7.5	H (m)	19.3	18.7	18	17	15.5	14.8	13	11.4	9.7	
NZS/NZM80-65-125/7.5	7.5	10		24.5	23.8	23.1	22.2	21	19.6	18	16.2	14.1	
NZS/NZM80-65-125/9.2	9.2	12.5		28.1	27.8	27.3	26.6	25.7	24.3	23	21.5	20.1	18.3
NZS/NZM80-65-160/11.0	11	15		33.9	33	32.2	31.3	29.9	28.8	27	25.1	22.9	20.7
NZS/NZM80-65-160/15.0	15	20		41.8	41.1	40.4	39.5	38.6	37.6	36	34.8	33	31
NZS/NZM80-65-200/18.5	18.5	25		51	50.5	49.6	48.7	47.6	46.3	45	43.5	42.2	40.2
NZS/NZM80-65-200/22.0	22	30		57.7	57.2	56.8	55.9	55.1	54	53	51.6	49.7	48.2
NZS/NZM80-65-200/30.0	30	40		70.2	70.2	69.6	68.9	68.2	67.1	66	64.6	63.3	61.4

Performance curve

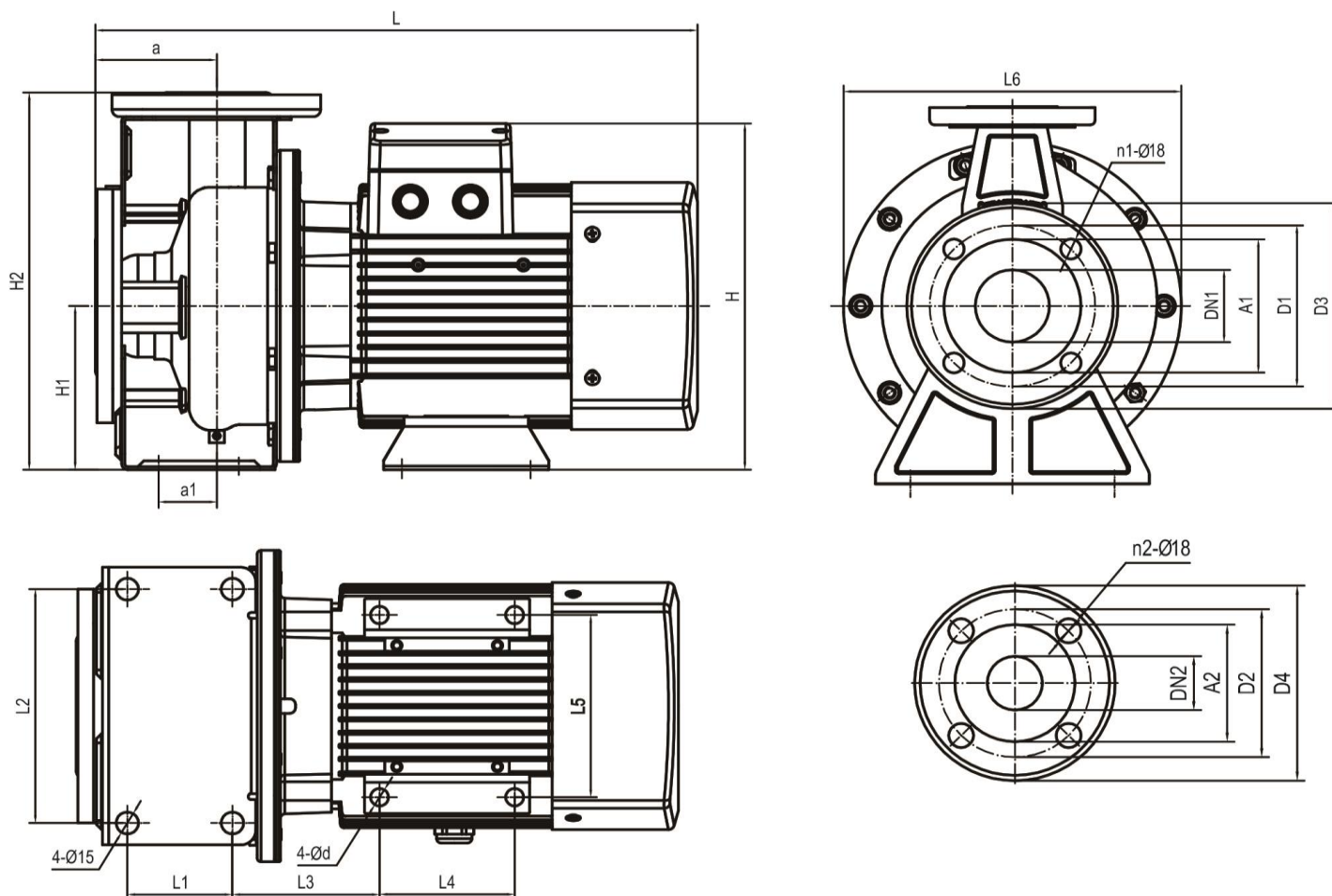
NZS/NZM 100-80-



Technical Data

Model	Motor power		Q (m³/h)	60	80	100	120	140	160	180	192	200
	(kW)	(HP)										
NZS/NZM100-80-160/11	11	15	H (m)	23.8	22.7	21.1	19.7	17.6	15	11.8	9.7	
NZS/NZM100-80-160/15.0	15	20		32.3	30.8	29.1	27.2	25.1	22	18.8		16.1
NZS/NZM100-80-160/18.5	18.5	25		36.2	35.2	33.8	32.7	31	28	24.8		21.5
NZS/NZM100-80-200/22.0	22	30		43.5	42	39.7	38.3	35.9	33	29		24.9
NZS/NZM100-80-200/30.0	30	40		55.4	54.1	52.6	50.5	48.2	45	41.9		37.6
NZS/NZM100-80-200/37.0	37	50		64.1	62.5	61	59	57.4	54	51.2		47.1

Installation sketch



Model	Dimension (mm)																								G.W (kgs)
	DN1	DN2	A1	A2	D1	D2	D3	D4	n1	n2	a	a1	d	H	H1	H2	L	L1	L2	L3	L4	L5	L6		
NZM50-32-160/1.1	50	32	98	75	125	100	160	139	4	4	80	/	12	250	112	256	377	/	/	84	90	125	210	22	
NZM50-32-160/1.5	50	32	98	75	125	100	160	139	4	4	80	/	12	267	112	256	401	/	/	100	90	125	210	26	
NZM50-32-160/2.2	50	32	98	75	125	100	160	139	4	4	80	/	12	267	112	256	401	/	/	106	100	158	210	28	
NZM50-32-200/3	50	32	98	75	125	100	160	139	4	4	84	/	12	330	160	346	464	/	/	120	100	158	300	38	
NZM50-32-200/4	50	32	98	75	125	100	160	139	4	4	84	/	12	353	160	346	464	/	/	115	100	158	300	42	
NZM50-32-200/5.5	50	32	98	75	125	100	160	139	4	4	84	35	15	373	160	346	504	70	212	110	140	195	300	55	
NZM65-40-125/1.5	65	40	118	84	145	110	185	145	4	4	80	/	12	267	112	254	401	/	/	102	90	125	210	23	
NZM65-40-125/2.2	65	40	118	84	145	110	185	145	4	4	80	/	12	267	112	254	401	/	/	108	100	158	210	25	
NZM65-40-125/3	65	40	118	84	145	110	185	145	4	4	80	/	12	282	112	254	464	/	/	129	100	158	250	26	
NZM65-40-160/4	65	40	118	84	145	110	185	145	4	4	80	/	12	305	112	254	464	/	/	118	100	158	250	29	

Model	Dimension (mm)																										Weight
	DN1	DN2	A1	A2	D1	D2	D3	D4	n1	n2	a	a1	d	H	H1	H2	L	L1	L2	L3	L4	L5	L6	(kg)			
NZM65-40-200/5.5	65	40	118	84	145	110	185	145	4	4	100	35	15	373	160	340	529	70	212	122	140	195	300	43			
NZM65-40-200/7.5	65	40	118	84	145	110	185	145	4	4	100	35	15	373	160	340	529	70	212	123	140	195	300	45			
NZM65-40-200/11	65	40	118	84	145	110	185	145	4	4	100	35	15	416	160	340	618	70	212	122	210	254	350	100			
NZM65-50-125/3	65	50	118	98	145	125	185	160	4	4	86	/	12	302	132	298	481	/	/	126	100	158	250	35			
NZM65-50-125/4	65	50	118	98	145	125	185	160	4	4	86	/	12	325	132	298	481	/	/	130	100	158	250	39			
NZM65-50-160/5.5	65	50	118	98	145	125	185	160	4	4	100	35	15	373	160	340	529	70	212	124	140	195	300	55			
NZM65-50-200/7.5	65	50	118	98	145	125	185	160	4	4	100	35	15	373	160	340	529	70	212	124	140	195	300	58			
NZM65-50-200/9.2	65	50	118	98	145	125	185	160	4	4	100	35	15	373	160	340	567	70	212	144	140	195	300	65			
NZM65-50-200/11	65	50	118	98	145	125	185	160	4	4	100	35	15	416	160	340	618	70	212	122	210	254	350	99			
NZM65-50-200/15	65	50	118	98	145	125	185	160	4	4	100	35	15	416	160	340	618	70	212	122	210	254	350	113			
NZM65-50-200/18.5	65	50	118	98	145	125	185	160	4	4	100	35	15	416	160	340	662	70	212	122	254	254	350	126			
NZM80-65-125/5.5	80	65	130	118	160	145	200	185	8	4	100	48	15	373	160	340	541	95	212	103	140	195	300	61			
NZM80-65-125/7.5	80	65	130	118	160	145	200	185	8	4	100	48	15	373	160	340	541	95	212	103	140	195	300	63			
NZM80-65-125/9.2	80	65	130	118	160	145	200	185	8	4	100	48	15	373	160	340	579	95	212	122	140	195	300	69			
NZM80-65-160/11	80	65	130	118	160	145	200	185	8	4	100	48	15	416	160	360	625	95	212	100	210	254	350	101			
NZM80-65-160/15	80	65	130	118	160	145	200	185	8	4	100	48	15	416	160	360	625	95	212	100	210	254	350	113			
NZM80-65-200/18.5	80	65	130	118	160	145	200	185	8	4	100	48	15	436	180	405	669	95	250	91	254	254	350	129			
NZM80-65-200/22	80	65	130	118	160	145	200	185	8	4	100	48	15	460	180	405	669	95	250	102	254	254	350	139			
NZM80-65-200/30	80	65	130	118	160	145	200	185	8	4	100	48	15	495	180	405	827	95	250	141	305	318	350	255			
NZM100-80-160/11	100	80	150	130	180	160	220	200	8	8	125	48	15	436	180	405	675	95	250	103	210	254	350	100			
NZM100-80-160/15	100	80	150	130	180	160	220	200	8	8	125	48	15	436	180	405	675	95	250	103	210	254	350	113			
NZM100-80-160/18.5	100	80	150	130	180	160	220	200	8	8	125	48	15	436	180	405	719	95	250	103	254	254	350	129			
NZM100-80-200/22	100	80	150	130	180	160	220	200	8	8	125	55	15	460	180	430	719	95	280	100	254	254	350	140			
NZM100-80-200/30	100	80	150	130	180	160	220	200	8	8	125	55	15	495	180	430	860	95	280	158	305	318	350	258			
NZM100-80-200/37	100	80	150	130	180	160	220	200	8	8	125	55	15	495	180	430	860	95	280	158	305	318	350	293			