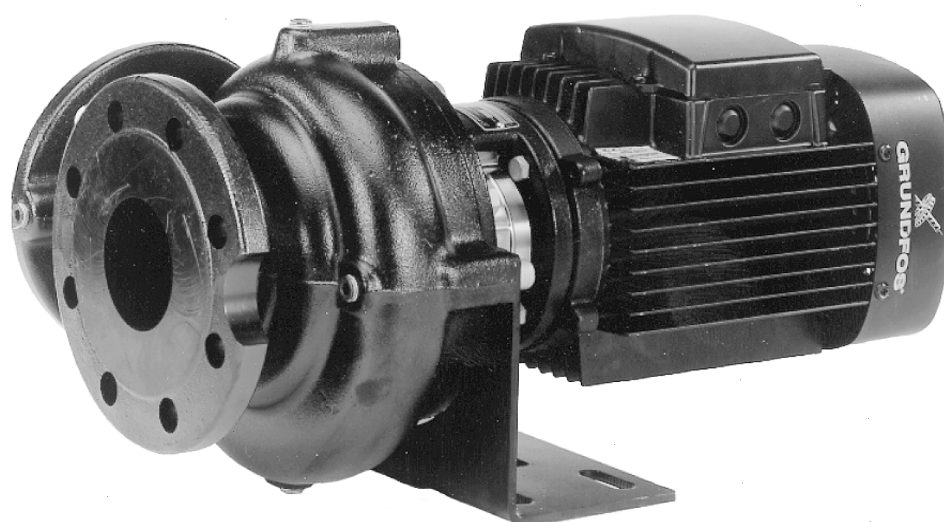


DNM, DNP

Single-Stage End-Suction Pumps

A wide range of compact and directly coupled end-suction pumps designed for circulation of cold and hot liquids in open and closed systems.



TM00 0049 4993

Contents

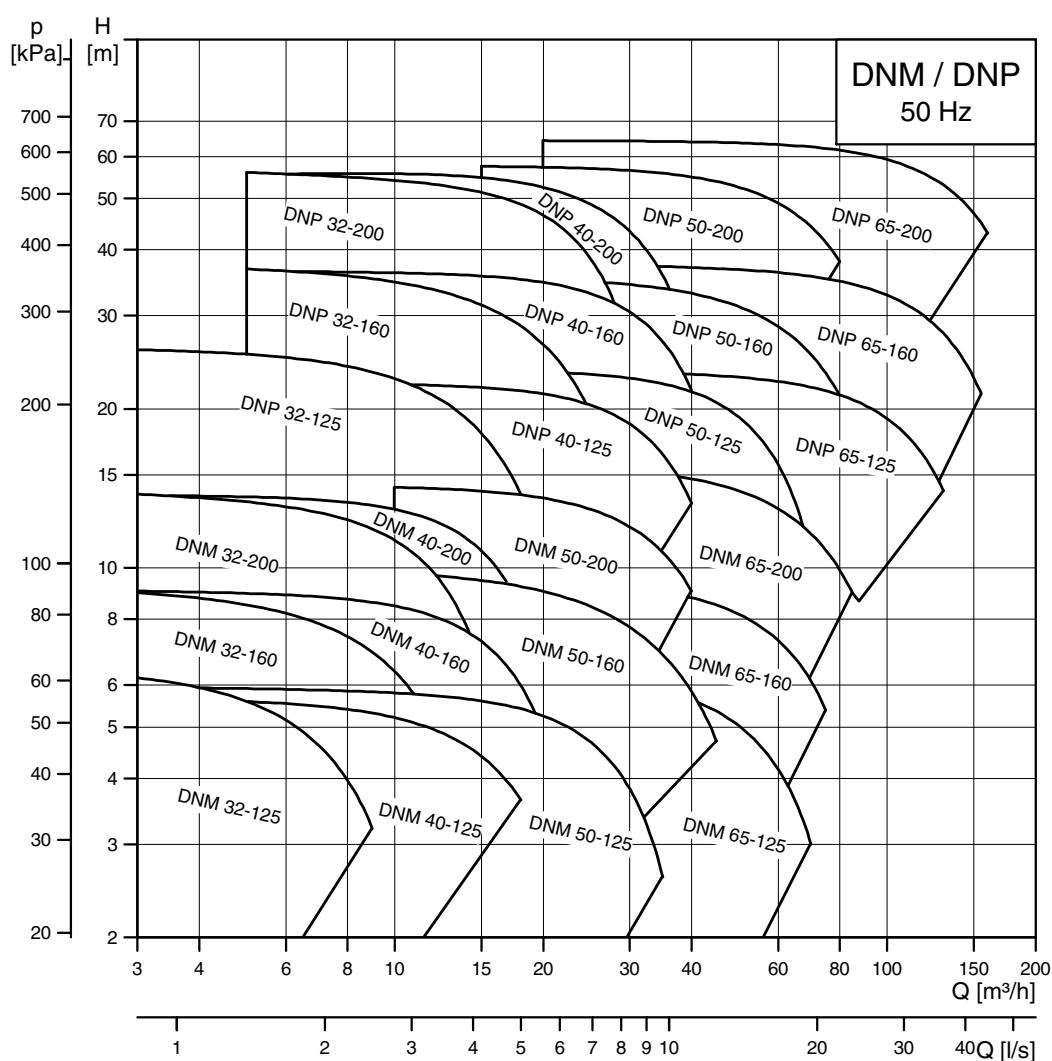
General data

Performance range	Page	3
Applications	Page	4
Operating conditions	Page	4
Program	Page	4
Calculation of min. inlet pressure	Page	4
Materials	Page	5
Construction	Page	6
Motor	Page	6
Service	Page	6
Installation	Page	6
Type key	Page	6
Performance curves	Page	7

Technical data

DNM 32	Page	8
DNP 32	Page	11
DNM 40	Page	14
DNP 40	Page	17
DNM 50	Page	20
DNP 50	Page	23
DNM 65	Page	26
DNP 65	Page	29

Performance range



TM02 4314 0502

Applications

The DNM, DNP range of end-suction pumps are designed for a wide range of applications, including water supply, boosting, circulation of water in heating and air-conditioning systems, and liquid transfer applications in industry, etc.

Operating conditions

Pumped liquids

- Clean, thin, non-aggressive, non-explosive liquids not containing solid particles, fibres or mineral oil.
- Tap water
- Coolants without mineral oils.

When pumping liquids with kinematic viscosities bigger than 3 mm²/s, a new motor size should be calculated. When pumping liquids with densities bigger than that of water, use a motor with a correspondingly bigger output.

Program

The DNM, DNP product range consists of 49 variants based on 24 pump types with a capacity of 2-160 m³/h and a head to 64 m.

- Liquid temperature: -15°C to + 140°C
- Max. operating pressure: 16 bar
- Max. permissible operating pressure = actual inlet pressure + pressure against a closed valve (Q=0)
- Pump flange sizes according to EN 1092-2, PN 16.

Calculation of min. inlet pressure

The minimum inlet pressure "H" in mWC, which is required in order to avoid cavitation in the pump, can be calculated in the following way:

$$H = p_b \times 10.2 - \text{NPSH} - H_f - H_v - H_s$$

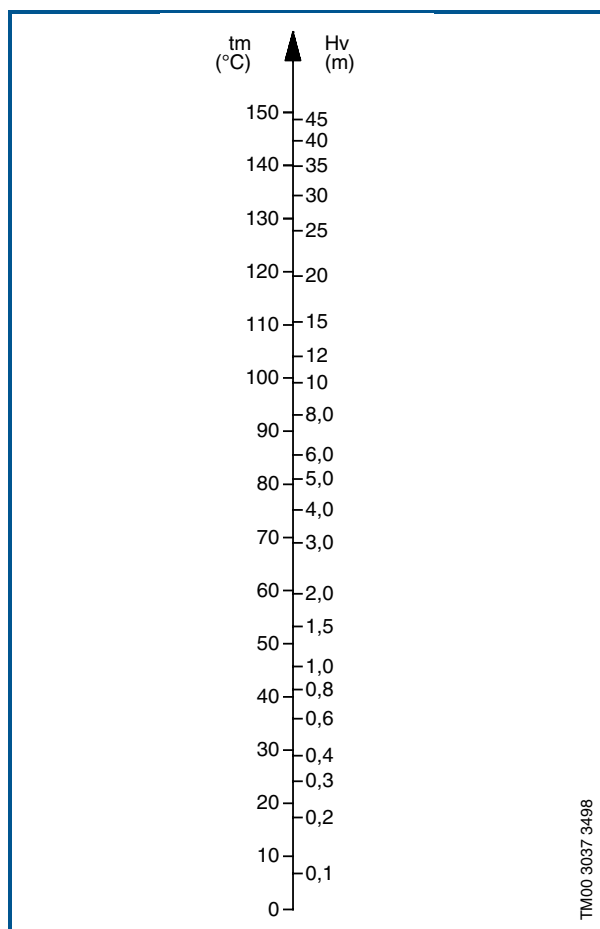
p_b = Barometric pressure in bar.
(Barometric pressure can be set to 1 bar).
In closed systems, p_b indicates the system pressure in bar.

NPSH = Net Positive Suction Head in metres head
(to be read from the NPSH curve at the highest flow the pump will be delivering).

H_f = Friction loss in suction pipe in metres head
(at the highest flow the pump will be delivering.)

H_v = Vapour pressure in metres head.

H_s = Safety margin = minimum 0.5 metres head.

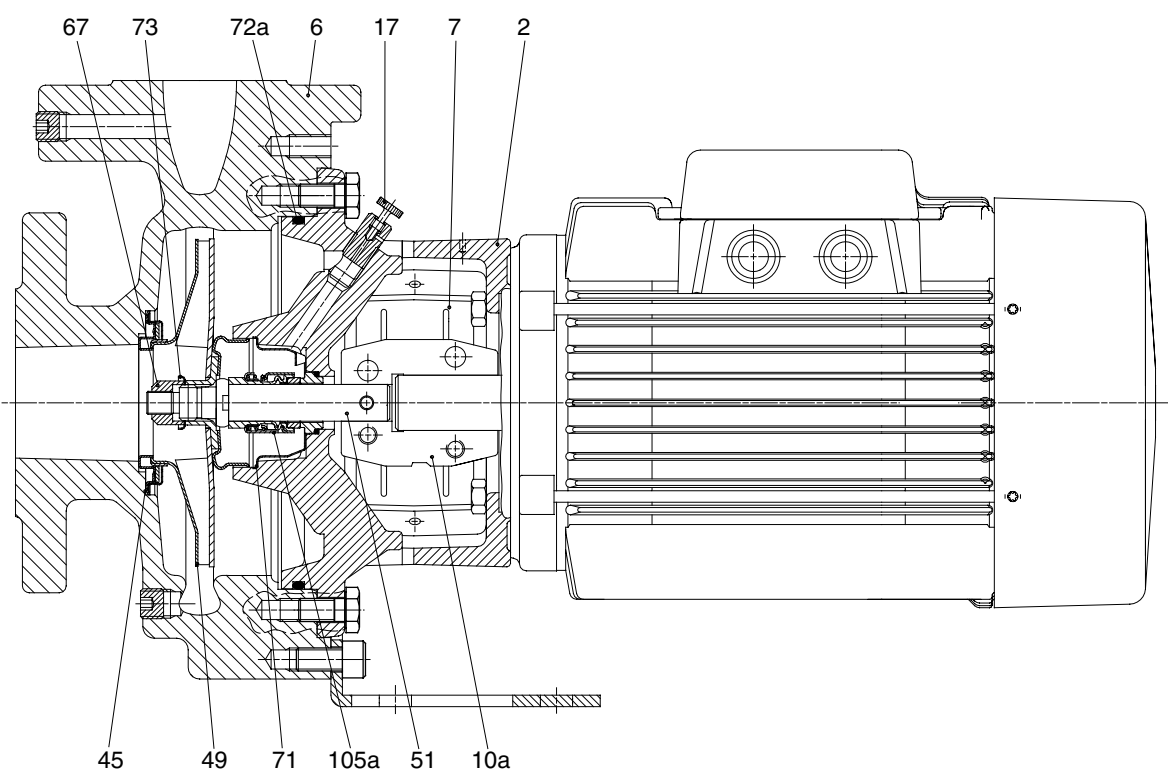


TM00 3037 3498

Materials

Position nos. refer to sectional drawing

Pos.	Pump Components	Materials	DIN W.-Nr.
2	Pump Components	Cast iron	0.6025
6	Pump housing	Cast iron	0.6025
7	Coupling guard	Stainless steel	1.4301
10a	Coupling	Cast iron or sintering metal	0.7040
17	Air vent screw	Brass	2.0401.30
45	Neck ring	Stainless steel	1.4301
49	Impeller	Stainless steel	1.4301
51	Shaft	Stainless steel	1.4462
67	Nut for shaft	Stainless steel	1.4301
71	Distributing cup	Stainless steel	1.4301
72a	O-ring	EPDM	
73	Lock plate	Stainless steel	1.4301
	Spacer ring (only DNP 100-65-200)	Stainless steel	1.4301
105a	Mechanical Shaft Seal		
	Seal ring, rotating		
	Seal ring, stationary		
	Secondary seal	EPDM	
	Spring	Stainless steel	1.4301
	Other components	Stainless steel	1.4301



TM00 8316 1096

Construction

The DNM, DNP pumps are single-stage centrifugal pumps with axial suction port and radial discharge port.

Nominal duty points and main dimensions are in accordance with DIN 24255.

The pump is directly coupled with a totally enclosed fan-cooled standard motor with main dimensions to IEC and DIN standards.

The mechanical shaft seal has dimensions according to DIN 24960.

The back pull-out design enables removal and dismantling of the motor and impeller without disturbance of the pump housing or pipework. Consequently even the largest pumps can be serviced by a single person.

Impeller

The stainless steel impeller has double-curved blades with smooth surfaces. This ensures high efficiency.

Motor

The Grundfos MG and MMG standard motors are totally enclosed fan-cooled squirrel-cage motors which dimensionally comply with IEC and DIN.

Mounting designation: IM 3611 (IM V18) and IM 3601 (IM B14)

Enclosure Class: IP 55.

Insulation Class: F according to IEC 85.

Maximum Ambient

Temperature: +40°C

Standard voltages:

- up to 1.5 kW: 230/400 V

- from 2.2 kW: 380-415 VΔ

Motor Protection

The motor must be connected to an effective motor starter in accordance with local regulations. The ampere scale of the overload unit of the motor starter should cover a range of which the maximum value is at least 1.1 times the motor full load current.

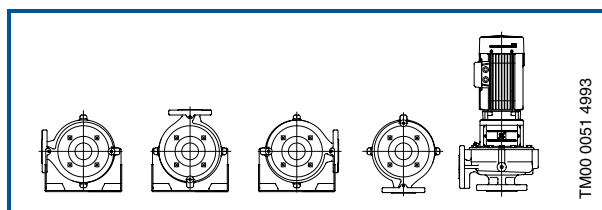
Three-phase motors, type MG and MMG up to and including 3 kW are supplied with built-in thermal switch, TP111.

Service

The pump are very simple to service. The pump head (motor, motor stool and impeller) can be removed without disturbing the connections to the pump housing (back-pull-out design).

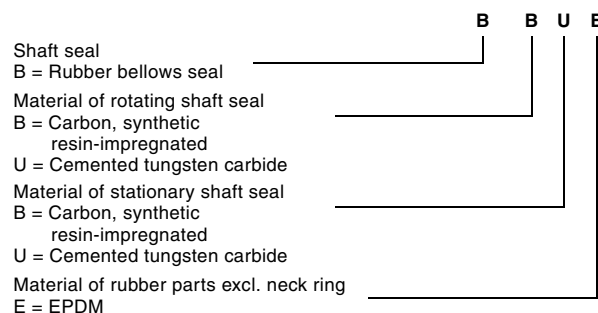
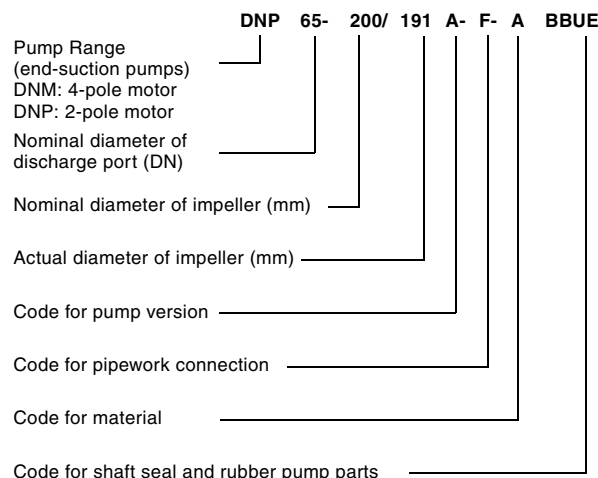
Installation

The pump should never be installed with the motor pointing downwards. If the pump has been installed with the terminal box pointing downwards, turn the motor to the required position. Pumps fitted with motors up to and including 7.5 kW are supplied with brackets. Pumps fitted with motors larger than 7.5 kW are supplied with feet/rails. Dimensions of bracket/foot/rails appear from the sketches. The bracket/foot can be fitted to the pump housing in any one of the positions shown. Pumps with motors up to and including 11 kW may be mounted direct in the pipe provided the pipe is adequately supported.



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Type key

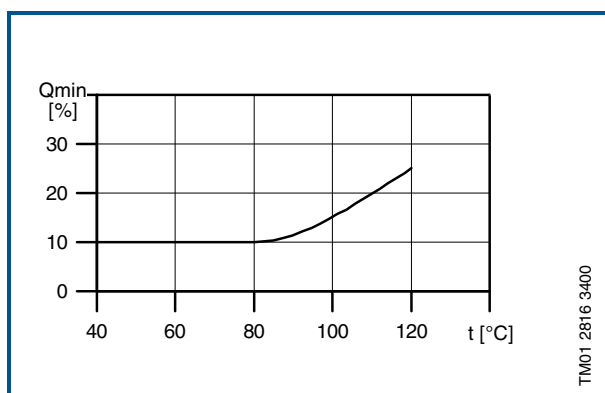


Performance curves

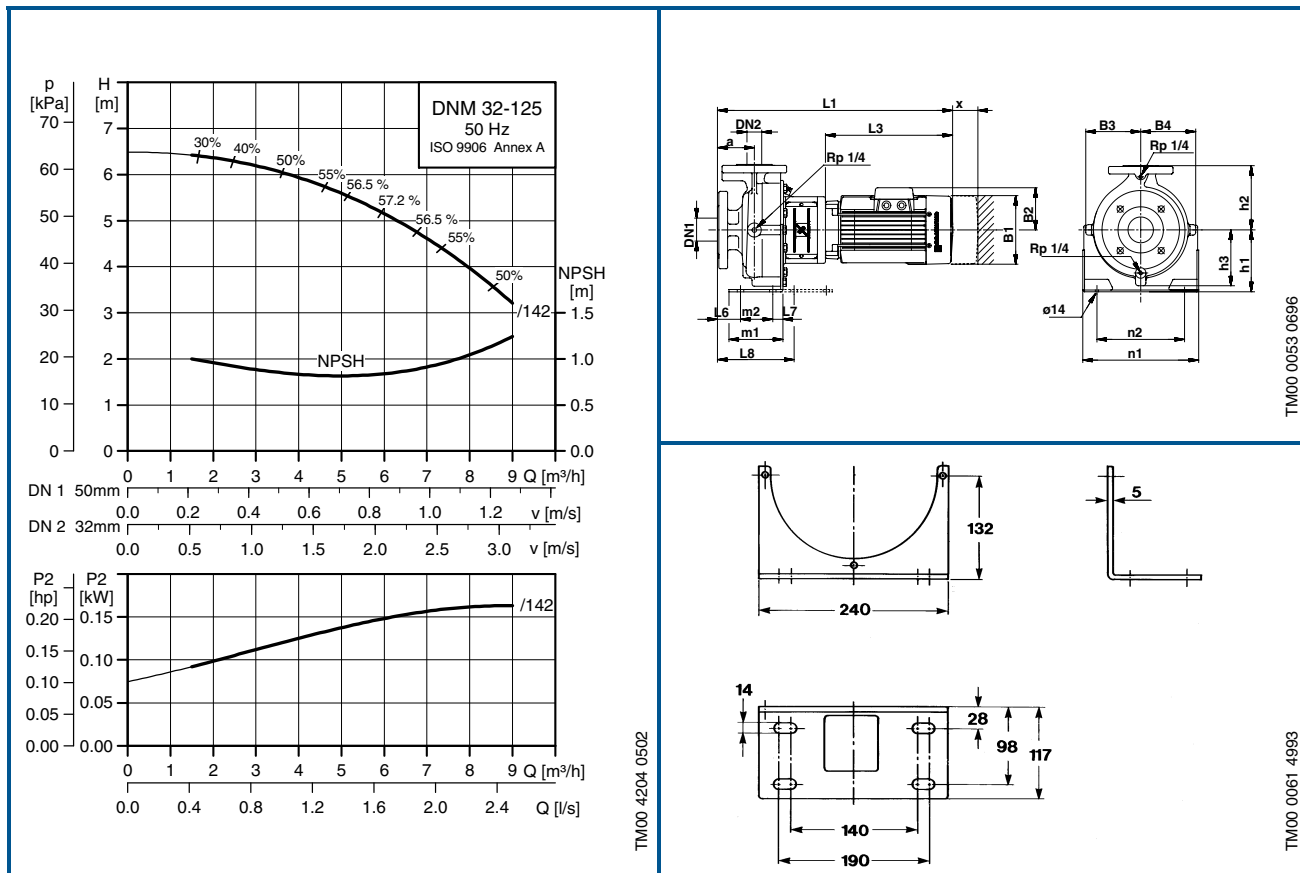
The guidelines below apply to the curves shown on the following pages:

1. Tolerances to ISO 9906, Annex A.
2. The motors used for the measurements are standard Grundfos motors.
3. Measurements have been made with airless water at a temperature of 20°C.
4. The curves apply to a kinematic viscosity of $\nu = 1 \text{ mm}^2/\text{s}$ (1 cSt).
5. Due to the risk of overheating, the pumps should **not** be used at a flow below the minimum flow rate.

The curve below shows the minimum flow rate as a percentage of the nominal flow rate in relation to the liquid temperature.



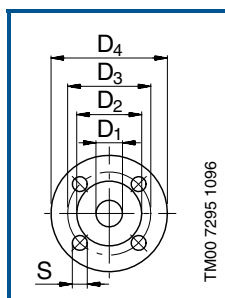
DNM 32-125



Dimensions and weights

Pump type	Dimensions in [mm]																	Weight Net [kg]
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	
DNM 32-125/142	50	32	80	132	140	120	117	70	240	140	40	142	109	120	120	385	190	30

Flange Dimensions



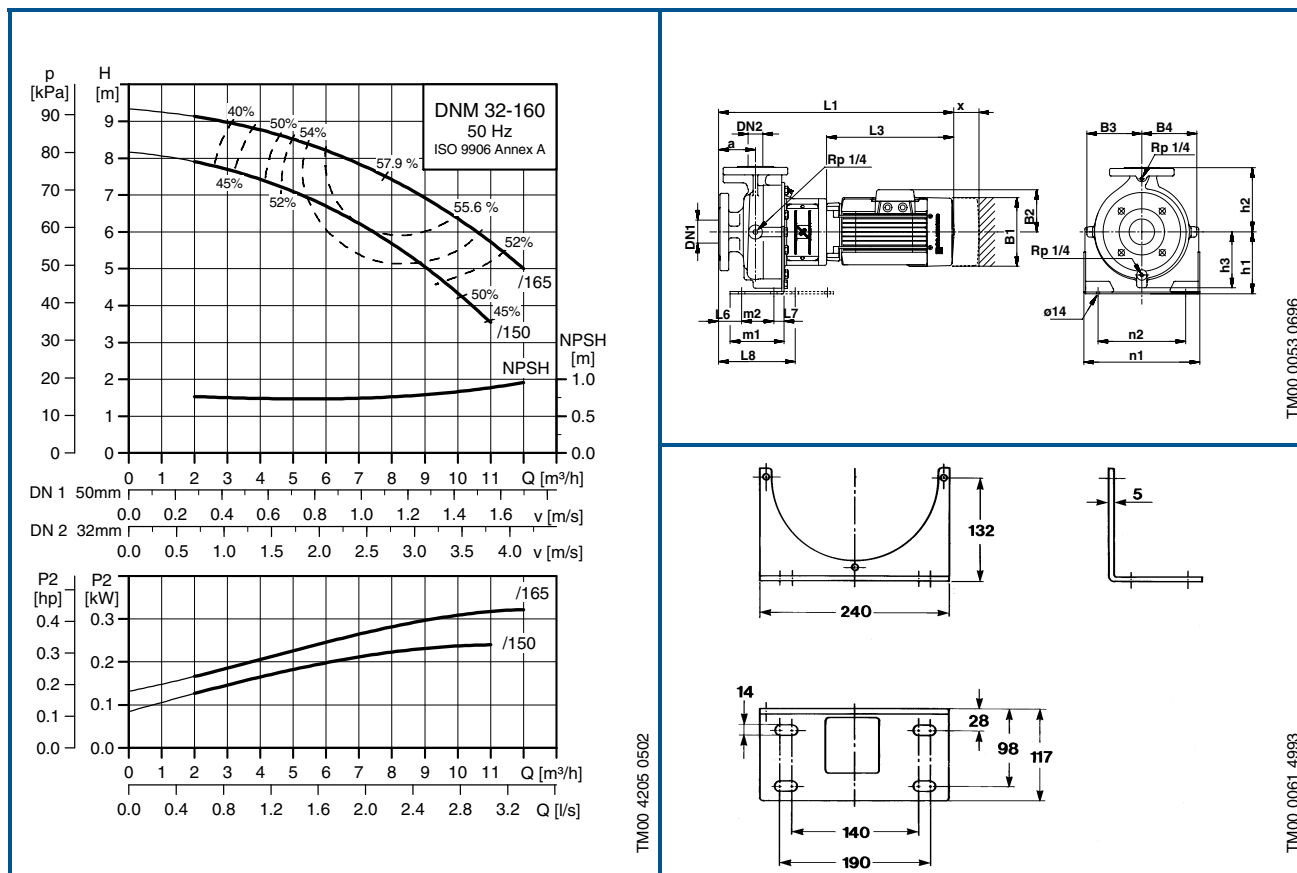
DN	D ₁	D ₂	D ₃	D ₄	s
32	32	78	100	140	4x18
40	40	88	110	150	4x18
50	50	102	125	165	4x18
65	65	122	145	185	4x18
80	80	138	160	200	8x18
100	100	158	180	220	8x18

Electrical data

3 x 220 - 240/380 - 415 V, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNM 32-125/142	0.25	1390-1410	1.58/0.92	62	0.73-0.64	3.1-3.3

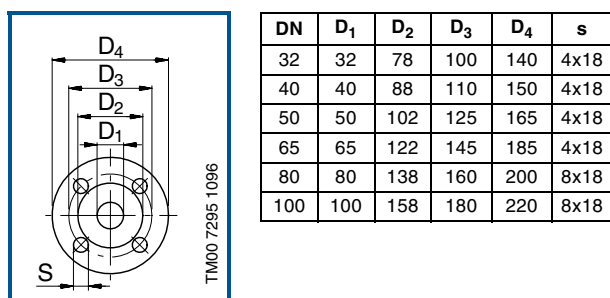
DNM 32-160



Dimensions and weights

Pump type	Dimensions in [mm]																					Weight Net [kg]
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7	L8		
DNM 32-160/150	50	32	80	132	160	131	113	70	273	190	40	142	109	131	131	402	190	45	28	166	34	
DNM 32-160/165	50	32	80	132	160	131	113	70	273	190	40	142	109	131	131	412	190	45	28	166	37	

Flange Dimensions

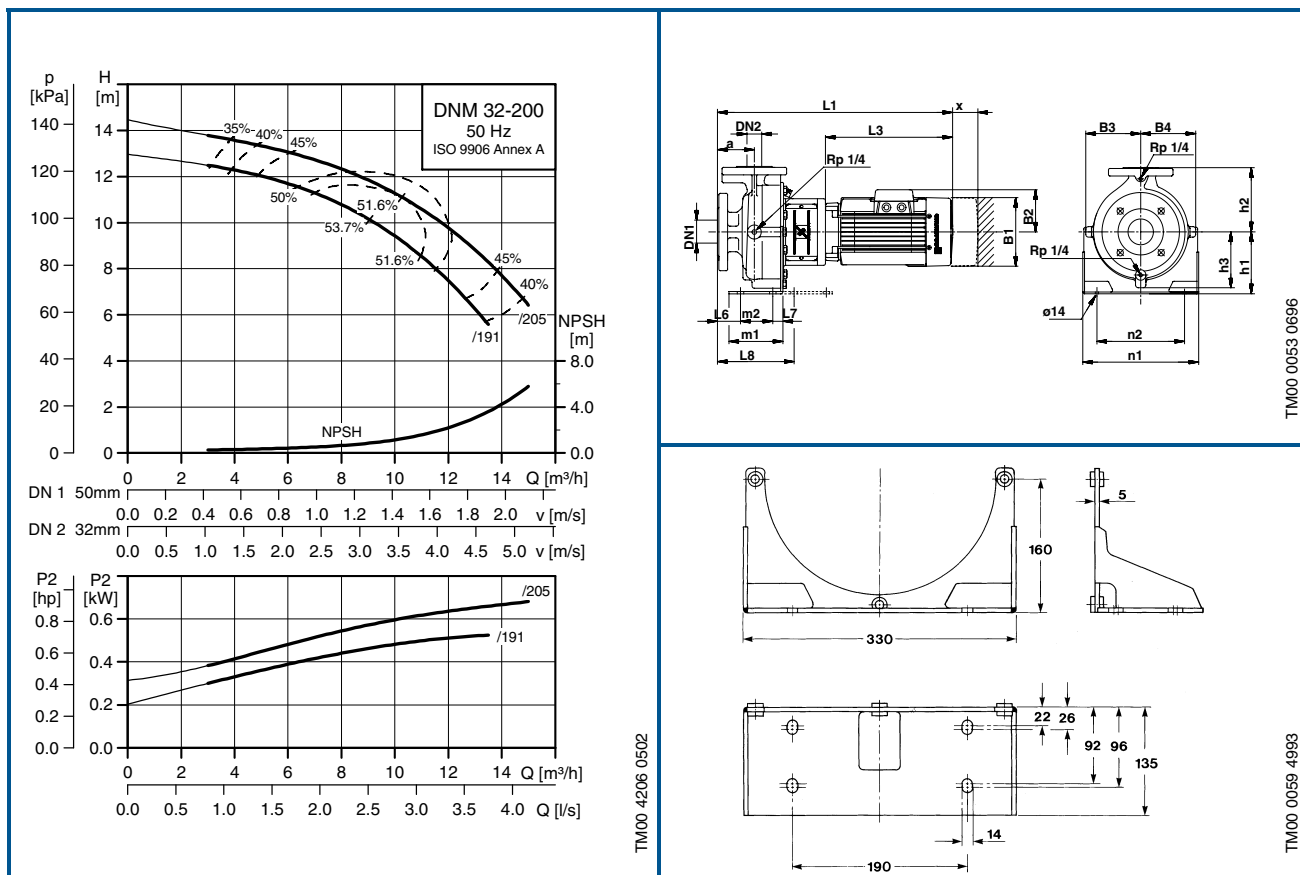


Electrical data

3 x 220 - 240/380 - 415 V, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNM 32-160/150	0.25	1390-1410	1.58/0.92	62	0.73-0.64	3.1-3.3
DNM 32-160/165	0.37	1390-1410	2.04/1.18	67	0.77-0.68	3.2-3.4

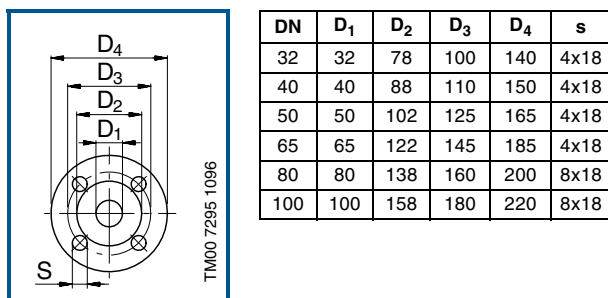
DNM 32-200



Dimensions and weights

Pump type	Dimensions in [mm]																				Weight Net [kg]
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7	L8	
DNM 32-200/191	50	32	80	160	180	159	135	70	330	190	50	142	109	159	159	432	230	45	26	162	44
DNM 32-200/205	50	32	80	160	180	159	135	70	330	190	50	142	109	159	159	432	230	45	26	162	46

Flange Dimensions

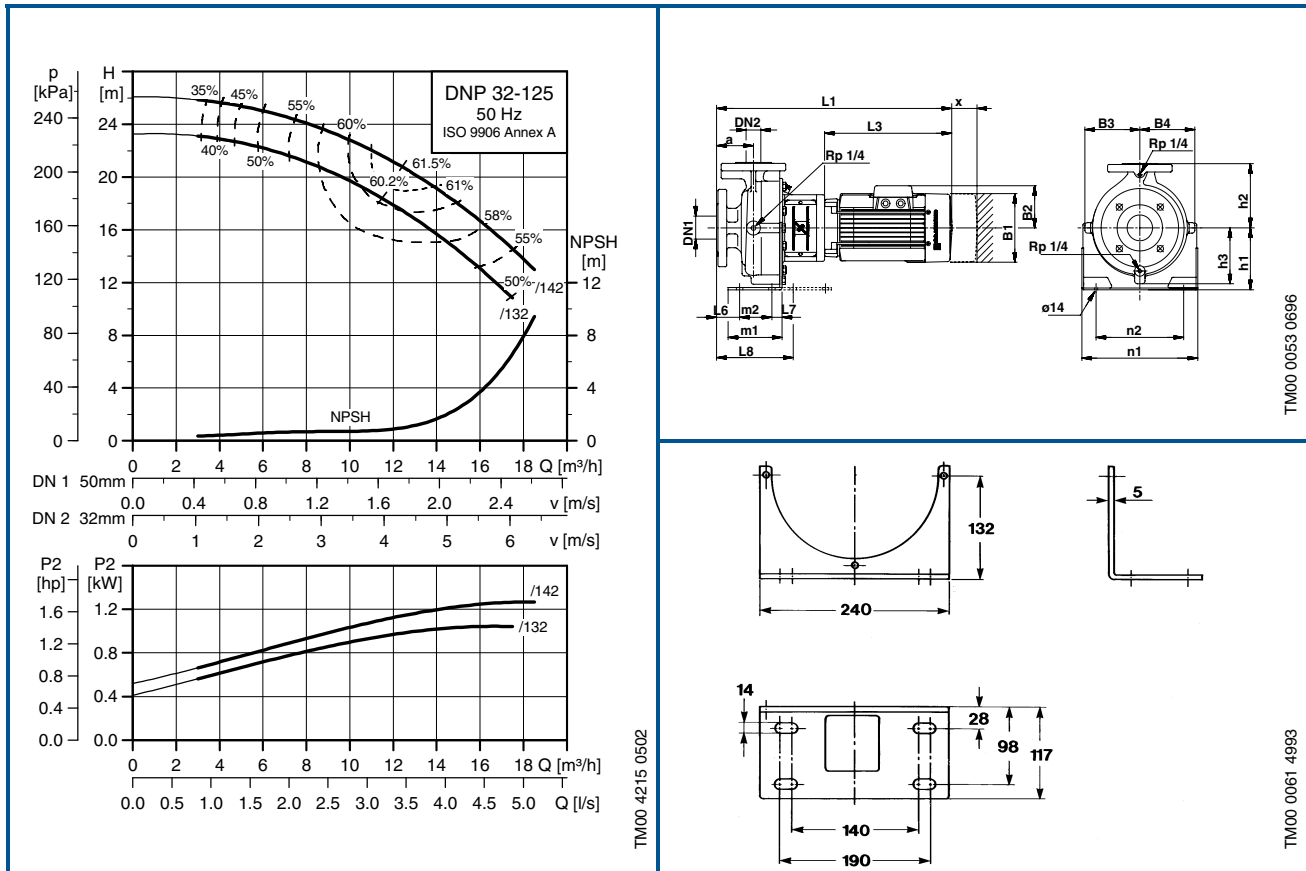


Electrical data

3 x 220 - 240/380 - 415 V, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNM 32-200/191	0.55	1390-1410	2.85/1.66	70	0.78-0.69	3.4-3.7
DNM 32-200/205	0.75	1390-1410	3.85/2.22	72	0.77-0.68	3.8-4.0

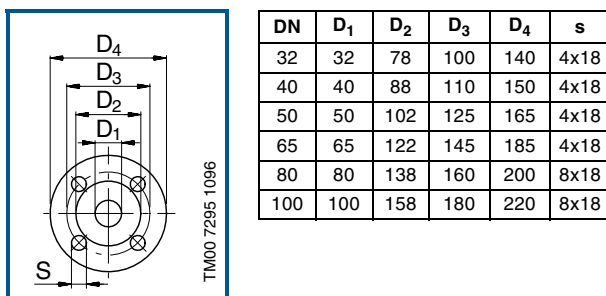
DNP 32-125



Dimensions and Weight

Pump type	Dimensions in [mm]																				Weight Net [kg]
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7	L8	
DNP 32-125/132	50	32	80	132	140	120	117	70	240	140	50	142	109	120	120	435	230	45	28	166	33
DNP 32-125/142	50	32	80	132	140	120	117	70	240	140	60	178	110	120	120	496	281	45	28	166	39

Flange Dimensions

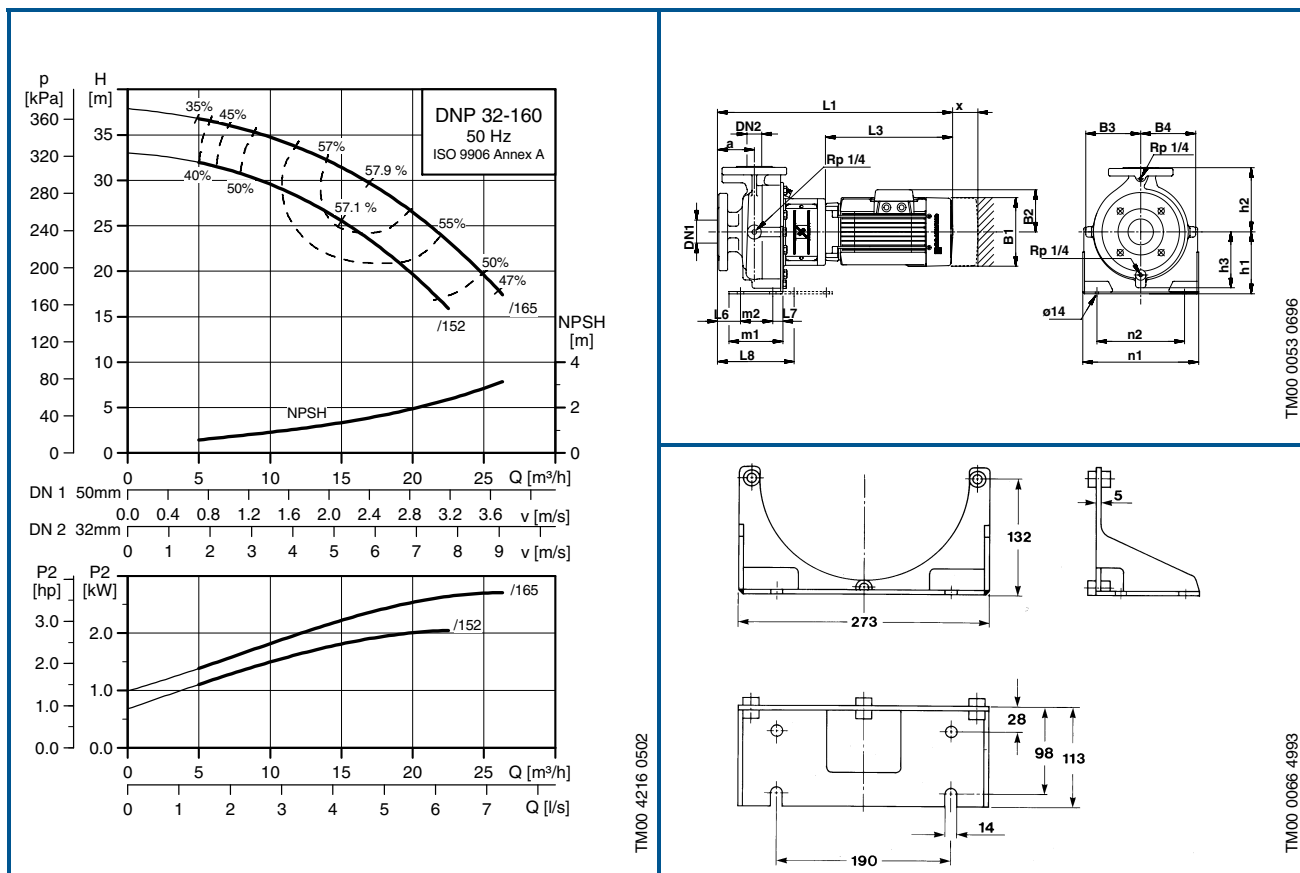


Electrical data

3 x 220 - 240/380 - 415 V, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	Cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNP 32-125/132	1.10	2800-2840	4.60/2.65	76	0.87-0.79	5.2-5.7
DNP 32-125/142	1.50	2860-2890	5.90/3.40	82	0.85-0.79	6.3-6.9

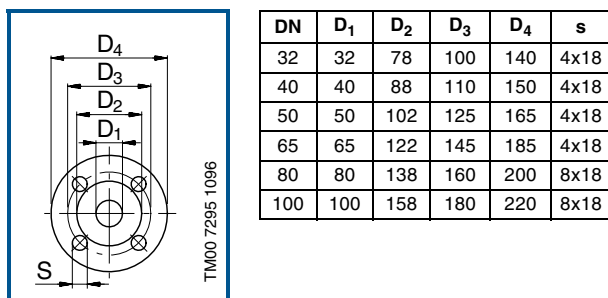
DNP 32-160



Dimensions and Weight

Pump type	Dimensions in [mm]																				Weight Net [kg]
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7	L8	
DNP 32-160/152	50	32	80	132	160	131	113	70	273	190	70	178	110	131	131	493	281	45	28	166	60
DNP 32-160/165	50	32	80	132	160	131	113	70	273	190	70	178	110	131	131	557	335	45	28	166	67

Flange Dimensions

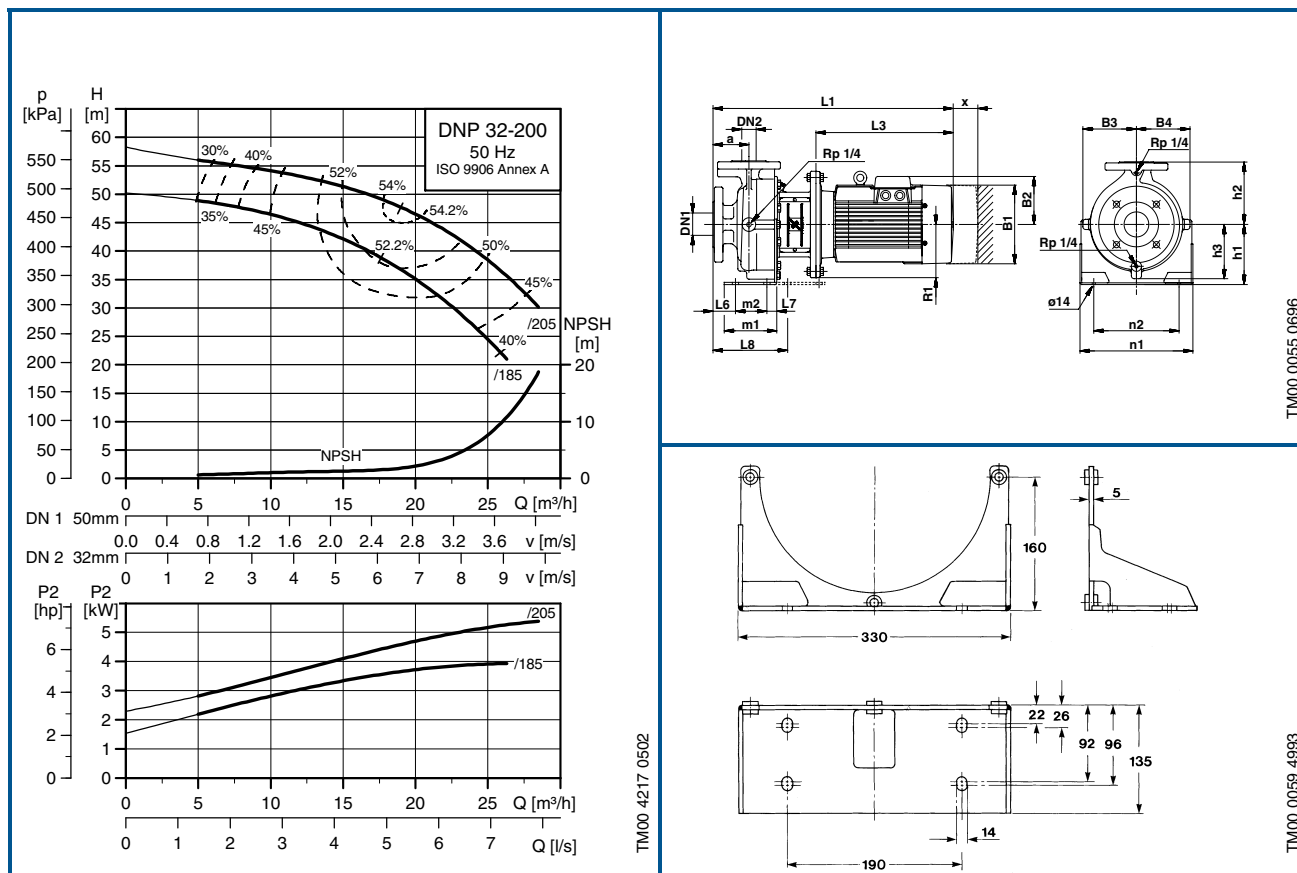


Electrical data

3 x 380 - 415 V Δ, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNP 32-160/152	2.20	2860-2890	4.75	84	0.87-0.82	7.0-7.6
DNP 32-160/165	3.00	2880-2910	6.25	86	0.88-0.82	7.8-8.5

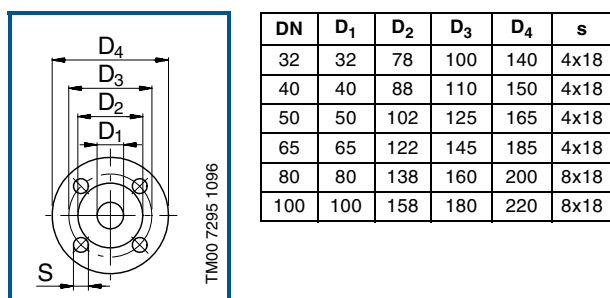
DNP 32-200



Dimensions and Weight

Pump type	Dimensions in [mm]																				Weight Net [kg]	
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7	L8		R1
DNP 32-200/185	50	32	80	160	180	159	135	70	330	190	70	220	134	159	159	594	372	45	26	162		71
DNP 32-200/205	50	32	80	160	180	159	135	70	330	190	90	220	134	159	159	662	391	45	26	162	149	79

Flange Dimensions

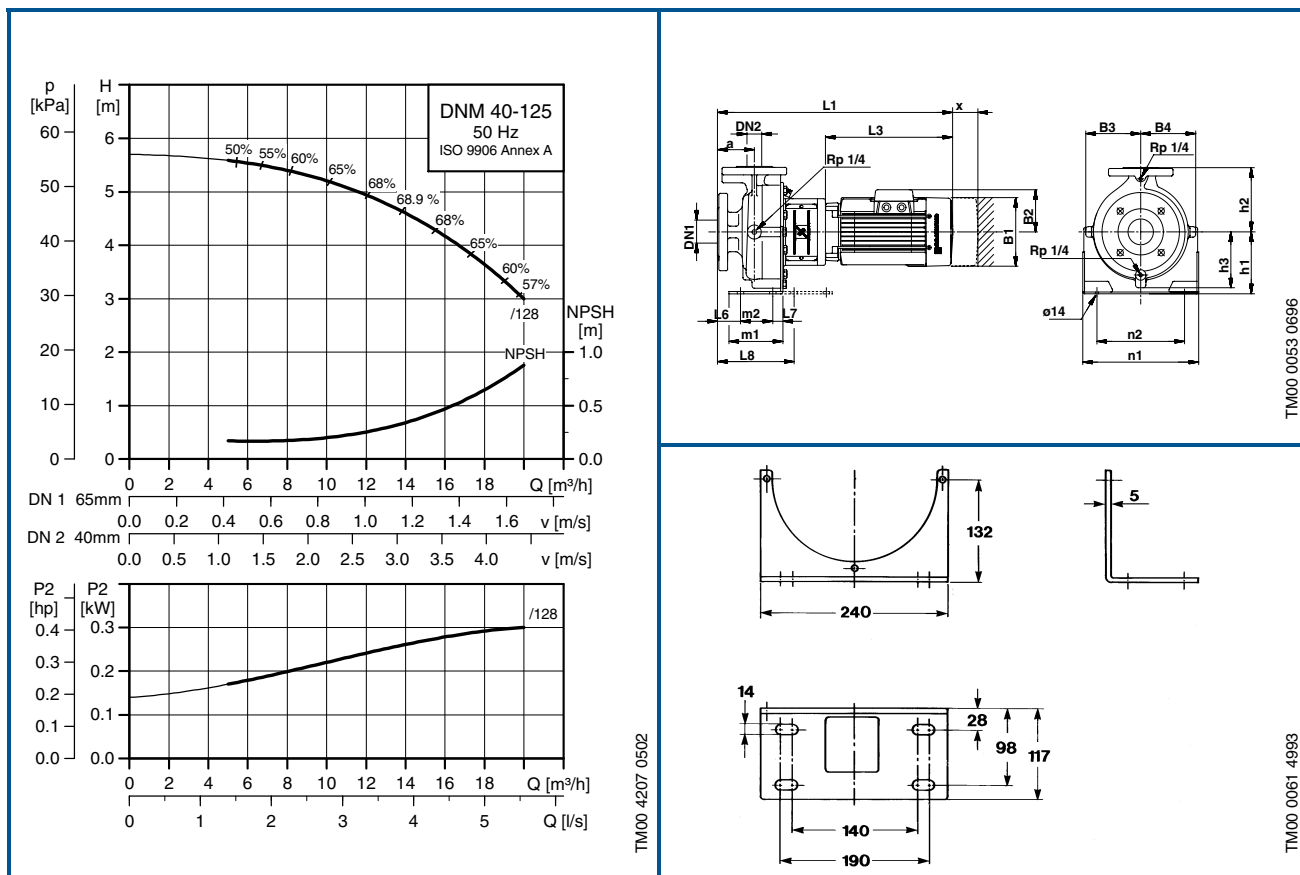


Electrical data

3 x 380 - 415 V Δ, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	Cos φ _{1/1}	I _{st} / I _{1/1}
DNP 32-200/185	4.00	2900-2910	8.00	87	0.90-0.87	8.7-9.5
DNP 32-200/205	5.50	2890-2910	11.0	88.5	0.89-0.86	8.9-9.7

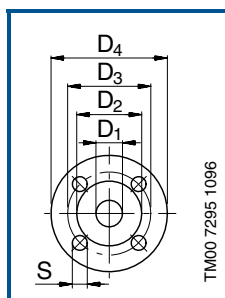
DNM 40-125



Dimensions and weights

Pump type	Dimensions in [mm]																	Weight Net [kg]
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	
DNM 40-125/128	65	40	80	132	140	120	117	70	240	160	90	142	109	125	125	385	190	28

Flange Dimensions



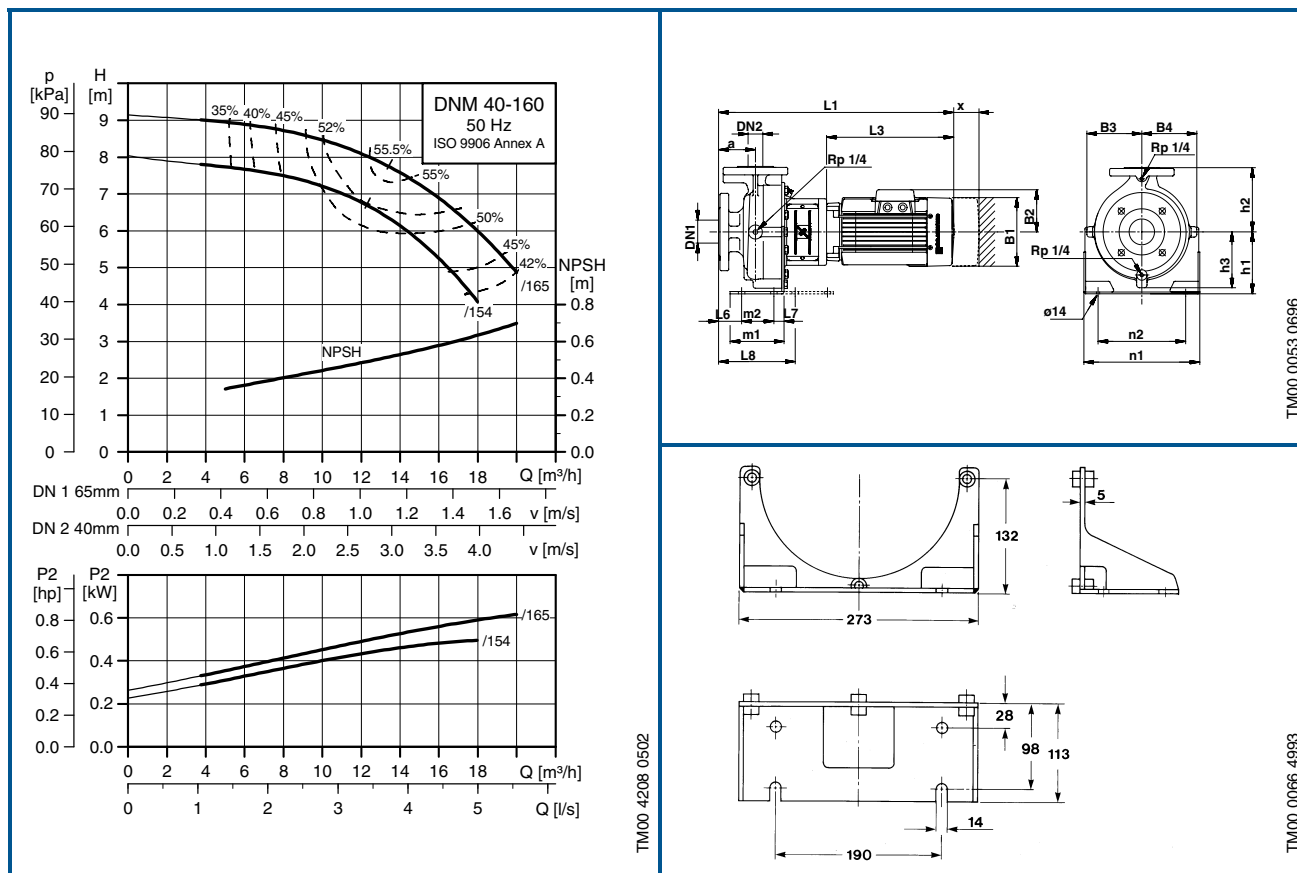
DN	D ₁	D ₂	D ₃	D ₄	s
32	32	78	100	140	4x18
40	40	88	110	150	4x18
50	50	102	125	165	4x18
65	65	122	145	185	4x18
80	80	138	160	200	8x18
100	100	158	180	220	8x18

Electrical data

3 x 220 - 240/380 - 415 V, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	cos φ _{1/1}	I _{st} / I _{1/1}
DNM 40-125/128	0.37	1390-1410	2.04/1.18	67	0.77-0.68	3.2-3.4

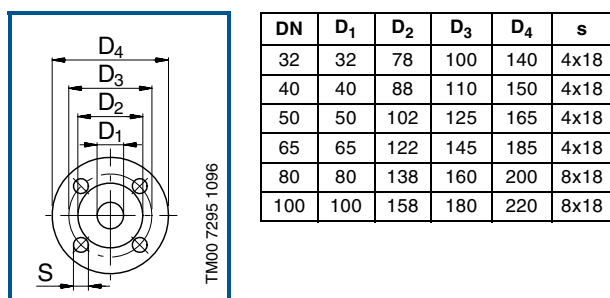
DNM 40-160



Dimensions and weights

Pump type	Dimensions in [mm]																				Weight Net [kg]
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7	L8	
DNM 40-160/154	65	40	80	132	160	131	113	70	273	190	50	142	109	140	133	430	230	45	28	166	36
DNM 40-160/165	65	40	80	132	160	131	113	70	273	190	50	142	109	140	133	430	230	45	28	166	38

Flange Dimensions

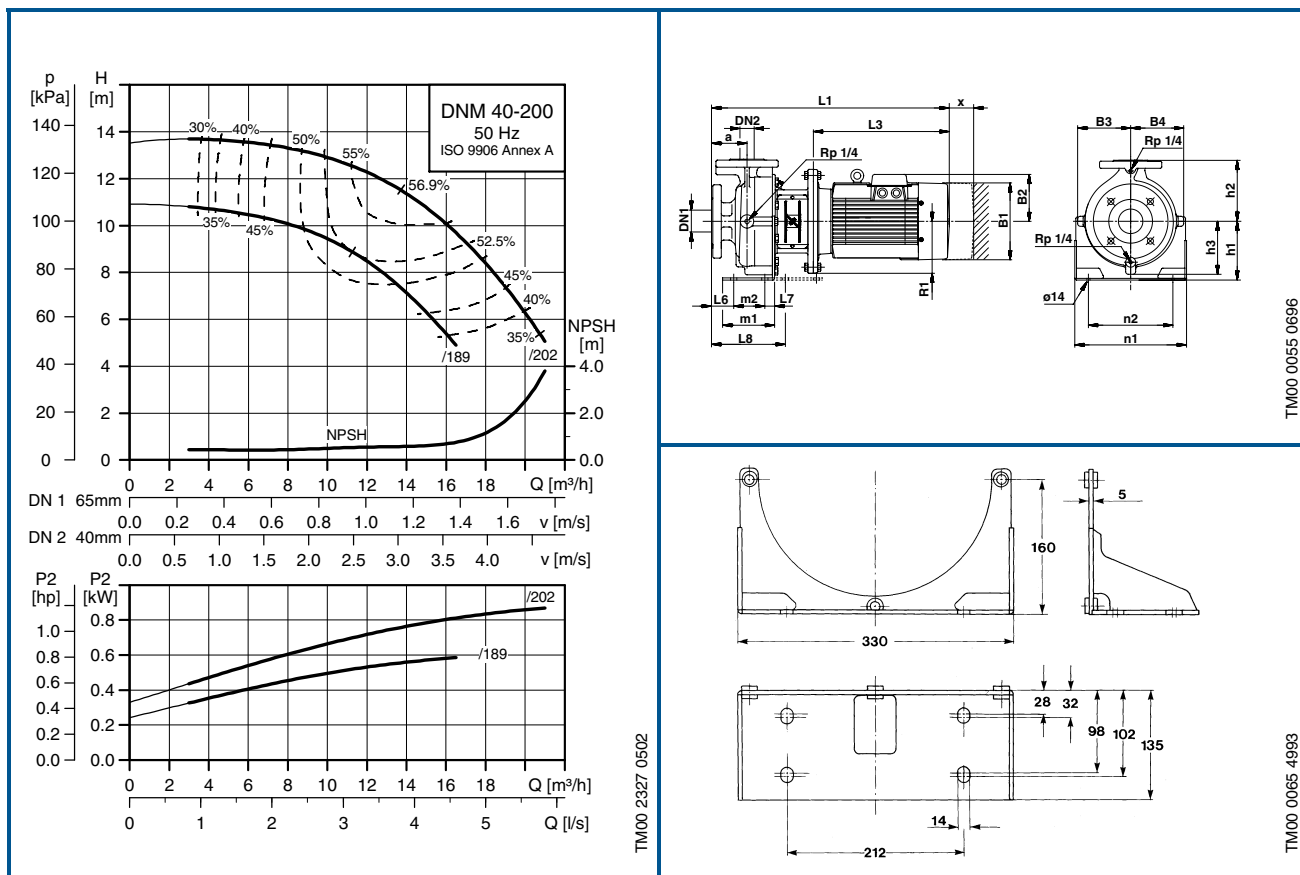


Electrical data

3 x 220 - 240/380 - 415 V, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNM 40-160/154	0.55	1390-1410	2.85/1.66	70	0.78-0.69	3.4-3.7
DNM 40-160/165	0.75	1390-1410	3.85/2.22	72	0.77-0.68	3.8-4.0

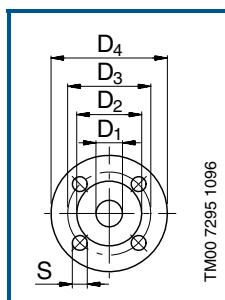
DNM 40-200



Dimensions and weights

Pump type	Dimensions in [mm]																	Weight Net [kg]
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	
DNM 40-200/189	65	40	100	160	180	159	135	70	330	212	50	142	109	159	159	452	230	47
DNM 40-200/202	65	40	100	160	180	159	135	70	330	212	60	178	110	159	159	513	281	53

Flange Dimensions



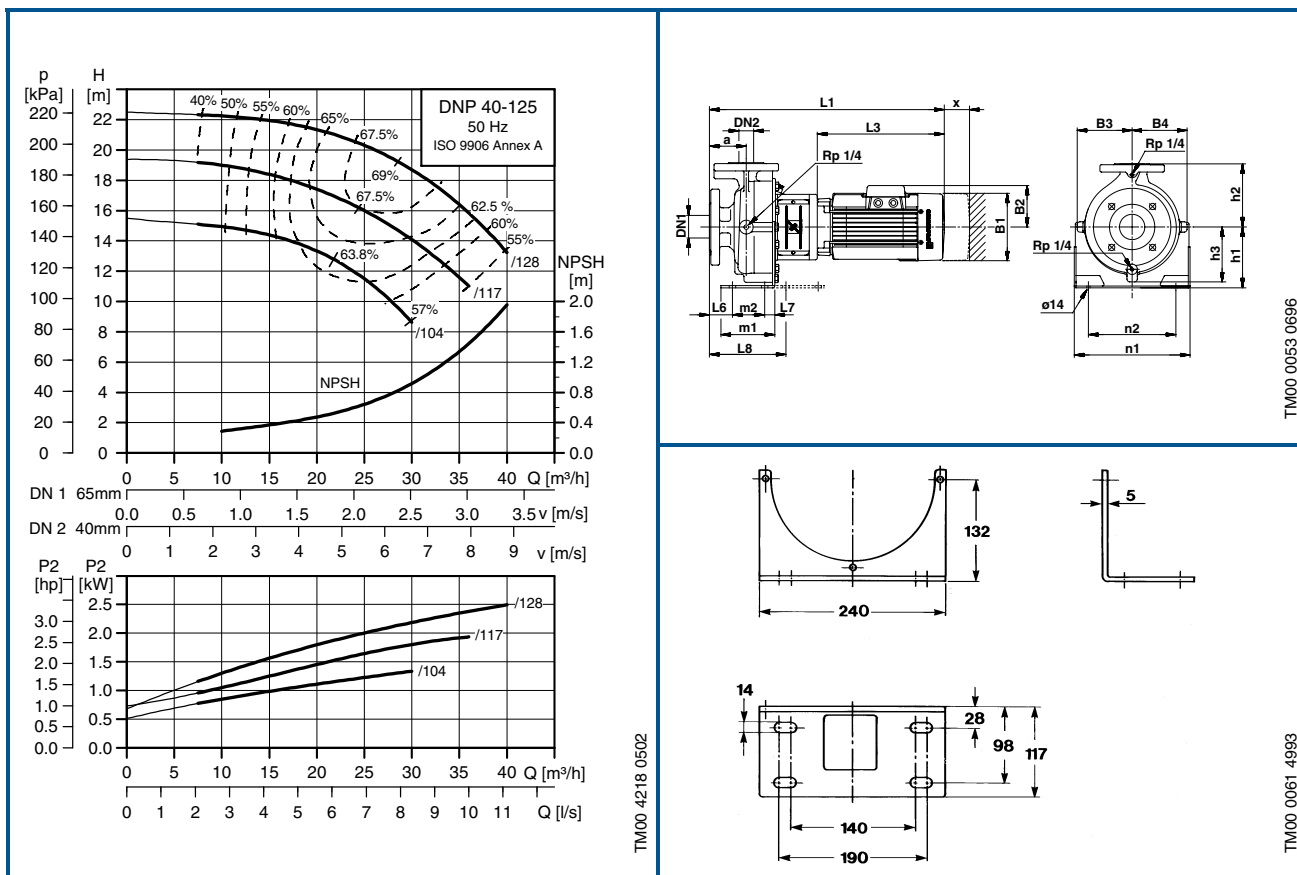
DN	D ₁	D ₂	D ₃	D ₄	s
32	32	78	100	140	4x18
40	40	88	110	150	4x18
50	50	102	125	165	4x18
65	65	122	145	185	4x18
80	80	138	160	200	8x18
100	100	158	180	220	8x18

Electrical data

3 x 220 - 240/380 - 415 V, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	cos φ _{1/1}	I _{st} / I _{1/1}
DNM 40-200/189	0.75	1390-1410	3.85/2.22	72	0.77-0.68	3.8-4.0
DNM 40-200/202	1.10	1400-1420	5.20/3.00	74	0.80-0.71	4.2-4.6

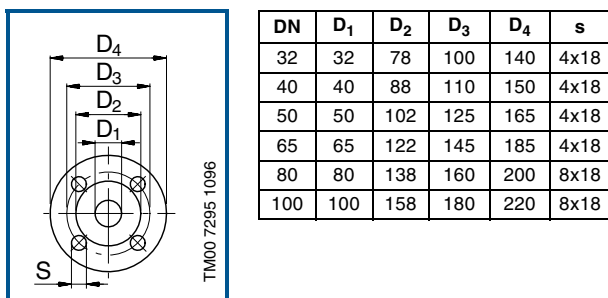
DNP 40-125



Dimensions and Weight

Pump type	Dimensions in [mm]																			Weight Net [kg]	
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7		L8
DNP 40-125/104	65	40	80	132	140	120	117	70	240	160	90	178	110	125	125	496	281	45	28	166	36
DNP 40-125/117	65	40	80	132	140	120	117	70	240	160	90	178	110	125	125	496	281	45	28	166	39
DNP 40-125/128	65	40	80	132	140	120	117	70	240	160	90	178	110	125	125	560	335	45	28	166	44

Flange Dimensions



Electrical data

3 x 220 - 240/380 - 415 V, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	Cos φ _{1/1}	I _{st} /I _{1/1}
DNP 40-125/104	1.50	2800-2890	5.90/3.40	82	0.85-0.79	6.3-6.9
DNP 40-125/117	2.20	2860-2890	8.25-4.75	84	0.87-0.82	7.0-7.6
DNP 40-125/128	3.00	2880-2910	10.8-6.25	86	0.88-0.82	7.8-8.5

Performance Graphs:

The top graph shows the pump's performance characteristics. The left y-axis represents pressure p in kPa (0 to 350), and the right y-axis represents head H in meters (0 to 35). The x-axis represents flow rate Q in m³/h (0 to 40) and velocity v in m/s (0.0 to 3.2). The graph includes efficiency curves (30%, 40%, 50%, 55%, 58.5%, 60%, 61.4%, 59.9%, 55%, 50%) and a dashed line for NPSH. The pump is labeled DNP 40-160, 50 Hz, ISO 9906 Annex A. The bottom graph shows the power requirements. The left y-axis represents pressure P_2 in hp (0 to 6), and the right y-axis represents power P_2 in kW (0 to 5). The x-axis represents flow rate Q in m³/h (0 to 40) and velocity Q in l/s (0 to 11). Two power curves are shown for /165 and /154.

Mechanical Dimensions:

The mechanical drawing shows the pump's dimensions in millimeters. Key dimensions include:

- DN1: 65mm, DN2: 40mm
- Flange dimensions: B3, B4, B1, B2
- Mounting dimensions: L1, L2, L3, L4, L5, L6, L7, L8
- Motor dimensions: R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61, R62, R63, R64, R65, R66, R67, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85, R86, R87, R88, R89, R90, R91, R92, R93, R94, R95, R96, R97, R98, R99, R100
- Other dimensions: a, x, y, z, w, v, u, t, s, r, q, p, o, n, m, l, k, j, i, h, g, f, e, d, c, b, a, z, y, x, w, v, u, t, s, r, q, p, o, n, m, l, k, j, i, h, g, f, e, d, c, b, a

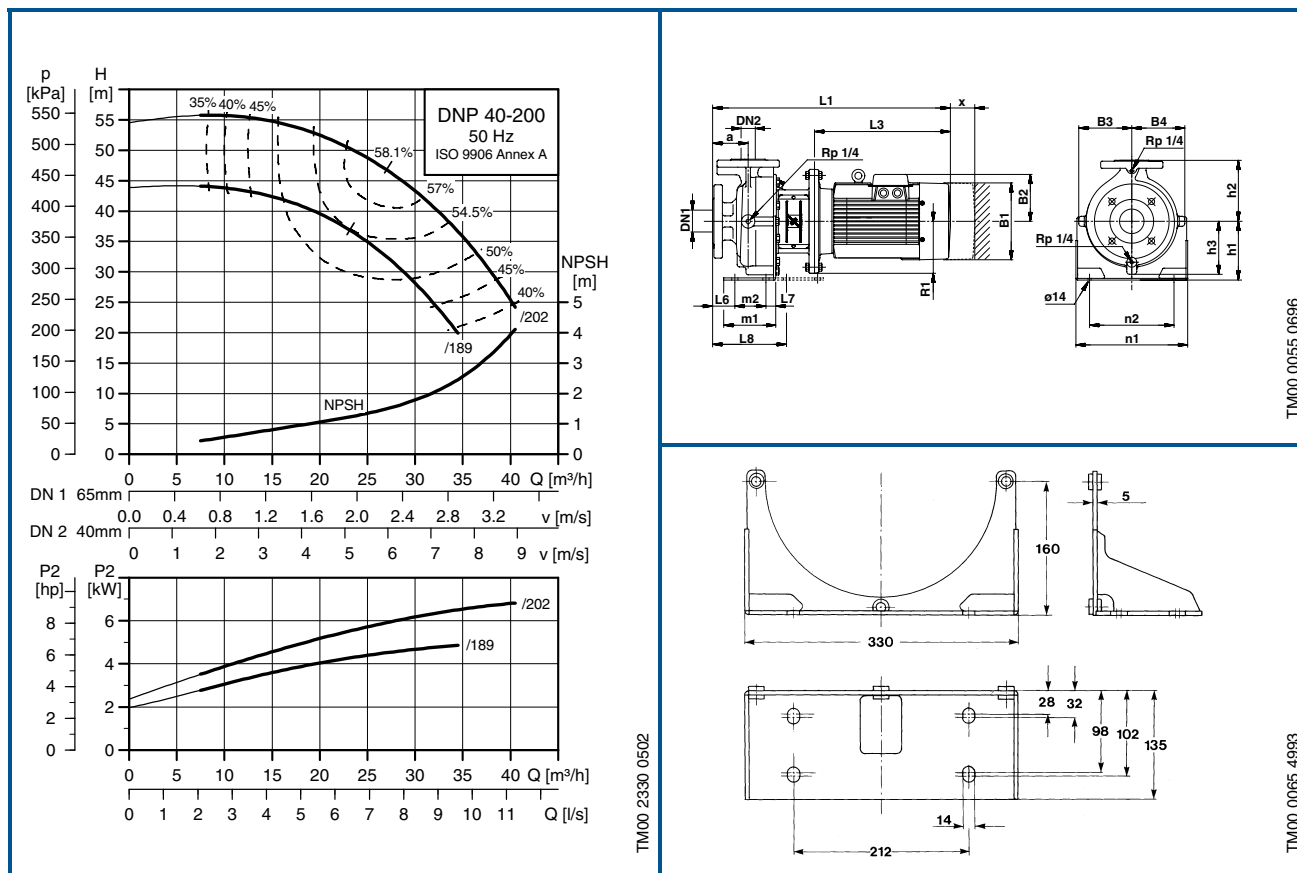
Pump type	Dimensions in [mm]																				Weight Net [kg]	
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7	L8		R1
DNP 40-160/154	65	40	80	132	160	131	113	70	273	190	70	220	134	140	133	594	372	45	28	166		59
DNP 40-160/165	65	40	80	160	160	131	113	70	273	190	90	220	134	140	133	662	391	45	28	166	149	67

DN	D ₁	D ₂	D ₃	D ₄	s
32	32	78	100	140	4x18
40	40	88	110	150	4x18
50	50	102	125	165	4x18
65	65	122	145	185	4x18
80	80	138	160	200	8x18
100	100	158	180	220	8x18

3 x 380 - 415 V Δ , 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNP 40-160/154	4.40	2900-2910	8.00	87	0.90-0.87	8.7-9.5
DNP 40-160/165	5.50	2890-2910	11.0	88.5	0.89-0.86	8.9-9.7

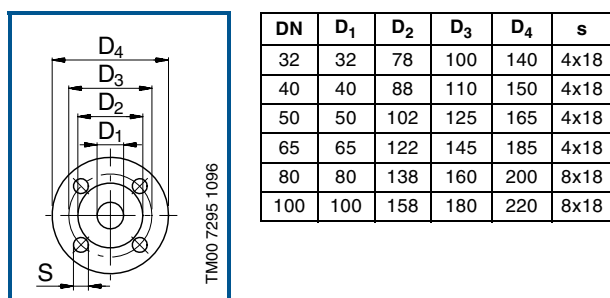
DNP 40-200



Dimensions and Weight

Pump type	Dimensions in [mm]																				Weight Net [kg]	
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7	L8		R1
DNP 40-200/189	65	40	100	160	180	159	135	70	330	212	90	220	134	159	159	684	391	65	32	194	149	80
DNP 40-200/202	65	40	100	160	180	159	135	70	330	212	90	220	134	159	159	684	391	65	32	194	149	86

Flange Dimensions

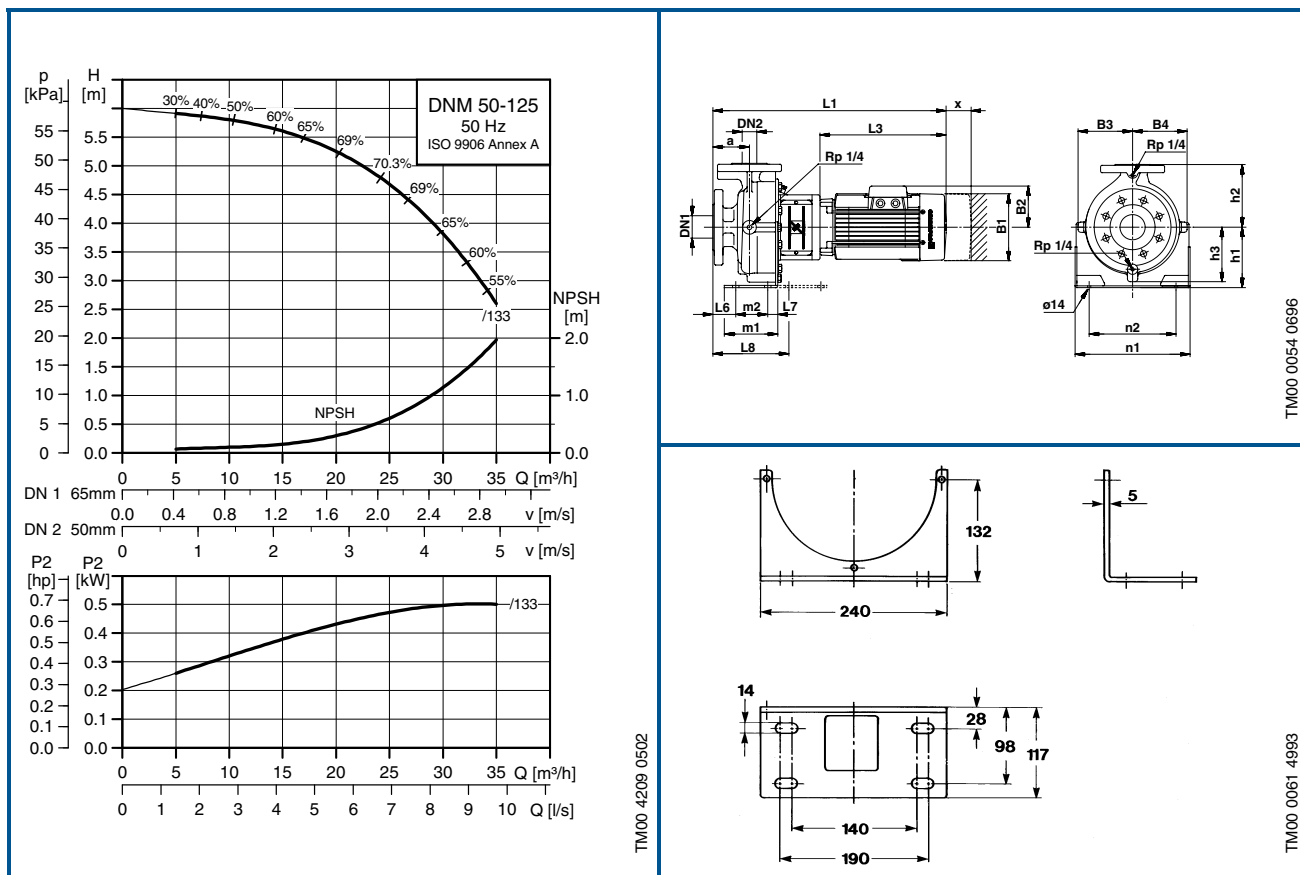


Electrical data

3 x 380 - 415 V Δ , 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNP 40-200/189	5.50	2890-2910	11.0	88.5	0.89-0.86	8.9-9.7
DNP 40-200/202	7.50	2890-2910	15.2	89	0.87-0.81	9.1-9.9

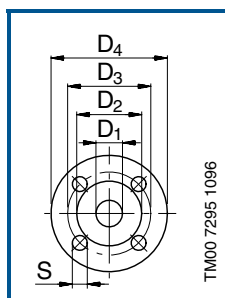
DNM 50-125



Dimensions and weights

Pump type	Dimensions in [mm]																		Weight Net [kg]		
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6		L7	L8
DNM 50-125/133	65	50	100	132	160	130	117	70	240	190	90	142	109	130	130	455	230	65	28	186	33

Flange Dimensions



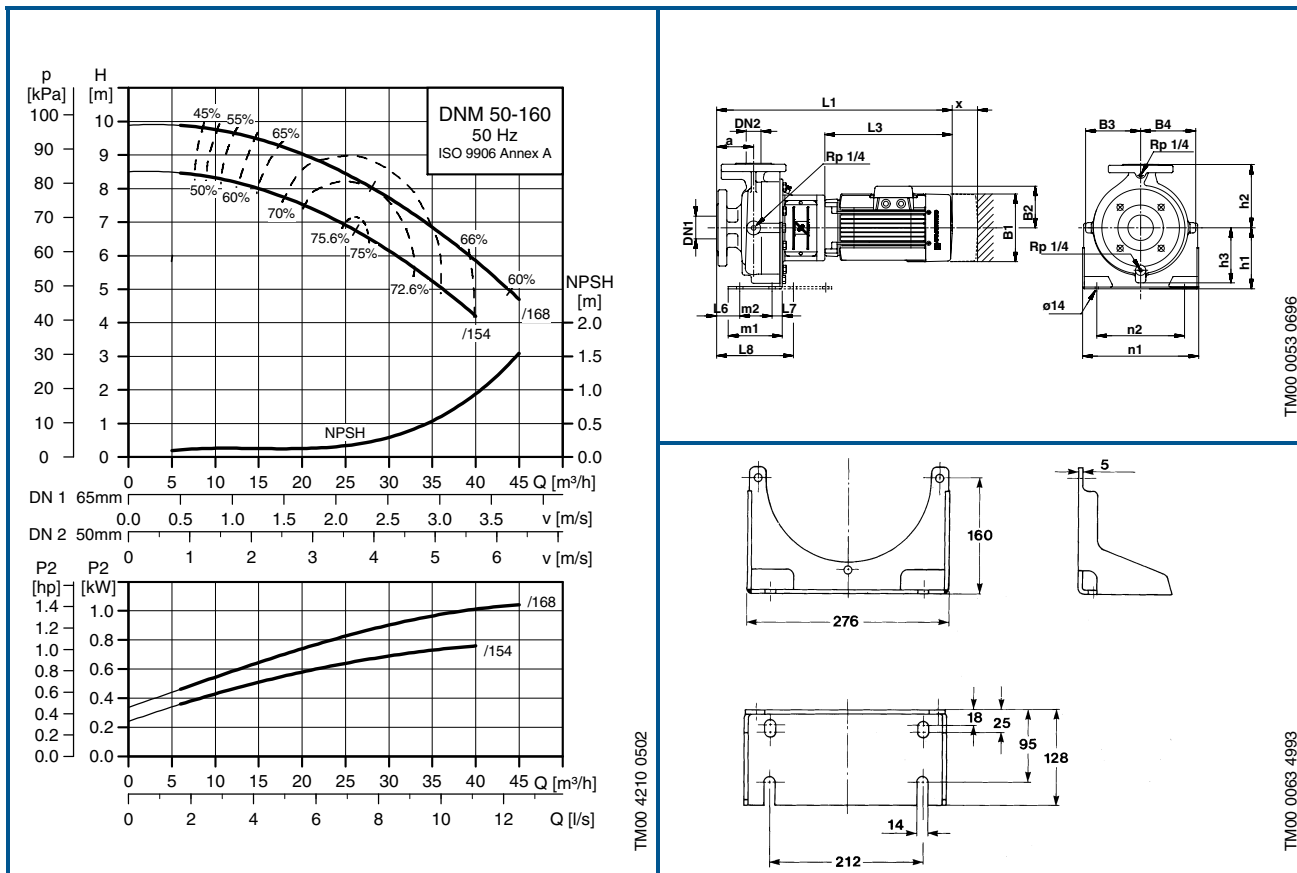
DN	D ₁	D ₂	D ₃	D ₄	s
32	32	78	100	140	4x18
40	40	88	110	150	4x18
50	50	102	125	165	4x18
65	65	122	145	185	4x18
80	80	138	160	200	8x18
100	100	158	180	220	8x18

Electrical data

3 x 220 - 240/380 - 415 V, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNM 50-125/133	0.55	1390-1410	2.85/1.66	70	0.78-0.69	3.4-3.7

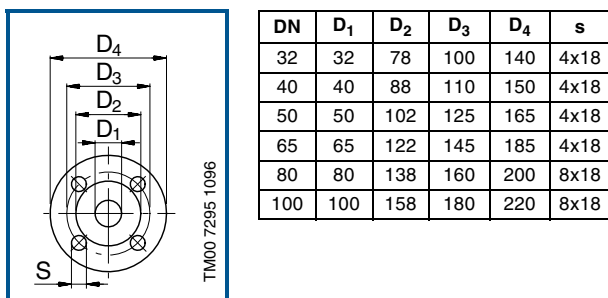
DNM 50-160



Dimensions and weights

Pump type	Dimensions in [mm]																			Weight Net [kg]	
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7		L8
DNM 50-160/154	65	50	100	160	180	139	128	70	276	212	90	142	109	138	138	457	230	65	25	180	34
DNM 50-160/168	65	50	100	160	180	139	128	70	276	212	90	178	110	138	138	518	281	65	25	180	39

Flange Dimensions

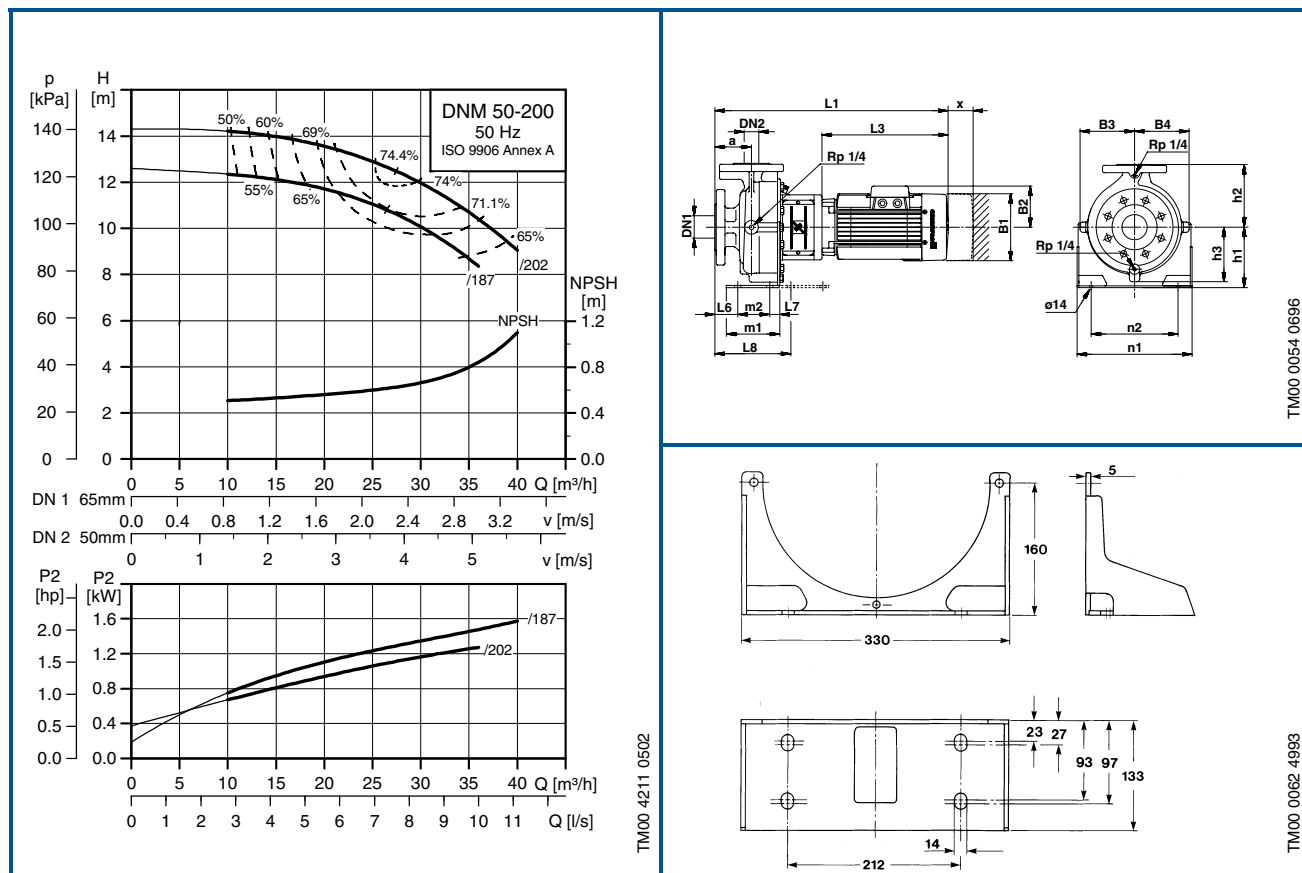


Electrical data

3 x 220 - 240/380 - 415 V, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	Cos φ _{1/1}	I _{st} /I _{1/1}
DNM 50-160/154	0.75	1390-1410	3.85/2.22	72	0.77-0.68	3.8-4.0
DNM 50-160/168	1.10	1400-1420	5.20/3.00	74	0.80-0.71	4.2-4.6

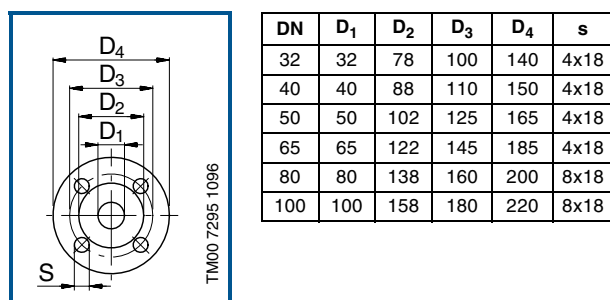
DNM 50-200



Dimensions and weights

Pump type	Dimensions in [mm]																			Weight Net [kg]	
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7		L8
DNM 50-200/187	65	50	100	160	200	159	133	70	330	212	90	178	110	162	162	518	281	65	27	184	50
DNM 50-200/202	65	50	100	160	200	159	133	70	330	212	90	178	110	162	162	582	335	65	27	184	57

Flange Dimensions

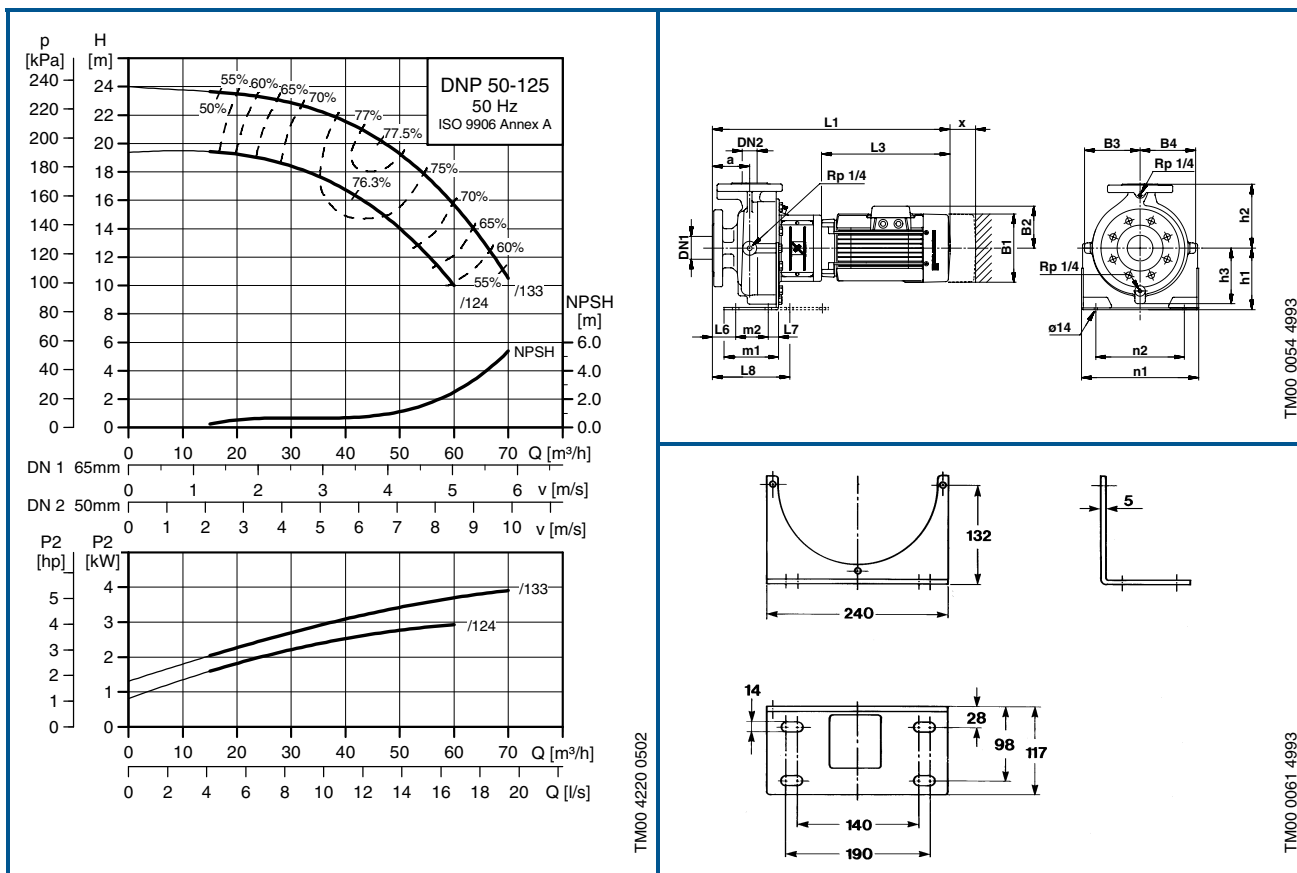


Electrical data

3 x 220 - 240/380 - 415 V, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNM 50-200/187	1.50	1400-1420	7.00/4.05	75	0.79-0.70	4.2-4.6
DNM 50-200/202	2.20	1400-1420	/5.90	77	0.79-0.70	4.5-5.0

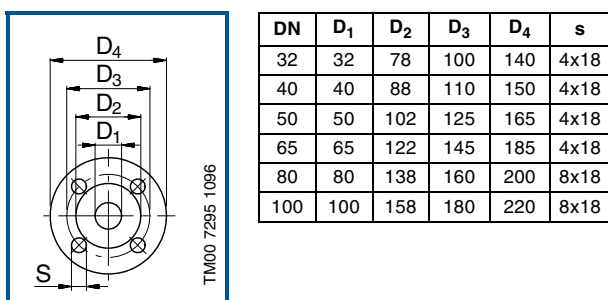
DNP 50-125



Dimensions and Weight

Pump type	Dimensions in [mm]																	Weight Net [kg]
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	
DNP 50-125/124	65	50	100	132	160	130	117	70	240	190	90	178	110	130	130	580	335	47
DNP 50-125/133	65	50	100	132	160	130	117	70	240	190	90	220	134	130	130	617	372	65

Flange Dimensions

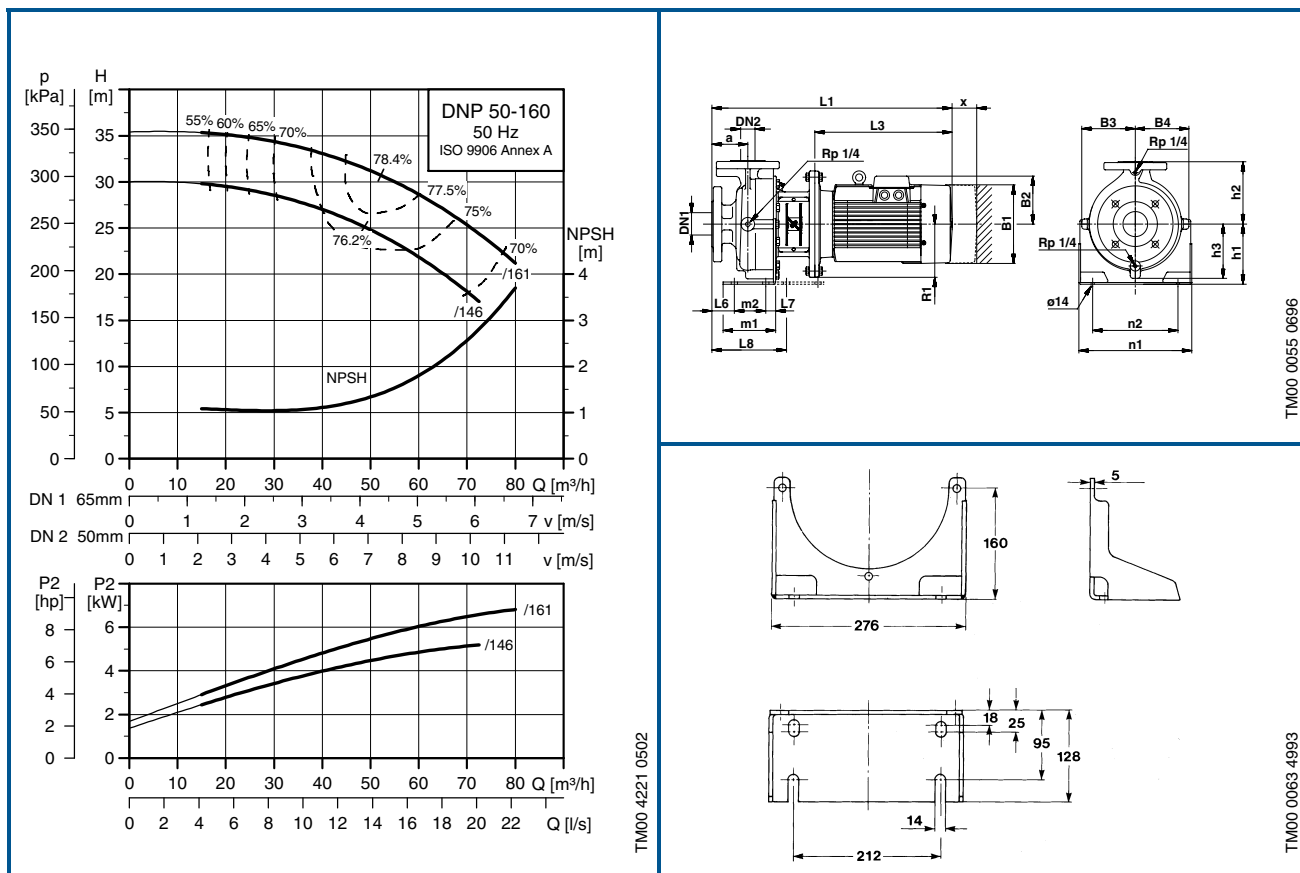


Electrical data

3 x 380 - 415 V Δ, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	Cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNP 50-125/124	3.0	2880-2910	6.25	86	0.88-0.82	7.8-8.5
DNP 50-125/133	4.0	2900-2910	8.00	87	0.90-0.87	8.7-9.5

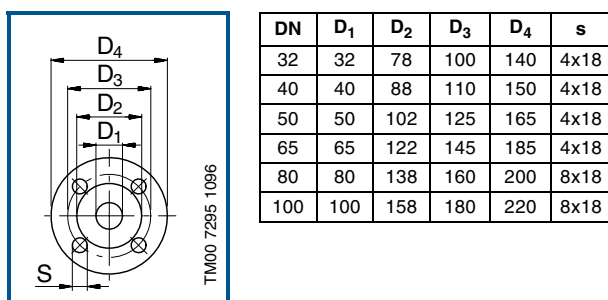
DNP 50-160



Dimensions and Weight

Pump type	Dimensions in [mm]																				Weight Net [kg]	
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7	L8		R1
DNP 50-160/146	65	50	100	160	180	139	128	70	276	212	100	220	134	138	138	689	391	65	25	180	149	68
DNP 50-160/161	65	50	100	160	180	139	128	70	276	212	100	220	134	138	138	689	391	65	25	180	149	84

Flange Dimensions

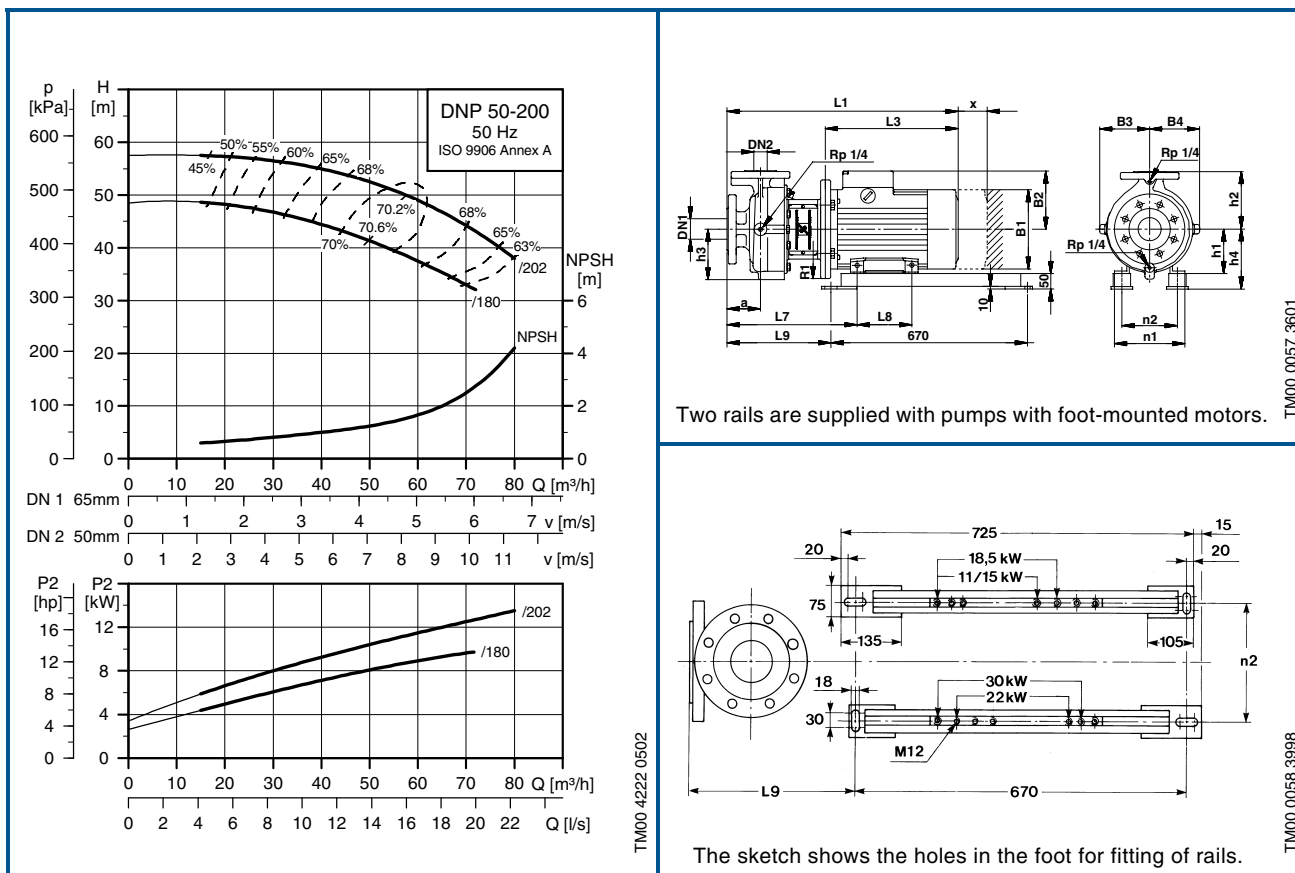


Electrical data

3 x 380 - 415 V Δ, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	Cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNP 50-160/146	5.50	2890-2910	11.0	88.5	0.87-0.82	8.9-9.7
DNP 50-160/161	7.50	2890-2910	15.2	88.5	0.89-0.86	9.1-9.9

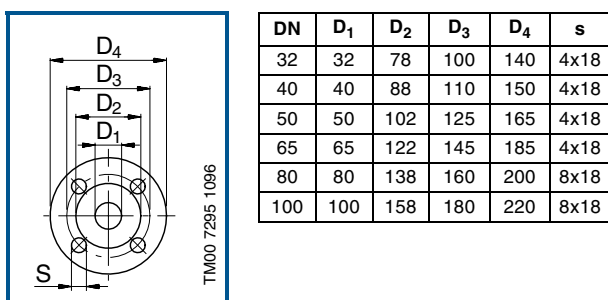
DNP 50-200



Dimensions and Weight

Pump type	Dimensions in [mm]																				Weight Net [kg]
	DN1	DN2	a	h1	h2	h3	h4	n1	n2	X	B1	B2	B3	B4	L1	L3	L7	L8	L9	R1	
DNP 50-200/180	65	50	100	160	200	159	210	302	254	120	260	172	159	159	792	464	436	210	200-370	175	120
DNP 50-200/202	65	50	100	160	200	159	210	296	254	120	325	250	159	159	878	550	436	210	200-370	175	161

Flange Dimensions

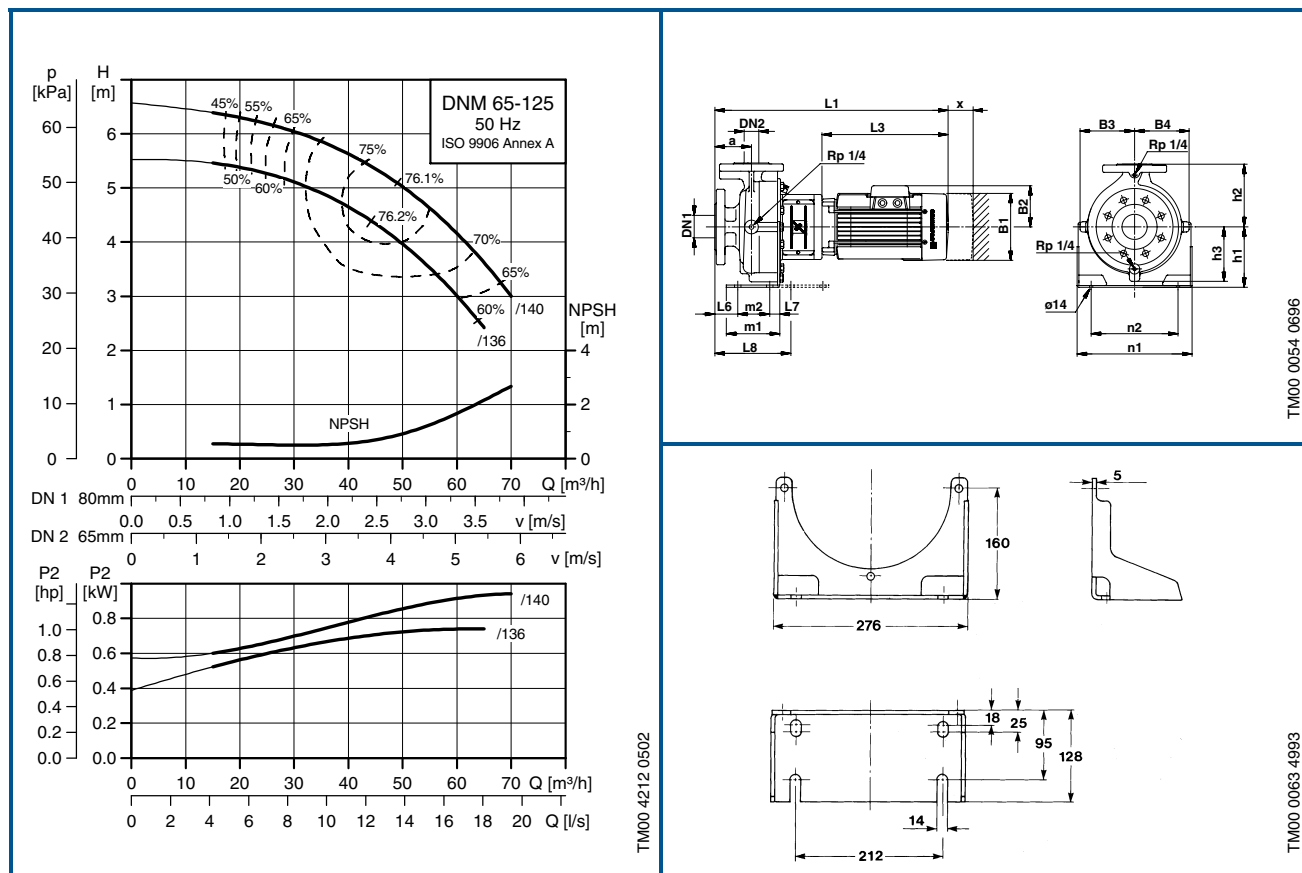


Electrical data

3 x 380 - 415 V Δ, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	Cos φ _{1/1}	I _{st} /I _{1/1}
DNP 50-200/180	11.0	2880-2900	21.5	85	0.91-0.87	7.3-8.0
DNP 50-200/202	15.0	2930-2940	29.4-27.1	88.2	0.88	7.0-7.8

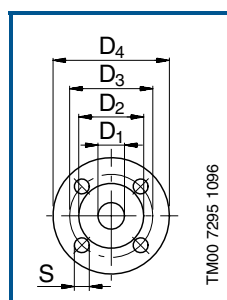
DNM 65-125



Dimensions and weights

Pump type	Dimensions in [mm]																				Weight Net [kg]
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7	L8	
DNM 65-125/136	80	65	100	160	180	148	128	95	276	212	100	142	109	150	140	476	230	53	18	179	41
DNM 65-125/140	80	65	100	160	180	148	128	95	276	212	100	178	110	150	140	527	281	53	18	179	46

Flange Dimensions



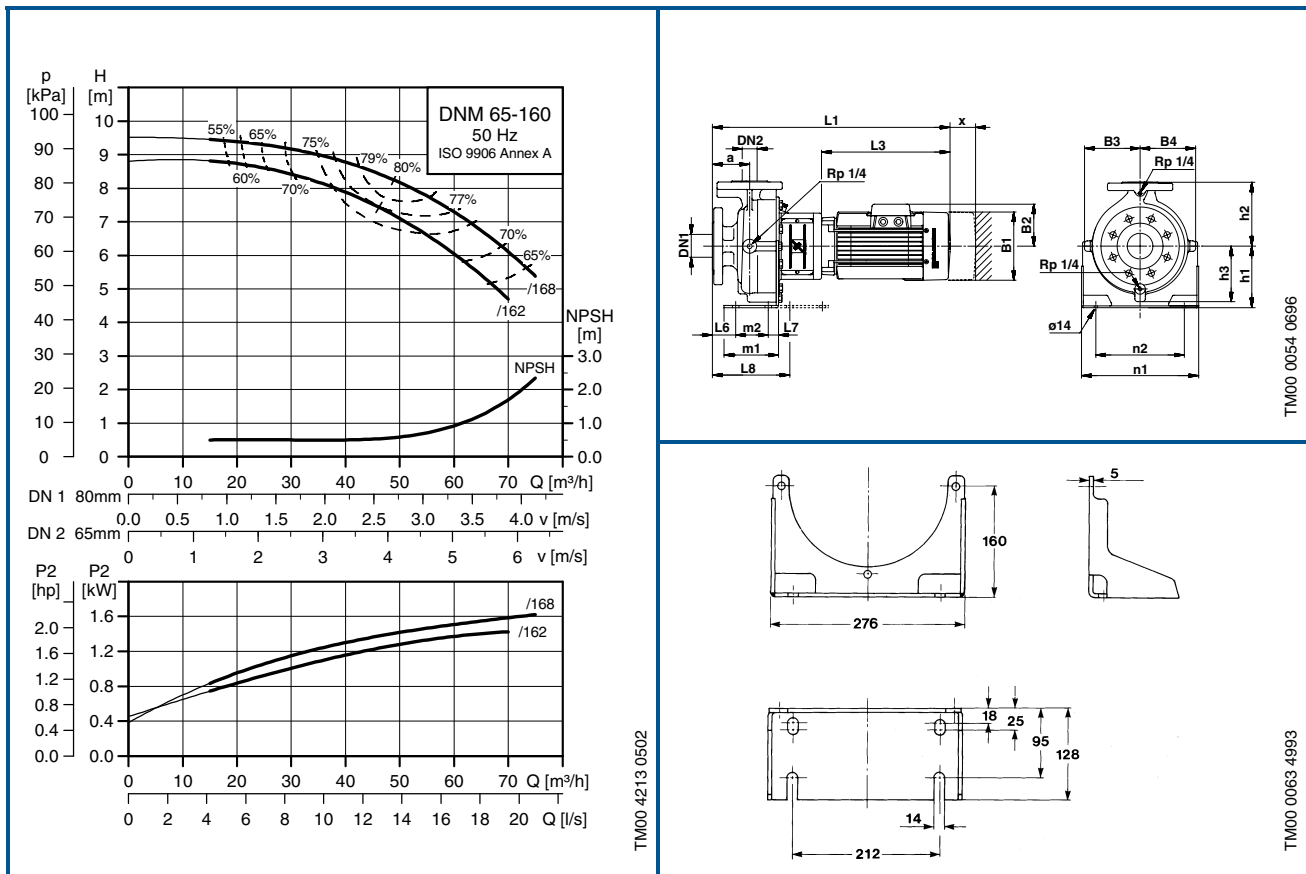
DN	D ₁	D ₂	D ₃	D ₄	s
32	32	78	100	140	4x18
40	40	88	110	150	4x18
50	50	102	125	165	4x18
65	65	122	145	185	4x18
80	80	138	160	200	8x18
100	100	158	180	220	8x18

Electrical data

3 x 220 - 240/380 - 415 V, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNM 65-125/136	0.75	1390-1410	3.85/2.22	72	0.77-0.68	3.8-4.0
DNM 65-125/140	1.10	1400-1420	5.20/3.00	74	0.80-0.71	4.2-4.6

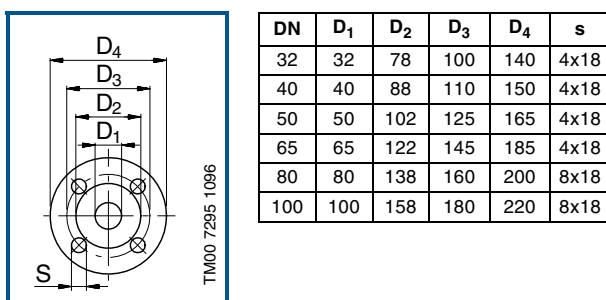
DNM 65-160



Dimensions and weights

Pump type	Dimensions in [mm]																	Weight Net [kg]
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	
DNM 65-160/162	80	65	100	160	200	151	128	95	276	212	100	178	110	150	140	523	281	50
DNM 65-160/168	80	65	100	160	200	151	128	95	276	212	100	178	110	150	140	587	335	56

Flange Dimensions

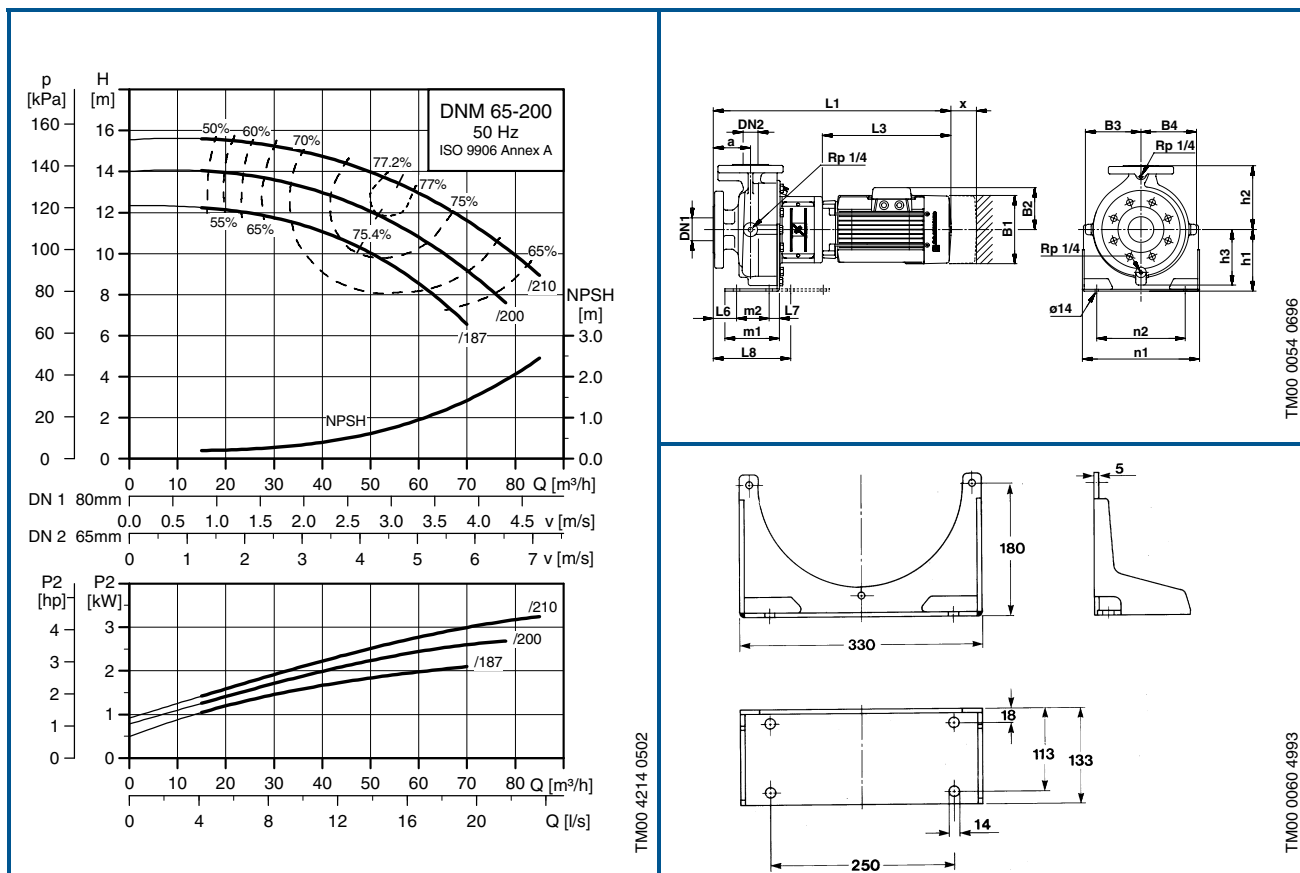


Electrical data

3 x 220 - 240/380 - 415 V, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	Cos φ _{1/1}	I _{st} I _{1/1}
DNM 65-160/162	1.50	1400-1420	7.00/4.05	75	0.79-0.70	4.2-4.6
DNM 65-160/168	2.20	1400-1420	/5.90	77	0.79-0.70	4.5-5.0

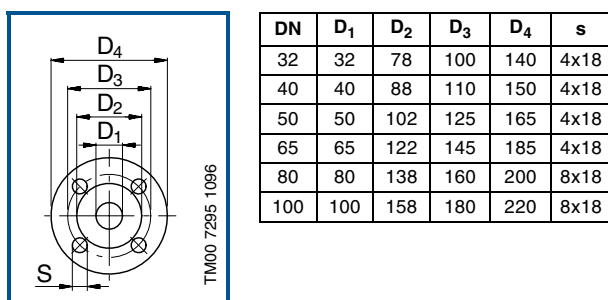
DNM 65-200



Dimensions and weights

Pump type	Dimensions in [mm]																			Weight Net [kg]	
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7		L8
DNM 65-200/187	80	65	100	180	225	164	133	95	330	250	100	178	110	164	164	616	335	53	18	179	60
DNM 65-200/200	80	65	100	180	225	164	133	95	330	250	100	220	134	164	164	653	372	53	18	179	66
DNM 65-200/210	80	65	100	180	225	164	133	95	330	250	100	220	134	164	164	653	372	53	18	179	71

Flange Dimensions



Electrical data

3 x 380 - 415 V Δ, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	Cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNM 65-200/187	2.20	1400-1420	5.90	77	0.79-0.70	4.5-5.0
DNM 65-200/200	3.00	1400-1420	7.65	77	0.81-0.72	4.5-5.0
DNM 65-200/210	4.00	1400-1420	16.2/9.35	78	0.84-0.79	4.7-5.1

Performance Curves:

The top graph shows the head (H) in meters and kPa versus flow rate (Q) in m³/h and l/s. The curves represent different efficiency levels: 40%, 50%, 60%, 70%, 80%, 81.5%, 82.5%, 83.1%, and 75%. The NPSH curve is also shown. The pump is rated for 50 Hz and ISO 9906 Annex A.

The bottom graph shows the power (P2) in kW and hp versus flow rate (Q) in m³/h and l/s. The curves represent different efficiency levels: 121, 130, and 137.

Mechanical Dimensions:

The side view shows the pump housing with dimensions: DN1, DN2, L1, L3, x, B1, B2, R1, L6, m2, L7, L8, m1, and L8. The front view shows the pump housing with dimensions: B3, B4, Rp 1/4, h2, h3, h1, n2, n1, and ø14.

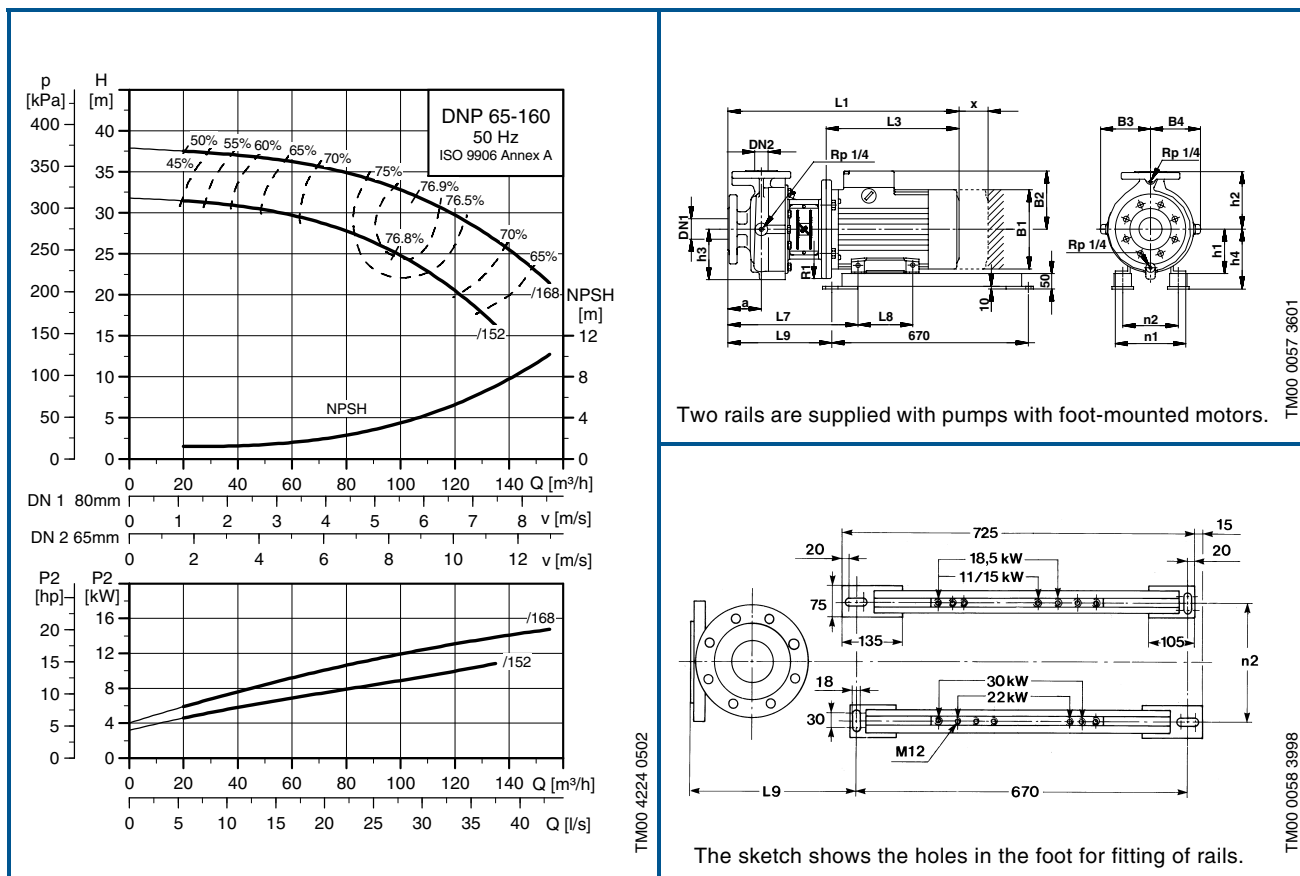
The top view shows the pump housing with dimensions: 160, 276, 5, 18, 25, 95, 128, 14, and 212.

Pump type	Dimensions in [mm]																				Weight Net [kg]	
	DN1	DN2	a	h1	h2	h3	m1	m2	n1	n2	X	B1	B2	B3	B4	L1	L3	L6	L7	L8		R1
DNP 65-125/121	80	65	100	160	180	48	128	95	276	212	90	220	134	150	140	628	372	53	18	179		74
DNP 65-125/130	80	65	100	160	180	148	128	95	276	212	90	220	134	150	140	698	391	53	18	179	149	81
DNP 65-125/137	80	65	100	160	180	148	128	95	276	212	90	220	134	150	140	698	391	53	18	179	149	83

DN	D ₁	D ₂	D ₃	D ₄	s
32	32	78	100	140	4x18
40	40	88	110	150	4x18
50	50	102	125	165	4x18
65	65	122	145	185	4x18
80	80	138	160	200	8x18
100	100	158	180	220	8x18

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNP 65-125/121	4.00	2900-2910	8.00	87	0.90-0.87	8.7-9.5
DNP 65-125/130	5.50	2890-2910	11.0	88.5	0.89-0.86	8.7-9.5
DNP 65-125/137	7.50	2890-2910	15.2	89	0.87-0.81	9.1-9.9

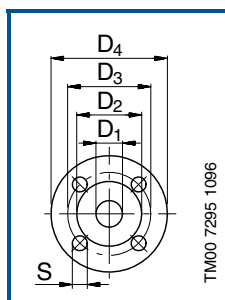
DNP 65-160



Dimensions and weights

Pump type	Dimensions in [mm]																				Weight Net [kg]
	DN1	DN2	a	h1	h2	h3	h4	n1	n2	X	B1	B2	B3	B4	L1	L3	L7	L8	L9	R1	
DNP 65-160/152	80	65	100	160	200	136	210	302	254	120	260	172	151	136	798	464	441	210	205-375	175	120
DNP 65-160/168	80	65	100	160	200	136	210	314	254	120	325	250	151	136	884	550	441	210	205-375	175	162

Flange Dimensions



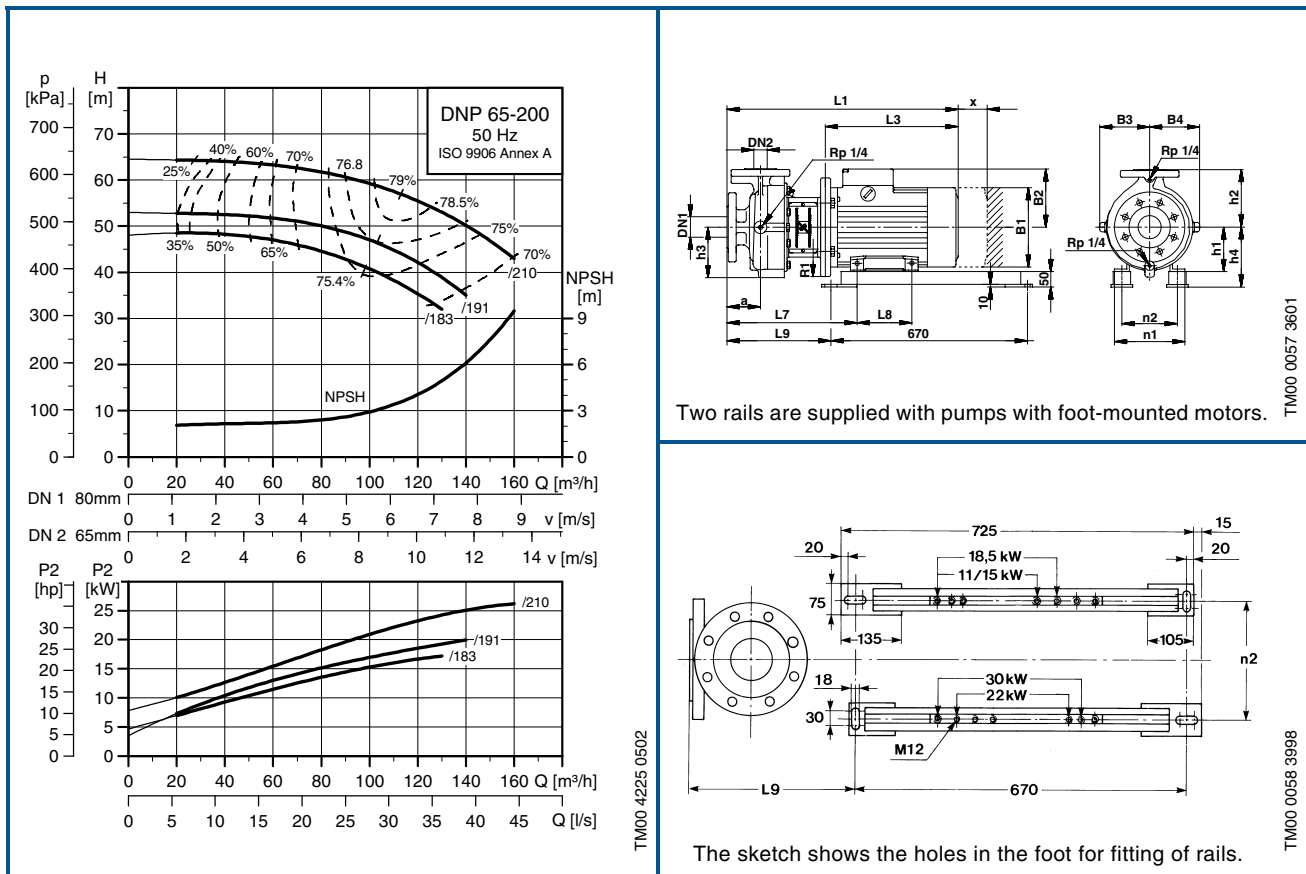
DN	D1	D2	D3	D4	s
32	32	78	100	140	4x18
40	40	88	110	150	4x18
50	50	102	125	165	4x18
65	65	122	145	185	4x18
80	80	138	160	200	8x18
100	100	158	180	220	8x18

Electrical data

3 x 380 - 415 V Δ, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	Cos φ _{1/1}	I _{st} / I _{1/1}
DNP 65-160/152	11.0	2880-2900	21.5	85	0.91-0.87	7.3-8.0
DNP 65-160/168	15.0	2930-2940	29.4-27.1	88.2	0.88	7.0-7.8

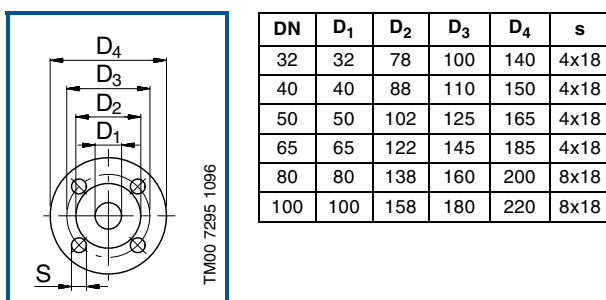
DNP 65-200



Dimensions and weights

Pump type	Dimensions in [mm]																				Weight Net [kg]
	DN1	DN2	a	h1	h2	h3	h4	n1	n2	X	B1	B2	B3	B4	L1	L3	L7	L8	L9	R1	
DNP 65-200/183	80	65	100	160	225	161	210	314	254	120	360	270	165	161	925	560	453	254	215-385	175	190
DNP 65-200/191	80	65	100	180	225	161	230	346	279	120	360	270	165	161	945	600	466	241	220-375	175	243
DNP 65-200/210	80	65	100	200	225	161	250	398	318	120	400	300	165	161	1010	665	478	305	300-405	200	308

Flange Dimensions



Electrical data

3 x 380 - 415 V Δ, 50 Hz

Pump type	Motor [kW]	n [min ⁻¹]	I _{1/1} [A]	η _{1/1} [%]	Cos φ _{1/1}	$\frac{I_{st}}{I_{1/1}}$
DNP 65-200/183	18.5	2930-2940	35.5-32.6	88.3	0.89	7.0-8.1
DNP 65-200/191	22.0	2940-2950	42.2-40.4	88.4	0.89-0.86	7.0-7.3
DNP 65-200/210	30.0	2950-2960	56.9-54.1	89.3	0.89-0.86	7.0-7.1



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Subject to alterations.

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