

EMPOWER
SUBMERSIBLE
PUMPS & MOTORS



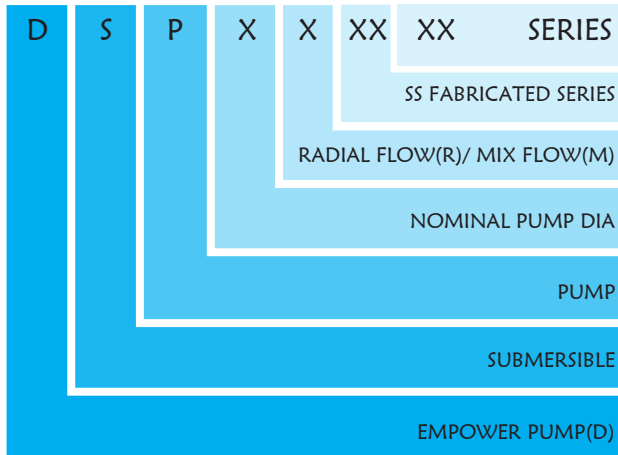
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GENERAL INFORMATION

Model Identification Code



Liquid Characteristics

Max. Liquid Temperature	33°C
Max. Water Hardness	300 ppm
Max. Permissible amount of sand	50 g/m ³
Max. Allowable Solids	3000 ppm
pH Range	6.5 - 8.5
Max. Specific Gravity	1.004
General Characteristics	Non-Aggressive, Non-Explosive

Technical Specification

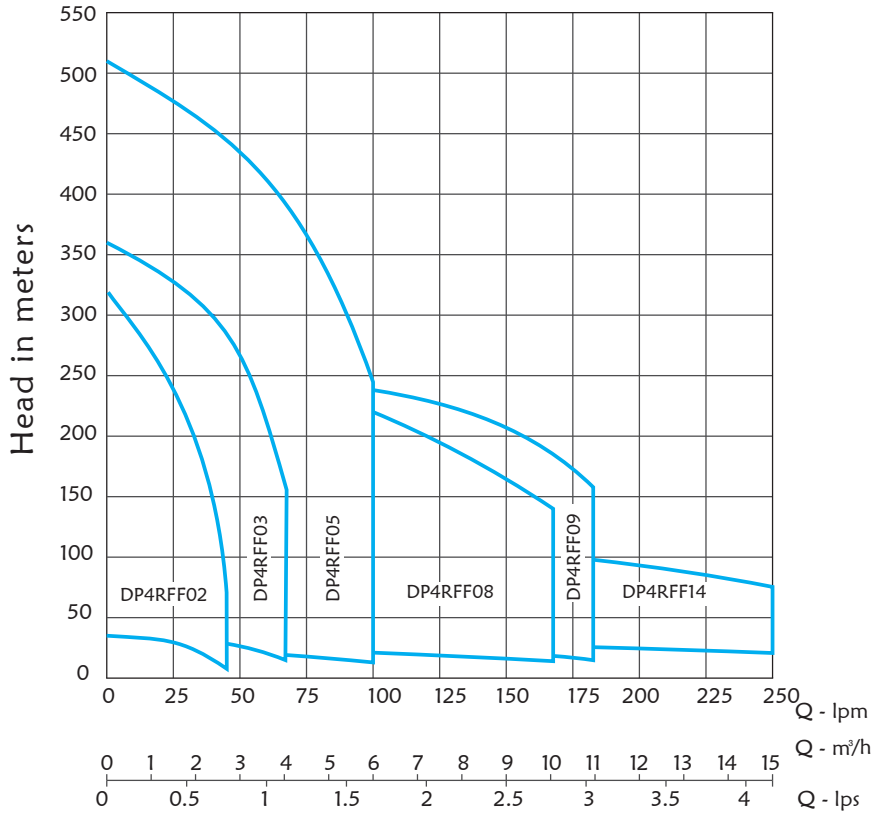
	4" (100 mm)	6" (150mm)	8" (200mm)	10" (250mm)
Power Range	0.37 - 5.5 kW	0.55 - 63 kW	5.5 - 75 kW	7.5 - 185 kW
	0.5 - 7.5 HP	0.75 - 85 HP	7.5 - 100 HP	10 - 250 HP
Nominal Speed	2900 rpm	2900 rpm	2900 rpm	2900 rpm
Flow Range	1 - 18.0 m ³ /h	6 - 72.0 m ³ /h	48 - 120.0 m ³ /h	48 - 276 m ³ /h
Shut-off Head	510 m	650 m	400 m	485 m
Outlet sizes	1.5", 2"	2", 2.5", 3", 4"	5"	6"
Shaft Coupling	Splines	Splines	Splines	Splines/Keyway
Mounting Standard	NEMA	NEMA	NEMA	NEMA/INT'L STD
Max. Operating Press.	50 bar	65 bar	40 bar	48 bar
Outlet Thread Std	BSP	BSP	BSP	BSP

Position of operations

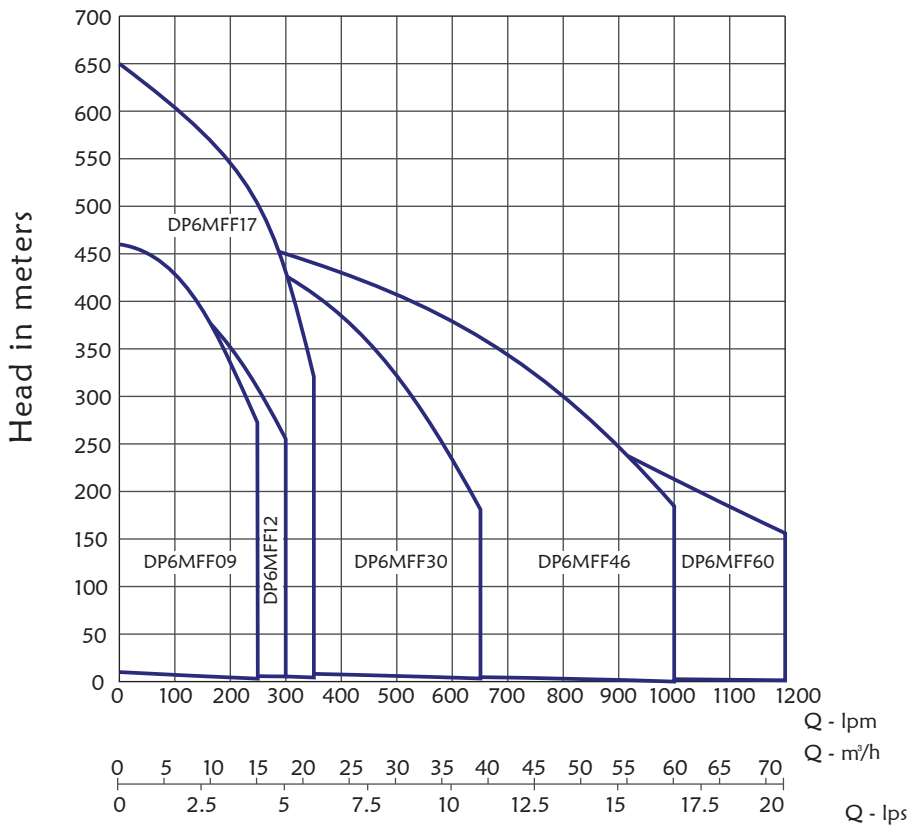


GROUP CURVES

4" Group Curves



6" Group Curves





DP SERIES

DP PUMPS 50Hz

MULTISTAGE CENTRIFUGAL BOREHOLE PUMPS

INTRODUCTION

PUMP

Empower DP4/6RFF are fully Stainless Steel, Borehole Deep Well pumps suitable for clear water, high head applications. These Pumps are of Multistage Centrifugal types accommodating Radial flow impellers according to the required Head & Flow. All parts are made from AISI 304 Stainless Steel with the shaft made of SS 431 and having an anti-friction rubber bearing bush to provide wear resistance against sand.

MOTOR

The pump is coupled to a sealed liquid cooled, 2 pole asynchronous squirrel cage motor constructed of Stainless Steel. The Motors are of; High performance, specially designed, with well lubricated thrust bearings to provided high axial thrust loads exerted by whole bore well water column and pumping systems. The mounting dimensions are as per NEMA Standards.

OPERATING CONDITIONS

Pumped liquids: Clean, thin, chemically non-aggressive liquids without solid particles or fibres.

Max Liquid Temp: +40°C

Minimum Borehole Diameter: 110mm

Max Immersion Depth: 200m

Enclosure Class: IP68

Insulation Class: F

Speed: 2900rpm

Voltage: 1PH-240V, 3PH-415V

Pipe Connector: BSP connector

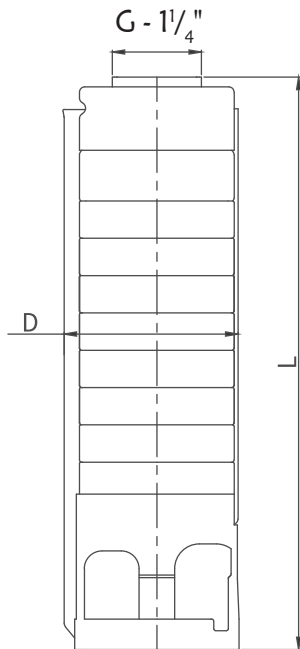
Shaft Coupling: Splines



DP4RFF02 PUMP DATA

C 50Hz						Discharge						
kW	HP	Stage	Voltage Rating (V)	Motor Joinings	Outlet Size (G)	Head in Mtrs.						
						m ³ /h	0	1	1.4	2	2.4	2.7
						lpm	0	17	23	33	40	45
0.37	0.5	6	240	V-4	1¼" BSP	35	31	29	23	14	8	
0.37	0.5	9	240	V-4	1¼" BSP	52	46	43	35	22	12	
0.55	0.75	13	240	V-4	1¼" BSP	75	67	62	51	31	17	
0.75	1	18	240 / 415	V-4	1¼" BSP	104	93	86	70	43	23	
1.1	1.5	23	240 / 415	V-4	1¼" BSP	133	118	109	90	55	30	
1.5	2.0	28	240 / 415	V-4	1¼" BSP	162	144	133	109	67	36	
1.5	2	33	240 / 415	V-4	1¼" BSP	191	170	157	129	79	43	
2.2	3	40	240 / 415	V-4	1¼" BSP	232	206	190	156	96	52	
2.2	3	48	240 / 415	V-4	1¼" BSP	278	247	228	187	115	62	
3	4	65	415	V-4	1¼" BSP	405	342	301	228	138	83	

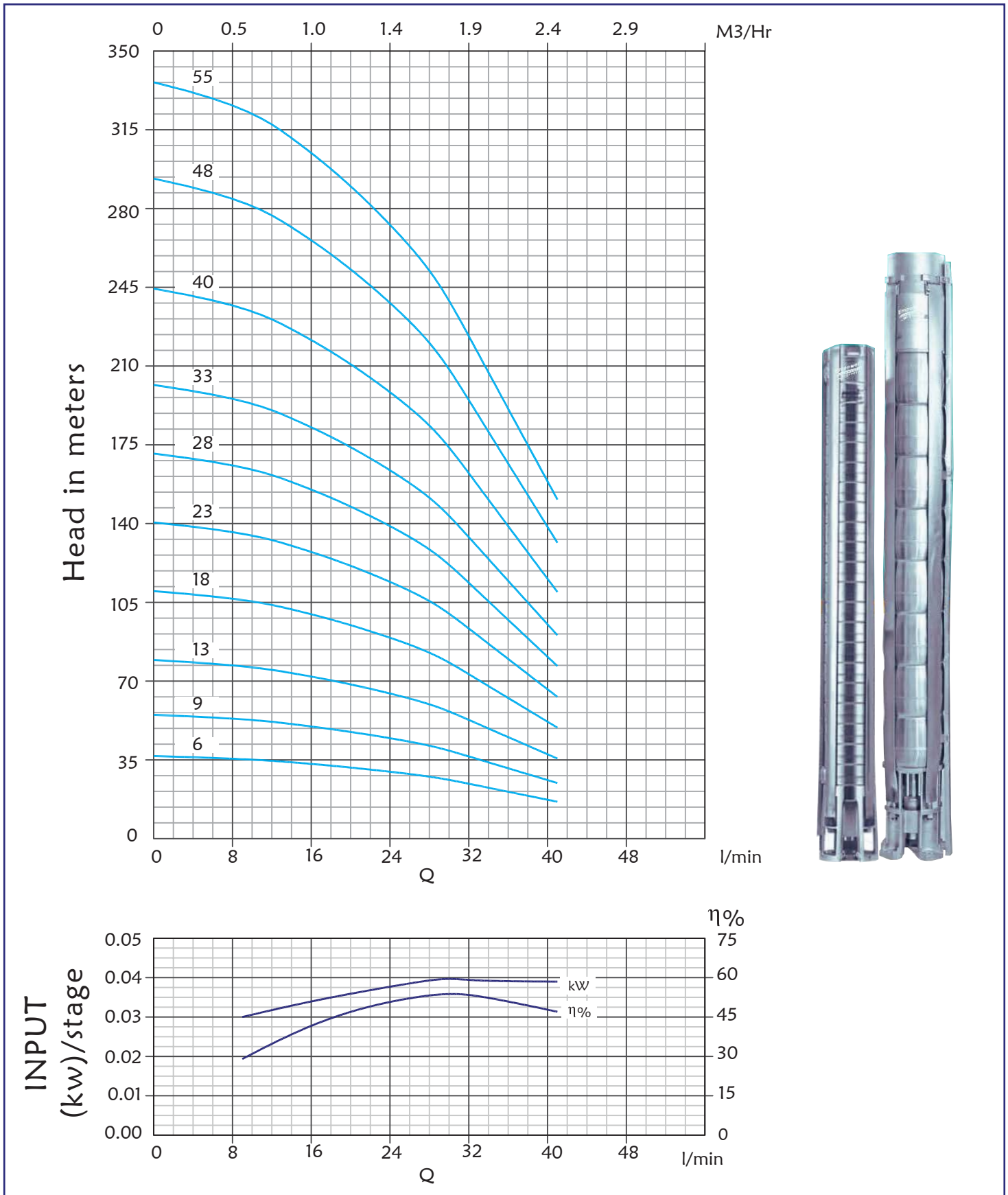
Dimensions & Weights



Model Name	SPECIFICATION			
	D (mm)	L (mm)	Pump Weight Kg.	Weight (inc. pKg.) Kg.
DP4RFF02-06	98	280	3	4
DP4RFF02-09	98	343	4	5
DP4RFF02-13	98	427	5	7
DP4RFF02-18	98	532	7	9
DP4RFF02-23	98	668	9	11
DP4RFF02-28	98	773	11	13
DP4RFF02-33	98	878	12	16
DP4RFF02-40	98	1097	13	17
DP4RFF02-48	98	1296	15	19
DP4RFF02-65	98	1852	20	23



DP4RFF02 50Hz SERIES PERFORMANCE CURVES

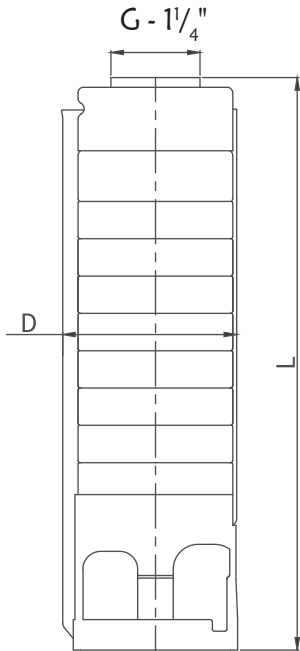




DP4RFF03 PUMP DATA

DP4RFF03 50Hz						Discharge						
kW	HP	Stage	Voltage Rating (V)	Motor Joinings	Outlet Size (G)	m ³ /h	0	1.8	2.4	3	3.6	4
						lpm	0	30	40	50	60	67
0.37	0.5	6	240	V-4	1¼" BSP	Head in Mtrs.	36	32	30	26	20	18
0.55	0.75	9	240	V-4	1¼" BSP		54	49	45	39	31	23
0.75	1.0	12	240 / 415	V-4	1¼" BSP		72	65	60	52	41	31
1.1	1.5	15	240 / 415	V-4	1¼" BSP		90	81	75	65	51	39
1.1	1.5	18	240 / 415	V-4	1¼" BSP		108	97	90	78	61	47
1.1	1.5	22	240 / 415	V-4	1¼" BSP		132	119	110	96	75	57
1.5	2.0	25	240 / 415	V-4	1¼" BSP		150	135	125	109	85	65
1.5	2.0	29	240 / 415	V-4	1¼" BSP		174	157	145	126	99	75
2.2	3.0	33	240 / 415	V-4	1¼" BSP		198	178	165	144	112	86
2.2	3.0	39	240 / 415	V-4	1¼" BSP		234	211	195	170	133	101
3.0	4.0	45	415	V-4	1¼" BSP		270	243	225	196	153	117
4.0	5.5	52	415	V-4	1¼" BSP		312	281	260	226	177	135
4.0	5.5	60	415	V-4	1¼" BSP		360	324	300	260	204	155

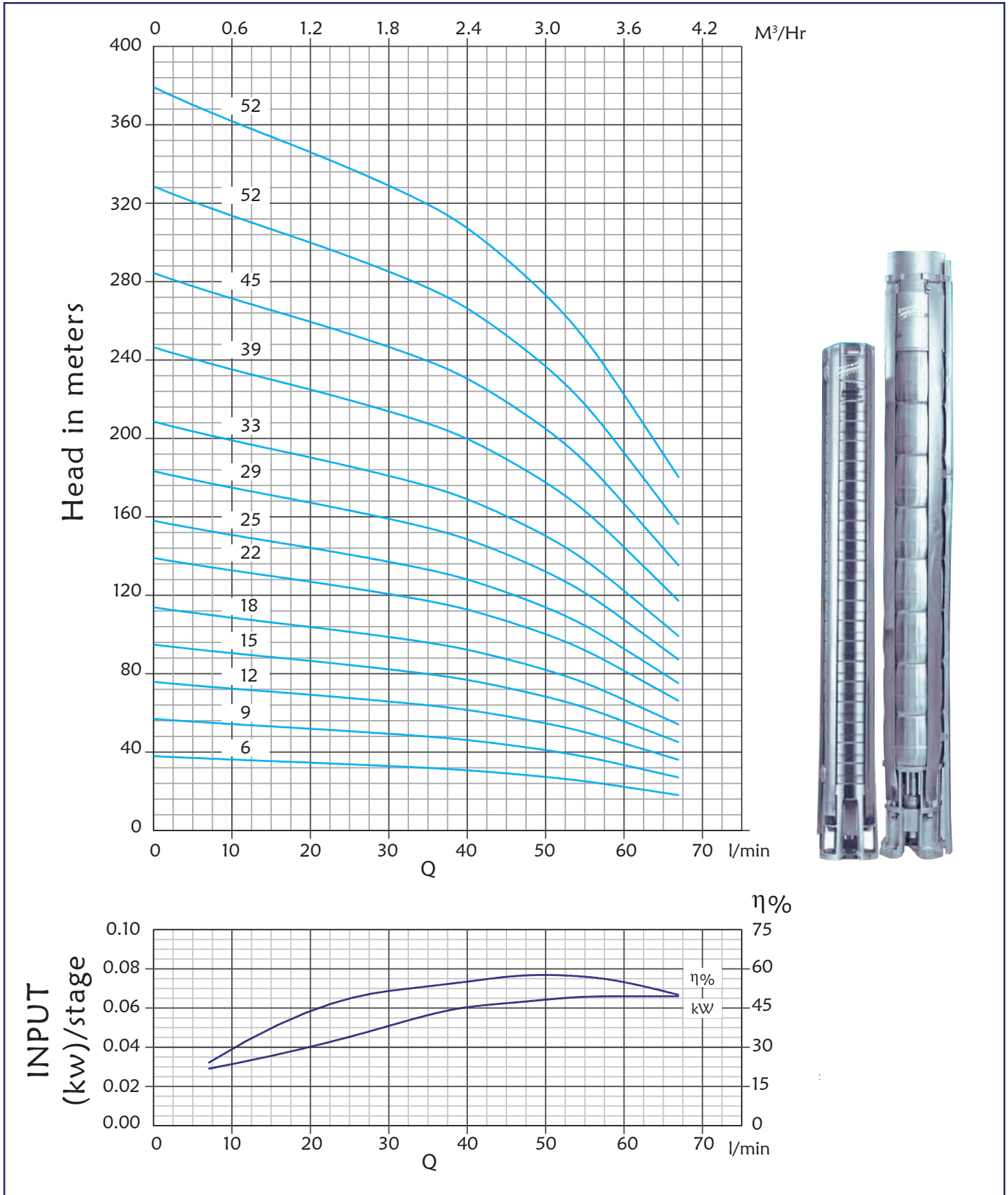
Dimensions & Weights



Model Name	SPECIFICATION			
	D (mm)	L (mm)	Pump Weight Kg.	Weight (inc. pKg.) Kg.
DP4RFF03-06	98	280	3.4	4.0
DP4RFF03-09	98	343	4.4	5.3
DP4RFF03-12	98	406	5.4	6.6
DP4RFF03-15	98	469	6.4	7.9
DP4RFF03-18	98	532	7.4	9.2
DP4RFF03-22	98	647	8.7	10.9
DP4RFF03-25	98	710	9.7	12.2
DP4RFF03-29	98	794	10.9	13.8
DP4RFF03-33	98	878	12.2	15.5
DP4RFF03-39	98	1076	12.7	16.6
DP4RFF03-45	98	1233	14.0	18.5
DP4RFF03-52	98	1380	15.5	20.7
DP4RFF03-60	98	1548	17.3	23.3



DP4RFF03 50Hz SERIES PERFORMANCE CURVES

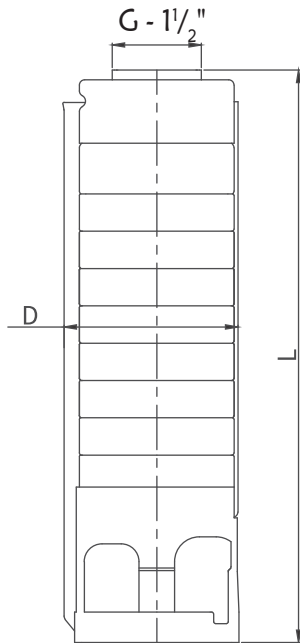




DP4RFF05 PUMP DATA

DP4RFF05 50Hz						Discharge						
kW	HP	Stage	Voltage Rating (V)	Motor Joinings	Outlet Size (G)	m ³ /h	0	2.4	3.4	4	5	6
						lpm	0	40	57	67	83	100
0.37	0.5	4	240	V-4	1 1/2" BSP	Head in Mtrs.	24	21	20	19	16	12
0.55	0.75	6	240	V-4	1 1/2" BSP		36	32	30	28	24	17
0.75	1.0	9	240 / 415	V-4	1 1/2" BSP		48	42	40	38	32	23
1.1	1.5	12	240 / 415	V-4	1 1/2" BSP		72	63	60	56	48	35
1.5	2	17	240 / 415	V-4	1 1/2" BSP		102	89	85	80	68	49
2.2	3	21	240 / 415	V-4	1 1/2" BSP		126	110	105	99	84	61
2.2	3	25	240 / 415	V-4	1 1/2" BSP		150	131	125	118	100	73
3.0	4	33	415	V-4	1 1/2" BSP		198	173	165	155	132	96
4.0	6	38	415	V-4	1 1/2" BSP		228	200	190	179	152	110
4.0	6	44	415	V-4	1 1/2" BSP		264	231	220	207	176	128
5.5	8	52	415	V-4	1 1/2" BSP		312	273	260	244	208	151
5.5	7.5	60	415	V-4	1 1/2" BSP		360	315	300	281	240	174
7.5	10	75	415	V-4	1 1/2" BSP		450	394	375	351	300	217
7.5	10	85	415	V-4	1 1/2" BSP		510	446	425	398	340	246

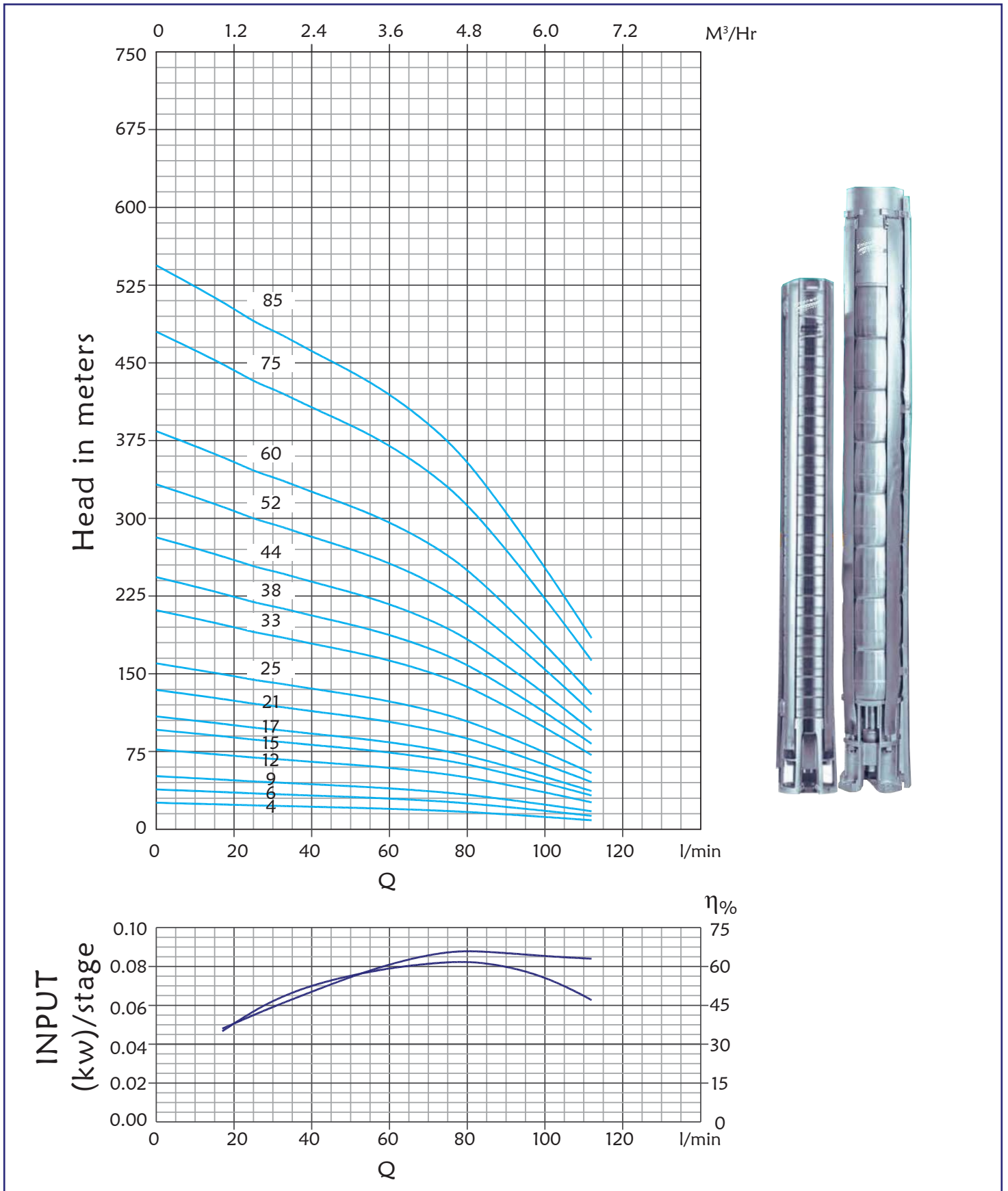
Dimensions & Weights



Model Name	SPECIFICATION			
	D (mm)	L (mm)	Pump Weight Kg.	Weight (inc. pKg.) Kg.
DP4RFF05-04	98	238	3.2	3.4
DP4RFF05-06	98	280	3.6	3.9
DP4RFF05-08	98	322	4.0	4.4
DP4RFF05-12	98	406	5.6	6.2
DP4RFF05-15	98	469	6.6	7.4
DP4RFF05-17	98	511	7.0	7.9
DP4RFF05-21	98	626	8.4	9.5
DP4RFF05-25	98	710	9.7	11.0
DP4RFF05-33	98	878	12.5	14.2
DP4RFF05-38	98	1169	13.0	14.7
DP4RFF05-44	98	1344	14.0	16.0
DP4RFF05-52	98	1536	16.3	18.6
DP4RFF05-60	119	1820	27.0	29.4
DP4RFF05-75	114	2423	43.5	46.1
DP4RFF05-85	114	2694	47.5	50.5



DP4RFF05 50Hz SERIES PERFORMANCE CURVES

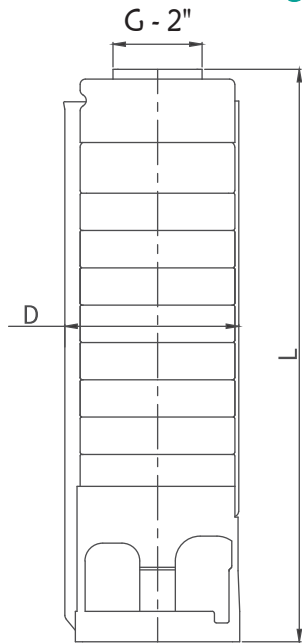


PUMP DATA

DP4RFF08 50Hz

kW	HP	Stage	Voltage Rating (V)	Motor Joinings	Outlet Size (G)	Head in Mtrs.	Discharge						
							m ³ /h	0	4	6	8	9	10
							lpm	0	67	100	133	150	167
0.75	1.0	5	240 / 415	V-4	2" BSP	30	24	23	20	18	14		
1.1	1.5	7	240 / 415	V-4	2" BSP	42	34	32	28	25	20		
1.5	2.0	10	240 / 415	V-4	2" BSP	60	48	45	40	36	28		
2.2	3.0	12	240 / 415	V-4	2" BSP	72	58	54	48	43	34		
2.2	3.0	15	240 / 415	V-4	2" BSP	90	72	68	60	54	42		
3.0	4.0	18	415	V-4	2" BSP	108	86	81	72	65	50		
4.0	5.5	21	415	V-4	2" BSP	126	101	95	84	76	59		
4.0	5.5	25	415	V-4	2" BSP	150	120	113	100	90	70		
5.5	7.5	30	415	V-4	2" BSP	180	144	135	120	108	84		
5.5	7.5	37	415	V-4	2" BSP	222	178	167	148	133	104		
7.5	10.0	44	415	V-4	2" BSP	264	211	198	176	158	123		
7.5	10.0	50	415	V-4	2" BSP	300	240	225	200	179	140		

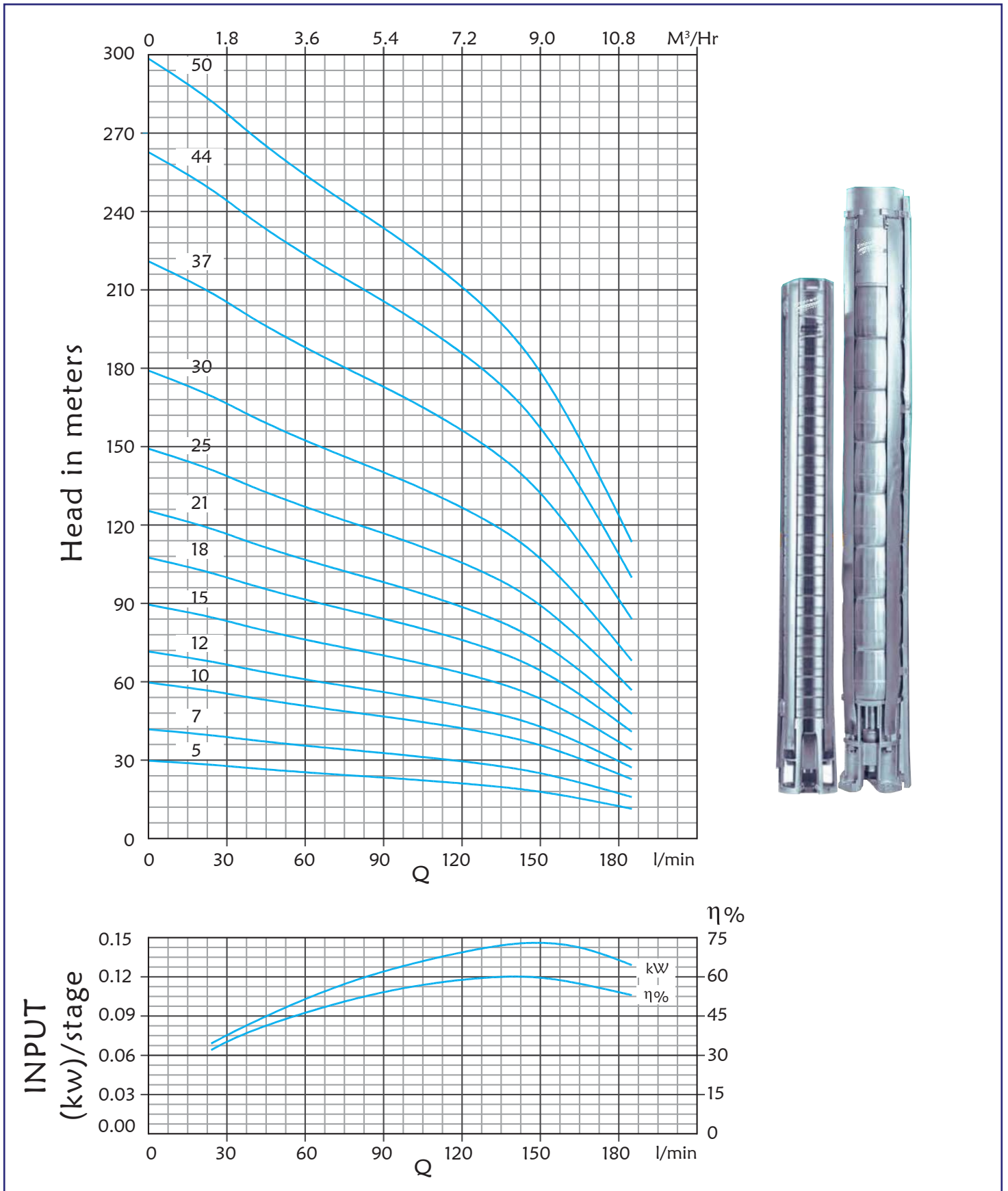
Dimensions & Weights



Model Name	SPECIFICATION			
	D (mm)	L (mm)	Pump Weight Kg.	Weight (inc. pKg.) Kg.
DP4RFF08-05	98	410	7.2	10.2
DP4RFF08-07	98	494	7.7	10.7
DP4RFF08-10	98	620	8.4	11.4
DP4RFF08-12	98	704	8.9	11.9
DP4RFF08-15	98	830	9.7	12.7
DP4RFF08-21	98	1082	11.2	14.2
DP4RFF08-25	98	1250	12.3	15.3
DP4RFF08-30	98	1460	13.5	16.5
DP4RFF08-37	98	1754	15.3	18.3
DP4RFF08-44	98	2048	17.1	20.1
DP4RFF08-50	98	2300	18.8	21.8



DP4RFF08 50Hz SERIES PERFORMANCE CURVES

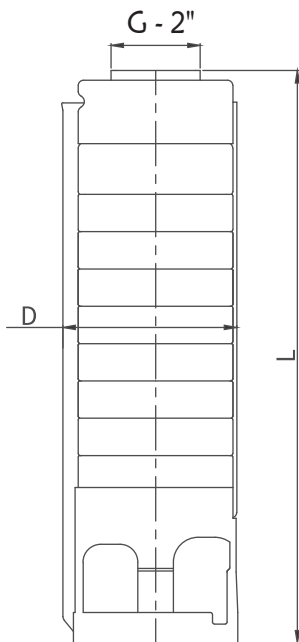


DP4RFF14 PUMP DATA

DP4RFF14 50Hz

kW	HP	Stage	Voltage Rating (V)	Motor Joinings	Outlet Size (G)	m ³ /h lpm	Discharge				
							0	6	12	14	15
1.5	2.0	5	240 / 415	V-4	2" BSP	Head in Mtrs.	0	100	200	233	250
2.2	3.0	7	240 / 415	V-4	2" BSP		32	29	25	20	18
3.0	4.0	10	415	V-4	2" BSP		42	40	34	30	27
4.0	5.5	11	415	V-4	2" BSP		65	61	49	44	40
4.0	5.5	13	415	V-4	2" BSP		75	70	56	50	42
4.0	5.5	13	415	V-4	2" BSP		85	79	64	58	52
5.5	7.5	16	415	V-4	2" BSP		104	99	81	71	61
5.5	7.5	18	415	V-4	2" BSP		118	112	92	80	74
7.5	10.0	22	415	V-4	2" BSP		141	132	111	96	89
7.5	10.0	25	415	V-4	2" BSP		161	152	125	110	101

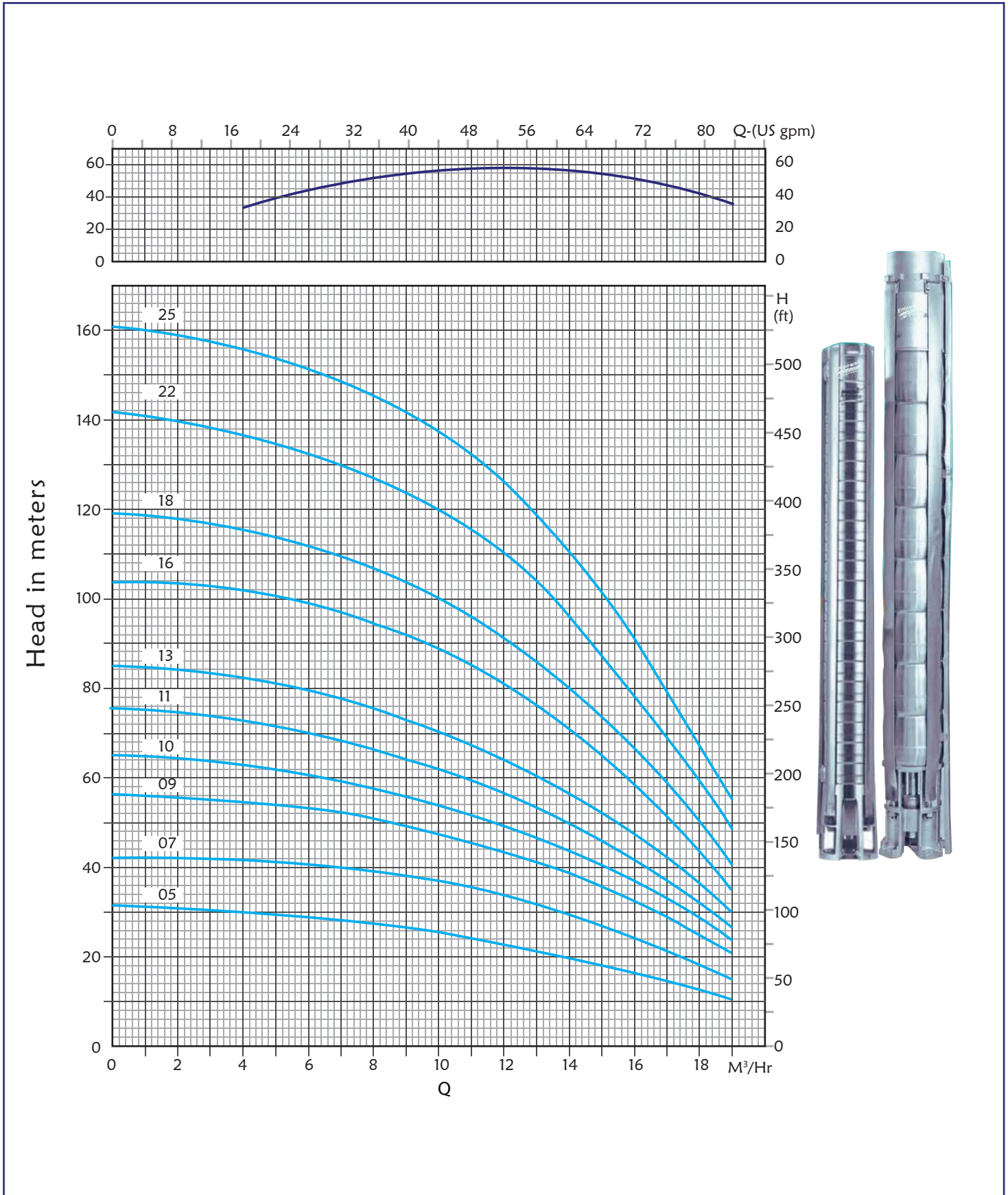
Dimensions & Weights



Model Name	SPECIFICATION			
	D (mm)	L (mm)	Pump Weight Kg.	Weight (inc. pKg.) Kg.
DP4RFF14-05	98	410	7.2	10.2
DP4RFF14-07	98	494	7.7	10.7
DP4RFF14-09	98	567	8.1	11.1
DP4RFF14-10	98	620	8.4	11.4
DP4RFF14-11	98	683	8.6	11.6
DP4RFF14-13	98	704	8.9	11.9
DP4RFF14-16	98	880	9.4	12.4
DP4RFF14-18	98	956	10.5	13.5
DP4RFF14-22	98	1276	11.6	14.6
DP4RFF14-25	98	1450	12.3	15.3



DP4RFF14 50Hz SERIES PERFORMANCE CURVES



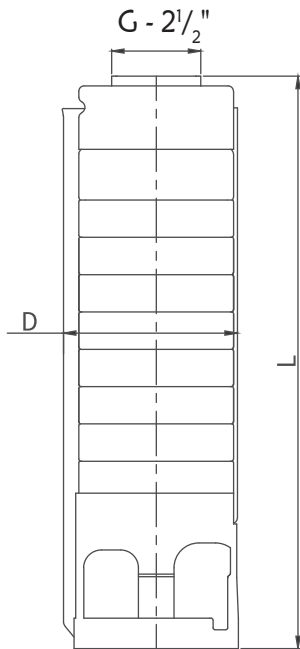


DP6MFF17 50Hz PUMP DATA

DP6MFF17 50Hz

kW	HP	Stage	Voltage Rating (V)	Motor Joinings	Outlet Size (G)	Discharge						
						m ³ /h	0	6	12	15	18	21
						lpm	0	100	200	250	300	350
4.0	6	7	415	V-6	2½" BSP	Head in Mtrs.	78	77	69	62	52	40
5.5	7.5	10	415	V-6	2½" BSP		112	110	98	88	74	57
7.5	10	13	415	V-6	2½" BSP		146	143	127	114	96	74
9.3	12.5	15	415	V-6	2½" BSP		168	165	147	132	111	86
9.3	12.5	17	415	V-6	2½" BSP		190	187	167	150	126	97
11	15	20	415	V-6	2½" BSP		224	220	196	176	148	114
13	17.5	22	415	V-6	2½" BSP		246	242	216	194	163	125
13	17.5	24	415	V-6	2½" BSP		269	264	235	211	178	137

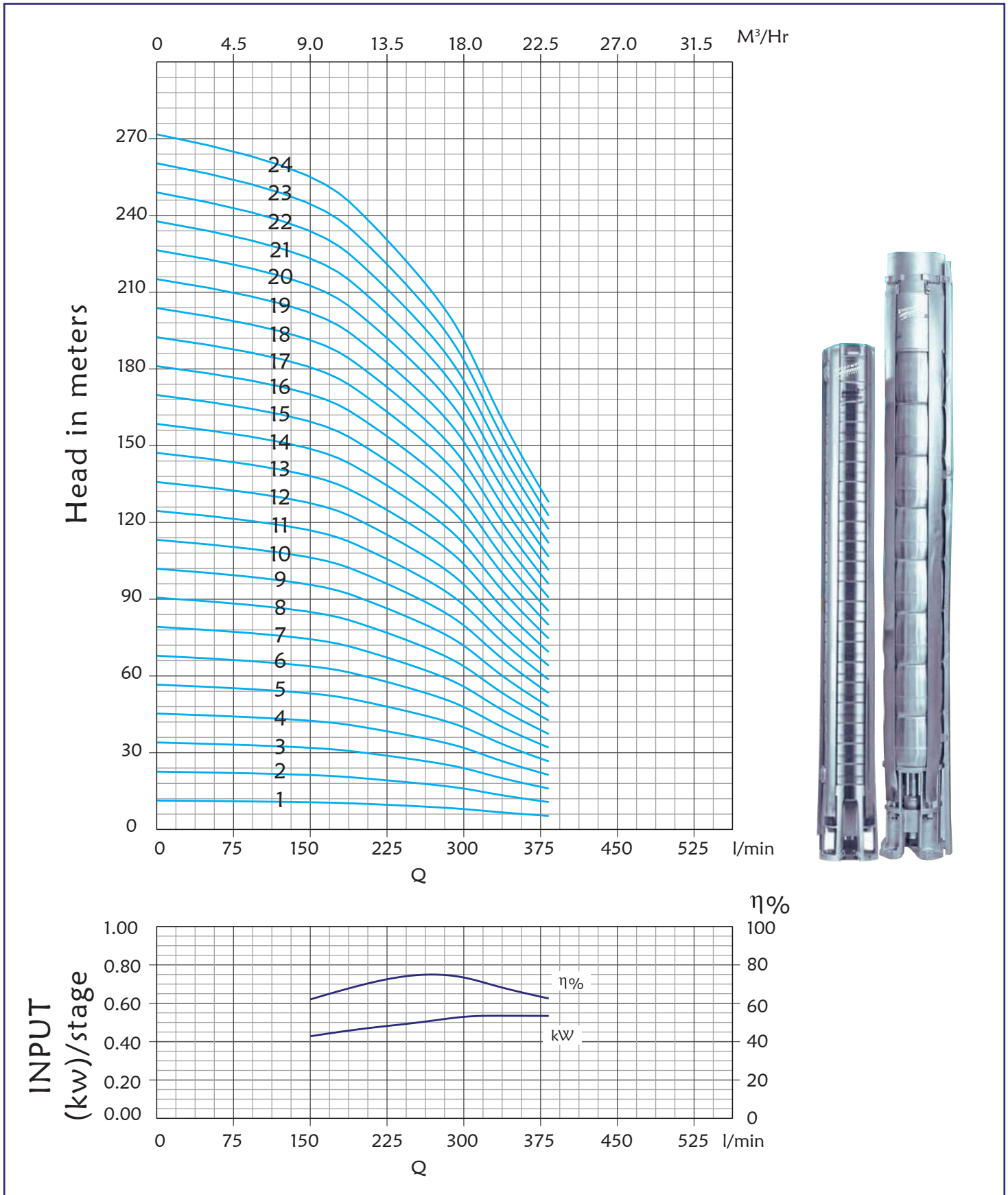
Dimensions & Weights



Model Name	SPECIFICATION			
	D (mm)	L (mm)	Pump Weight Kg.	Weight (inc. pKg.) Kg.
DP6MFF17-07	144	694	16.0	18.0
DP6MFF17-10	144	876	19.0	21.0
DP6MFF17-13	144	1057	23.0	26.0
DP6MFF17-15	144	1178	26.0	28.0
DP6MFF17-17	144	1299	28.0	31.0
DP6MFF17-20	144	1481	32.0	35.0
DP6MFF17-22	144	1602	34.0	38.0
DP6MFF17-24	144	1723	37.0	40.0



DP6MFF17 50Hz SERIES PERFORMANCE CURVES

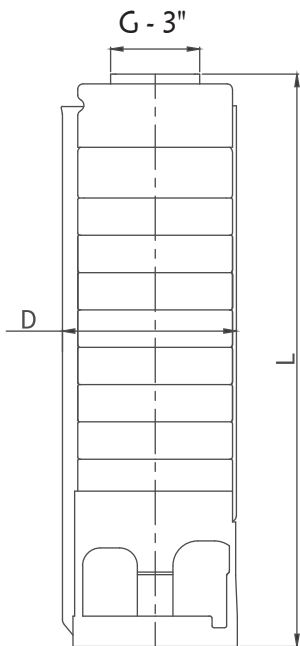


DP6MFF30 PUMP DATA

DP6MFF30 50Hz

kW	HP	Stage	Voltage Rating (V)	Motor Joinings	Outlet Size (G)	m ³ /h lpm	Discharge				
							0	12	24	30	36
7.5	10	8	415	V-6	3"BSP	93	86	74	64	50	
11	15	13	415	V-6	3"BSP	148	137	119	106	83	
15	20	17	415	V-6	3"BSP	196	180	158	139	110	
18.5	25	21	415	V-6	3"BSP	242	223	193	168	134	
22.0	30	26	415	V-6	3"BSP	292	268	230	199	154	

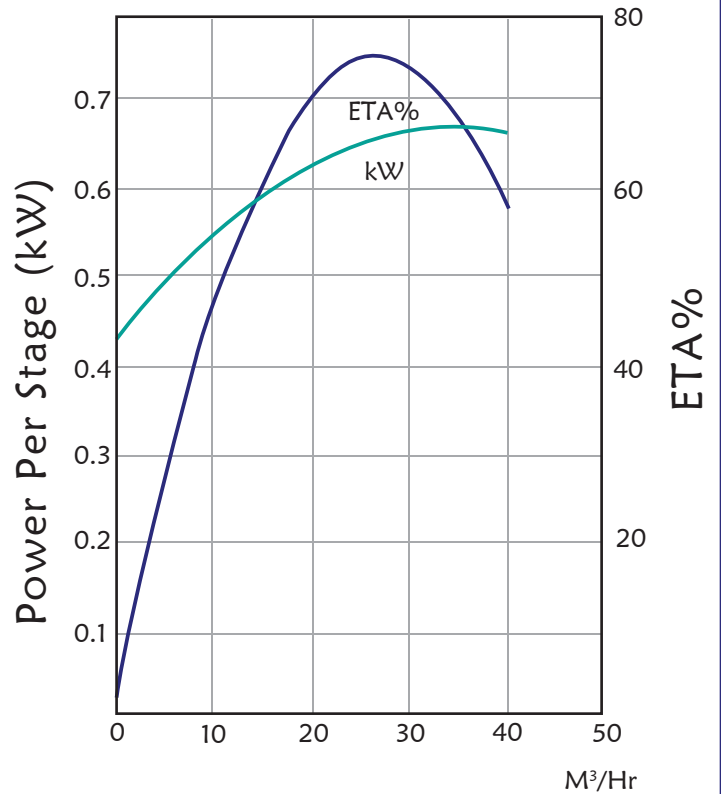
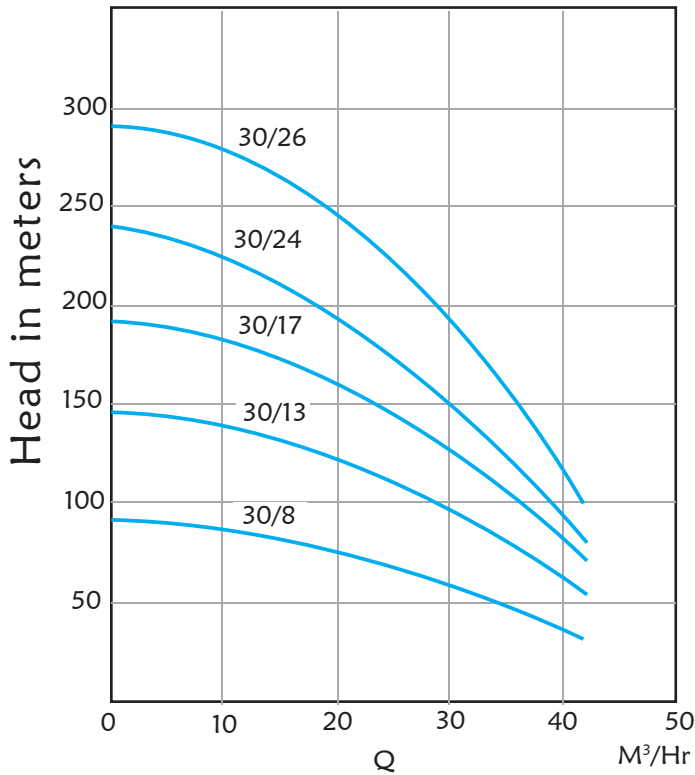
Dimensions & Weights



Model Name	SPECIFICATION			
	D (mm)	L (mm)	Pump Weight Kg.	Weight (inc. pKg.) Kg.
DP6MFF30-08	144	1039	23.0	28.0
DP6MFF30-13	144	1519	33.0	38.0
DP6MFF30-17	144	1903	41.0	51.0
DP6MFF30-21	144	2287	49.0	59.0
DP6MFF30-26	144	2767	59.0	71.0



DP6MFF17 50Hz SERIES PERFORMANCE CURVES



- ★ Available Outlet Size BSP 3.0" and 2.5" on Demand.
- ★ DPMFF30/8 Pump Ends are also available in 4" Joining.
- ★ DPMFF30 series exceeding 39 stages available with mounted sleeve in 6" joining.

FEATURES

- | Optimal Design.
- | Easy to handle and repair.
- | Precisely made parts.
- | NEMA Mounting Standard.
- | High operating efficiency.
- | Good resistance to salt.





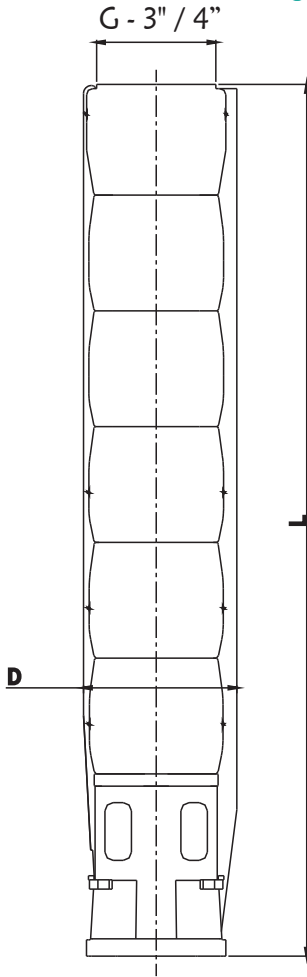
DP6MFF46 PUMP DATA

DP6MFF46 50Hz

kW	HP	Stage	Motor Joinings	Outlet Size (G)	m ³ /h lpm	Discharge				
						0	24	36	48	60
1.1	1.5	1-B	V-6	4" BSP	Head in Mtrs.	0	400	600	800	1000
2.2	3	1	V-6	4" BSP		9	8	7	4	1
2.2	3	2-BB	V-6	4" BSP		13	11	10	8	5
3	4	2	V-6	4" BSP		19	16	14	9	1
3.7	5	3-C	V-6	4" BSP		27	23	20	16	10
5.5	7.5	3	V-6	4" BSP		36	30	26	19	10
5.5	7.5	4-C	V-6	4" BSP		40	35	30	24	15
7.5	10	4	V-6	4" BSP		49	42	36	27	15
7.5	10	5	V-6	4" BSP		54	46	40	32	20
9.3	12.5	6	V-6	4" BSP		67	58	50	41	25
11	15	7	V-6	4" BSP		80	70	60	49	30
11	15	8-C	V-6	4" BSP		94	81	70	57	35
13	17.5	8	V-6	4" BSP		103	88	76	60	35
13	17.5	9-C	V-6	4" BSP		107	93	80	65	38
15	20	9	V-6	4" BSP		116	100	86	68	40
15	20	10	V-6	4" BSP		121	104	90	73	45
18.5	25	11	V-6	4" BSP		134	116	100	81	50
18.5	25	12	V-6	4" BSP		147	128	110	89	55
22	30	13	V-6	4" BSP		161	139	120	97	60
22	30	14	V-6	4" BSP		174	151	130	105	65
22	30	15	V-6	4" BSP		188	162	140	113	70
26	35	16	V-6	4" BSP		201	174	150	122	75
26	35	17	V-6	4" BSP		214	186	160	130	80
30	40	18	V-6	4" BSP		228	197	170	138	85
30	40	19	V-6	4" BSP		241	209	180	146	90
30	40	20	V-6	4" BSP		255	220	190	154	95
37	50	21	V-6	4" BSP		268	232	200	162	100
37	50	22	V-6	4" BSP		281	244	210	170	105
37	50	23	V-6	4" BSP		295	255	220	178	110
37	50	24	V-6	4" BSP		308	267	230	186	115
45	60	26	V-6	4" BSP		322	278	240	194	120
45	60	28	V-6	4" BSP		349	301	260	210	130
45	60	30	V-6	4" BSP		376	324	280	226	140
55	75	33	V-6	4" BSP		403	347	300	242	150
55	75	35	V-6	4" BSP		443	382	330	266	165
63	85	37	V-6	4" BSP		470	405	350	282	175
					497	428	370	298	185	

PUMP DATA

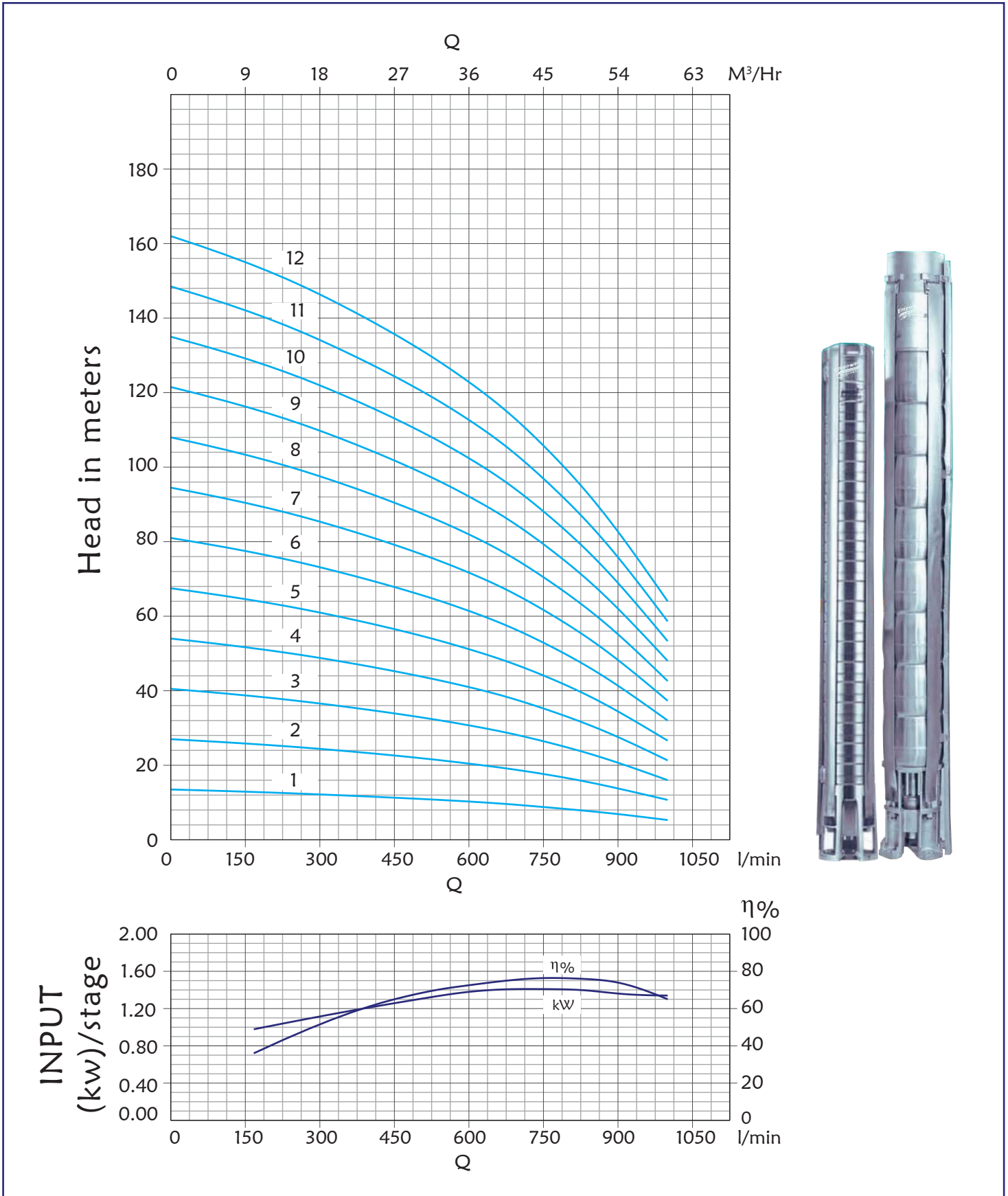
Dimensions & Weights



Model Name	Specification			
	D (mm)	L (mm)	Pump Weight Kg.	Weight (incl. pkg.) Kg.
DP6MFF46 -01	147	113	12	14
DP6MFF46 -02	147	509	14	15
DP6MFF46 -03	147	622	16	17
DP6MFF46 -04	147	735	18	21
DP6MFF46 -05	147	848	20	23
DP6MFF46 -06	147	961	18	24
DP6MFF46 -07	147	1074	20	25
DP6MFF46 -08	147	1187	22	28
DP6MFF46 -09	147	1300	24	29
DP6MFF46 -10	147	1413	26	34
DP6MFF46 -11	147	1526	28	36
DP6MFF46 -12	147	1639	32	42
DP6MFF46 -13	147	1752	34	44
DP6MFF46 -14	147	1865	36	46
DP6MFF46 -15	147	1978	38	48
DP6MFF46 -16	147	2091	40	50
DP6MFF46 -17	147	2204	42	52
DP6MFF46 -18	147	2317	44	54
DP6MFF46 -19	147	2430	46	56
DP6MFF46 -20	147	2543	48	58
DP6MFF46 -21	147	2656	55	60
DP6MFF46 -22	147	2769	57	62
DP6MFF46 -23	147	2882	60	65
DP6MFF46 -24	147	2995	62	67

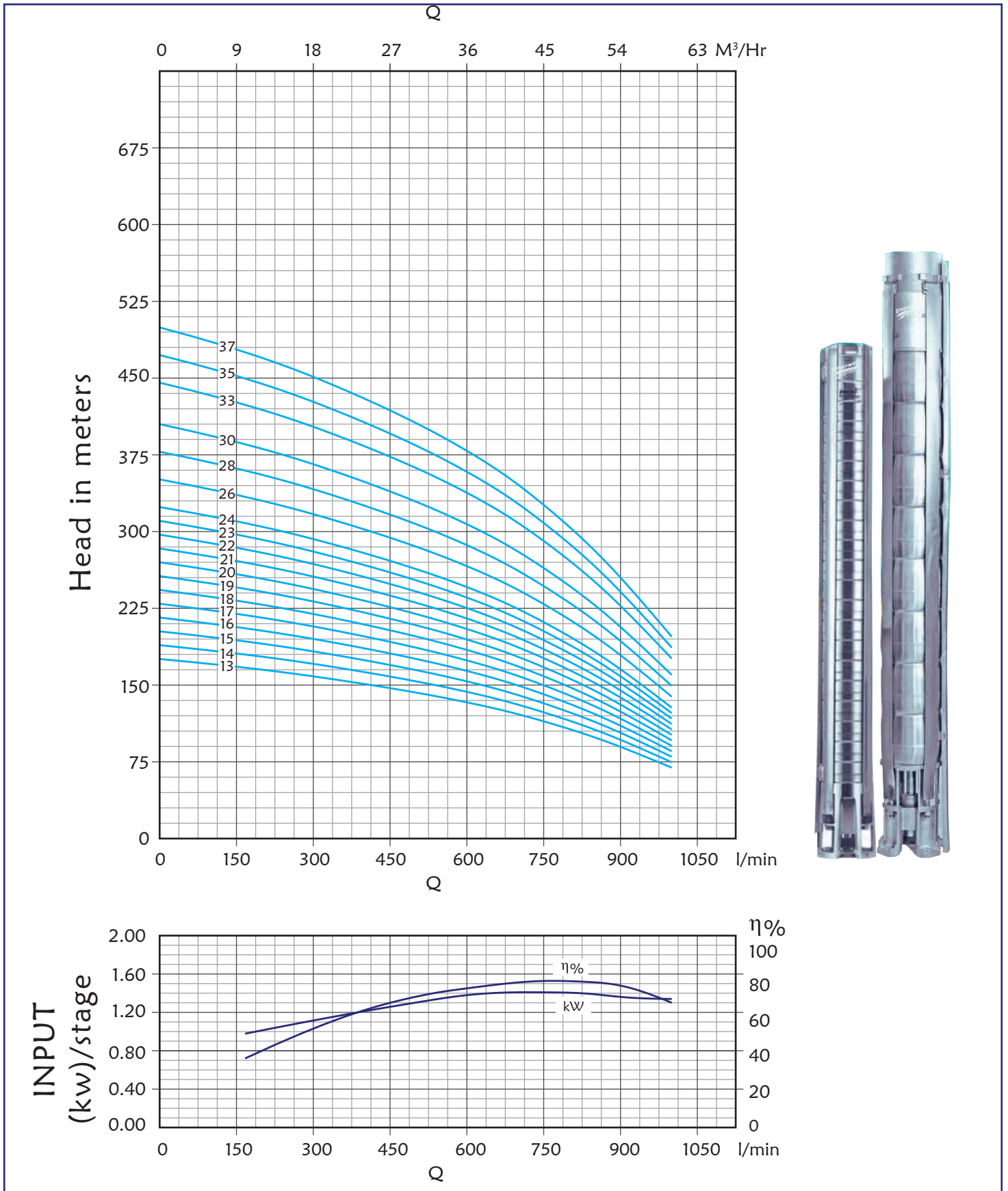


DP6MFF46 50Hz SERIES PERFORMANCE CURVES





DP6MFF46 50Hz SERIES PERFORMANCE CURVES





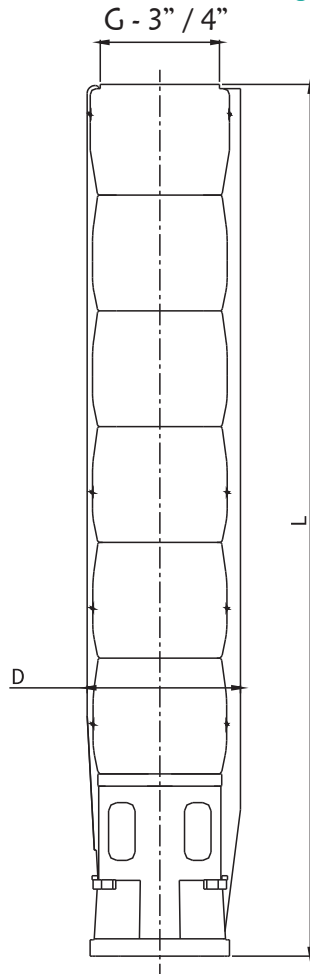
DP6MFF60 PUMP DATA

DP6MFF60 50Hz

kW	HP	Stage	Motor Joinings	Outlet Size	m ³ /h lpm	Discharge					
						0	24	36	48	60	72
						0	400	600	800	1000	1200
1.5	2	1-A	V-6	4" BSP	Head in Mtrs.	11	9	7	6	4	0
2.2	3	1	V-6	4" BSP		14	12	11	9	7	5
3	4	2-B	V-6	4" BSP		21	20	16	14	10	6
3.7	5	2	V-6	4" BSP		28	26	22	19	15	11
5.5	7.5	3	V-6	4" BSP		43	38	33	28	23	17
7.5	10	4	V-6	4" BSP		57	51	44	38	31	22
9.3	12.5	5	V-6	4" BSP		71	64	55	47	39	28
11	15	6	V-6	4" BSP		85	77	66	56	46	33
13	17.5	7	V-6	4" BSP		85	77	66	56	46	33
13	17.5	8-B	V-6	4" BSP		99	90	77	66	54	39
15	20	8	V-6	4" BSP		106	97	82	70	56	39
15	20	9-B	V-6	4" BSP		114	102	88	75	62	44
18.5	25	9	V-6	4" BSP		121	109	93	79	64	44
18.5	25	10	V-6	4" BSP		128	115	99	85	69	50
22	30	11	V-6	4" BSP		142	128	110	94	77	55
22	30	12	V-6	4" BSP		156	141	121	103	85	61
26	35	13	V-6	4" BSP		170	154	132	113	92	66
26	35	14	V-6	4" BSP		185	166	143	122	100	72
26	35	15	V-6	4" BSP		199	179	154	132	108	77
30	40	16	V-6	4" BSP		213	192	165	141	116	83
30	40	17	V-6	4" BSP		227	205	176	150	123	88
30	40	18	V-8	4" BSP		241	218	187	160	131	94
37	50	19	V-8	4" BSP		256	230	198	169	139	99
37	50	20	V-8	4" BSP		270	243	209	179	146	105
37	50	21	V-8	4" BSP		284	256	220	188	154	110
45	60	22	V-8	4" BSP		298	269	231	197	162	116
45	60	23	V-8	4" BSP		312	282	242	207	169	121
45	60	24	V-8	4" BSP		327	294	253	216	177	127
55	75	26	V-8	4" BSP		354	318	274	234	192	137
55	75	28	V-8	4" BSP		381	342	295	252	207	147
55	75	30	V-8	4" BSP	408	366	316	270	222	157	

PUMP DATA

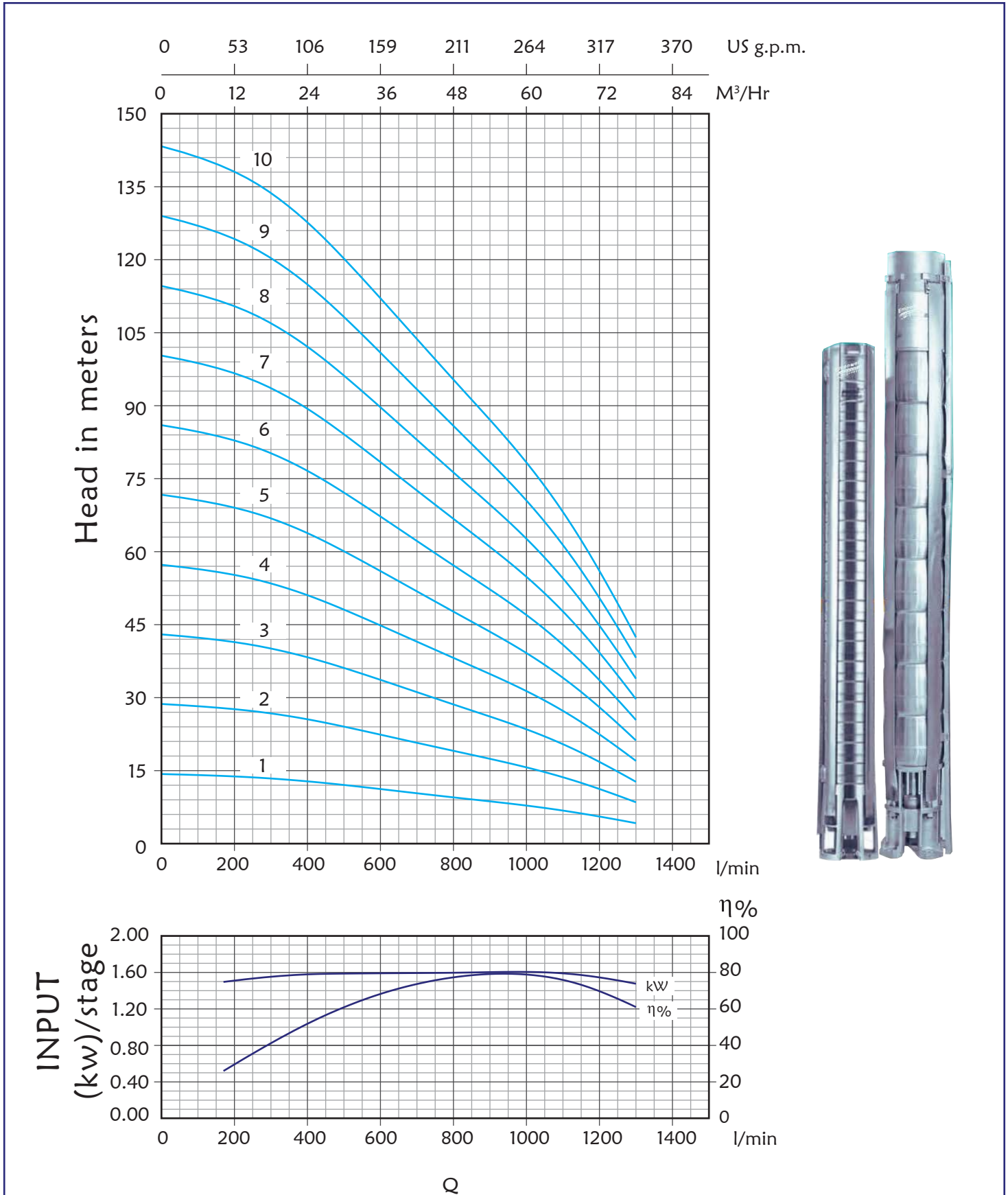
Dimensions & Weights



Model Name	Specification			
	D (mm)	L (mm)	Pump Weight Kg.	Weight (incl. pkg.) Kg.
DP6MFF60 -01	147	113	12	14
DP6MFF60 -02	147	509	14	15
DP6MFF60 -03	147	622	16	17
DP6MFF60 -04	147	735	18	21
DP6MFF60 -05	147	848	20	23
DP6MFF60 -06	147	961	18	24
DP6MFF60 -07	147	1074	20	25
DP6MFF60 -08	147	1187	22	28
DP6MFF60 -09	147	1300	24	29
DP6MFF60 -10	147	1413	26	34
DP6MFF60 -11	147	1526	28	36
DP6MFF60 -12	147	1639	32	42
DP6MFF60 -13	147	1752	34	44
DP6MFF60 -14	147	1865	36	46
DP6MFF60 -15	147	1978	38	48
DP6MFF60 -16	147	2091	40	50
DP6MFF60 -17	147	2204	42	52
DP6MFF60 -18	147	2317	44	54
DP6MFF60 -19	147	2430	46	56
DP6MFF60 -20	147	2543	48	58
DP6MFF60 -21	147	2656	50	60

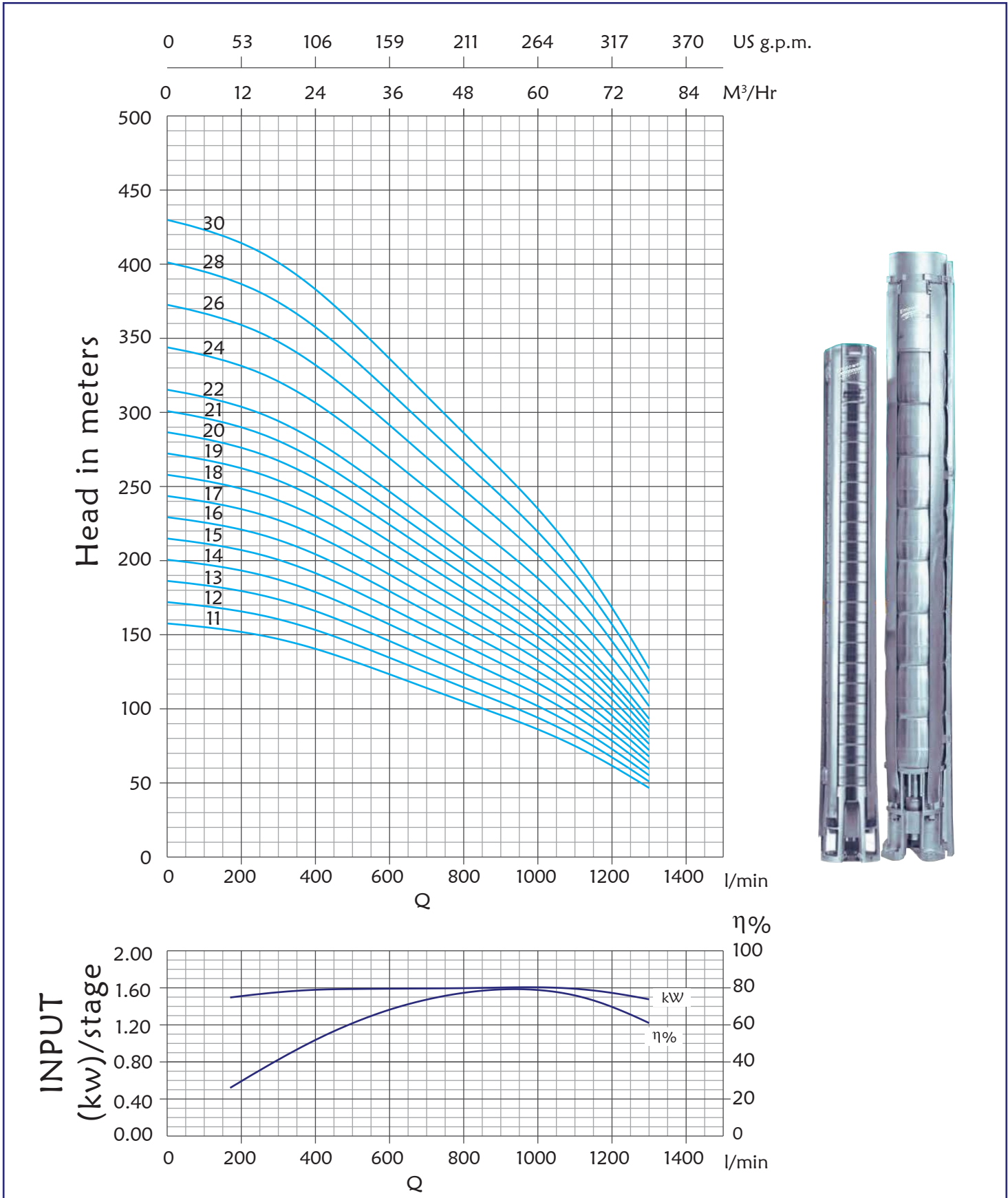


DP6MFF60 50Hz SERIES PERFORMANCE CURVES





DP6MFF60 50Hz SERIES PERFORMANCE CURVES



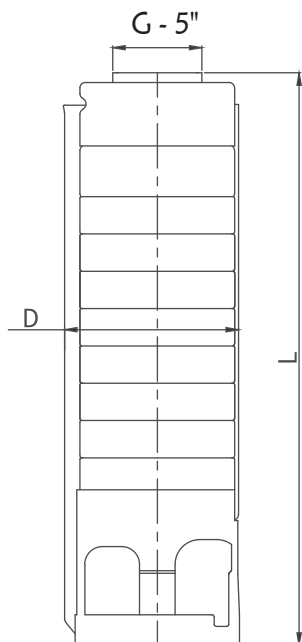


DP6MFF95 PUMP DATA

DP6MFF95 50Hz

kW	HP	Stage	Motor Joinings	Outlet Size	m ³ /h lpm	Discharge					
						0	48	72	96	108	120
					0	800	1200	1600	1800	2000	
5.5	7.5	1	V-6	5" BSP	Head in Mtrs.	21	17	14	11	9	6
5.5	7.5	2-BB	V-6	5" BSP		27	22	19	12	6	2
7.5	10	2-A	V-8	5" BSP		39	29	25	20	15	9
9.3	12.5	2	V-8	5" BSP		43	35	30	24	19	13
9.3	12.5	3-BB	V-8	5" BSP		48	39	34	24	16	7
11	15	3-B	V-8	5" BSP		57	46	40	30	22	13
13	17.5	3	V-8	5" BSP		64	52	44	35	29	20
15	20	4-B	V-8	5" BSP		78	63	54	41	32	20
18.5	25	4	V-8	5" BSP		86	69	59	47	39	27
18.5	25	5-AB	V-8	5" BSP		95	75	64	49	37	20
22	30	5	V-8	5" BSP		107	87	74	59	49	34
26	35	6	V-8	5" BSP		128	104	89	71	58	40
30	40	7	V-8	5" BSP		150	121	104	83	68	47
37	50	8	V-8	5" BSP		171	138	118	94	78	54
37	50	9	V-8	5" BSP		193	156	133	106	87	60
45	60	10	V-8	5" BSP		214	173	148	118	97	67
55	75	11	V-8	5" BSP		235	190	163	130	107	74
55	75	12	V-8	5" BSP	257	208	178	142	116	80	
55	75	13	V-8	5" BSP	278	225	192	153	126	87	
67	90	14	V-8	5" BSP	300	242	207	165	136	94	
75	100	15	V-8	5" BSP	321	260	222	177	146	101	
75	100	16	V-8	5" BSP	342	277	237	189	155	107	
75	100	17	V-8	5" BSP	364	294	252	201	165	114	

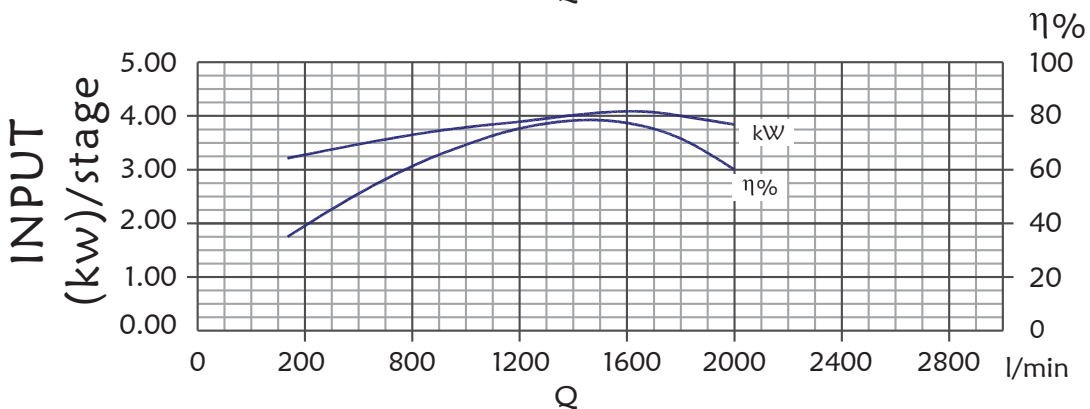
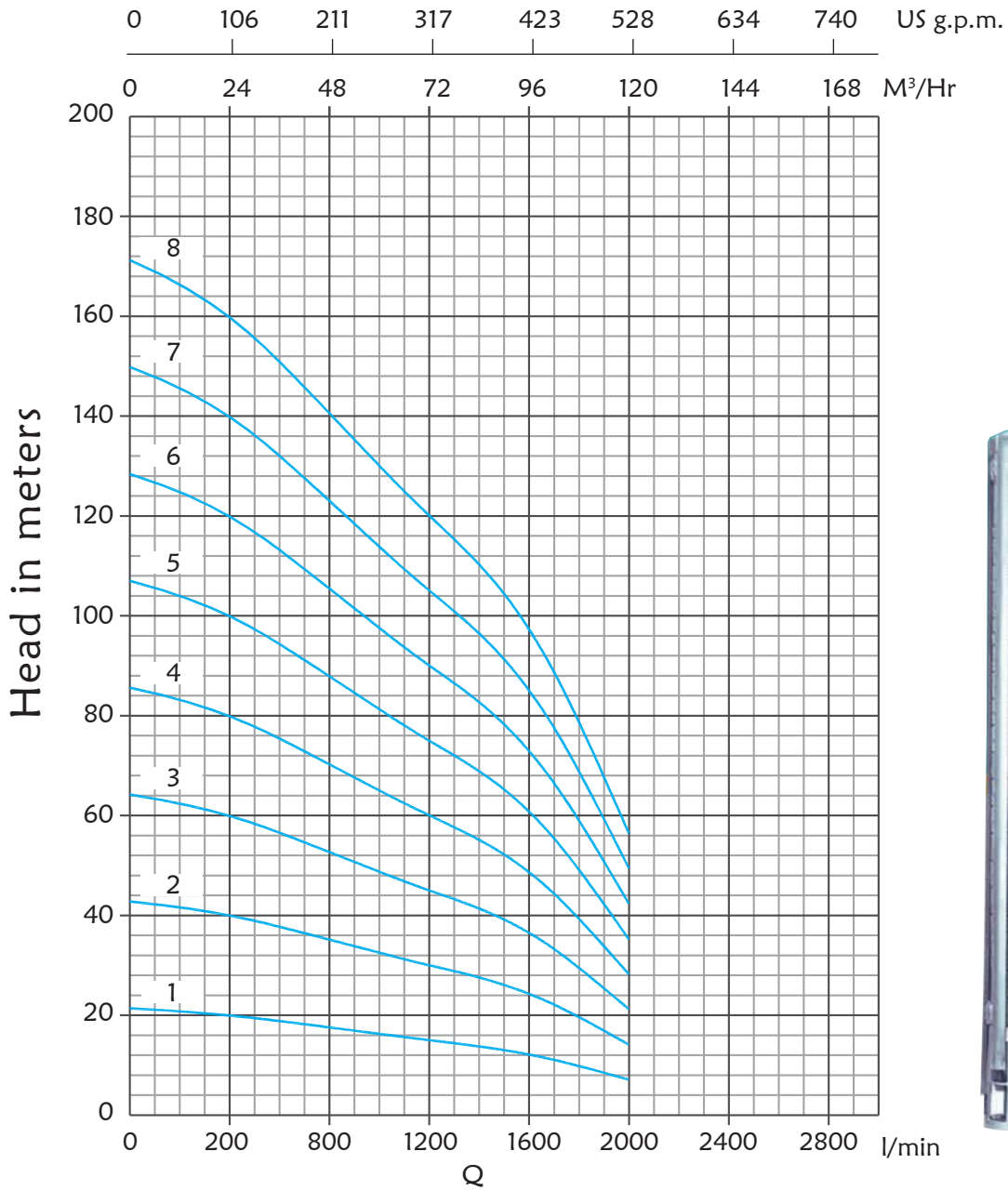
Dimensions & Weights



Model Name	Specification			
	D (mm)	L (mm)	Pump Weight Kg.	Weight (incl. pkg.) Kg.
DP8MFF95 -01	188	620	21	24
DP8MFF95 -02	188	748	25	28
DP8MFF95 -03	188	876	29	32
DP8MFF95 -04	188	1004	33	36
DP8MFF95 -05	188	1132	37	40
DP8MFF95 -06	188	1260	41	44
DP8MFF95 -07	188	1388	45	48
DP8MFF95 -08	188	1516	49	52
DP8MFF95 -09	188	1644	53	56
DP8MFF95 -10	196	1772	55	58
DP8MFF95 -11	196	1900	59	62
DP8MFF95 -12	196	2028	63	66
DP8MFF95 -13	196	2156	67	70
DP8MFF95 -14	196	2284	71	74
DP8MFF95 -15	196	2412	75	78
DP8MFF95 -16	196	2540	79	82
DP8MFF95 -17	196	2668	83	86

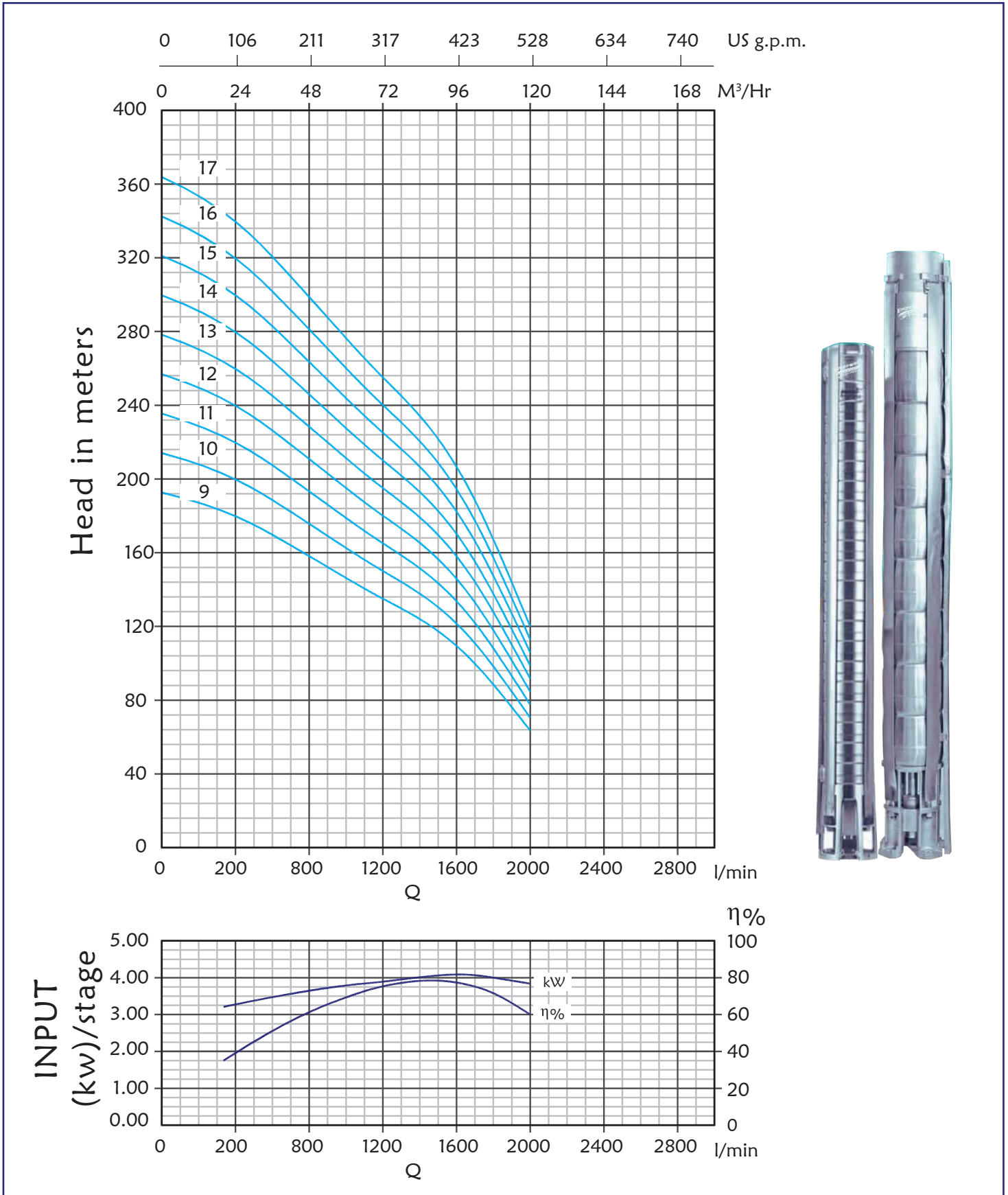


DP6MFF95 50Hz SERIES PERFORMANCE CURVES





DP6MFF95 50Hz SERIES PERFORMANCE CURVES





Empower DSM Submersible Motors

INTRODUCTION

EMPOWER DSM Submersible motors are highly designed with quality and efficiency for sustainable borehole applications. These motors are rewindable with their windings made up of EC grade copper conductor and insulation & Sheath of excellent insulation and water proof property.

Salient Features

- ✔ Heavy duty bearings with high thrust capacity.
- ✔ Oil sealing system for high sand resistance and degree of protection : IP68.
- ✔ Mechanical sealing system for high sand resistance and degree of protection.
- ✔ Water lubricated radial carbon bearings.
- ✔ Motor Base with Magnet.
- ✔ Nitrile rubber grommet with inbuilt washer.
- ✔ Pressure balancing check valves.
- ✔ Cooling diaphragms.

Protection: IP68

Insulation Class: F

Voltage: 1PH-220/240V,50Hz/ 3PH-380/415V,Hz

OPERATING PARAMETERS

Max Voltage variation: 10%.

Max Starts/Hr: 20.

Max Water Temperature: 35°C(Oil Filled), 70°C(Water Filled).

Min Water pass Flow Rate: 0.2m/sec .

Max Immersion Depth: 200m-4" and 300m-6" .

Installation: vertical/horizontal with a tilt angle >50.

Motors Data

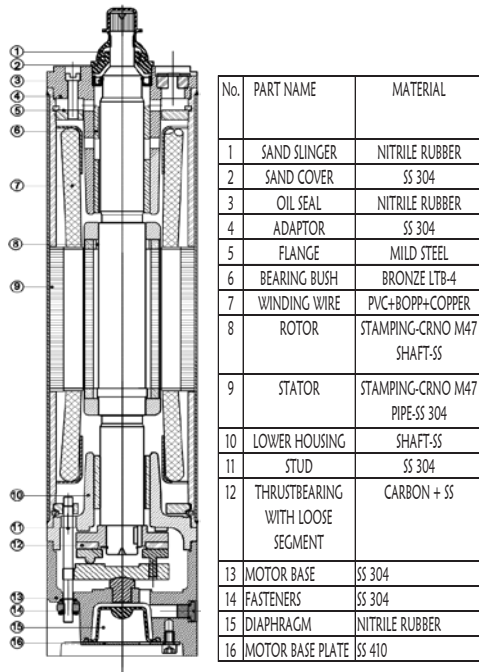
SINGLE PHASE

POWER		Full Load Current (A)	Istart (A)	Full Load Efficiency %	PF Cos ϕ	Max. Down thrust Load (N)	Capacitor μ f	Tail Cable		Height (mm)	Weight (Kg)
KW	HP							mm ²	m		
0.75	1	6	20	60	0.93	1500	36	1.5	1.5	386	8.7
1.1	1.5	8	32	63		1500	50	1.5	1.5	426	10.6
1.1 (W.F)	1.5	10	25	60	0.90	3000	50	2.5	2.7	551	19.0
1.5	2	11	38	65	0.93	2500	61	2.0	1.5	476	12.9
2.2	3	15	46	66		2500	72	2.3	2.0	581	17.7
2.2(W.F)	3	18	50	66	0.90	6500	72	4.0	2.0	671	25.0

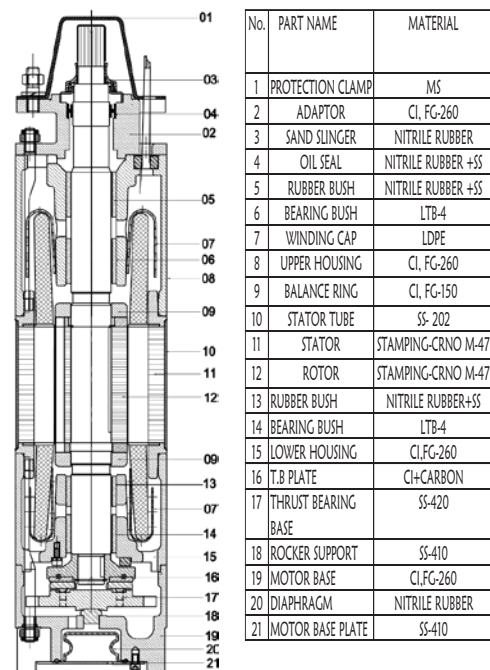
THREE PHASE

POWER		Full Load Current (A)	Istart (A)	Full Load Efficiency %	Full Load PF Cos ϕ	Max. Down thrust Load (N)	Starting Torque (Nm)	Torque (Nm)	Tail Cable		Height (mm)	Weight (Kg)
KW	HP								mm ²	m		
1.1	1.5	3.9	12	68	0.70	3000	6.7	3.7	1.5	2.7	551	19.0
1.5	2	4.5	16	70	0.70	3000	9	5	1.5	2.7	601	22.0
2.2	3	6.6	24	70	0.70	6500	14.1	7.5	2.5	2.7	671	25.0
3	4	8.2	27	72	0.70	6500	19	10	2.5	2.7	741	28
4	5.5	10	34	72	0.70	6500	22	12.4	2.5	2.7	781	31
5.5	7.5	14.2	46	72	0.70	6500	33.7	18.7	4.0	3.1	841	34
7.5 - 4"	10	17	73	72	0.70	6500	35.9	19.8	4.0	3.1	951	38
7.5 - 6"	10	18	79	81	0.74	15500	27	25	2.5	2.7	762	60
9.3 - 6"	12.5	23	99	81.5	0.74	15500	35	31	4.0	2.7	807	65
11 - 6"	15	27	116	82	0.73	15500	43	37	4.0	2.7	857	70
13 - 6"	17.5	31	131	82	0.76	15500	51	43	4.0	2.7	877	73
15 - 6"	20	35	144	82.5	0.72	15500	62	49	4.0	3.15	932	80
18.5 - 6"	25	42	169	83	0.71	15500	98	61	4.0	3.15	987	89
22 - 6"	30	52	206	83	0.73	15500	118	74	6.0	3.15	1057	95

DSM4 CROSS SECTIONAL DRAWING



DSM6 CROSS SECTIONAL DRAWING





TECHNICAL DATA

4" Water Filled Motors

4" 1Phase 230V, 50Hz Water Filled Motor

kW	HP	Full Load Current (A)	Starting Current (A)	Full Load Efficiency %	Full Load Power Factor	Max. Down Thrust Load(N)	Starting Torque (Nm)	Torque (Nm)	Cable Size (sq.mm)	Cable Length (m)	Height (mm)	Net Weight (kg)
0.37	0.5	5	11	43	0.90	3000	2.0	1.2	1.5	2.3	481	15
0.55	0.75	6	15	50	0.90	3000	2.9	1.8	1.5	2.3	501	16
0.75	1.0	6.8	18	55	0.90	3000	4.1	2.5	2.5	2.3	521	17
1.1	1.5	9.9	25	60	0.90	3000	6.1	3.7	2.5	2.7	551	19
1.5	2	13	34	63	0.90	3000	8.3	4.9	4	3.1	601	21
2.2	3	18	50	66	0.90	6500	13.3	7.4	4	3.1	671	25
3.7	5	27	63	68	0.90	6500	15.5	8.6	6	3.1	781	31

4" 3Phase 380 - 415V, 50Hz Water Filled Motor

kW	HP	Full Load Current (A)	Starting Current (A)	Full Load Efficiency %	Full Load Power Factor	Max. Down Thrust Load(N)	Starting Torque (Nm)	Torque (Nm)	Cable Size (sq. mm)	Cable Length (m)	Height (mm)	Net Weight (kg)
0.75	1	2.7	8	65	0.60	3000	4.5	2.5	1.5	2.3	521	17
1.1	1.5	3.9	12	68	0.70	3000	6.7	3.7	1.5	2.7	551	19
1.5	2	4.5	16	70	0.70	3000	9	5	1.5	2.7	601	22
2.2	3	6.6	24	70	0.70	6500	14.1	7.5	2.5	2.7	671	25
3	4	8.2	27	72	0.70	6500	19	10	2.5	2.7	741	28
3.7	5	10	34	72	0.70	6500	22	12.4	2.5	2.7	781	31
5.5	7.5	14.2	46	72	0.70	6500	33.7	18.7	4	3.1	841	34

TECHNICAL DETAILS

Nominal Diameter	4" Motor (100 mm)	
Max. Outer Diameter	95 mm	
Power Range	1Ph	0.37 kW to 3.7 kW Single Phase
	3Ph	0.75 kW to 5.5 kW Three Phase
Speed	2800 RPM	
Voltage range	1Ph	Single Phase 220 V, 60 Hz, A.C Supply
	3Ph	Three Phase 220 V & 380 V, 60 Hz, A.C Supply
Class of Insulation	F	
Degree of protection	IP 58	
Direction of rotation	Anti-Clock wise	
Type of duty	S1 (Continues)	
Minimum cooling flow	0.15 m/sec	
Max. Liquid temp.	33° C	
Starts per hour	20 Times	
Method of starting	Single Phase - Capacitor Start Capacitor Run	
	Three Phase - Direct On Line (DOL)	
Cable leadout type	3 Core Flat Cable	

DSM4





TECHNICAL DATA

5" Water Filled Motors

5" IE3 1Phase 230V, 50Hz Water Filled Motor

kW	HP	Full Load Current (A)	Starting Current (A)	Full Load Efficiency %	Full Load Power Factor	Max. Down Thrust Load (N)	Cable Size (sq. mm)	Cable Length (m)	Height (mm)	Net Weight (kg)
2.2	3	16	42	60	0.90	10000	2.5	2.7	626	35
3	4	19	48	61	0.90	10000	4	2.7	656	36
3.7	5	26	64	65	0.91	10000	4	2.7	681	38
4.5	6	31	75	66	0.92	10000	6	2.7	721	45
5.5	7.5	35	79	68	0.93	10000	6	2.7	761	47
7.5	10	45	93	69	0.94	10000	8	2.7	801	49

5" IE3 3Phase 380-415V, 50Hz Water Filled Motor

kW	HP	Full Load Current (A)	Starting Current (A)	Full Load Efficiency %	Full Load Power Factor	Max. Down Thrust Load (N)	Cable Size (sq. mm)	Cable Length (m)	Height (mm)	Net Weight (kg)
0.75	1	2.9	15	66	0.68	10000	1.5	2.7	551	31
1.1	1.5	3.5	18	70	0.69	10000	1.5	2.7	566	32
1.5	2	4.3	21	74	0.70	10000	1.5	2.7	596	33
2.2	3	6.3	31	75	0.72	10000	1.5	2.7	626	35
3	4	7.9	38	76	0.72	10000	1.5	2.7	656	36
3.7	5	9	41	76	0.74	10000	2.5	2.7	681	38
4.5	6	11	50	76	0.72	10000	2.5	2.7	721	45
5.5	7.5	13.8	60	77	0.73	10000	2.5	2.7	761	47
7.5	10	17	73	78	0.73	10000	4.0	2.7	801	49
9.3	12.5	21	86	81	0.72	10000	4.0	2.7	846	53
11	15	27	110	81	0.73	10000	4.0	2.7	876	49

TECHNICAL DETAILS

Nominal Diameter	5" Motor(125 mm)
Max. Outer Diameter	122 mm
Power Range	1Ph 2.2 kW to 7.5 kW Single Phase 3Ph 0.75 kW to 11.0 kW Three Phase
Speed	2880 RPM
Voltage range	1Ph Single Phase 230 V, 50 Hz, A.C Supply 3Ph Three Phase 380-415 V, 50 Hz, A.C Supply
Class of Insulation	F
Degree of protection	IP 58
Direction of rotation	Anti-Clock wise
Type of duty	S1 (Continues)
Minimum cooling flow	0.15 m/sec
Max. Liquid temp.	33° C
Starts per hour	20 Times
Method of starting	Single Phase - Capacitor Start Capacitor Run (CSCR) Three Phase - Direct OnLine (DOL)
Cable lead out type	3 Core Flat Cable

DSM5





TECHNICAL DATA

6" Water Filled Motors

6" IE3 1Phase 230V, 50Hz Water Filled Motor

kW	HP	Full Load Current (A)	Starting Current (A)	Full Load Efficiency %	Full Load Power Factor	Max. Down Thrust Load (N)	Starting Torque (Nm)	Torque (Nm)	Cable Size (sq. mm)	Cable Length (m)	Height (mm)	Net Weight (kg)
2.2	3	15	36	64	0.85	15500	17	10	4	2.7	617	44
3	4	21	50	64	0.86	15500	19	12	6	2.7	642	46
3.7	5	26	62	65	0.88	15500	20	14	6	2.7	657	47
4.5	6	30	70	66	0.9	15500	21	15	6	2.7	677	50
5.5	7.5	38	87	67	0.9	15500	24	18	8.0	2.7	727	55
7.5	10	47	105	70	0.91	15500	27	25	8.0	2.7	762	60

6" IE3 3Phase 380 - 415V, 50Hz Water Filled Motor

kW	HP	Full Load Current (A)	Starting Current (A)	Full Load Efficiency %	Full Load Power Factor	Max. Down Thrust Load (N)	Starting Torque (Nm)	Torque (Nm)	Cable Size (sq. mm)	Cable Length (m)	Height (mm)	Net Weight (kg)
2.2	3	6.4	30	74	0.72	15500	17	10	1.5	2.7	617	44
3	4	8	37	76	0.70	15500	19	12	1.5	2.7	642	46
4	5	8.5	39	78	0.73	15500	20	14	2.5	2.7	657	47
4.5	6	11	50	79	0.73	15500	21	15	2.5	2.7	677	50
5.5	7.5	14	62	80	0.74	15500	24	18	2.5	2.7	727	55
7.5	10	18	79	81	0.74	15500	27	25	2.5	2.7	762	60
9.3	12.5	23	99	81.5	0.74	15500	35	31	4.0	2.7	807	65
11	15	27	116	82	0.73	15500	43	37	4.0	2.7	857	70
13	17.5	31	131	82	0.76	15500	51	43	4.0	2.7	877	73
15	20	35	144	82.5	0.72	15500	62	49	4.0	3.15	932	80
18.5	25	42	169	83	0.71	15500	98	61	4.0	3.15	987	89
22	30	52	206	83	0.73	15500	118	74	6.0	3.15	1057	95
26	35	60	231	83.5	0.74	15500	146	84	6.0	3.15	1132	117

TECHNICAL DETAILS

Nominal Diameter	6" Motor(150 mm)
Max. Outer Diameter	144 mm
Power Range	1Ph: 2.2 kW to 7.5 kW Single Phase 3Ph: 2.2 kW to 45 kW Three Phase
Speed	2880 RPM
Voltage Range	1Ph: Single Phase - 230 V, 50 Hz, A.C Supply 3Ph: Three Phase - 380-415 V, 50 Hz, A.C Supply
Class of Insulation	F
Degree of protection	IP 58 / 68
Direction of rotation	Anti-Clock wise
Type of duty	S1 (Continues)
Minimum cooling flow	0.15 m/sec
Max. Liquid temp.	33° C / 50° C
Starts per hour	20 Times
Method of starting	Single Phase - Capacitor Start Capacitor Run (CSCR) Three Phase - 2.2 kW to 7.5 kW Direct On Line (DOL) 4 kW to 45 kW Star Delta (DOL/S.D.)
Cable lead out type	3 Core Flat Cable





Submersible Motors Cable Selection Chart

220 Voltage - Single Phase - 50 Hz

INSTALLATION DEPTH IN MTR

HP	10	20	30	40	50	60	70	80	90	100	110	128	140	180	200	220	270	320	370	420	470	500
0.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	4	4	4	6	6	6	6
0.75	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	2.5	4	4	4	6	6	10	10	10	10
1	1.5	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	2.5	4	4	4	6	6	10	10	10	10	16	16
1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	4	4	4	4	6	6	6	10	10	10	16	16	16	16	25
2	2.5	2.5	2.5	2.5	2.5	2.5	4	4	4	4	6	6	6	10	10	10	16	16	16	25	25	25
3	2.5	2.5	2.5	2.5	4	4	6	6	6	6	10	10	10	16	16	16	25	25	25	35	35	35
4	4	4	4	4	4	6	6	6	6	10	10	16	16	16	16	25	25	35	35	35	35	35
5	4	4	4	4	6	6	10	10	10	10	10	16	16	25	25	25	35	35	35	50	50	50
6	6	6	6	6	10	10	10	10	10	16	16	16	25	25	25	35	35	35	50	50	50	50
7.5	6	6	6	10	10	10	10	10	10	16	16	25	25	25	35	35	35	50	50	50	50	50
10	10	10	10	10	10	10	10	10	16	25	25	25	25	35	35	35	50	50	50	50	50	50

3P - 400V, 50Hz, Direct on Line (D.O.L)

Cable Size sq.mm, copper wire - 70°C rated insulation

kW	HP	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
4	5.5	180	290	430	710												
5.5	7.5	130	210	320	530	830											
7.5	10	80	150	230	390	610	940										
9.3	12.5	80	130	190	320	510	770										
11	15	60	100	160	270	430	650	890									
13	17.5		90	140	230	370	560	770									
15	20		80	120	200	320	490	880	920								
18.5	25			100	160	260	400	540	740	980							
22	30				140	220	340	470	630	840							
26	35				120	190	290	380	540	720	920						
30	40				150	250	340	470	520	790	940						
37	50				130	200	280	380	600	640	760	890	1020				
45	60					170	240	330	440	570	890	810	940				
52	70					150*	210	290	390	500	800	710	820	980			
55	75					140*	190	270	360	470	5600	660	770	910			
60	80						180	250	340	440	530	630	730	870	1010		
67	90						160*	220	300	390	460	550	630	750	860	1000	
75	100							200*	270	350	420	490	570	680	780	910	
83	111							180*	250	320	390	450	530	630	730	850	
85	114								230	290	350	410	480	570	650	750	
93	125								220*	280	340	390	460	550	620	720	
110	150									220	270	310	360	420	480	550	
130	175									200*	240	280	330	390	440	520	
150	200										200*	240	280	330	380	440	
185	250													210*	250	280	330

3P - 400V, 50Hz, Star Delta (S.D.)

Cable Size sq.mm, copper wire - 70°C rated insulation

kW	HP	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
4	5.5	270	430	640													
5.5	7.5	190	310	480	790												
7.5	10	130	220	340	580	910											
9.3	12.5	120	180	280	480	760											
11	15	80	150	240	400	640	970										
13	17.5	70	130	210	340	550	840										
15	20	70	120	180	300	480	730	1020									
18.5	25	60	90	150	240	390	600	810									
22	30		70	120	210	330	510	700	940								
26	35		60*	100	180	280	430	580	810								
30	40			90	150	240	370	610	700	930							
37	50				120	190	300	420	570	750	950						
45	60				100	160	250	360	490	550	850						
52	70				90*	150	220	310	430	580	750	800					
55	75					130	210	280	400	540	700	840	890				
60	80				120	190	270	370	510	660	790	940					
67	90				100	180	240	330	450	580	690	820	940				
75	100					90*	150	210	300	400	520	630	730	850	1020		
83	111					130	190	270	370	480	580	670	790	940			
85	114					180*	180	250	340	430	520	610	720	850	870		
93	125					120*	160	240	330	420	510	580	690	820	830		
110	150						130*	190	250	330	400	460	540	630	720	820	
130	175							160*	220	300	360	420	490	580	660	780	
150	200							150*	190	250	300	360	420	490	570	660	
185	250									180*	240	270	310	370	420	490	



Reliable water pumping solutions with pure stainless steel pumps and motors.

- Excellence in Performance
- Efficiency
- Dependable
- Choose quality