

Oswal SS Submersible V6

Stainless-steel 6" submersible pumps for 4" and 6" motors · OSP-9 / OSP-12

AT A GLANCE

- Fully fabricated AISI 304 stainless steel
- One 6" pump end for 4" and 6" motors
- Flow 6–18 m³/h (100–300 L/min)
- Head up to 462 m
- 0.75–30 HP (0.55–22 kW)
- 2" (OSP 9) · 2½" (OSP 12) outlet

V6



Look at the range we have for energy saving

6" pumps for 4" · 6" motors · 88 ratings

9 · 12

m³/h nominal duty

6–18 m³/h

flow range

462 m

max. head

0.55–22 kW

0.75–30 HP

MANUFACTURED BY

Oswal Pumps Ltd.

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ISO 9001:2015

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SS PUMP OSP-9 / 12

High-head 6" stainless-steel submersibles

Oswal submersible pumps and motors are well known for their quality, reliability and excellence in every type of service. They are manufactured under the supervision of a highly qualified technical team, with stage-wise rigorous inspection under TQM concepts, and are backed by excellent after-sales service.

Applications include hospitals, water-circulation systems, government water-supply schemes, irrigation, farms, drip and sprinkler irrigation, gardening, nurseries, domestic water supply, multi-storeyed buildings, industrial water-supply systems and hotels.

Oswal has developed energy-efficient, cost-effective pumps of fully fabricated AISI 304 stainless steel to international quality levels, and exports pump sets to developed countries. The pump sets are of modular design for under-water operation and universal fit; all mounting dimensions of pumps and motors follow NEMA standards. Fabricated construction keeps them light and easy to handle and gives a long service life.

Oswal water-filled and 8" water-cooled submersible motors conform to **IS 9283**; pump sets conform to **IS 8034**.

General data

Duty range	150–200 L/min (9–12 m ³ /h)
Flow rate Q	6–18 m ³ /h
Max. head (H)	462 m (see note)
Pumped liquid	Clean, thin, non-aggressive water, free from solids, chemically neutral
Max. liquid temperature	35 °C (see note)
Max. sand content	40 g/m ³
Min. suction head required	1.5 m
Starts per hour	15–20 max.
Operating pressure	67 bar max.

Construction & connection

Type	OSP 9	OSP 12
Steel	AISI 304	AISI 304
Connection Rp · BSP thread	2" (50 mm)	2½" (65 mm)
Connection Rp · NPT thread	2" (50 mm)	2½" (65 mm)

Max. liquid temperature by installation

Motor	Flow velocity past motor	Vertical	Horizontal
6"	0.15 m/s	40 °C	40 °C

Note: General data gives 35 °C; this table gives 40 °C at ≥ 0.15 m/s cooling flow past the motor. Source max. head 450 m; both 44-stage pumps give 462 m.

Model type key — example OSP 6 9 12

OSP	6	9
Model type	Motor size: 4" or 6" motor with 6" pump	Nominal flow, m ³ /h (× 16.67 = L/min)
12		
Number of impellers (stages)		



FABRICATED AISI 304 STAINLESS-STEEL COMPONENTS

FEATURES AND BENEFITS

Built for duty, designed for efficiency

A wide pump range

Energy-efficient duty points from 9 to 12 m³/h, with many pump sizes (stages) to match any duty point.

Low installation cost

Low weight eases handling and cuts equipment cost, installation and service time; high wear resistance means pumps are as good as new after service.

High pump efficiency

Pump and motor efficiency is often neglected in favour of purchase price — yet it decides the running cost for the life of the pump.

Bearings with sand channels

All bearings are water-lubricated and have an octagonal shape with channels that let sand particles pass.

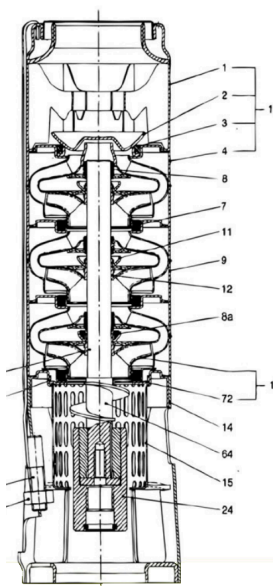
Stainless steel throughout

All wetted parts in AISI 304 for good wear resistance and a reduced risk of corrosion with ordinary cold water containing a little chloride.

Stop ring

Designed as a thrust bearing, the stop ring limits axial shaft movement and protects the pump against up-thrust at start-up and in transport.

Example: pumping 12 m³/h against 60 m head, a stainless-steel energy-efficient pump saves about 4 kWh every hour compared with other pumps — around **₹4,60,000 in 10 years** at 8 hours' running a day (as printed — see CHANGES).



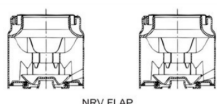
SECTIONAL DRAWING · OSP-9 / 12



BEARING WITH SAND CHANNELS



INLET STRAINER



NON-RETURN VALVE



STOP RING

Material specification OSP-9 / OSP-12

No.	Component	Material	Grade
1	Valve casing	Stainless steel	304
1a	Discharge chamber, complete	Stainless steel	304
2	Valve cup	Stainless steel	304
3	Valve seat	Stainless steel	304 ‡
4	Top intermediate chamber	Stainless steel	304
6	Top bearing	NBR	
7	Neck ring	NBR / PPS	
8	Intermediate bearing	NBR	
8a	Spacing washer	Carbon/graphite HY22 in PTFE mass	
9	Intermediate chamber	Stainless steel	304
11	Split-cone nut	Stainless steel	304
12	Split cone	Stainless steel	304
13	Impeller	Stainless steel	304
14	Suction interconnector	Stainless steel	304
15	Strainer	Stainless steel	304
16	Pump shaft	Stainless steel	316
17	Strap	Stainless steel	304
18	Cable guard	Stainless steel	304
19	Nut	Stainless steel	304
19a	Nut	Stainless steel	304
23	Rubber guard	Rubber	
25	Neck-ring retainer	Stainless steel	304
SQ	Priming screw	Stainless steel	304
72	Wear ring	Stainless steel	304
75	Spacer ring	Stainless steel	304
78	Nameplate	Stainless steel	304

‡ Valve-seat grade: blank in the OSP 9 table, 304 in the OSP 12 table — otherwise the two material tables are identical and are merged.

6" pump · 4"/6" motor

OSP-9

Performance · 4" · 6" motors

NOMINAL
9 m³/hFLOW
6-15 m³/hMAX. HEAD
462 mPOWER
0.55-18.5 kWOUTLET
2" · 50 mmRATINGS
44

PUMP · MOTOR

TOTAL HEAD (M) AT FLOW RATE Q

Stages	HP	kW	4"	6"	0 m ³ /h	6	9	12	15
					0 L/min	100	150	200	250
1	0.75	0.55	●	—	10.5	9.8	8.8	7.5	6.2
2	1.5	1.1	●	—	21	20	18	15	12
3	2	1.5	●	—	32	29	26	23	19
4	3	2.2	●	●	42	39	35	30	25
5	3	2.2	●	●	53	49	44	38	31
6	4	3.0	●	●	63	59	53	45	37
7	4	3.0	●	●	74	69	62	53	43
8	5	3.7	●	●	84	78	70	60	50
9	5	3.7	●	●	95	88	79	68	56
10	6	4.5	●	●	105	98	88	75	62
11	7.5	5.5	—	●	116	108	97	83	68
12	7.5	5.5	—	●	126	118	106	90	74
13	7.5	5.5	—	●	137	127	114	98	81
14	10	7.5	—	●	147	137	123	105	87
15	10	7.5	—	●	158	147	132	113	93
16	10	7.5	—	●	168	157	141	120	99
17	10	7.5	—	●	179	167	150	128	105
18	10	7.5	—	●	189	176	158	135	112
19	12.5	9.3	—	●	200	186	167	143	118
20	12.5	9.3	—	●	210	196	176	150	124
21	12.5	9.3	—	●	221	206	185	158	130
22	12.5	9.3	—	●	231	216	194	165	136
23	15	11	—	●	242	225	202	173	143
24	15	11	—	●	252	235	211	180	149
25	15	11	—	●	263	245	220	188	155

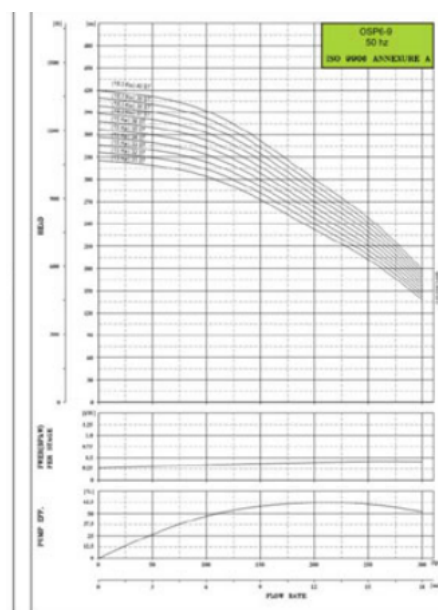
● = available with that motor size (OSP4-9 / OSP6-9). Bold column = duty point 9 m³/h (150 L/min). Speed approx. 2850 min⁻¹; ISO 9906 Annex A; 50 Hz.
Continued overleaf.

OSP-9

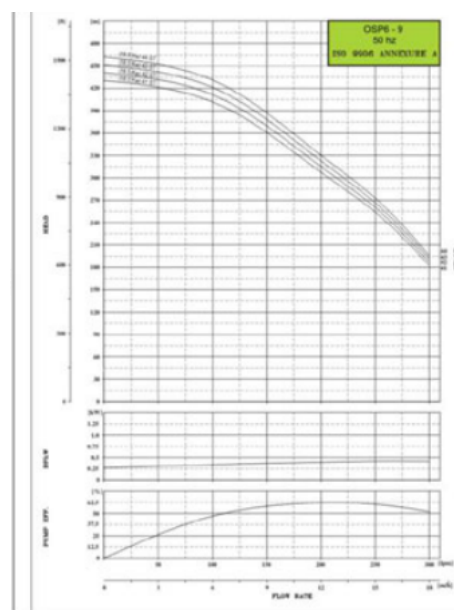
— continued · 26–44 stages

PUMP · MOTOR					TOTAL HEAD (M) AT FLOW RATE Q				
Stages	HP	kW	4"	6"	0	6	9	12	15
					0 m ³ /h 0 L/min	100	150	200	250
26	15	11	—	●	273	255	229	195	161
27	17.5	13	—	●	284	265	238	203	167
28	17.5	13	—	●	294	274	246	210	174
29	17.5	13	—	●	305	284	255	218	180
30	17.5	13	—	●	315	294	264	225	186
31	17.5	13	—	●	326	304	273	233	192
32	20	15	—	●	336	314	282	240	198
33	20	15	—	●	347	323	290	248	205
34	20	15	—	●	357	333	299	255	211
35	20	15	—	●	368	343	308	263	217
36	20	15	—	●	378	353	317	270	223
37	25	18.5	—	●	389	363	326	278	229
38	25	18.5	—	●	399	372	334	285	236
39	25	18.5	—	●	410	382	343	293	242
40	25	18.5	—	●	420	392	352	300	248
41	25	18.5	—	●	431	402	361	308	254
42	25	18.5	—	●	441	412	370	315	260
43	25	18.5	—	●	452	421	378	323	267
44	25	18.5	—	●	462	431	387	330	273

Corrected (red): 25 stages at 15 m³/h printed "15" m → 155 m (dropped digit; series 149 / 155 / 161).



OSP6-9 · HIGHER STAGES



OSP6-9 · HIGHEST STAGES

6" pump · 4"/6" motor

OSP-12

Performance · 4" · 6" motors

NOMINAL
12 m³/hFLOW
6–18 m³/hMAX. HEAD
462 mPOWER
0.55–22 kWOUTLET
2½" · 65 mmRATINGS
44

PUMP · MOTOR

TOTAL HEAD (M) AT FLOW RATE Q

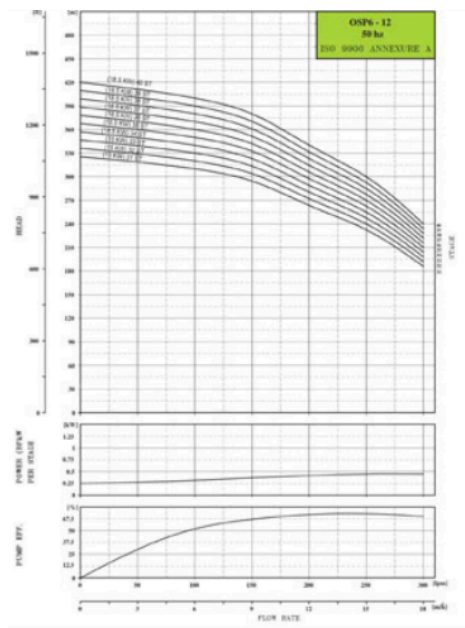
Stages	HP	kW	4"	6"	0 m ³ /h	6	9	12	15	18
					0 L/min	100	150	200	250	300
1	0.75	0.55	●	–	10.5	10.0	9.5	8.5	7.5	6
2	1.5	1.1	●	–	21	20	19	17	15	12
3	2	1.5	●	–	32	30	29	26	23	18
4	3	2.2	●	●	42	40	38	34	30	24
5	4	3.0	●	●	53	50	48	43	38	30
6	4	3.0	●	●	63	60	57	51	45	36
7	5	3.7	●	●	74	70	67	60	53	42
8	5	3.7	●	●	84	80	76	68	60	48
9	6	4.5	●	●	95	90	86	77	68	54
10	6	4.5	●	●	105	100	95	85	75	60
11	7.5	5.5	–	●	116	110	105	94	83	66
12	7.5	5.5	–	●	126	120	114	102	90	72
13	10	7.5	–	●	137	130	124	111	98	78
14	10	7.5	–	●	147	140	133	119	105	84
15	10	7.5	–	●	158	150	143	128	113	90
16	10	7.5	–	●	168	160	152	136	120	96
17	12.5	9.3	–	●	179	170	162	145	128	102
18	12.5	9.3	–	●	189	180	171	153	135	108
19	12.5	9.3	–	●	200	190	181	162	143	114
20	12.5	9.3	–	●	210	200	190	170	150	120
21	15	11	–	●	221	210	200	179	158	126
22	15	11	–	●	231	220	209	187	165	132
23	15	11	–	●	242	230	219	196	173	138
24	15	11	–	●	252	240	228	204	180	144
25	17.5	13	–	●	263	250	238	213	188	150

● = available with that motor size (OSP4-12 / OSP6-12). Bold column = duty point 12 m³/h (200 L/min). Continued overleaf.**Corrected (red):** OSP6-12 4-stage row printed 42.0 / 10.0 / 9.5 / 8.5 / 7.5 / 6 (the 1-stage values pasted in) → 4-stage values from the OSP4-12 table. 11 stages at 9 m³/h printed 405 → 105 m. OSP6-12 stages 8–10 were printed twice — duplicate rows removed.

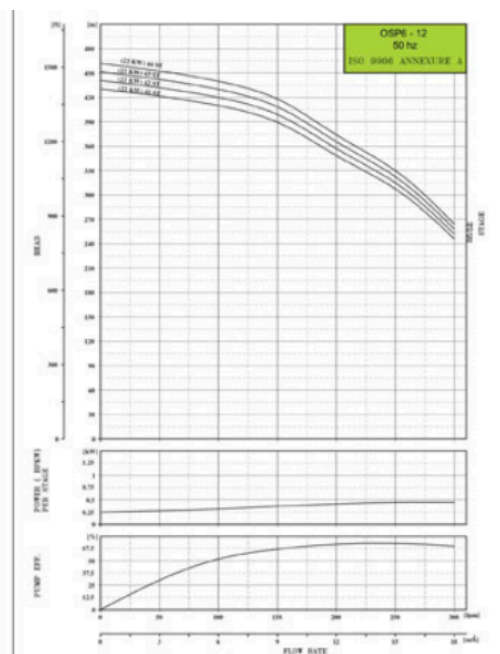
OSP-12

— continued · 26–44 stages

PUMP · MOTOR					TOTAL HEAD (M) AT FLOW RATE Q					
Stages	HP	kW	4"	6"	0	6	9	12	15	18
					m ³ /h 0 L/min	100	150	200	250	300
26	17.5	13	—	●	273	260	247	221	195	156
27	17.5	13	—	●	284	270	257	230	203	162
28	17.5	13	—	●	294	280	266	238	210	168
29	20	15	—	●	305	290	276	247	218	174
30	20	15	—	●	315	300	285	255	225	180
31	20	15	—	●	326	310	295	264	233	186
32	20	15	—	●	336	320	304	272	240	192
33	20	15	—	●	347	330	314	281	248	198
34	25	18.5	—	●	357	340	323	289	255	204
35	25	18.5	—	●	368	350	333	298	263	210
36	25	18.5	—	●	378	360	342	306	270	216
37	25	18.5	—	●	389	370	352	315	278	222
38	25	18.5	—	●	399	380	362	323	285	228
39	25	18.5	—	●	410	390	371	332	293	234
40	25	18.5	—	●	420	400	380	340	300	240
41	30	22	—	●	431	410	390	349	308	246
42	30	22	—	●	441	420	399	357	315	252
43	30	22	—	●	452	430	409	366	323	258
44	30	22	—	●	462	440	418	374	330	264



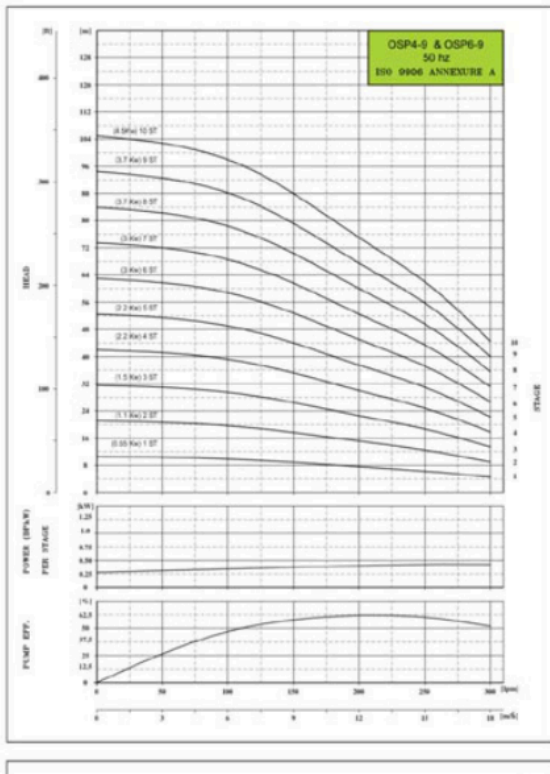
OSP6-12 · HIGHER STAGES



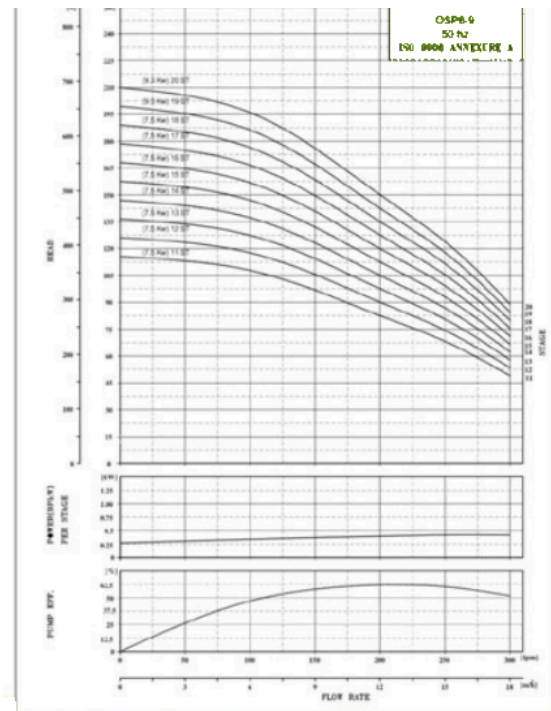
OSP6-12 · HIGHEST STAGES

OSP-9

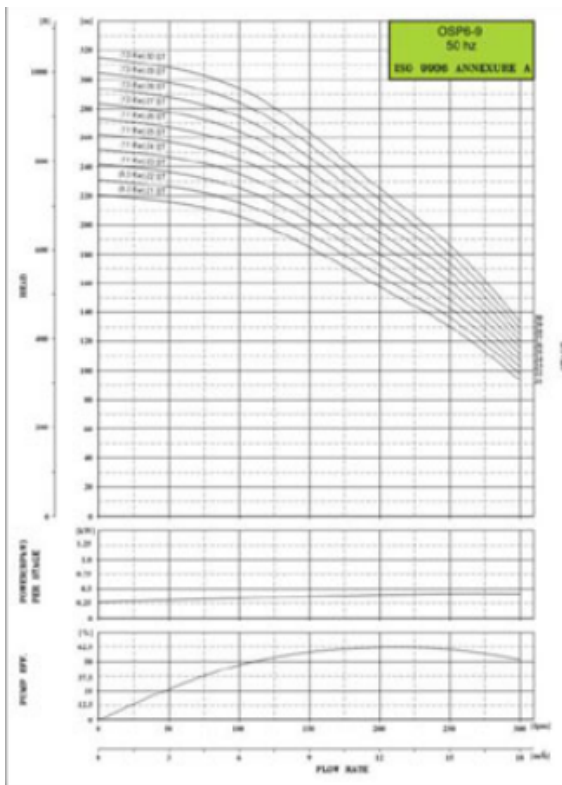
— Head, power per stage and pump efficiency · 50 Hz · ISO 9906 Annex A



OSP4-9 & OSP6-9 · 1-10 STAGES



OSP6-9 · MID STAGES



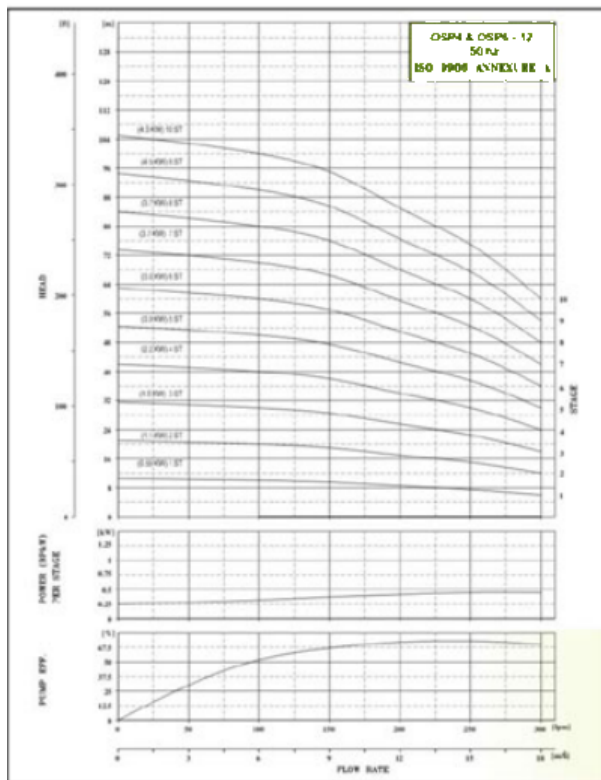
OSP6-9 · UPPER STAGES

Curve conditions

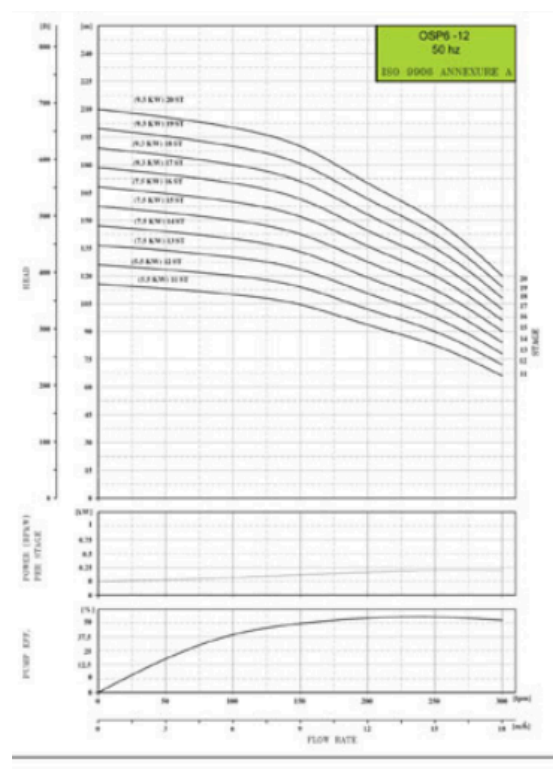
- **Q/H:** curves include losses such as non-return-valve losses at actual speed. Operation without the NRV raises the actual head at nominal performance by 0.5–1.0 m.
- **Power curve:** shaft power (BkW) per stage.
- **Efficiency curve:** pump-stage efficiency.
- Curve tolerances to **ISO 9906, Annex A**. Curves show performance at the actual speed of the standard motor range (approx. 2850 min⁻¹).
- Measured with airless water at 20 °C, kinematic viscosity 1 mm²/s. For liquids denser than water, use motors with correspondingly higher output.
- Bold curves indicate the recommended performance range.

OSP-12

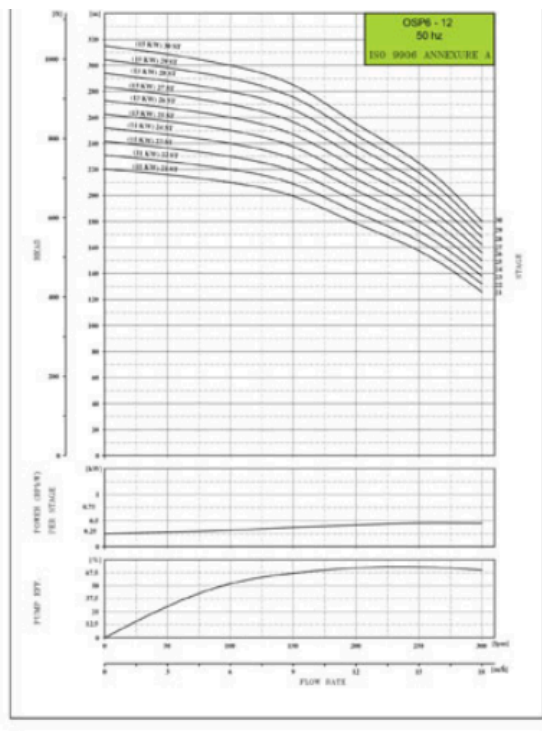
— Head, power per stage and pump efficiency · 50 Hz · ISO 9906 Annex A



OSP4-12 & OSP6-12 · 1-10 STAGES



OSP6-12 · MID STAGES



OSP6-12 · UPPER STAGES

Warranty: 12 months as per our standard terms and conditions mentioned in the quotation / offer. The manufacturer reserves the right to change the design and specification without prior notice.