

# Submersible Pumps

## 6RPM 600, 6RPM 610, 6RPM 630, 6RPM 640, 6RPM 650, 6RPM 670 SERIES PUMP DESIGN

### Product advantages and specification

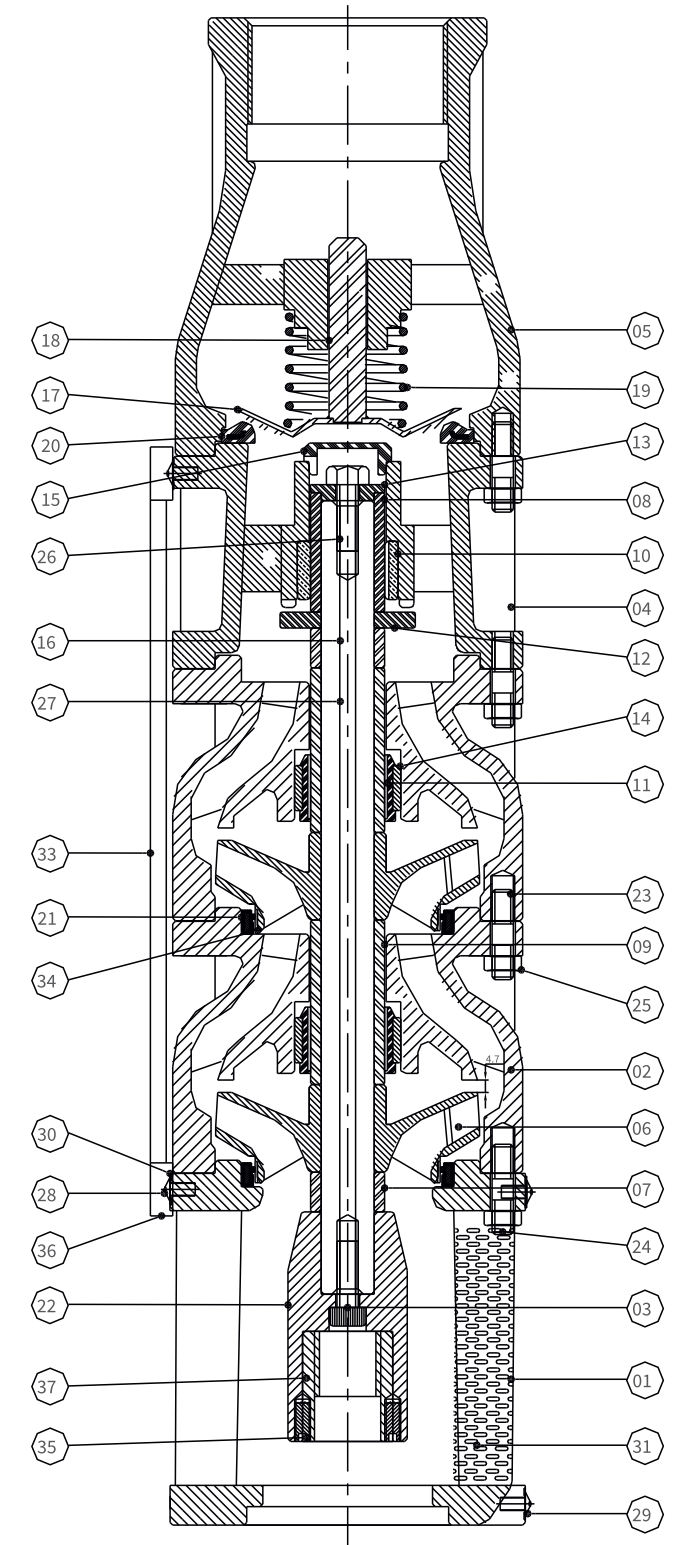
Raindrop 6" Mixed Flow Pumps are designed with noticeable **Axial Trend** of both **Impeller** and the **Diffuser** resulting in pumps with reduced overall diameter with large capacities in average working heads. Excellent Hydraulic and Superior Mechanical Construction increases wear resistance against abrasion caused by sand.

### SPECIFICATIONS & ADVANTAGES:

1. Suction Stage Casing and discharge outlets are made of Cast Iron.
2. Impellers of mixed flow are available in Bronze or Stainless Steel.
3. Sleeves are made of Stainless Steel reinforced with Chromium to increase wear resistance against sand.
4. Pump shaft is of Stainless Steel.
5. Bearing bush for shaft is made of anti friction rubber to withstand wear resistance.
6. Non Return Valve is made of Stainless Steel.
7. Cable Guard and Strainer are made of Stainless Steel.
8. Pump and Motor Coupling is according to NEMA standard.
9. Minimum water on aspiration is one meter.
10. 4" and 6" motor connections are also available.
11. Complete Stainless Steel pump is also available on request.
12. Operating Range :
  - Head range : 4 mtr to 227 mtr
  - Flow rate : 160 lpm to 1700 lpm
  - Immersion : 1 mtr minimum
13. Maximum level of send content: 50 gm/m<sup>3</sup>
14. Application : These pumps are for domestic, agriculture & industrial usage.

### Material Specification

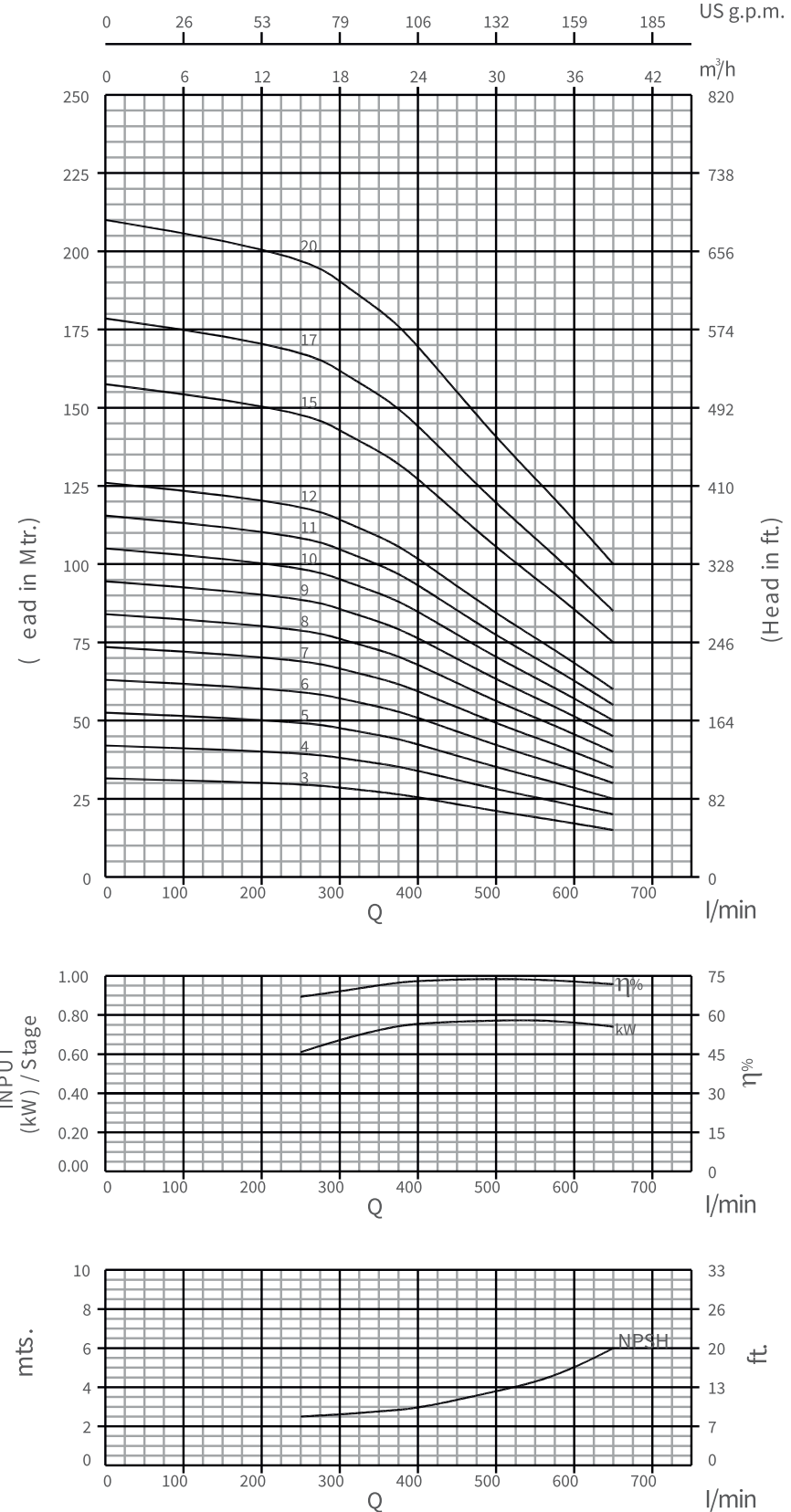
NO	PART NAME	MATERIAL
1	SUCTION (ROUTINE)	C.I.(F.G. 200)
2	BOWL (REGULAR)	C.I.(F.G. 200)
3	ALLEN BOLT	S.S. 304
4	D.O.L.	C.I.(F.G. 200)
5	N.R.V. (2")	C.I.(F.G. 200)
6	IMPELLER (G.M.)	G.M.
	IMPELLER (C.I.)	C.I.(F.G. 200)
	IMPELLER (S.S. 410)	S.S. 410
	IMPELLER (I.C.)	I.C.
7	SLEEVE (DIST.)	S.S. 410
8	SLEEVE (TOP)	S.S. 410
9	SLEEVE (BOWL)	S.S. 410
10	BEARING BUSH	L.T.B 4 (2% NI)
11	BOWL BUSH	N.B.R.
12	THRUST COLLAR	S.S. 410
13	TOP COLLAR	S.S. 304
14	BUSH COLLAR	P.P.O (20% GF)
15	DOL CAP	P.P.O.
16	SHAFT	S.S. 410
17	N.R.V. CONE PLATE	S.S. 202
18	N.R.V. CONE ROD	S.S. 304
19	N.R.V. CONE SPRING	S.S. 304
20	N.R.V. NECKRING	M.S. / N.B.R.
21	BOWL NECKRING	M.S. / N.B.R.
22	COUPLING (EXPORT)	S.S.304
23	STUD (BOWL & DOL)	S.S.304
24	STUD (SUCTION)	S.S.304
25	HEX NUT	S.S.304
26	HEX BOLT	S.S.304
27	KEY	S.S.304
28	SCREW (CABLE GUARD)	S.S.304
29	SCREW (STRAINER)	S.S.304
30	SCREW WASHER	S.S.304
31	STRAINER	S.S.202
32	PAPER GASKET	PAPER
33	CABLE GUARD	S.S. 202
34	IMPELLER NECKRING	S.S. 202
35	GRUB SCREW (DOMESTIC)	S.S. 304
36	CABLE CLIP	S.S. 202
37	NEMA SLEEVE	S.S. 304



# Performance Curves

## 6RPM 600, 50Hz

ISO 9906 Annexure A



# Performance Chart

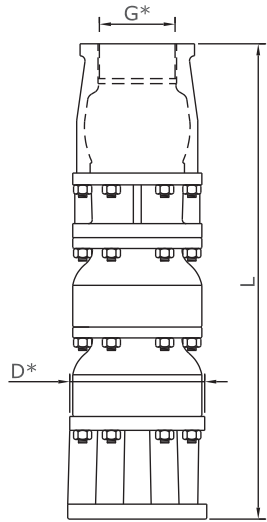
## 6RPM 600, 50Hz

ISO 9906 Annexure A

Model Name		Rating		Discharge								
Three Phase	Stage	kW	HP	l/min	0	250	300	360	400	500	580	650
				m³/h	0	15.0	18.0	21.6	24.0	30.0	34.8	39.0

Model Name	Stage	kW	HP	32	30	28	27	26	21	18	15
6RPM 600-03	3	2.20	3.00	42	40	38	36	34	28	24	20
6RPM 600-04	4	3.00	4.00	52	50	48	45	42	35	30	25
6RPM 600-05	5	4.00	5.50	63	60	57	54	51	42	36	30
6RPM 600-06	6	4.50	6.00	74	70	66	63	60	49	42	35
6RPM 600-07	7	5.50	7.50	84	80	76	72	68	56	48	40
6RPM 600-08	8	5.50	7.50	94	90	86	81	76	63	54	45
6RPM 600-09	9	7.50	10.00	105	100	95	90	85	70	60	50
6RPM 600-10	10	7.50	10.00	116	110	104	99	94	77	66	55
6RPM 600-11	11	7.50	10.00	126	120	114	108	102	84	72	60
6RPM 600-12	12	9.30	12.50	158	150	142	135	128	105	90	75
6RPM 600-15	15	11.00	15.00	178	170	162	153	144	119	102	85
6RPM 600-17	17	13.00	17.50	210	200	190	180	170	140	120	100
6RPM 600-20	20	15.00	20.00								

## Dimensions & Weights



Model name	Specification			
	D (mm)	L (mm)	Weight kg	Weight (incl.pkg) kg
6RPM 600-03	146	630	26.0	34.0
6RPM 600-04	146	720	30.0	38.0
6RPM 600-05	146	810	34.0	42.0
6RPM 600-06	146	900	38.0	46.0
6RPM 600-07	146	990	42.0	49.0
6RPM 600-08	146	1080	45.0	53.0
6RPM 600-10	146	1260	53.0	61.0
6RPM 600-11	146	1350	57.0	65.0
6RPM 600-12	146	1440	61.0	69.0
6RPM 600-15	146	1710	73.0	81.0
6RPM 600-17	146	1890	81.0	89.0
6RPM 600-20	146	2160	92.0	100.0

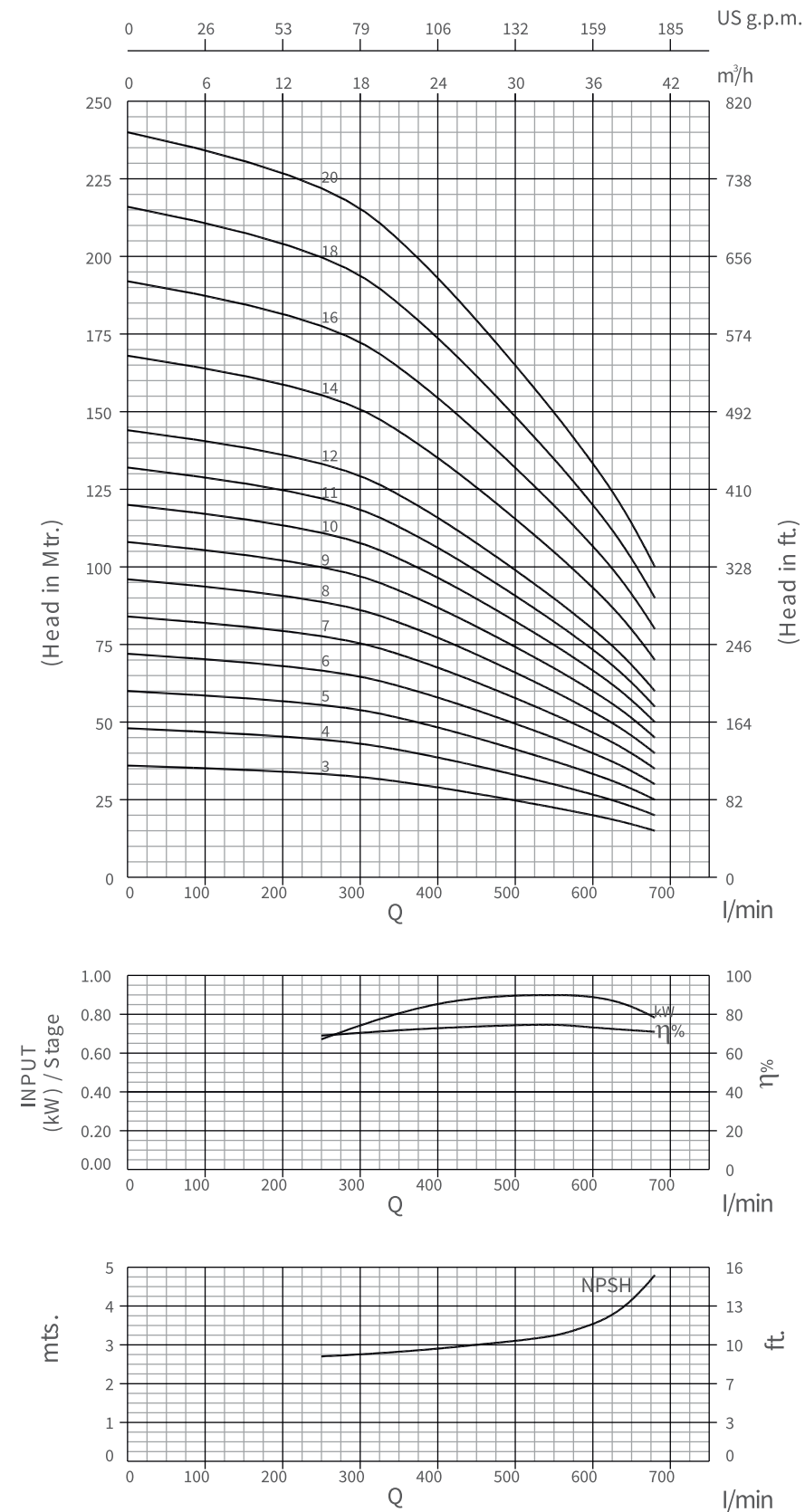
\*D: With Cable Guard  
\*G: Available Outlet Size 2", 2.5" & 3"



# Performance Curves

## 6RPM 610, 50Hz

ISO 9906 Annexure A



# Performance Chart

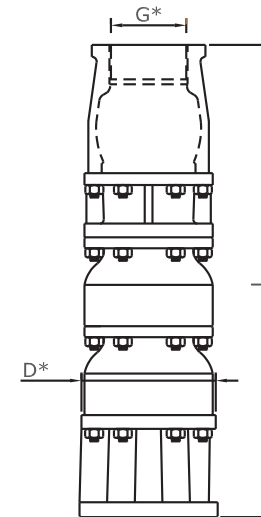
## 6RPM 610, 50Hz

ISO 9906 Annexure A

Model Name	Three Phase	Stage	Rating		Discharge							
			kW	HP	l/min m³/h	0	250	350	450	550	580	640

Model Name	Stage	kW	HP	36	34	31	27	22	21	18	15
6RPM 610-03	3	3.00	4.00	36	34	31	27	22	21	18	15
6RPM 610-04	4	4.00	5.50	48	45	41	36	30	28	24	20
6RPM 610-05	5	4.50	6.00	60	57	52	45	38	35	30	25
6RPM 610-06	6	5.50	7.50	72	68	62	54	45	42	36	30
6RPM 610-07	7	7.50	10.00	84	79	72	63	52	49	42	35
6RPM 610-08	8	7.50	10.00	96	91	83	72	60	56	48	40
6RPM 610-09	9	9.30	12.50	108	102	93	81	68	63	54	45
6RPM 610-10	10	9.30	12.50	120	113	103	90	75	70	60	50
6RPM 610-11	11	11.00	15.00	132	125	114	99	82	77	66	55
6RPM 610-12	12	11.00	15.00	144	136	124	108	90	84	72	60
6RPM 610-14	14	13.00	17.50	168	159	145	126	105	98	84	70
6RPM 610-16	16	15.00	20.00	192	181	165	144	120	112	96	80
6RPM 610-18	18	18.50	25.00	216	204	186	162	135	126	108	90
6RPM 610-20	20	18.50	25.00	240	227	207	180	150	140	120	100

## Dimensions & Weights



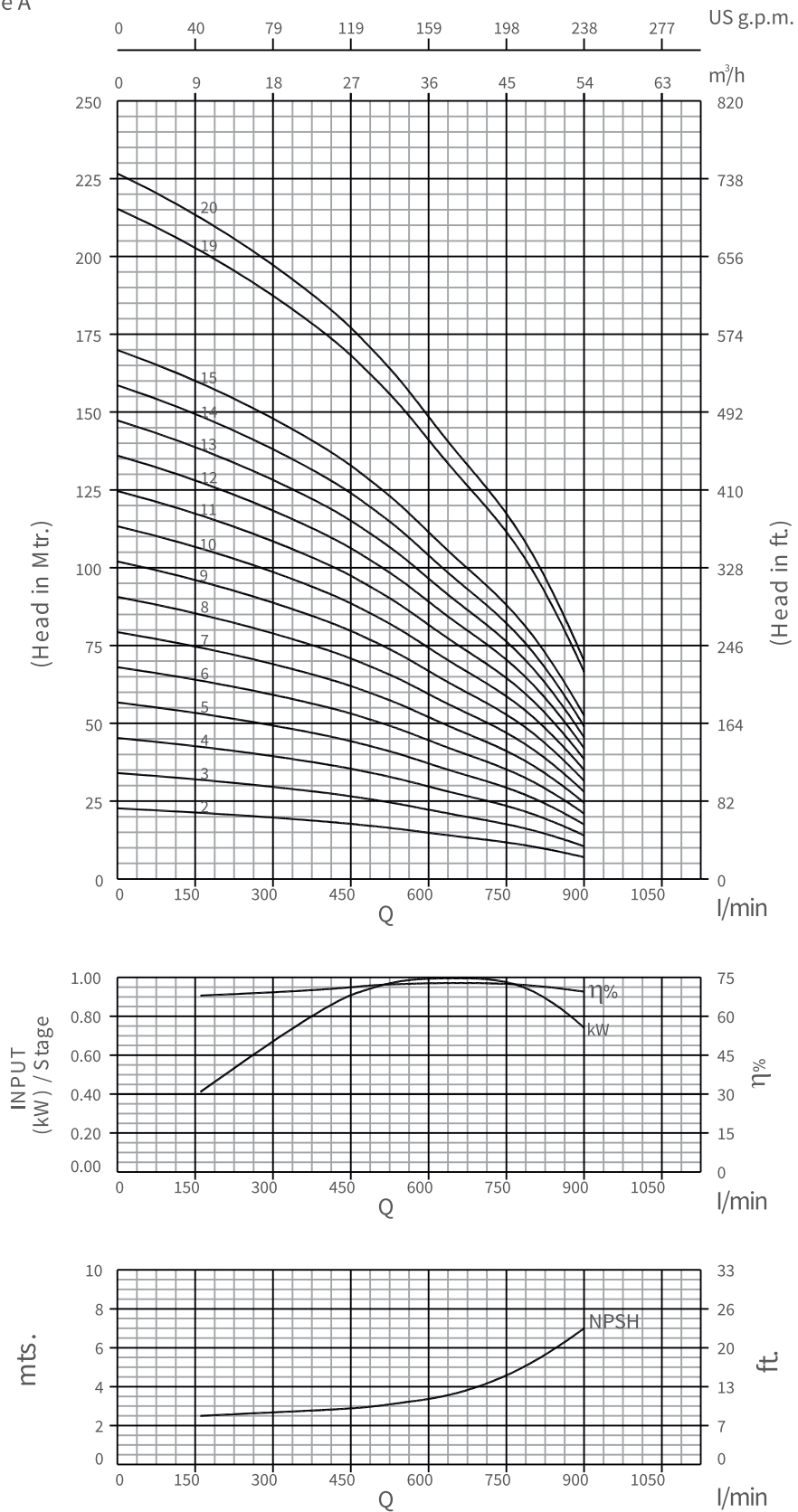
Model name	Specification			
	D (mm)	L (mm)	Weight kg	Weight (incl.pkg) kg
6RPM 610-03	146	663	28.0	36.0
6RPM 610-04	146	758	33.0	41.0
6RPM 610-05	146	853	38.0	46.0
6RPM 610-06	146	948	43.0	51.0
6RPM 610-07	146	1043	48.0	56.0
6RPM 610-08	146	1138	52.0	60.0
6RPM 610-09	146	1233	57.0	65.0
6RPM 610-10	146	1328	62.0	70.0
6RPM 610-11	146	1423	67.0	75.0
6RPM 610-12	146	1518	72.0	79.0
6RPM 610-14	146	1708	81.0	89.0
6RPM 610-16	146	1898	91.0	99.0
6RPM 610-18	146	2088	101.0	109.0
6RPM 610-20	146	2278	110.0	118.0

\*D: With Cable Guard  
\*G: Available Outlet Size 2", 2.5" & 3"

# Performance Curves

## 6RPM 630, 50Hz

ISO 9906 Annexure A



# Performance Chart

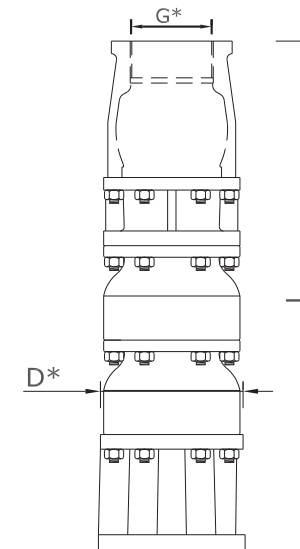
## 6RPM 630, 50Hz

ISO 9906 Annexure A

Model Name	Three Phase	Stage	Rating		Discharge							
			kW	HP	l/min m³/h	0	160	400	480	550	650	800

6RPM 630-02	2	3.00	4.00	23	21	19	17	16	14	11	7
6RPM 630-03	3	4.00	5.50	34	32	28	26	24	21	16	10
6RPM 630-04	4	4.50	6.00	45	43	37	34	32	27	22	14
6RPM 630-05	5	5.50	7.50	57	54	46	43	40	34	28	18
6RPM 630-06	6	7.50	10.00	68	64	56	52	48	41	33	21
6RPM 630-07	7	9.30	12.50	79	75	65	60	56	48	38	24
6RPM 630-08	8	9.30	12.50	91	86	74	69	64	55	44	28
6RPM 630-09	9	11.00	15.00	102	96	84	77	72	62	50	32
6RPM 630-10	10	11.00	15.00	113	107	93	86	80	68	55	35
6RPM 630-11	11	13.00	17.50	125	118	102	95	88	75	60	38
6RPM 630-12	12	15.00	20.00	136	128	112	103	96	82	66	42
6RPM 630-13	13	15.00	20.00	147	139	121	112	104	89	72	46
6RPM 630-14	14	15.00	20.00	159	150	130	120	112	96	77	49
6RPM 630-15	15	18.50	25.00	170	160	140	129	120	103	82	52
6RPM 630-19	19	22.00	30.00	215	203	177	163	152	130	104	66
6RPM 630-20	20	22.00	30.00	227	214	186	172	160	137	110	70

## Dimensions & Weights



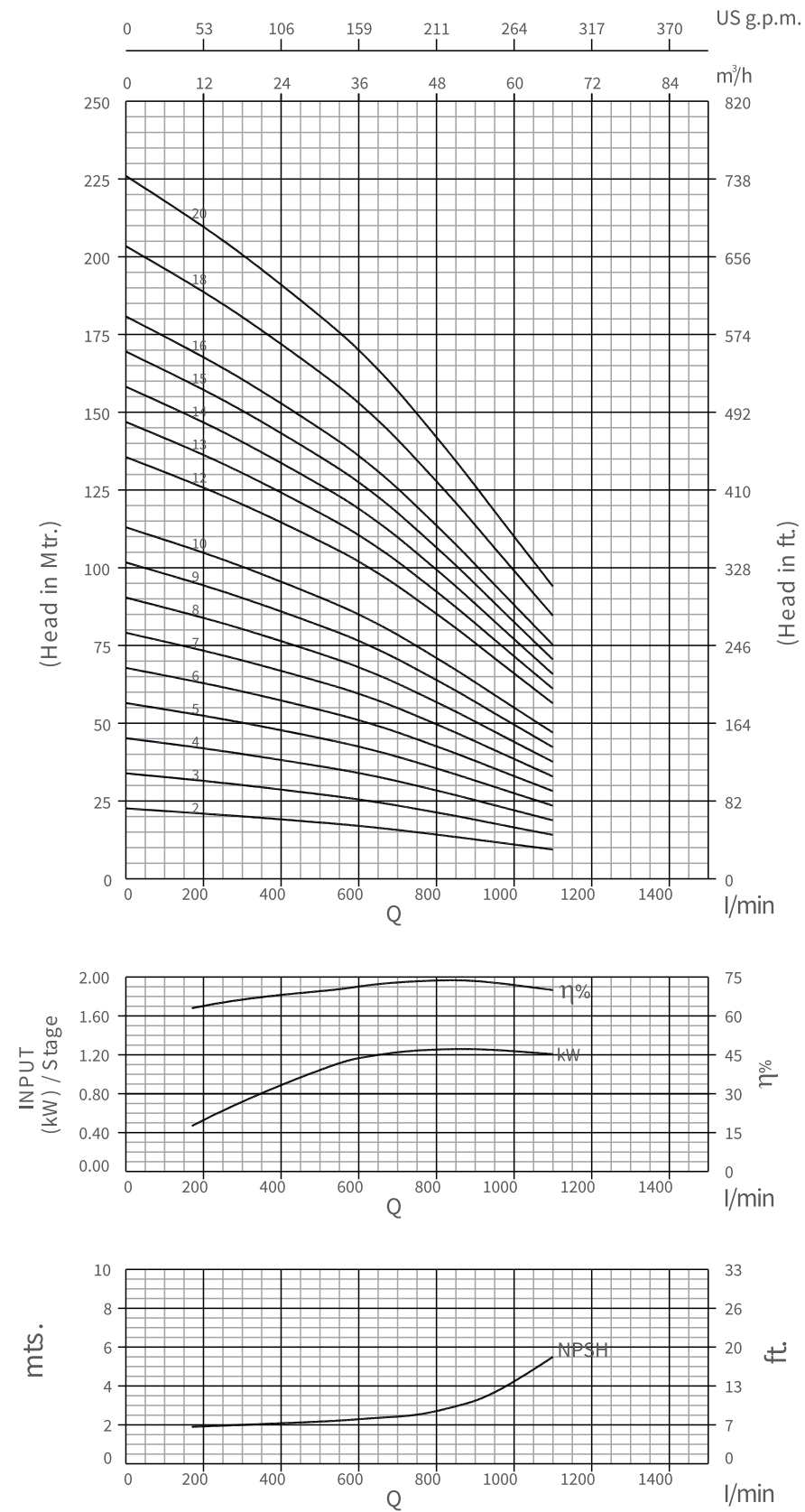
Model name	Specification			
	D (mm)	L (mm)	Weight kg	Weight (incl.pkg kg)
6RPM 630-02	146	578	24.0	32.0
6RPM 630-03	146	678	29.0	37.0
6RPM 630-04	146	778	34.0	42.0
6RPM 630-05	146	878	39.0	47.0
6RPM 630-06	146	978	44.0	52.0
6RPM 630-07	146	1017	49.0	57.0
6RPM 630-08	146	1178	54.0	62.0
6RPM 630-09	146	1278	59.0	67.0
6RPM 630-10	146	1378	64.0	72.0
6RPM 630-11	146	1478	69.0	77.0
6RPM 630-12	146	1578	74.0	82.0
6RPM 630-13	146	1678	79.0	87.0
6RPM 630-14	146	1778	84.0	92.0
6RPM 630-15	146	1878	89.0	97.0
6RPM 630-19	146	2278	109.0	117.0
6RPM 630-20	146	2378	114.0	121.0

\*G: Available Outlet Size 2", 2.5" & 3.0"  
\*D: With Cable Guard

# Performance Curves

## 6RPM 640, 50Hz

ISO 9906 Annexure A



# Performance Chart

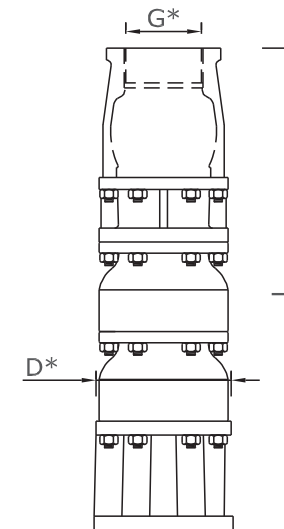
## 6RPM 640, 50Hz

ISO 9906 Annexure A

Model Name	Rating	Discharge												
Three Phase	Stage	kW	HP	l/min	0	170	300	550	600	680	760	860	950	1100
				m³/h	0	10.2	18.0	33.0	36.0	40.8	45.6	51.6	57.0	66.0

Model Name	Stage	kW	HP	HEAD IN Mtrs.	23	21	20	18	17	16	15	13	12	9
6RPM 640-02	2	4.00	5.50	23	21	20	18	17	16	15	13	12	9	
6RPM 640-03	3	4.50	6.00	34	32	30	26	26	24	22	20	18	14	
6RPM 640-04	4	5.50	7.50	45	42	40	35	34	32	30	27	24	19	
6RPM 640-05	5	7.50	10.00	56	53	50	44	42	40	37	33	30	24	
6RPM 640-06	6	9.30	12.50	68	64	60	53	51	48	44	40	35	28	
6RPM 640-07	7	9.30	12.50	79	74	70	62	60	56	52	47	41	33	
6RPM 640-08	8	11.00	15.00	90	85	80	70	68	64	59	53	47	38	
6RPM 640-09	9	13.00	17.50	102	96	91	79	76	72	67	60	53	42	
6RPM 640-10	10	15.00	20.00	113	106	101	88	85	80	74	66	59	47	
6RPM 640-12	12	18.50	25.00	136	127	121	106	102	96	89	80	71	56	
6RPM 640-13	13	18.50	25.00	147	138	131	114	110	104	96	86	77	61	
6RPM 640-14	14	22.00	30.00	158	149	141	123	119	112	104	93	83	66	
6RPM 640-15	15	22.00	30.00	170	159	151	132	128	120	111	100	88	70	
6RPM 640-16	16	22.00	30.00	181	170	161	141	136	128	118	106	94	75	
6RPM 640-18	18	30.00	40.00	203	191	181	158	153	144	133	120	106	85	
6RPM 640-20	20	30.00	40.00	226	212	201	176	170	160	148	133	118	94	

## Dimensions & Weights



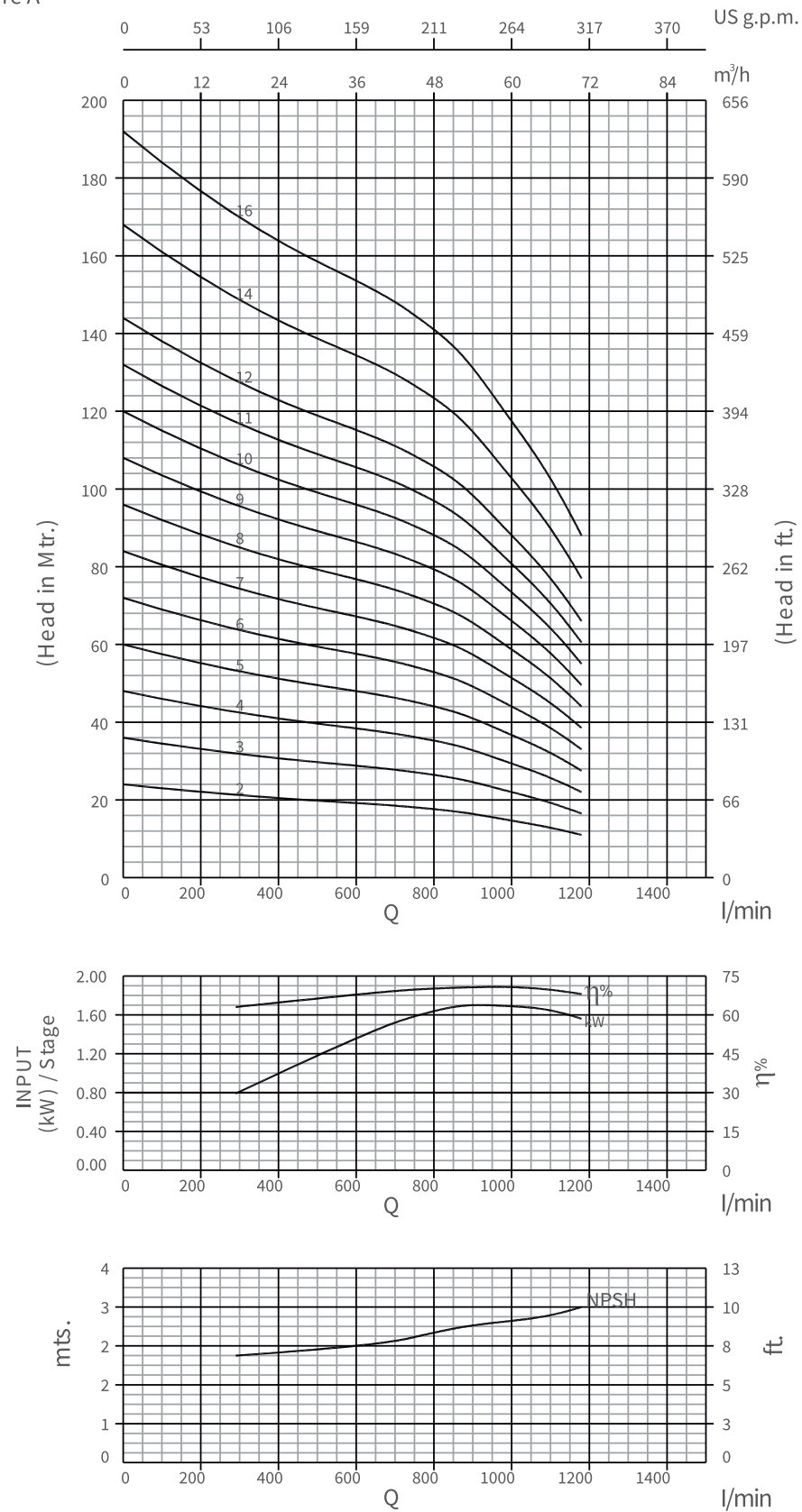
Model name	Specification			
	D (mm)	L (mm)	Weight (kg)	Weight (incl.pkg kg)
6RPM 640-02	146	583	24.0	32.0
6RPM 640-03	146	688	30.0	38.0
6RPM 640-04	146	793	35.0	43.0
6RPM 640-05	146	898	40.0	48.0
6RPM 640-06	146	1003	45.0	53.0
6RPM 640-07	146	1108	50.0	58.0
6RPM 640-08	146	1213	55.0	63.0
6RPM 640-09	146	1318	60.0	68.0
6RPM 640-10	146	1423	66.0	74.0
6RPM 640-12	146	1633	76.0	84.0
6RPM 640-13	146	1738	81.0	89.0
6RPM 640-14	146	1843	86.0	94.0
6RPM 640-15	146	1948	92.0	100.0
6RPM 640-16	146	2053	97.0	105.0
6RPM 640-18	146	2263	107.0	115.0
6RPM 640-20	146	2473	117.0	125.0

\* D: With Cable Guard  
\* G: Available Outlet Size 2", 2.5" & 3"

# Performance Curves

## 6RPM 650, 50Hz

ISO 9906 Annexure A



# Performance Chart

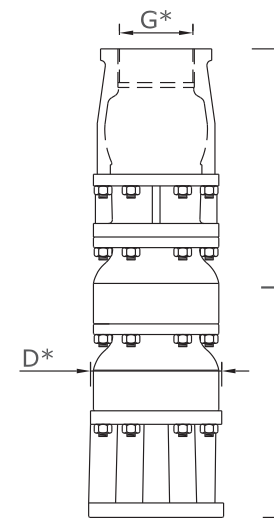
## 6RPM 650, 50Hz

ISO 9906 Annexure A

Model Name	Stage	Rating		Discharge								
		kW	HP	l/min	0	290	650	760	870	980	1100	1180
Three Phase				m³/h	0	17.4	39.0	45.6	52.2	58.8	66.0	70.8

Model Name	Stage	kW	HP	HEAD IN Mtrs.	24	21	19	18	17	15	13	11
					36	32	28	27	26	22	20	16
6RPM 650-02	2	4.50	6.00									
6RPM 650-03	3	5.50	7.50									
6RPM 650-04	4	7.50	10.00									
6RPM 650-05	5	9.30	12.50									
6RPM 650-06	6	11.00	15.00									
6RPM 650-07	7	13.00	17.50									
6RPM 650-08	8	15.00	20.00									
6RPM 650-09	9	18.50	25.00									
6RPM 650-10	10	18.50	25.00									
6RPM 650-11	11	22.00	30.00									
6RPM 650-12	12	22.00	30.00									
6RPM 650-14	14	26.00	35.00									
6RPM 650-16	16	30.00	40.00									

## Dimensions & Weights



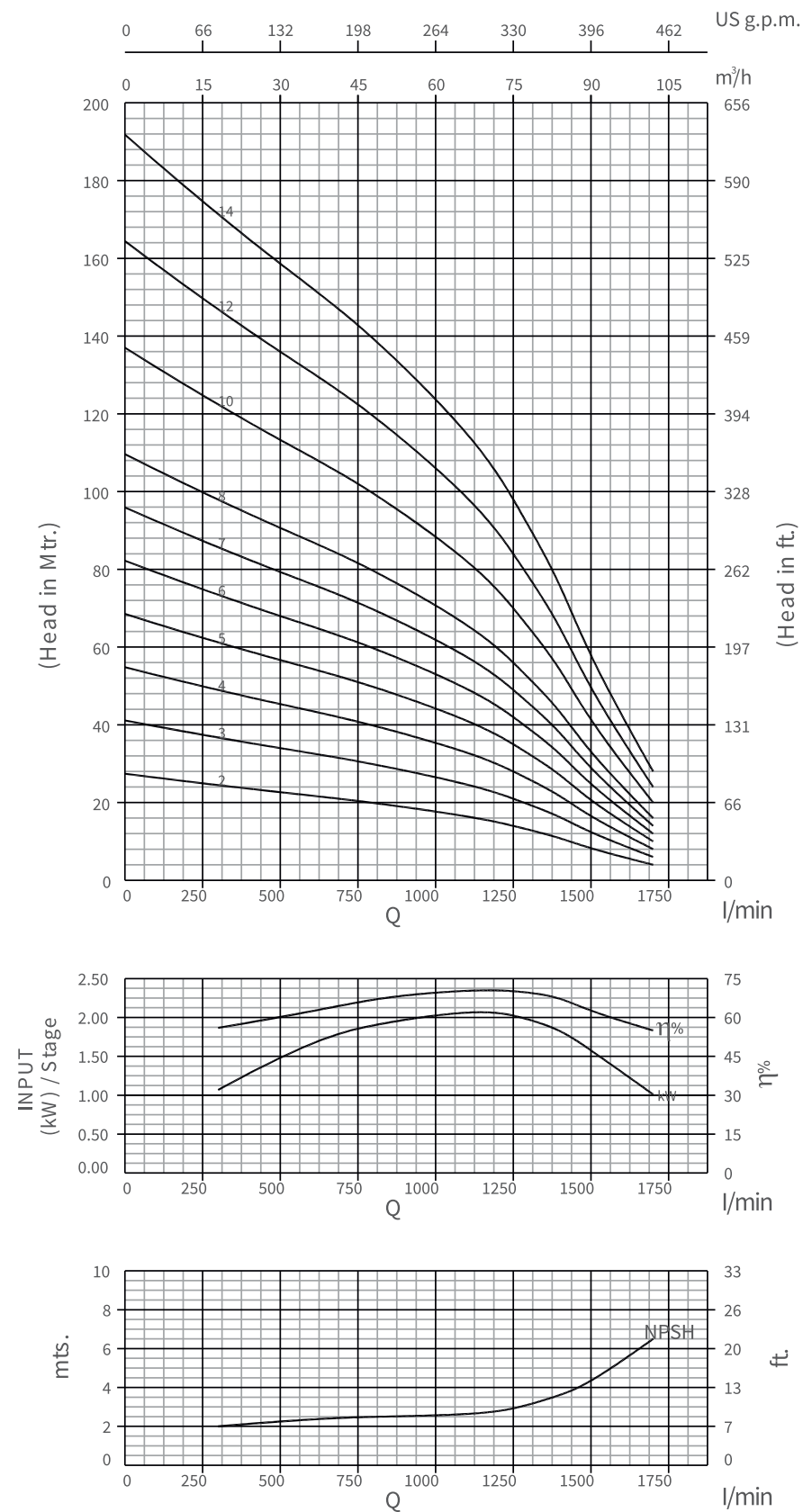
Model name	Specification			
	D (mm)	L (mm)	Weight (kg)	Weight (incl.pkg kg)
6RPM 650-02	146	583	25.0	33.0
6RPM 650-03	146	688	30.0	38.0
6RPM 650-04	146	793	35.0	43.0
6RPM 650-05	146	898	40.0	48.0
6RPM 650-06	146	1003	45.0	53.0
6RPM 650-07	146	1108	50.0	58.0
6RPM 650-08	146	1213	55.0	63.0
6RPM 650-09	146	1318	60.0	68.0
6RPM 650-10	146	1423	66.0	74.0
6RPM 650-11	146	1528	71.0	79.0
6RPM 650-12	146	1633	76.0	84.0
6RPM 650-14	146	1843	86.0	94.0
6RPM 650-16	146	2053	96.0	104.0

\*D: With Cable Guard  
\*G: Available Outlet Size 2", 2.5" & 3"

# Performance Curves

## 6RPM 670, 50Hz

ISO 9906 Annexure A



# Performance Chart

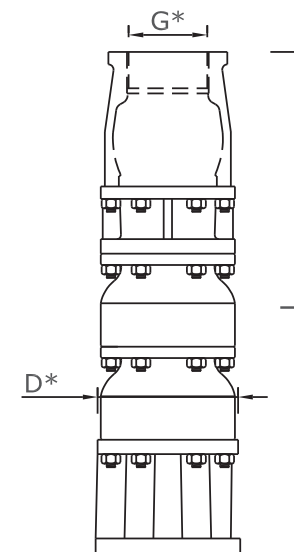
## 6RPM 670, 50Hz

ISO 9906 Annexure A

Model Name	Stage	Rating		Discharge									
		kW	HP	l/min m³/h	0	300	600	800	1150	1280	1400	1500	1700
Three Phase					0	300	600	800	1150	1280	1400	1500	1700
					0	18	36	48	69	76.8	84	90	102

Model Name	Stage	kW	HP	HEAD IN Mtrs.	27	24	22	20	16	13	11	8	4
					41	37	33	30	24	20	16	12	6
6RPM 670-02	2	5.50	7.50		27	24	22	20	16	13	11	8	4
6RPM 670-03	3	7.50	10.00		41	37	33	30	24	20	16	12	6
6RPM 670-04	4	9.30	12.50		55	49	44	40	32	27	22	16	8
6RPM 670-05	5	11.00	15.00		68	61	54	50	40	34	28	20	10
6RPM 670-06	6	13.00	17.50		82	73	65	60	48	40	33	24	12
6RPM 670-07	7	15.00	20.00		96	85	76	70	56	47	38	28	14
6RPM 670-08	8	18.50	25.00		110	98	87	80	64	54	44	32	16
6RPM 670-10	10	22.00	30.00		137	122	109	100	80	67	55	40	20
6RPM 670-12	12	26.00	35.00		164	146	131	120	96	80	66	48	24
6RPM 670-14	14	30.00	40.00		192	171	153	140	112	94	77	56	28

## Dimensions & Weights



Model name	Specification			
	D (mm)	L (mm)	Weight (kg)	Weight (incl.pkg kg)
6RPM 670-02	146	583	26.0	34.0
6RPM 670-03	146	688	32.0	40.0
6RPM 670-04	146	793	37.0	45.0
6RPM 670-05	146	898	43.0	51.0
6RPM 670-06	146	1003	48.0	56.0
6RPM 670-07	146	1108	54.0	62.0
6RPM 670-08	146	1213	59.0	67.0
6RPM 670-10	146	1423	70.0	78.0
6RPM 670-12	146	1633	81.0	89.0
6RPM 670-14	146	1843	92.0	100.0

\*D: With Cable Guard  
\*G: Available Outlet Size 2", 2.5" & 3"