

Looking ahead,
going beyond expectations
Ahead > Beyond



DEMINY

Data Book 50Hz



SPECIFICATION

50Hz

Rev. 3

PUMP		
Liquid Handled	Type of liquid	Water with mud contents
	Max temperature [°C]	35
	Max solids size [mm]	Ø10
Maximum immersion [m]		5
Construction	Impeller	Open
	Shaft seal type	Double mechanical seal wholly enclosed in a oil chamber
Pipe Connection	Suction [mm]	10 Open
	Threaded	2", 3", 4"
Material	Casing	AISI 304
	Impeller	AISI304 (50DEMINY – 80DEMINY) GJS400 with treatment (100DEMINY)
	Casing cover	AISI 304
	Shaft seal	Pump side : SiC/SiC/NBR Motor side : Graphite/ SiC /NBR
	Seal cover	AISI 304
	Shaft	AISI 316 (wet extension)
	Lubricating liquid	White mineral oil: Vabriol atoxoil
Applicable standard of test		ISO 9906 - Annex A

MOTOR		
Type	Submersible oil bath motor	
	Single Phase	Three Phase
No. of Poles	2	
Rotation speed [min ⁻¹]	≈2800	
Insulation Class	F	
Protection degree	IP X8	
Power rating	[kW]	1.1 ÷ 2.25
	[HP]	1.5 ÷ 3
Frequency [Hz]	50	
Voltage [V]	230 ±10%	400 ±10%
Capacitor	Control box	-
Over load protection	Built in	Provided by the user
Float switch	Optional	-
Float switch cable	material	H07RN-F
	size	3G1
Power cable	length [m]	10 and 20
	material	H07RN-F
Dimensions of cable entry		Cable Gland

Single-phase 230V										
Model	HP	Kw	Q=Capacity							
			[l/min]	0	50	200	350	500	700	900
			[m³/h]	0	3	12	21	30	42	54
H=Total manometric head in meters										
50DEMINY51,1M	1,5	1,1	16,0	14,0	11,0	7,0				
50DEMINY51,5M	2	1,5	18,5	17,0	14,0	9,5	2,0			
80DEMINY52,25M	3	2,2	18,0	17,5	16,0	14,0	11,5	7,5	2,5	

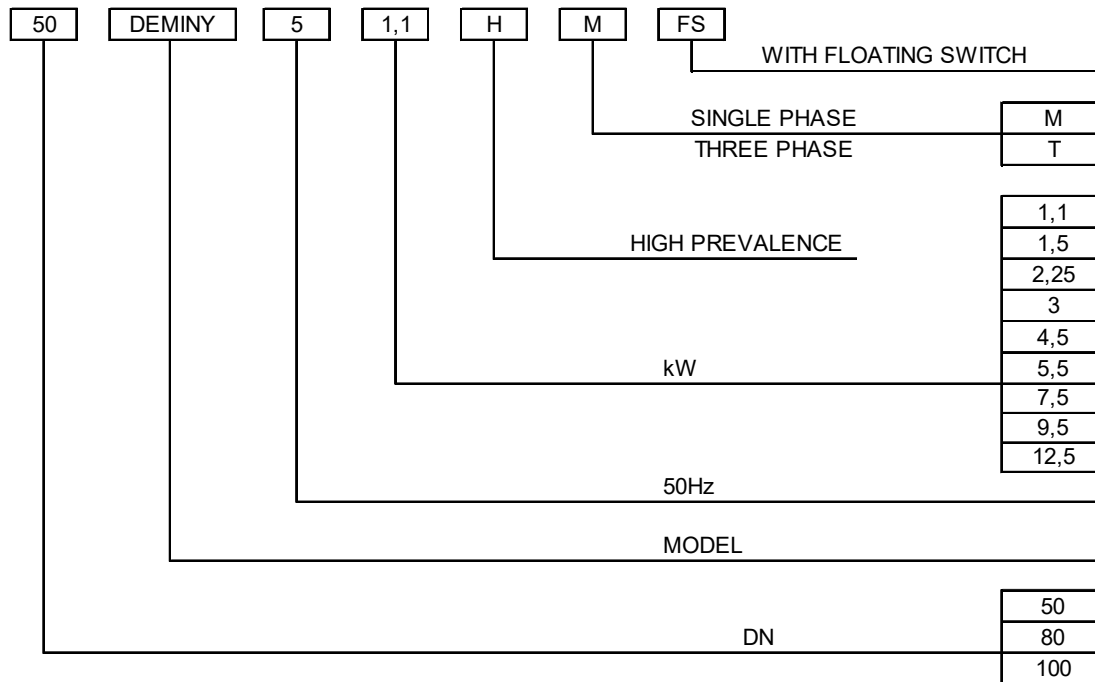
Three-phases 400V															
Model	HP	Kw	Q=Capacity												
			[l/min]	0	50	200	350	500	700	900	1200	1400	1600	1800	2000
			[m³/h]	0	3	12	21	30	42	54	72	84	96	108	120
H=Total manometric head in meters															
50DEMINY51,1M	1,5	1,1	16	14	11	7									
50DEMINY51,5M	2	1,5	18,5	17	14	9,5	2								
80DEMINY52,25T	3	2,2	18,0	17,5	16,0	14,0	11,5	7,5	2,5						
80DEMINY53T	4	3	21,0	20,5	19,0	18,0	16,0	13,0	10,0	4,0					
80DEMINY54,5T	6	4,5	23,0	22,5	21,5	19,5	18,0	15,2	11,8	9,0	5,0				
100DEMINY55,5T	7,5	5,5	33	32	29	25,5	22,5	18	12	2					
100DEMINY57,5HT	10	7,5	37	35	33,5	30	27	22	16	7					
100DEMINY57,5T	10	7,5	31,0	30,0	28,0	27,0	26,0	24,0	20,0	16,0	13,0	10,0	5,5		
100DEMINY59,5HT	13	9,5	41,0	40,0	38,0	34,0	30,0	25,0	20,0	10,0	2,0				
100DEMINY59,5T	13	9,5	38,0	37,5	36,0	34,0	32,5	29,0	26,5	21,0	15,0	11,0	6,0	2,0	
100DEMINY512,5T	16	13	42,5	41	40	37,5	35	32,5	28	22,5	17,5	12,5	8	4	

TYPE KEY

50Hz

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TYPE KEY:



PERFORMANCE CURVE SPECIFICATIONS

The specifications below qualify the curves shown on the following pages.

Tolerances according to ISO 9906 Annex A

The curves refer to effective speed of asynchronous motors at 50 Hz

Measurements were carried out with clean water at 20°C of temperature and with a kinematic viscosity of $\nu = 1 \text{ mm}^2/\text{s}$ (1 cSt)

In order to avoid the risk of over-heating, the pumps should not be used at a flow rate below 10% of best efficiency point.

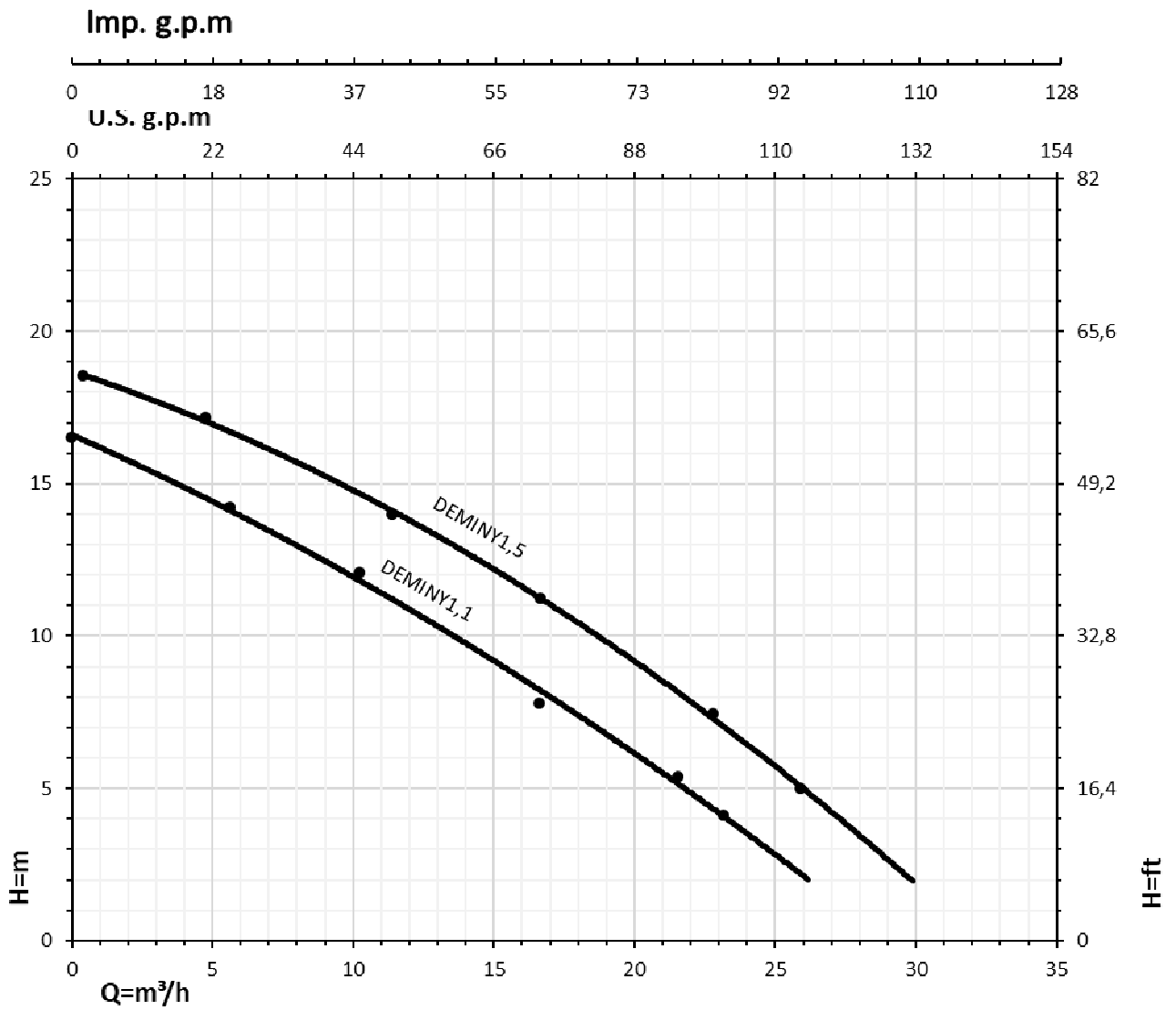
The continuous curves indicate the recommended working range.

Symbols explanation:

Q = volume flow rate

H = total head

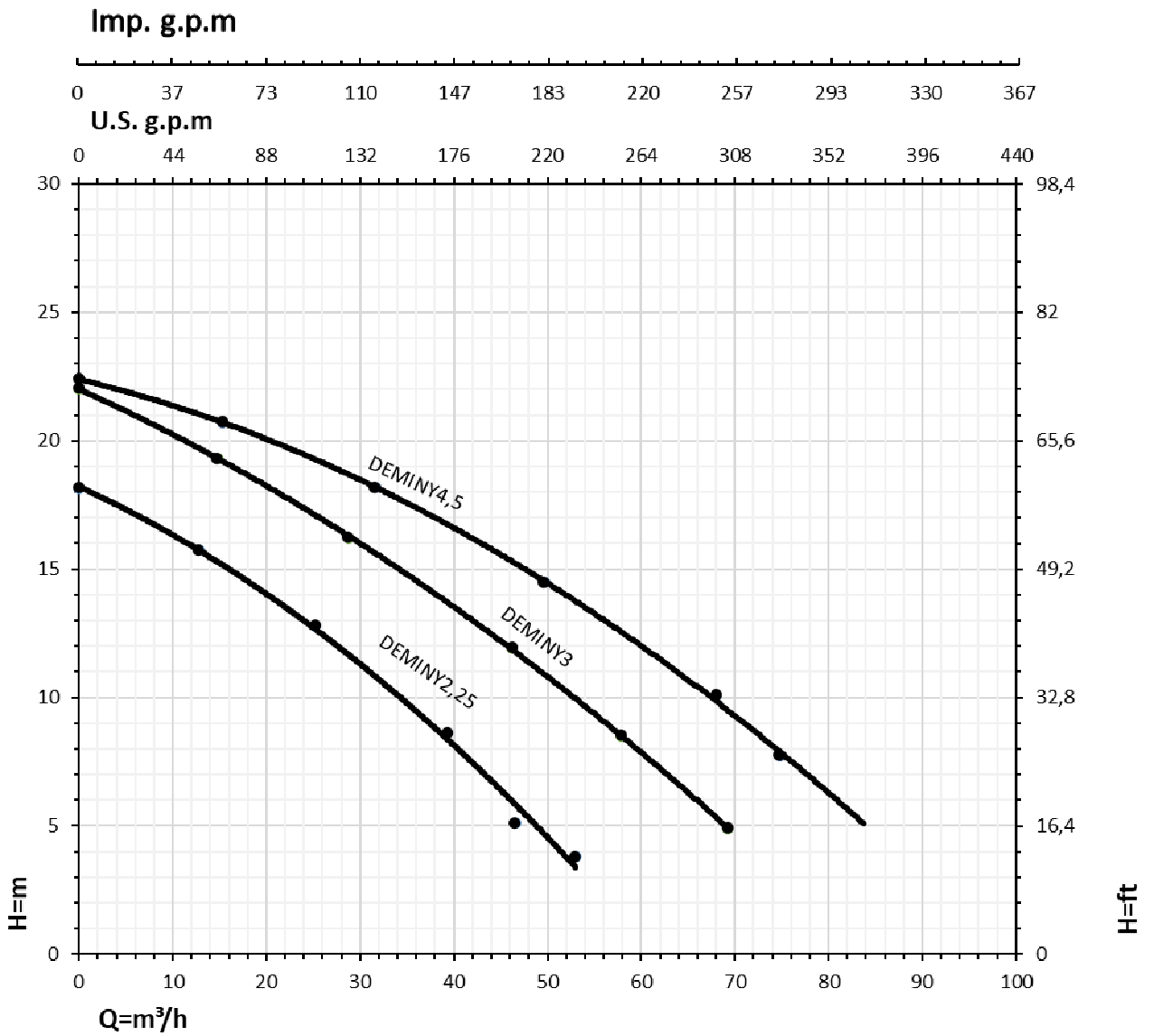
50DEMINY51.1
50DEMINY51.5



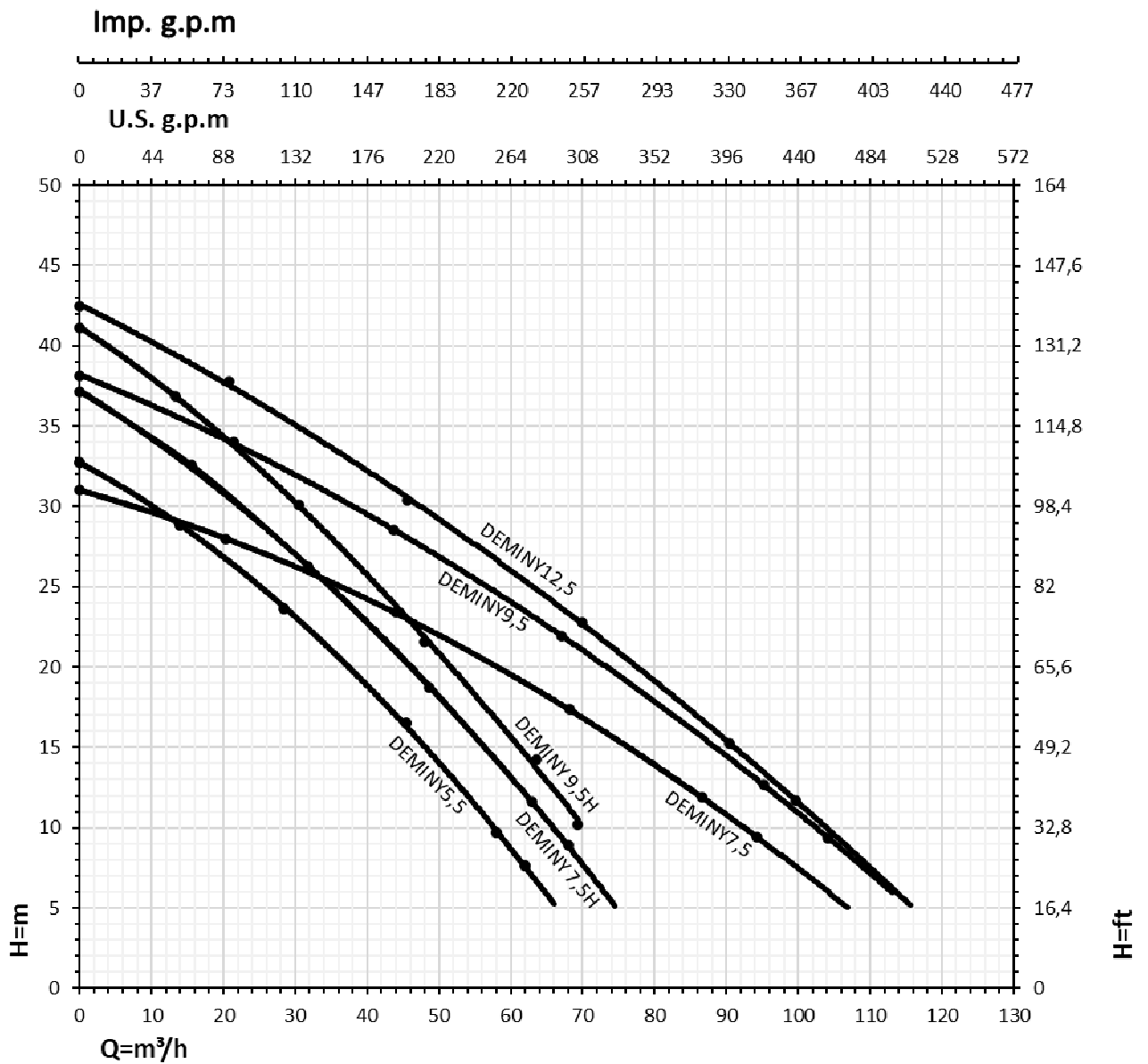
Rotation speed $\approx 2800 \text{ min}^{-1}$
Test standard: ISO 9906 – Annex A

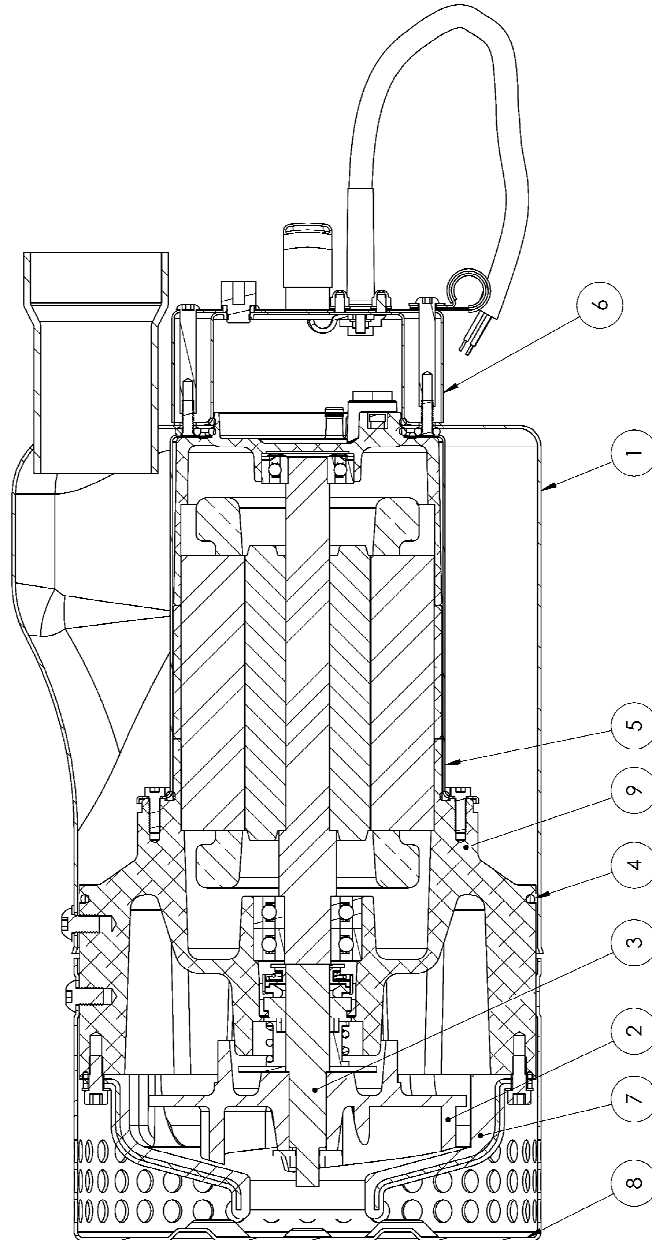
80DEMINY52.25

80DEMINY52.25
80DEMINY53
80DEMINY54.5



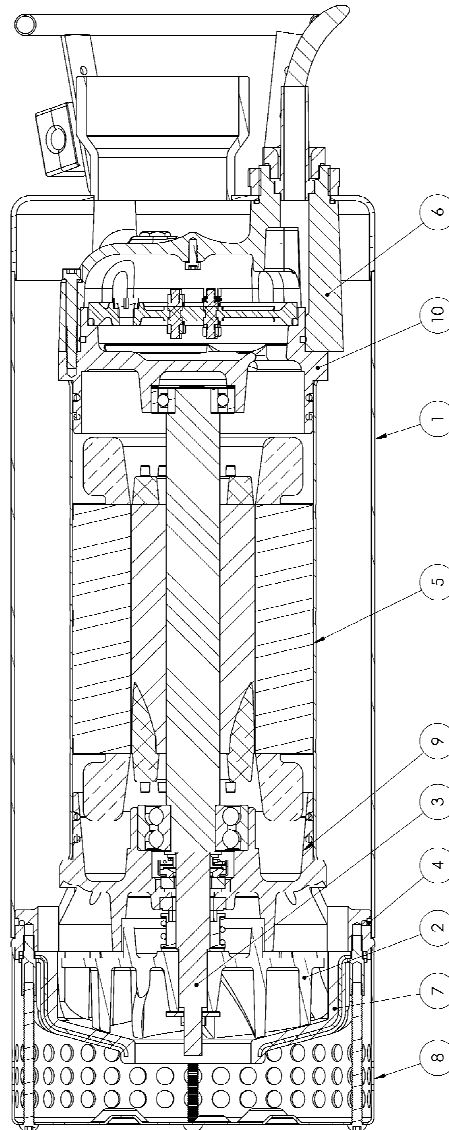
100DEMINY55.5
 100DEMINY57.5H
 100DEMINY57.5
 100DEMINY59.5H
 100DEMINY59.5
 100DEMINY512.5





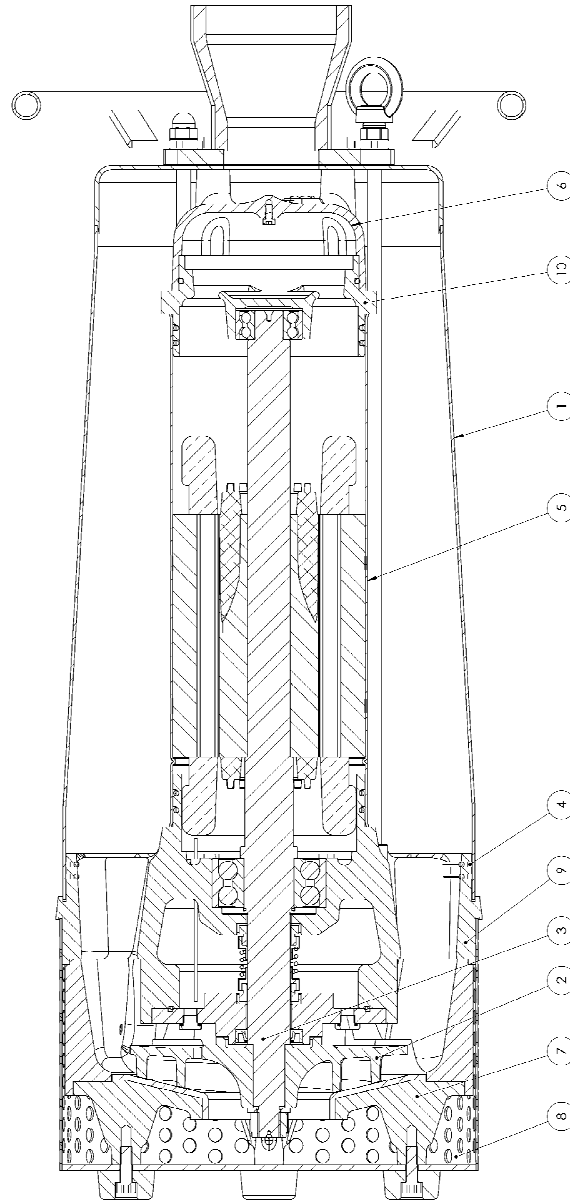
N°	PART NAME	MATERIAL	Q.TY
1	External housing	AISI 304	1
2	Impeller	AISI 304 Micro fusion	1
3	Shaft pump side	AISI 316	1
4	O-ring	NBR	1
5	Motor cover	AISI 304	1
6	Cover	AISI 304	1
7	Diffuser	HNBR with steel core	1
8	Suction base	AISI 304	1
9	Lower flange	Aluminium	1

SECTIONAL VIEW 80DEMINY



N°	PART NAME	MATERIAL	Q.TY
1	External housing	AISI 304	1
2	Impeller	AISI 304 Micro fusion	1
3	Shaft pump side	AISI 316	1
4	o-ring	NBR	1
5	Motor cover	AISI 304	1
6	Cover	G20	1
7	Diffuser	HNBR with steel core	1
8	Suction base	AISI 304	1
9	Lower flange	Aluminium	1
10	Upper flange	G20	1

SECTIONAL VIEW 100DEMINY

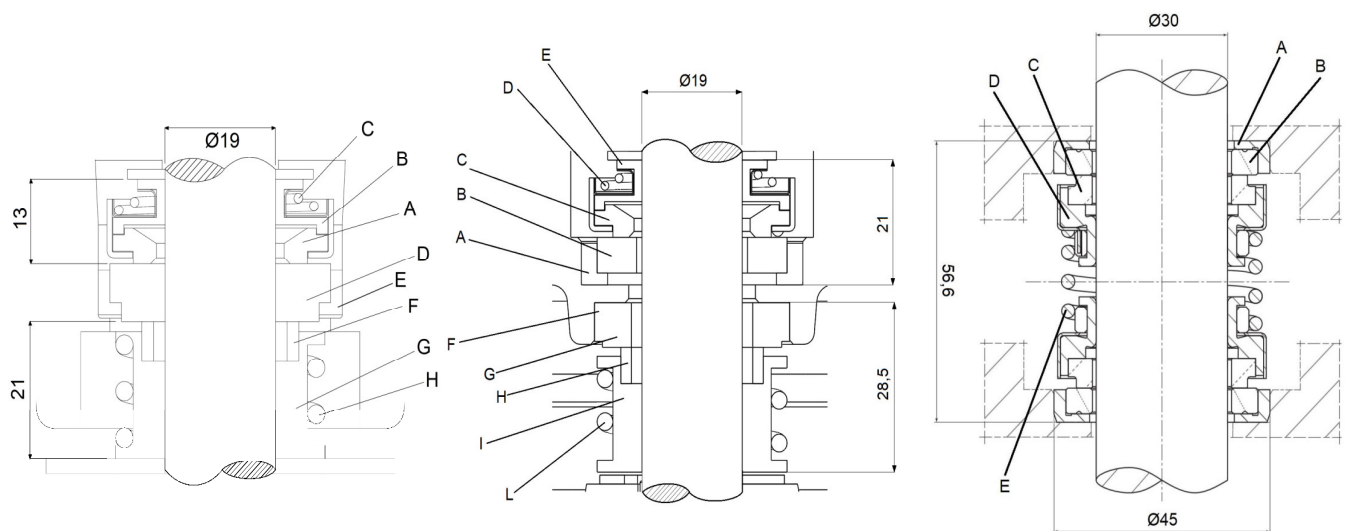


N°	PART NAME	MATERIAL	Q.TY
1	External housing	AISI 304	1
2	Impeller	GJS400 with treatment	1
3	Shaft pump side	AISI 316	1
4	o-ring	NBR	1
5	Motor cover	AISI 304	1
6	Cover	G20	1
7	Diffuser	G20 with HNBR	1
8	Suction base	AISI 304	1
9	Lower flange	G25	1
10	Upper flange	G20	1

BEARINGS

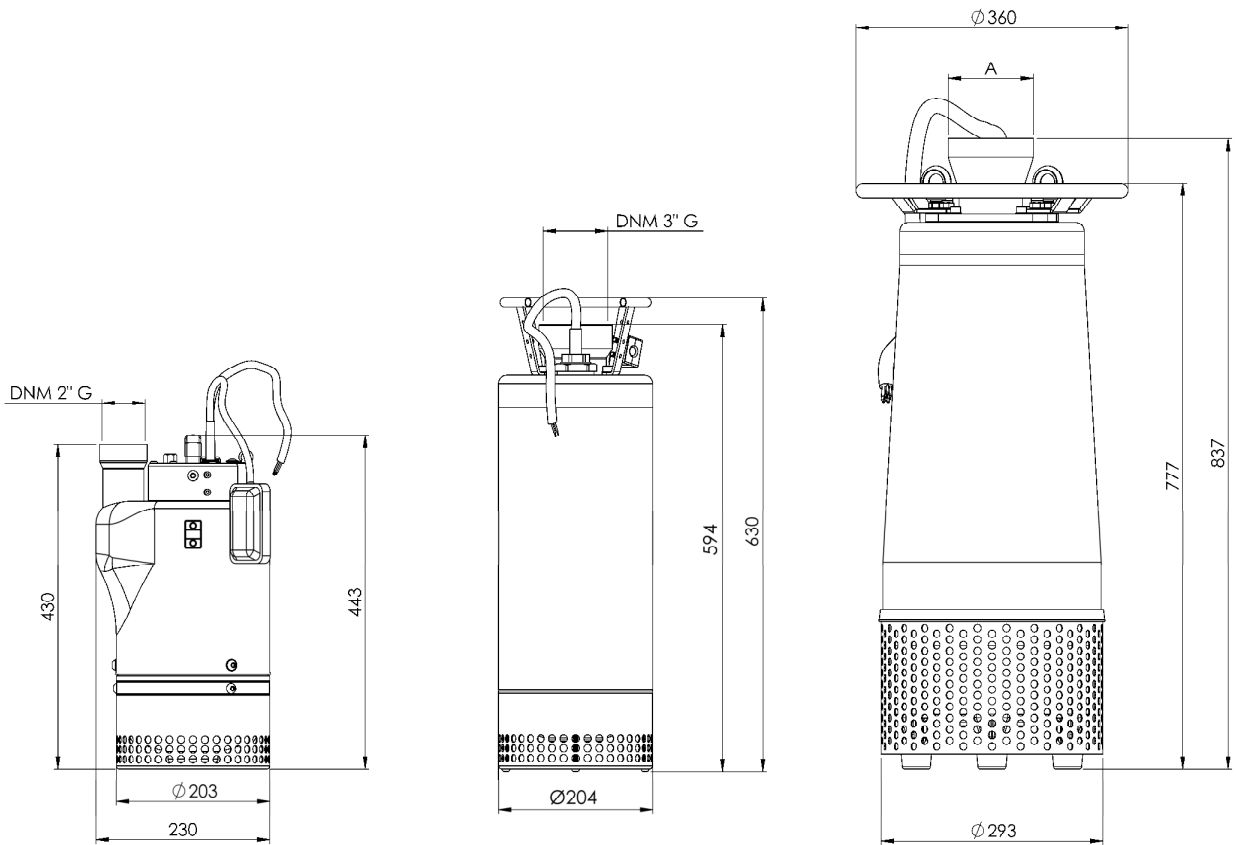
Pump Type		Ball Bearing	
Single Phase	Three Phase	Pump side	Cover side
50DEMINY51,1M	50DEMINY51,1T	6204 ZZ	6203 ZZ
50DEMINY51,5M	50DEMINY51,5T	6204 ZZ	6203 ZZ
80DEMINY52,25M	80DEMINY52,25T	3305	6204 ZZ
	80DEMINY53T	3305	6204 ZZ
	80DEMINY4,5T	3305	6204 ZZ
	100DEMINY55,5T	2x7307 BECBM	3204A 2RS
	100DEMINY57,5HT	2x7307 BECBM	3204A 2RS
	100DEMINY57,5T	2x7307 BECBM	3204A 2RS
	100DEMINY59,5HT	2x7307 BECBM	3204A 2RS
	100DEMINY59,5T	2x7307 BECBM	3204A 2RS
	100DEMINY512,5T	2x7307 BECBM	3204A 2RS

MECHANICAL SEAL



50DEMINY			80DEMINY			100DEMINY		
REF	PART NAME	MATERIAL	REF	PART NAME	MATERIAL	REF	PART NAME	MATERIAL
A	Seal face	Carbon	A	Rubber cup	NBR	A	Rubber cup	NBR
B	Bellow	NBR	B	Seat	Alumina	B	Seat	SiC
C	Spring	AISI 304	C	Seal face	Carbon	C	Seal face	SiC
D	Seat	SiC	D	Spring	AISI 304	D	Bellow	NBR
E	Rubber cup	NBR	E	Bellow	NBR	E	Spring	AISI 304
F	Seal face	SiC	F	Rubber cup	NBR			
G	Bellow	NBR	G	Seat	SiC			
H	Spring	AISI 304	H	Seal face	SiC			
			I	Bellow	NBR			
			L	Spring	AISI 304			

DEMINY

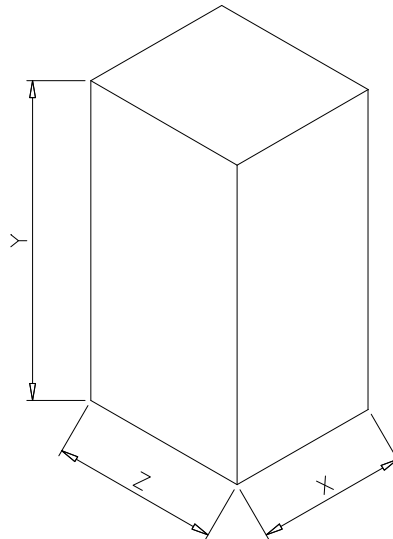


50DEMINY			
Pump type	H [mm]	B [mm]	Weight [kgf]
50DEMINY51,1M	443	230	21
50DEMINY51,1T	443	230	21
50DEMINY51,5M	443	230	21,5

80DEMINY			
Pump type	H [mm]	B [mm]	Weight [kgf]
80DEMINY52,25M	630	Ø204	36
80DEMINY52,25T	630	Ø204	36,5
80DEMINY53T	630	Ø204	37,5
80DEMINY54,5T	630	Ø204	40,5

100DEMINY				
Pump type	H [mm]	A [DNM]	B [mm]	Weight [kgf]
100DEMINY55,5T	837	4"	360	100,5
100DEMINY57,5HT	837	4"	360	101
100DEMINY57,5T	837	4"	360	101,5
100DEMINY59,5HT	837	4"	360	104,5
100DEMINY59,5T	837	4"	360	104,5
100DEMINY512,5T	837	4"	360	105,5

PACKING



Pump type	1~				3~							
	Packing [mm]			Weight [kgf] Automatic (With float switch)	Packing [mm]			Weight [kgf]				
Z	X	Y	Z		X	Y						
50DEMINY	1,1	370	260	555	24	370	260	555	24			
	1,5								24,5			
80DEMINY	2,25	380	295	780	39	380	295	780	39			
	3								-	-	-	40,5
	4,5								-	-	-	-
100DEMINY	5,5	-	-	-	-	420	412	1012	112,5			
	7,5H								113			
	7,5								113,5			
	9,5H								116,5			
	9,5								116,5			
	12,5								117,5			

MOTOR DATA

DEMINY

Pump Type		Power		Capacitor Single Phase		Input Power [kW]		Nominal current [A]	
Single Phase	Three Phase	[kW]	[HP]	[μF]	Vc [V]	Single Phase	Three Phase	Single Phase	Three Phase
50DEMINY51,1M	50DEMINY51,1T	1,1	1,5	30	450	2,2	2,00	12,0	4,0
50DEMINY51,5M	50DEMINY51,5T	1,5	2,0	40	450	3,20	3,00	15,0	5,0
80DEMINY52,25M	80DEMINY52,25T	2,25	3,0	80	450	3	3	14,0	6,0
	80DEMINY53T	3	4	-	-	-	5	-	8,6
	80DEMINY54,5T	4,5	6,0	-	-	-	7,5	-	12,5
	100DEMINY55,5T	5,5	7,5	-	-	-	14	-	14
	100DEMINY57,5HT	7,5	10	-	-	-	9,5	-	16,0
	100DEMINY57,5T	7,5	10	-	-	-	11	-	19,0
	100DEMINY59,5HT	9,5	12,5	-	-	-	11,7	-	21,0
	100DEMINY59,5T	9,5	12,5	-	-	-	11,8	-	25,0
	100DEMINY512,5T	12,5	16	-	-	-	17	-	28,5