LPS

IN-LINE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 stainless steel

In-line centrifugal electric pumps with AISI 304 stainless steel hydraulic equipment

APPLICATIONS

- Civil and industrial heating systems
- Domestic hot water handling
- Cooling and air conditioning systems
- Low pressure fluid handling in general

TECHNICAL FEATURES

- Versatile
- Silent running
- Reliable

PUMP TECHNICAL DATA

- Maximum suction pressure:
  - 2 bar for all single-phase models and LPS 25 three phase models,
  - 4 bar for LPS 32-40-50 three phase models
- Fluid temperature: -10°C - +100°C
- Flanges: DN 25 to DN 50
- MEI > 0.4 except for LPS 32/40, LPS 40/40, LPS 40/75, LPS 50/40, LPS 50/75, LPS 50/150

For further information, refer to our Data Book on www.ebaraeurope.com

MOTOR TECHNICAL DATA

- IE3 high energy-efficiency motors starting from 0.75kW
- 2 poles self-ventilating asynchronous motors
- Insulation class F
- Protection rating IP55
- Single phase voltage 230V ±10% 50Hz, three phase voltage 230/400V ±10%, 50Hz
- Permanently active condenser and integrated automatic re-arming thermal cutout for the single-phase motor
- Protection must be supplied by the user for the three phase version

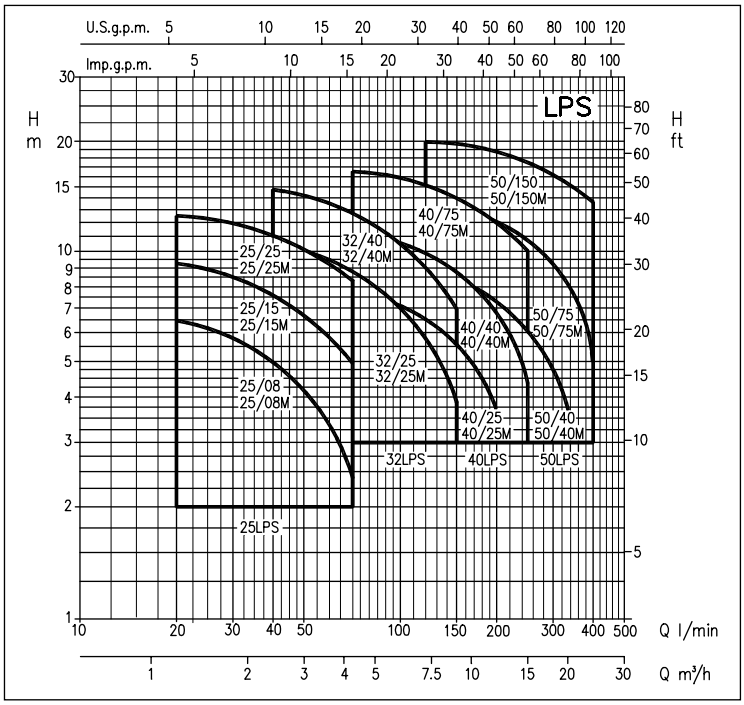
MATERIALS

- Pump body, impeller and gasket disk in AISI 304 stainless steel
- Shaft made of AISI 303 steel (part in contact with liquid)
- Motor mount and casing in aluminium
- Mechanical seal made of Ceramic/Carbon/NBR
- Elastomers in NBR

ACCESSORIES (on request)

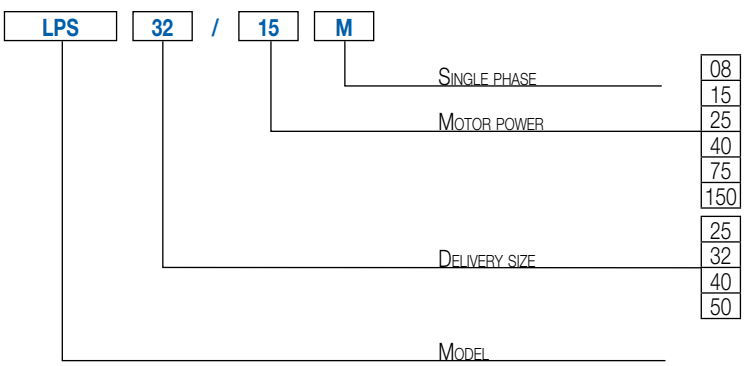
- Counterflanges available in the following materials:
  - galvanised
  - AISI 304

PERFORMANCE RANGE (per ISO 9906 Annex A)



N.B. Some models not available in the EU

IDENTIFICATION CODE



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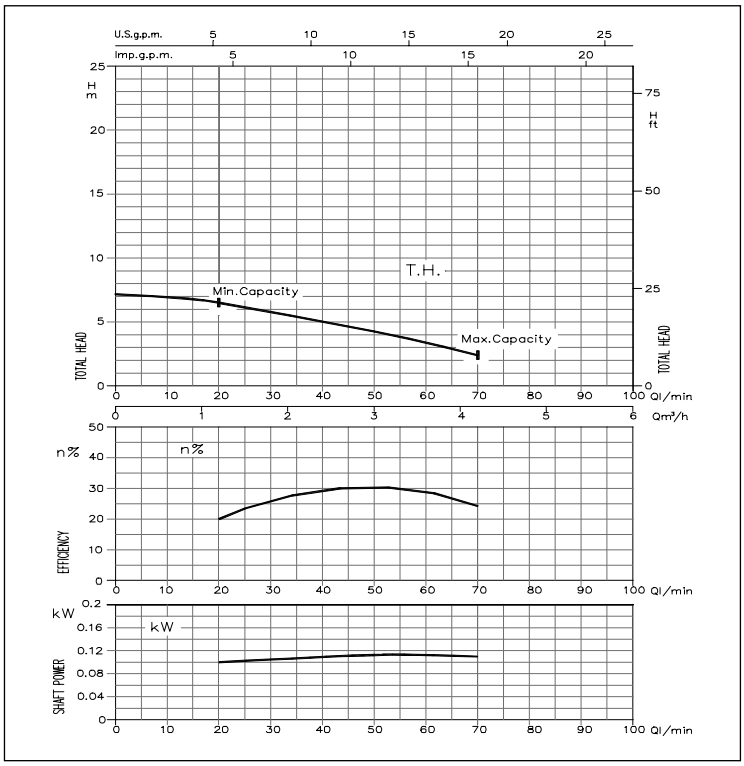
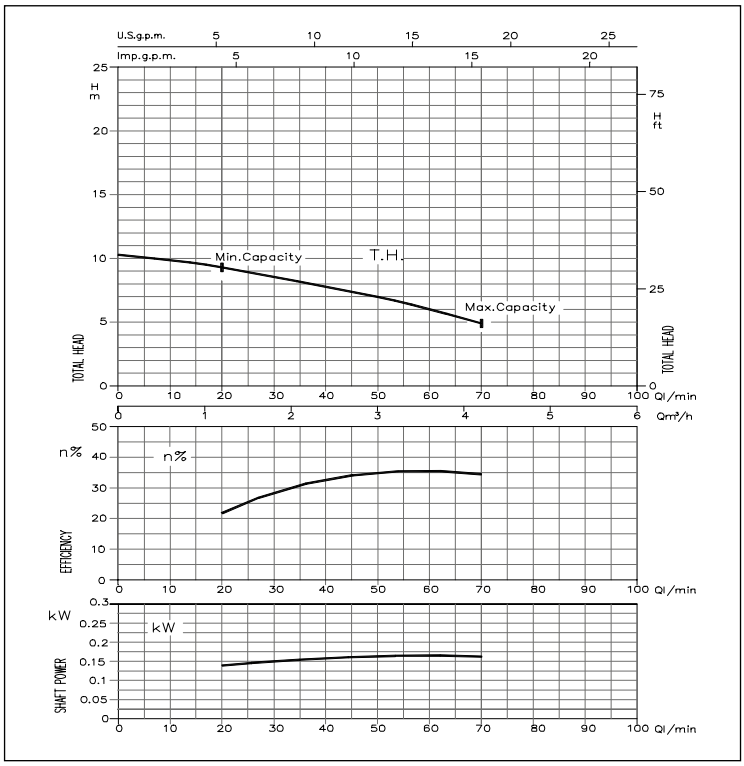
PERFORMANCE CURVES series LPS 25/08

(per ISO 9906 Annex A)



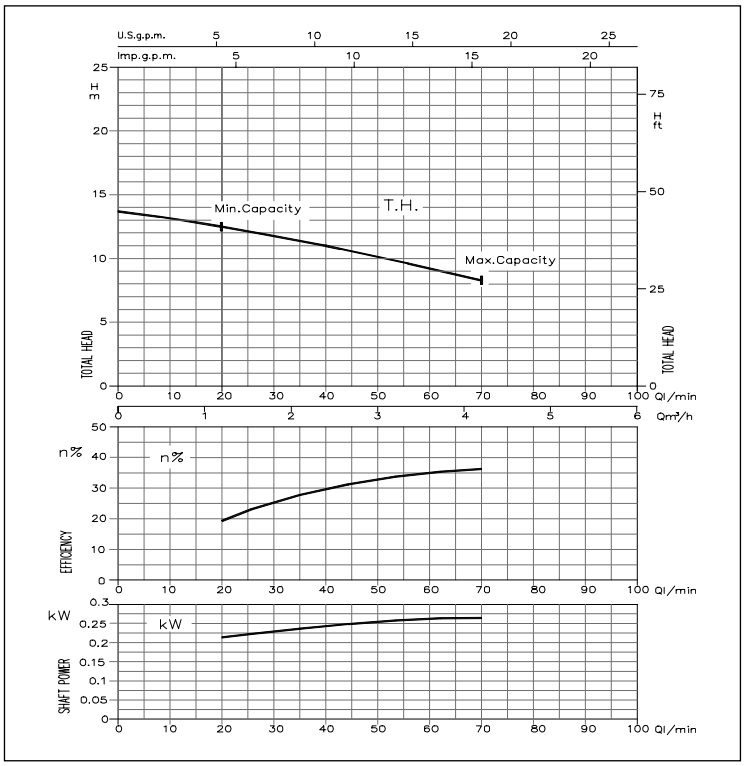
PERFORMANCE CURVES series LPS 25/15

(per ISO 9906 Annex A)



PERFORMANCE CURVES series LPS 25/25

(per ISO 9906 Annex A)



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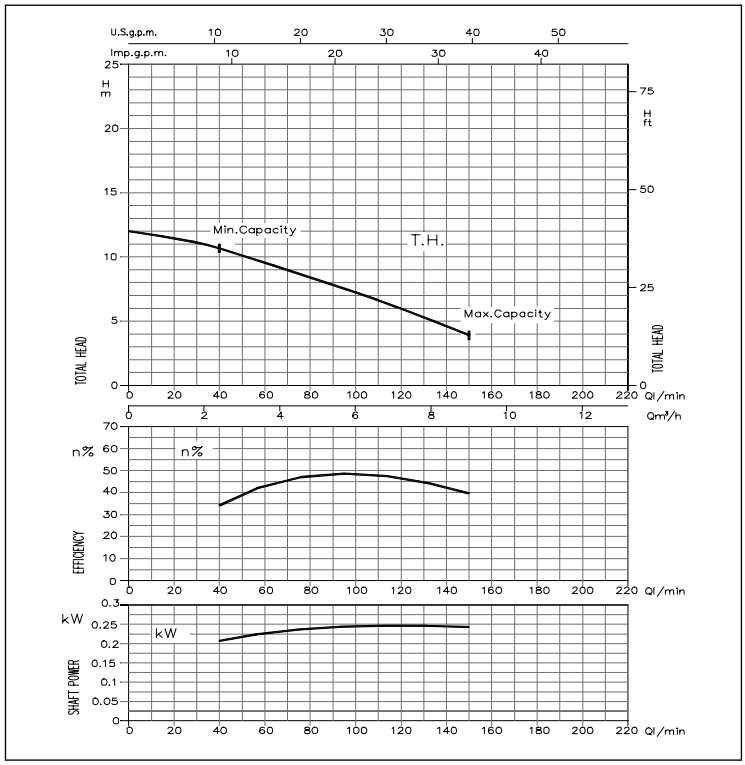
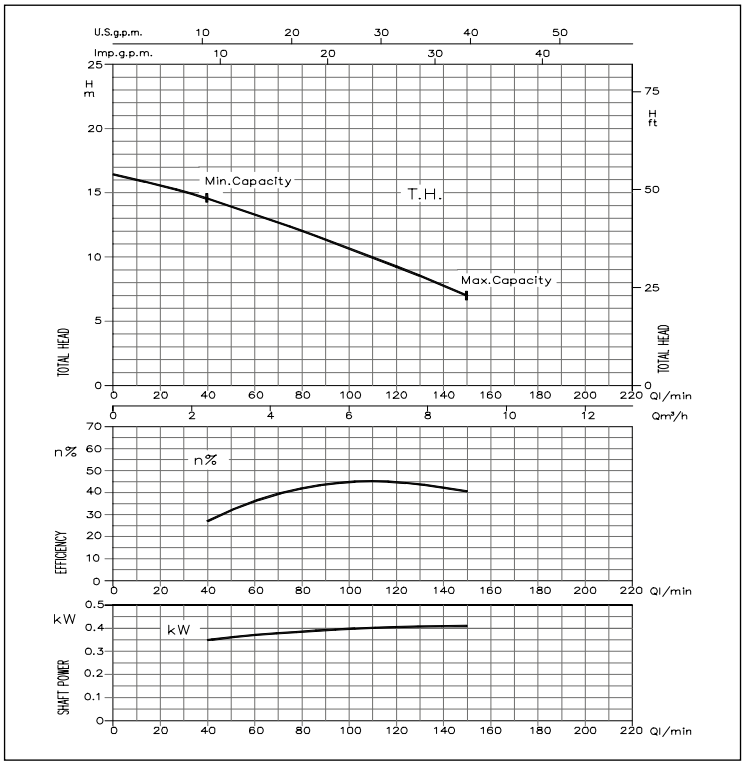
PERFORMANCE CURVES series LPS 32/25

(per ISO 9906 Annex A)



PERFORMANCE CURVES series LPS 32/40

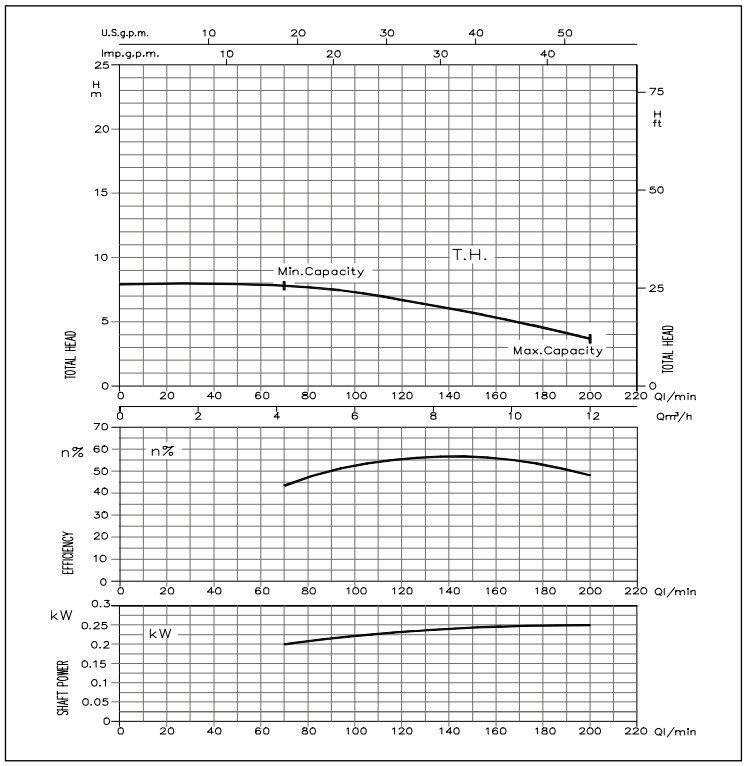
(per ISO 9906 Annex A)



N.B. Models marked with * not available in the EU

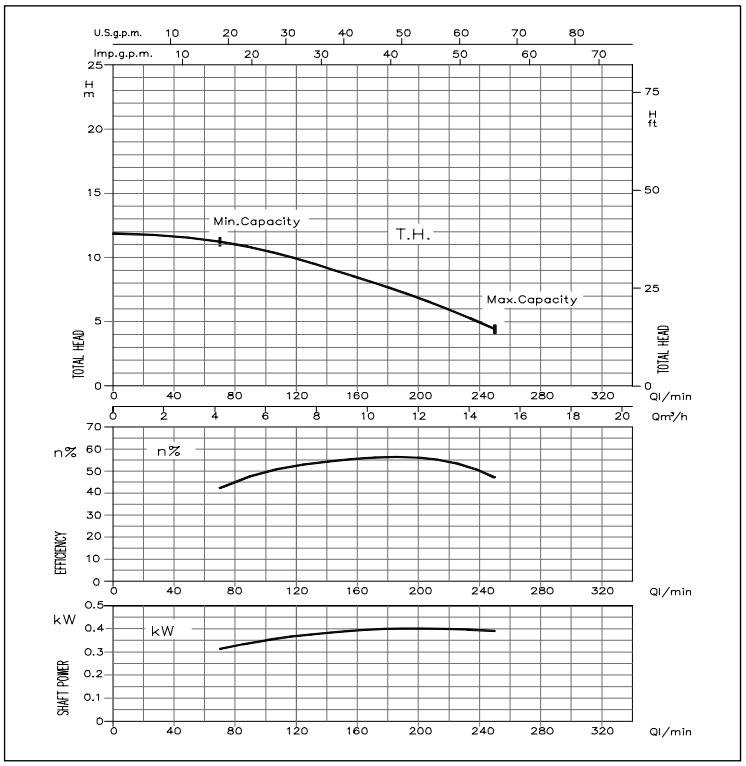
PERFORMANCE CURVES series LPS 40/25

(per ISO 9906 Annex A)



PERFORMANCE CURVES series LPS 40/40

(per ISO 9906 Annex A)



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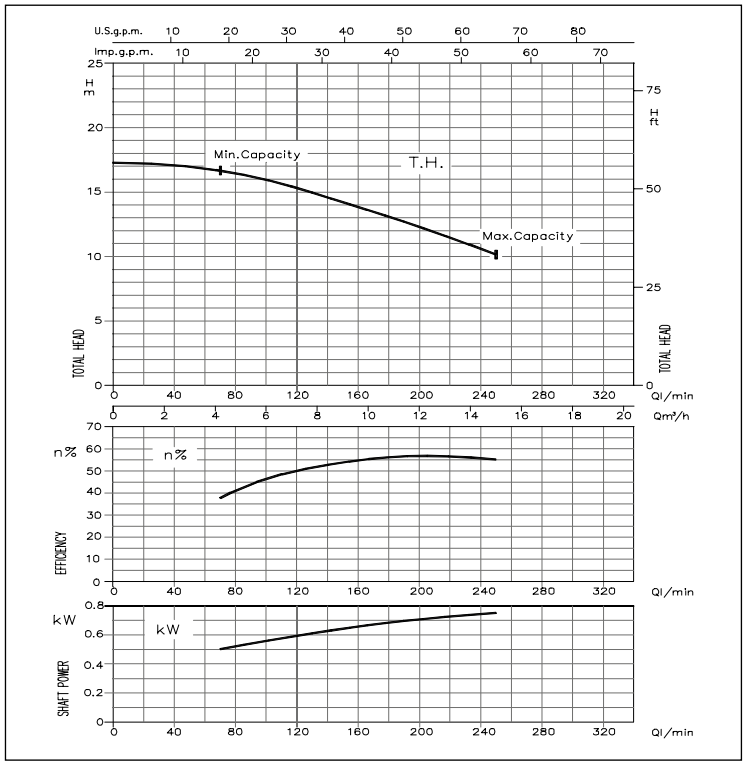
IN-LINE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 stainless steel

PERFORMANCE CURVES series LPS 40/75

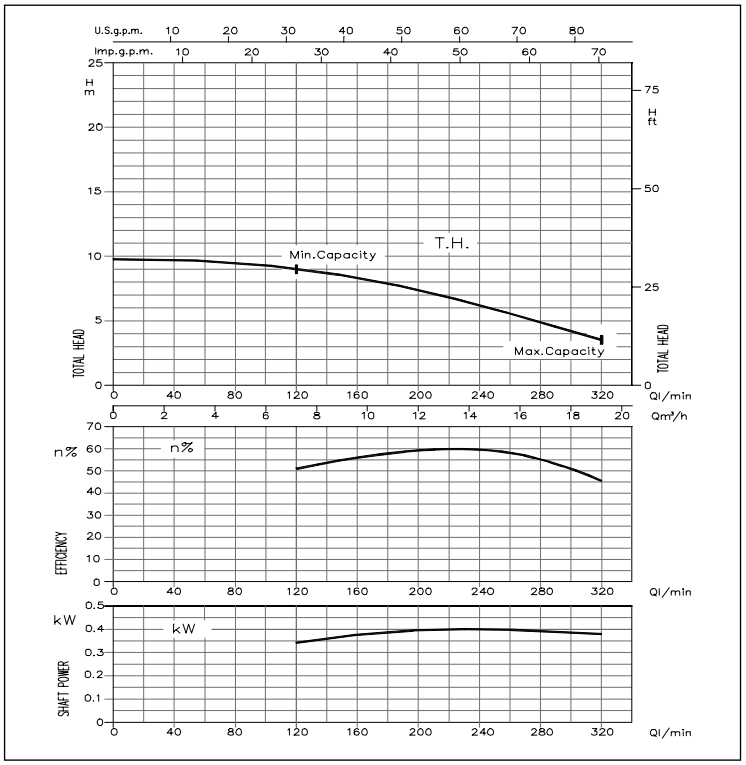
(per ISO 9906 Annex A)



N.B. Models marked with * not available in the EU

PERFORMANCE CURVES series LPS 50/40

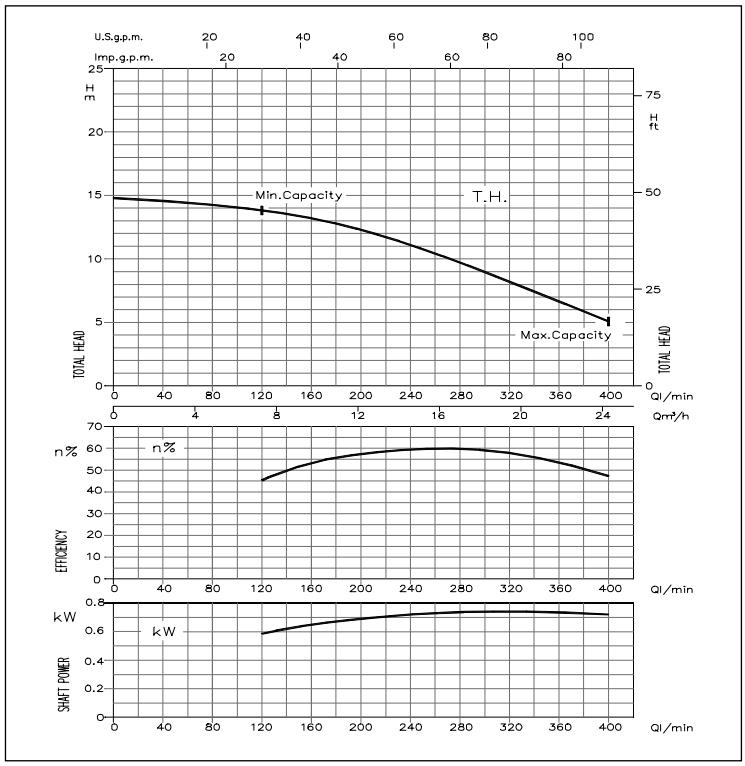
(per ISO 9906 Annex A)



N.B. Models marked with * not available in the EU

PERFORMANCE CURVES series LPS 50/75

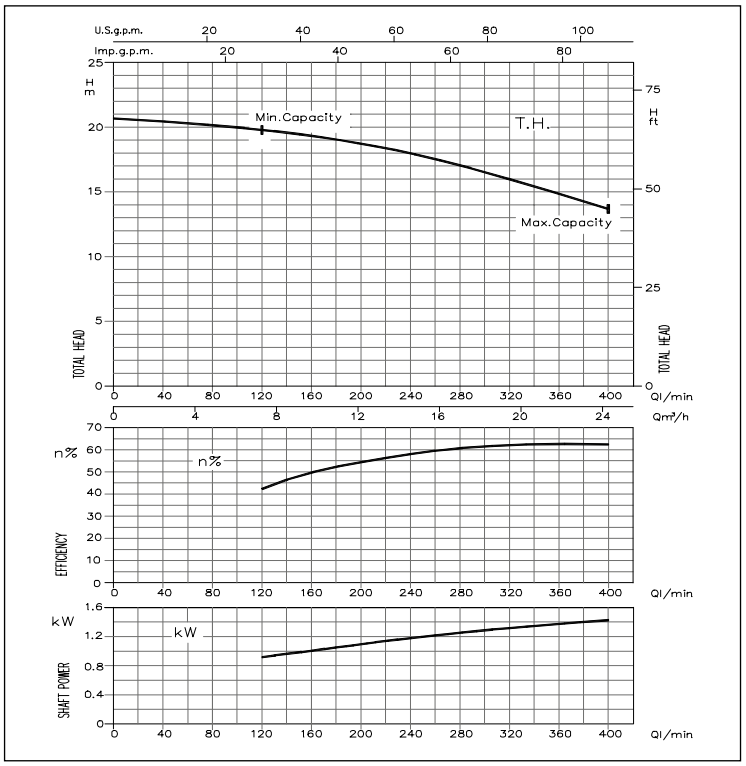
(per ISO 9906 Annex A)



N.B. Models marked with * not available in the EU

PERFORMANCE CURVES series LPS 50/150

(per ISO 9906 Annex A)



N.B. Models marked with * not available in the EU

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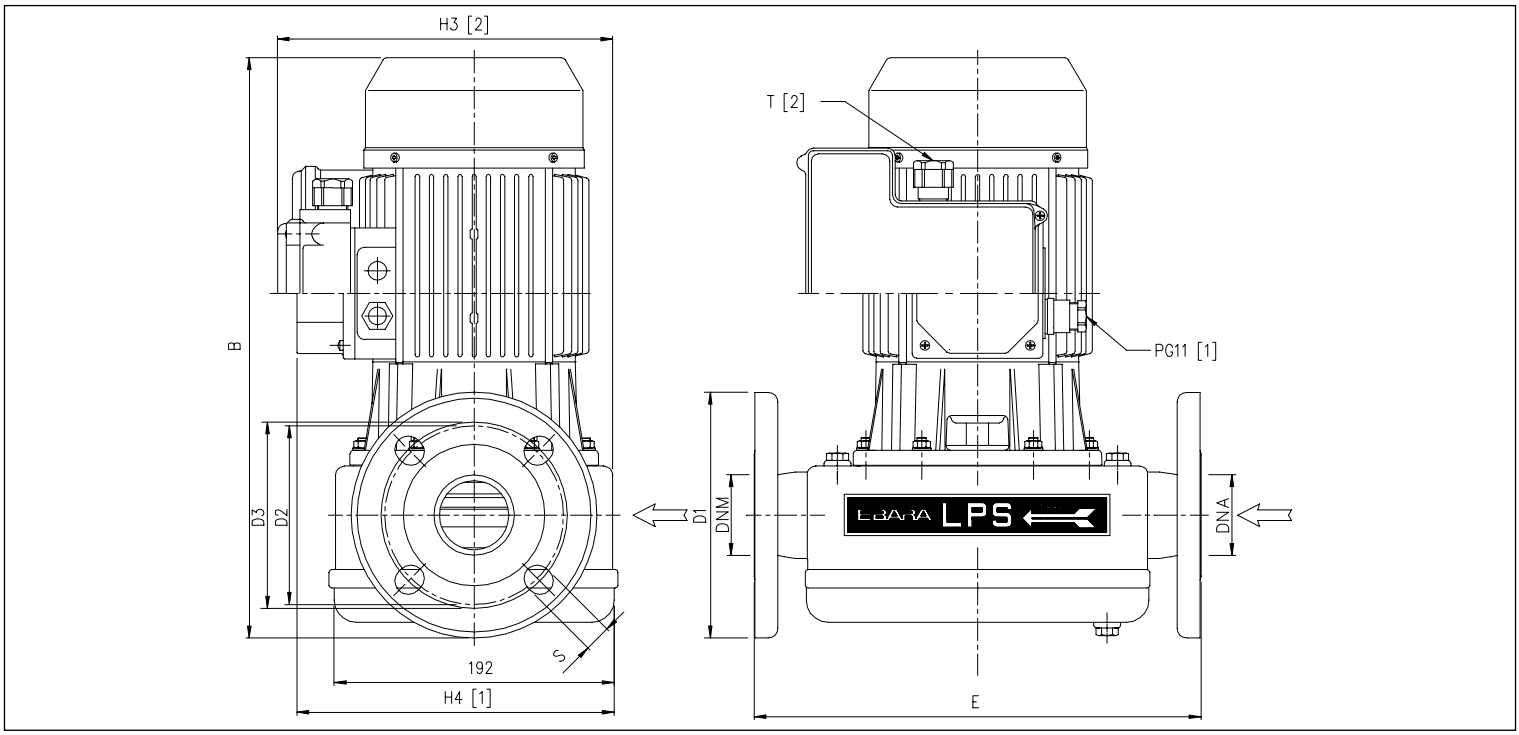
PERFORMANCE TABLE

Model		P_2		Q=Flow rate									
Single phase 230V	Three phase 230/400V	[HP]	[KW]	l/min 20	40	70	100	120	150	200	250	320	400
				m^3/h 1.2	2.4	4.2	6	7.2	9	12	15	19.2	24
				H=Head [m]									
LPS 25/08M	LPS 25/08	0.1	0.08	6.5	5.0	2.4	-	-	-	-	-	-	-
LPS 25/15M	LPS 25/15	0.2	0.15	9.3	7.8	4.9	-	-	-	-	-	-	-
LPS 25/25M	LPS 25/25	0.33	0.25	12.5	11.1	8.4	-	-	-	-	-	-	-
LPS 32/25M	LPS 32/25	0.33	0.25	-	10.7	9.1	7.2	5.9	3.9	-	-	-	-
LPS 32/40M *	LPS 32/40 *	0.5	0.4	-	14.5	12.7	10.6	9.2	7.0	-	-	-	-
LPS 40/25M	LPS 40/25	0.33	0.25	-	-	7.8	7.1	6.6	5.6	3.7	-	-	-
LPS 40/40M *	LPS 40/40 *	0.5	0.4	-	-	11.3	10.4	9.9	8.7	6.9	4.4	-	-
LPS 40/75M *	LPS 40/75 *	1	0.75	-	-	16.6	16.0	15.2	14.1	12.3	10.1	-	-
LPS 50/40M *	LPS 50/40 *	0.5	0.4	-	-	-	-	9.1	8.8	7.4	5.9	3.5	-
LPS 50/75M *	LPS 50/75 *	1	0.75	-	-	-	-	13.8	13.3	12.3	10.7	8.2	5.0
LPS 50/150M *	LPS 50/150 *	2	1.5	-	-	-	-	19.8	19.3	18.7	17.8	16.0	13.7

* Models not available in the EU

DIMENSIONS LPS



DIMENSIONS CHART

Model		Dimensions [mm]															Weight [kg]		
Single phase	Three phase	E	B			H3	H4	T	V		DNA	DNM	D1	D2	D3	S			
			[2]	[1]	*	[2]	[1]	[2]	[1]	*							[2]	[1]	*
LPS 25/08M	LPS 25/08	300	322	322	-	206	197.5	PG11	PG11	-	25	25	115	85	85	14	10	10	-
LPS 25/15M	LPS 25/15	300	322	322	-	206	197.5	PG11	PG11	-	25	25	115	85	85	14	10	10	-
LPS 25/25M	LPS 25/25	300	322	322	-	206	197.5	PG11	PG11	-	25	25	115	85	85	14	10.1	10.1	-
LPS 32/25M	LPS 32/25	305	341.5	341.5	-	206	197.5	PG11	PG11	-	32	32	140	100	100	18	10.8	10.8	-
LPS 32/40M *	LPS 32/40 *	305	341.5	341.5	-	206	197.5	PG11	PG11	-	32	32	140	100	100	18	10.8	10.8	-
LPS 40/25M	LPS 40/25	305	346.5	346.5	-	206	197.5	PG11	PG11	-	40	40	150	105	110	18	11	11	-
LPS 40/40M *	LPS 40/40 *	305	346.5	346.5	-	206	197.5	PG11	PG11	-	40	40	150	105	110	18	11	11	-
LPS 40/75M *	LPS 40/75 *	305	346.5	346.5	346.5	206	197.5	PG11	PG11	M16x1.5	40	40	150	105	110	18	13.7	13.7	13.7
LPS 50/40M *	LPS 50/40 *	310	356.5	356.5	-	206	197.5	PG11	PG11	-	50	50	165	120	125	18	11.6	11.6	-
LPS 50/75M *	LPS 50/75 *	310	356.5	356.5	356.5	206	197.5	PG11	PG11	M16x1.5	50	50	165	120	125	18	14.4	14.4	14.4
LPS 50/150M *	LPS 50/150 *	310	387	400	412.5	232	214.5	PG13.5	PG11	M20x1.5	50	50	165	120	125	18	17.7	19.6	20.5

[1]= Three phase only
[2]= Single phase only
* Models not available in the EU

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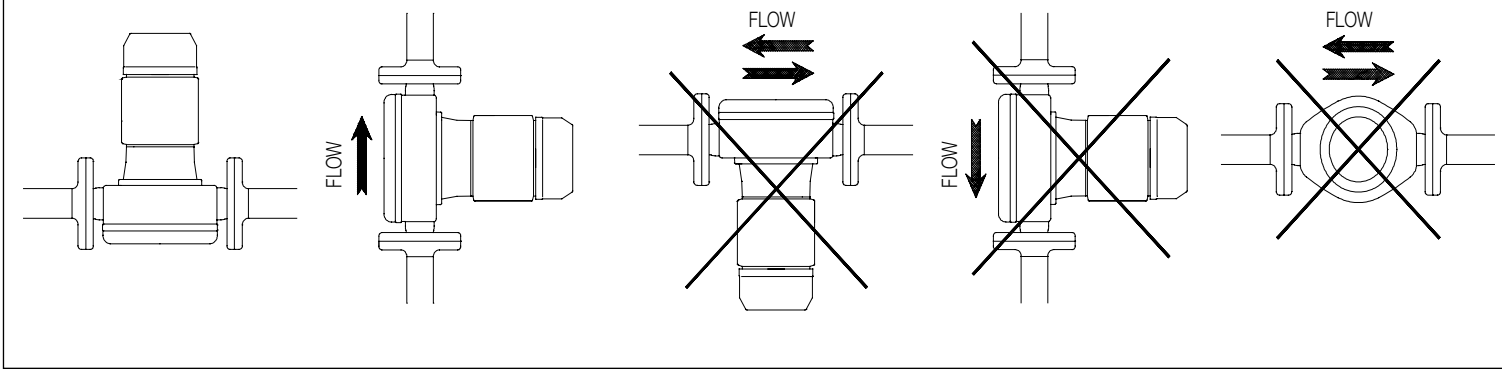
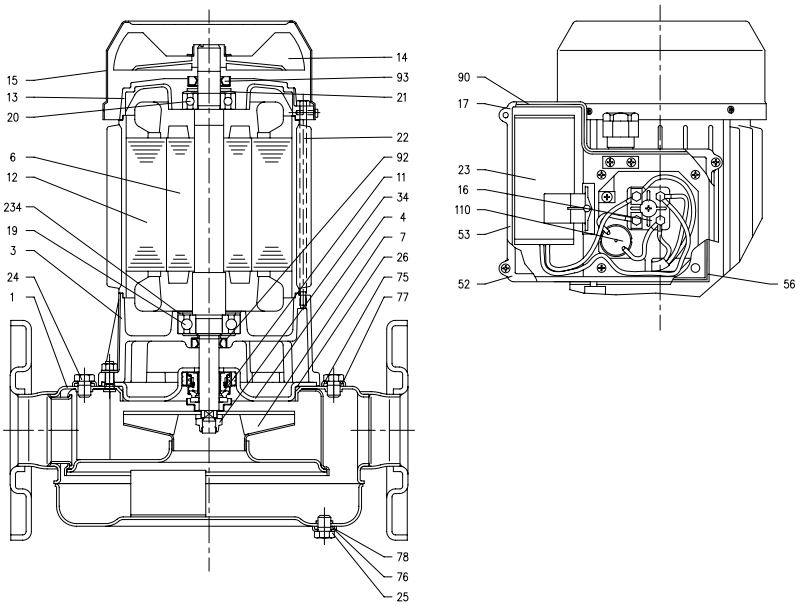
INSTALLATION LPS



SECTIONAL VIEW LPS



MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Pump body	AISI 304	24	Filler cap	AISI 304
3	Motor mount	Aluminium	25	Drain cap	AISI 304
4	Gasket disk	AISI 304	26	O-ring	NBR
6	Shaft	AISI 303 steel (part in contact with liquid)	34	Impeller nut	AISI 304
7	Impeller	AISI 304	52	Capacitor housing [2]	ABS
11	Mechanical seal	Carbon/Ceramic/NBR	53	Capacitor housing cover [2]	ABS
12	Motor casing	-	56	Terminal block cover gasket	NBR
13	Motor cover	Aluminium	75	Washer	AISI 304
14	Fan	PA	76	Washer	AISI 304
15	Fan cover	Fe P04 galvanised	77	O-ring	NBR
16	Terminal block	-	78	O-ring	NBR
17	Terminal block cover [1]	Aluminium	90	Base enclosure gasket	NBR
19	Pump side bearing	-	92	Seal ring (pump side)	NBR
20	Motor side bearing	-	93	Seal ring (motor side)	NBR
21	Compensator ring	C70 steel	110	Motor protection device [3]	-
22	Linkage	Fe 42 galvanised	234	Circlip	Carbon
23	Condenser [2]	-			

[1]= Three phase only
[2]= Single phase only
[3]= Single phase model LPS 50/150M only

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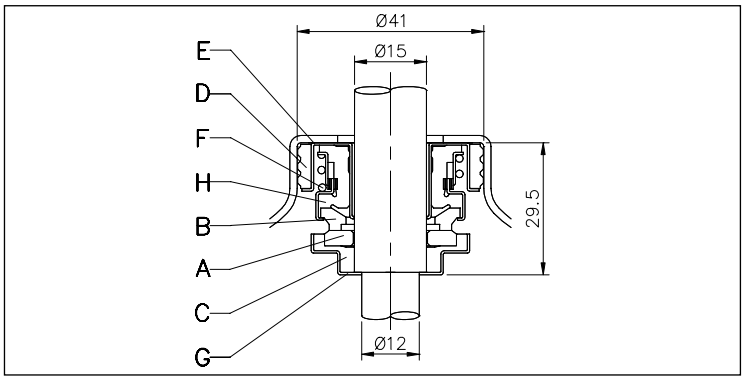
MECHANICAL SEAL LPS



MATERIALS TABLE

Ref.	Name	Material
A	Rotary section	Ceramic
B	Fixed section	Carbon
C	Gasket	NBR
D	Bellows	NBR
E	Ring	AISI 304
F	Spring	AISI 304
G	Structure/frame	AISI 304
H	Circlip	NBR

ELECTRICAL DATA TABLE

Model		P_2		Efficiency		Capacitor Single phase		Efficiency (%) Three phase			P_1		Absorbed current [A]		
Single phase 230V	Three phase 230/400V	[HP]	[kW]	Single Phase	Three Phase	µF	V_c	η % 50%	η % 75%	η % 100%	Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase 230V	Three phase 400V
LPS 25/08M	LPS 25/08	0.1	0.08	-	-	12.5	450	-	-	-	0.29	0.27	1.51	1.7	1.01
LPS 25/15M	LPS 25/15	0.2	0.15	-	-	12.5	450	-	-	-	0.34	0.33	1.67	1.8	1.03
LPS 25/25M	LPS 25/25	0.33	0.25	-	-	12.5	450	-	-	-	0.45	0.44	2.04	1.9	1.11
LPS 32/25M	LPS 32/25	0.33	0.25	-	-	12.5	450	-	-	-	0.43	0.41	2.0	1.8	1.03
LPS 32/40M *	LPS 32/40 *	0.5	0.4	-	-	12.5	450	-	-	-	0.62	0.63	2.74	2.2	1.25
LPS 40/25M	LPS 40/25	0.33	0.25	-	-	12.5	450	-	-	-	0.43	0.42	1.98	1.9	1.09
LPS 40/40M *	LPS 40/40 *	0.5	0.4	-	-	12.5	450	-	-	-	0.62	0.63	2.75	2.2	1.25
LPS 40/75M *	LPS 40/75 *	1	0.75	-	IE3	25	450	80.9	82.3	82.1	1.07	0.91	4.86	3.0	1.7
LPS 50/40M *	LPS 50/40	0.5	0.4	-	-	12.5	450	-	-	-	0.62	0.61	2.74	2.2	1.25
LPS 50/75M *	LPS 50/75 *	1	0.75	-	IE3	25	450	80.9	82.3	82.1	1.08	0.91	4.9	3.0	1.7
LPS 50/150M *	LPS 50/150 *	2	1.5	-	IE3	40	450	82.7	86.1	87.0	1.82	1.72	8.07	6.6	3.8

* Models not available in the EU

NOISE DATA TABLE

Model		P_2		L_{pA} - dB(A)*
Single phase 230V	Three phase 230/400V	[HP]	[kW]	
LPS 25/08M	LPS 25/08	0.1	0.08	60
LPS 25/15M	LPS 25/15	0.2	0.15	
LPS 25/25M	LPS 25/25	0.33	0.25	
LPS 32/25M	LPS 32/25	0.33	0.25	61
LPS 32/40M	LPS 32/40	0.5	0.4	
LPS 40/25M	LPS 40/25	0.33	0.25	61
LPS 40/40M	LPS 40/40	0.5	0.4	
LPS 40/75M	LPS 40/75	1	0.75	62
LPS 50/40M	LPS 50/40	0.5	0.4	62
LPS 50/75M	LPS 50/75	1	0.75	63
LPS 50/150M	LPS 50/150	2	1.5	65

* Mean noise level measured at 1 m from the electric pump.
Tolerance ± 2.5 dB.

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