

IN-LINE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

In-Line centrifugal electric pumps with stainless steel hydraulic parts AISI 304.

APPLICATIONS

- Civil/industrial heating plants
- Systems for moving domestic hot water
- Cooling and air conditioning plants
- Moving low pressure liquids in general

TECHNICAL DETAILS

- Versatile
- Silent
- Reliable

PUMP TECHNICAL DATA

- Maximum suction pressure:
 - 2 bar for all single phase models and LPS 25 three phase,
 - 4 bar for LPS 32-40-50 three phase
- Temperature of the liquid: $-10^{\circ}\text{C} \div +100^{\circ}\text{C}$
- Flanges: from DN 25 to DN 50
- $\text{MEI} > 0,1$ (LPS 25/08(M) - LPS 25/15(M) - LPS 25/25(M) - LPS 32/25(M) - LPS 40/25(M) - LPS 50/40(M) - LPS 50/75(M) - LPS 50/150(M))

For further information please see our Data Book on the web site www.ebaraurope.com

MOTOR TECHNICAL DATA

- High efficiency IE2 motors starting from 0,75kW
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP55 Protection rating
- 230V $\pm 10\%$, 50Hz single phase voltage, 230/400V $\pm 10\%$, 50Hz three phase voltage
- Permanent capacitor inserted and thermo-amperometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version

MATERIALS

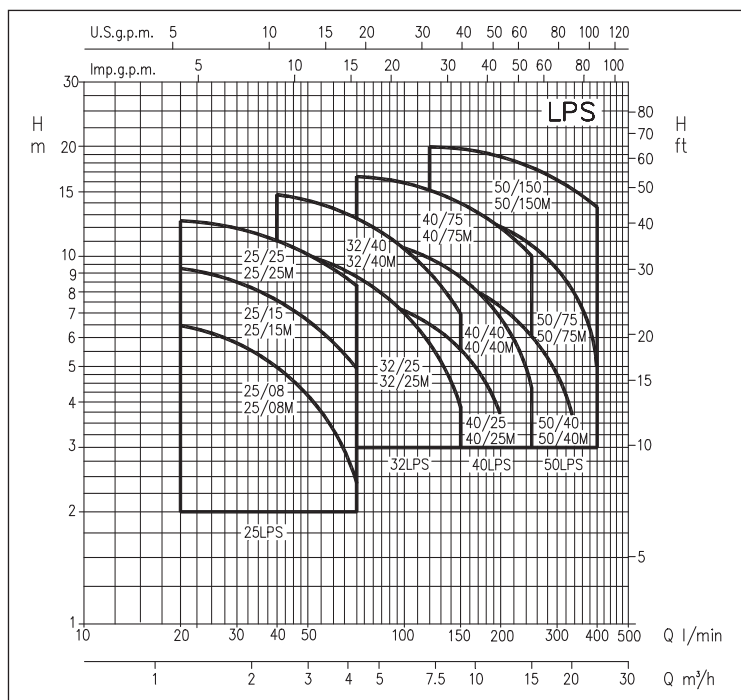
- Pump body, impeller and casing cover in AISI 304
- Shaft in AISI 303 (part in contact with the liquid)
- Bracket and motor casing in aluminium
- Mechanical seal in Ceramic/Carbon/NBR
- Elastomers in NBR

ACCESSORIES (on request)

- Counter-flanges kit available in AISI 304 and galvanised

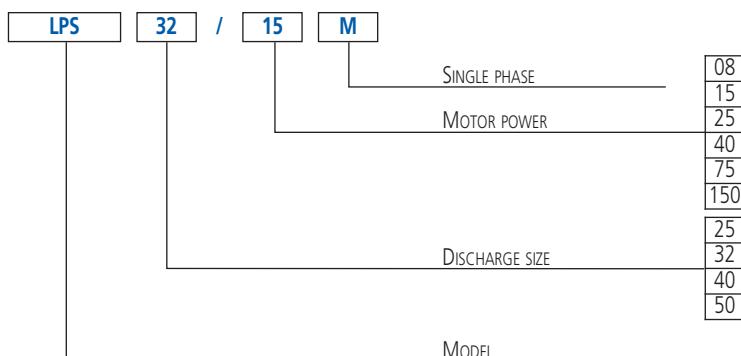


PERFORMANCE RANGE (according to ISO 9906 Attachment A)



N.B. Some model are not available for European market

IDENTIFICATION CODE





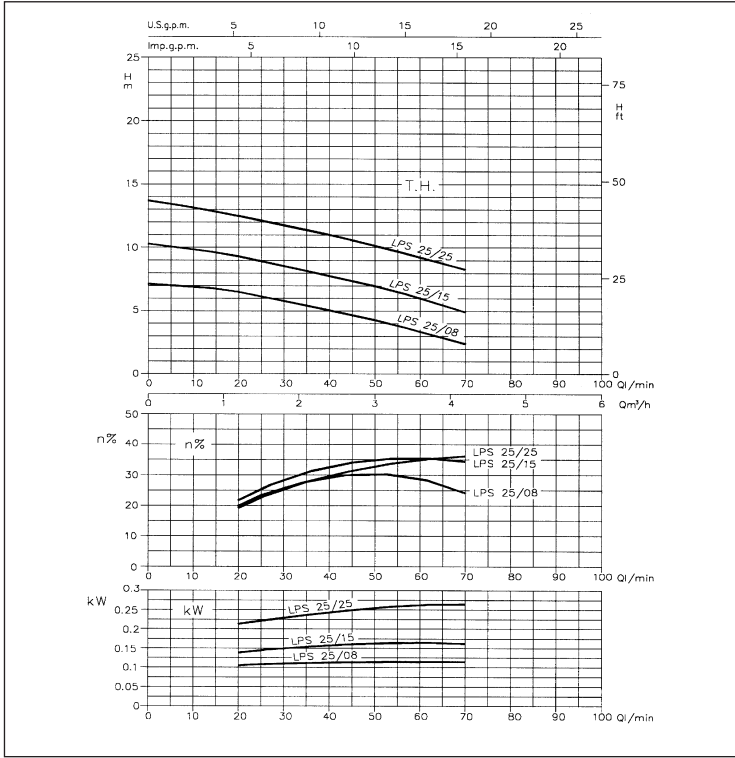
LPS

IN-LINE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

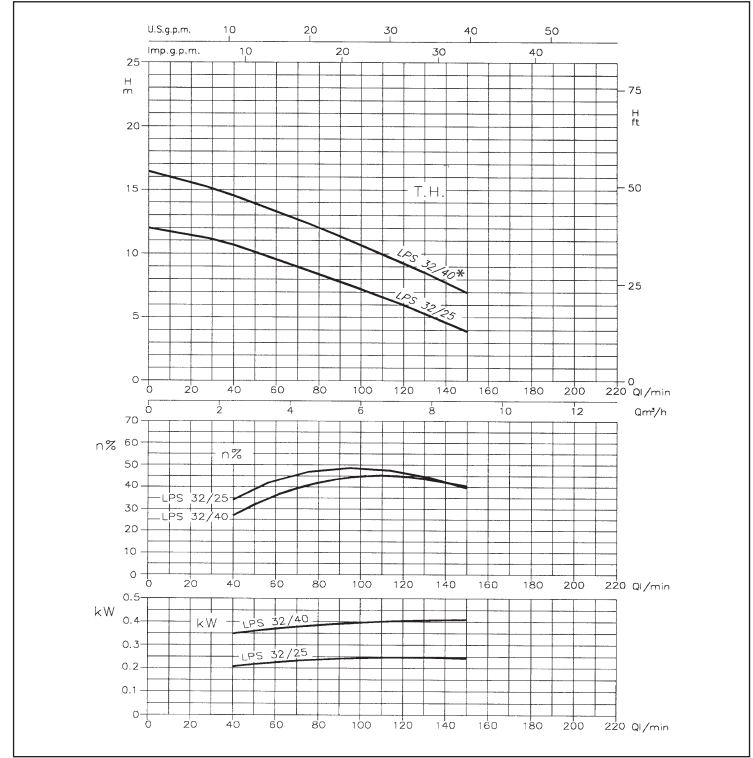
LPS 25 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



LPS 32 range PERFORMANCE CURVES

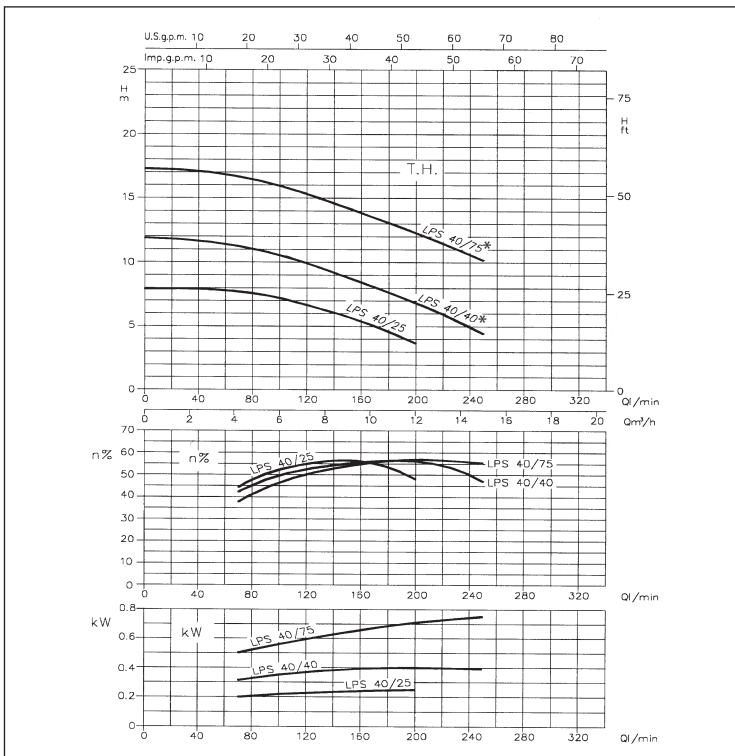
(according to ISO 9906 Attachment A)



N.B. The models with the * are not available for European market

LPS 40 range PERFORMANCE CURVES

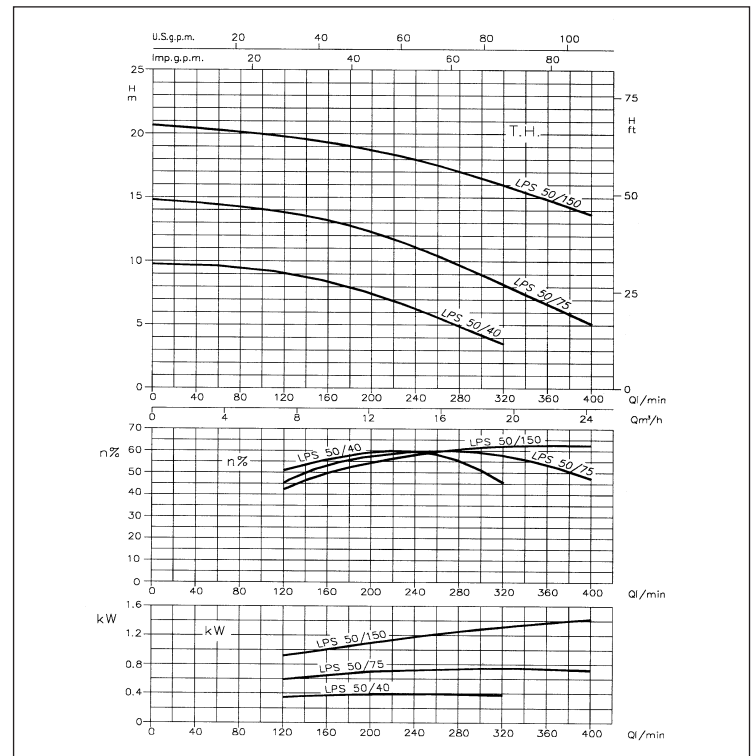
(according to ISO 9906 Attachment A)



N.B. The models with the * are not available for European market

LPS 50 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



IN-LINE CENTRIFUGAL ELECTRIC PUMPS

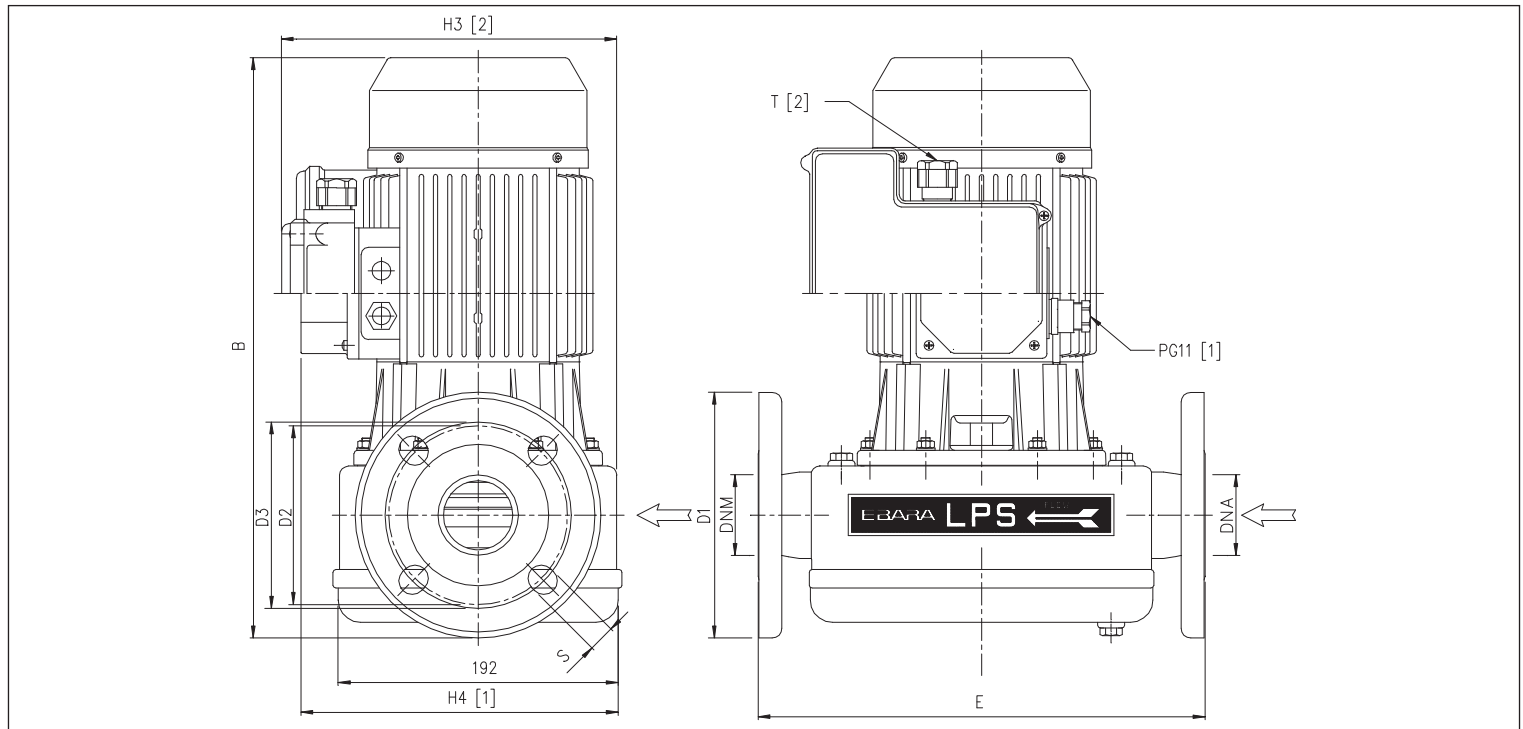
in AISI 304

PERFORMANCE TABLE

Model		P ₂		Q=Flow rate										
230V single phase	230/400V three-phase	[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 for European market

LPS DIMENSIONS



DIMENSIONS TABLE

Model		Dimensions [mm]												Weight [kg]	
Single phase	Three phase	E	B	H3	H4	T	DNA	DNM	D1	D2	D3	S	[2]	[1]	
LPS 25/08M	LPS 25/08	300	322	322	206	197,5	PG11	25	25	115	85	85	14	10,0	10,0
LPS 25/15M	LPS 25/15	300	322	322	206	197,5	PG11	25	25	115	85	85	14	10,0	10,0
LPS 25/25M	LPS 25/25	300	322	322	206	197,5	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	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	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	40	40	150	105	110	18	11,0	11,0
LPS 40/40M *	LPS 40/40 *	305	346,5	346,5	206	197,5	PG11	40	40	150	105	110	18	11,0	11,0
LPS 40/75M *	LPS 40/75 *	305	346,5	346,5	206	197,5	PG11	40	40	150	105	110	18	13,7	13,7
LPS 50/40M	LPS 50/40	310	356,5	356,5	206	197,5	PG11	50	50	165	120	125	18	11,6	11,6
LPS 50/75M	LPS 50/75	310	356,5	356,5	206	197,5	PG11	50	50	165	120	125	18	14,4	14,4
LPS 50/150M	LPS 50/150	310	387	400	232	214,5	PG13,5	50	50	165	120	125	18	17,7	19,6

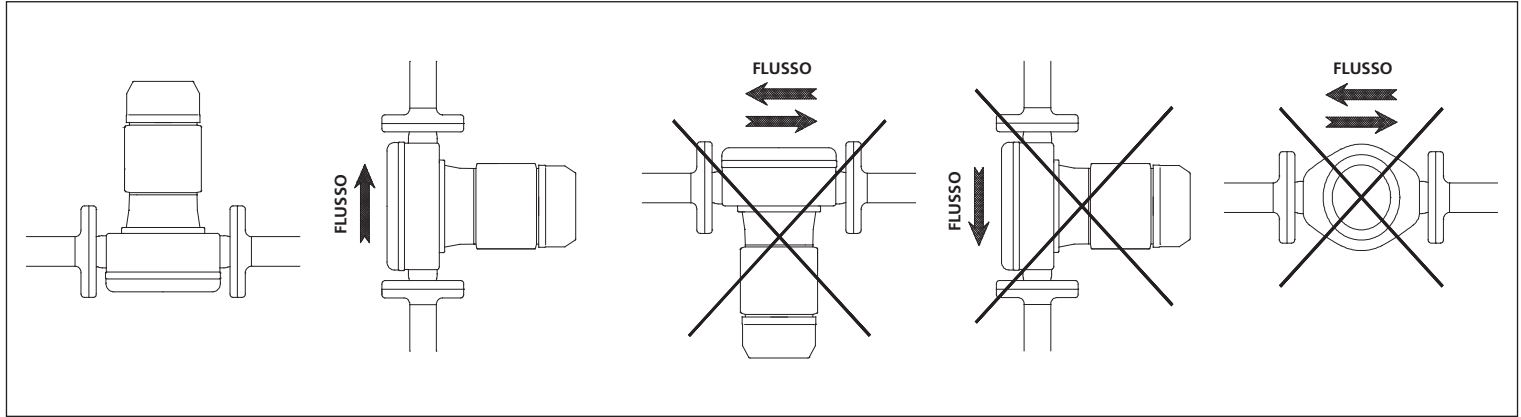
[1]= Three phase only
[2]= Single phase only

* Models not available for European market

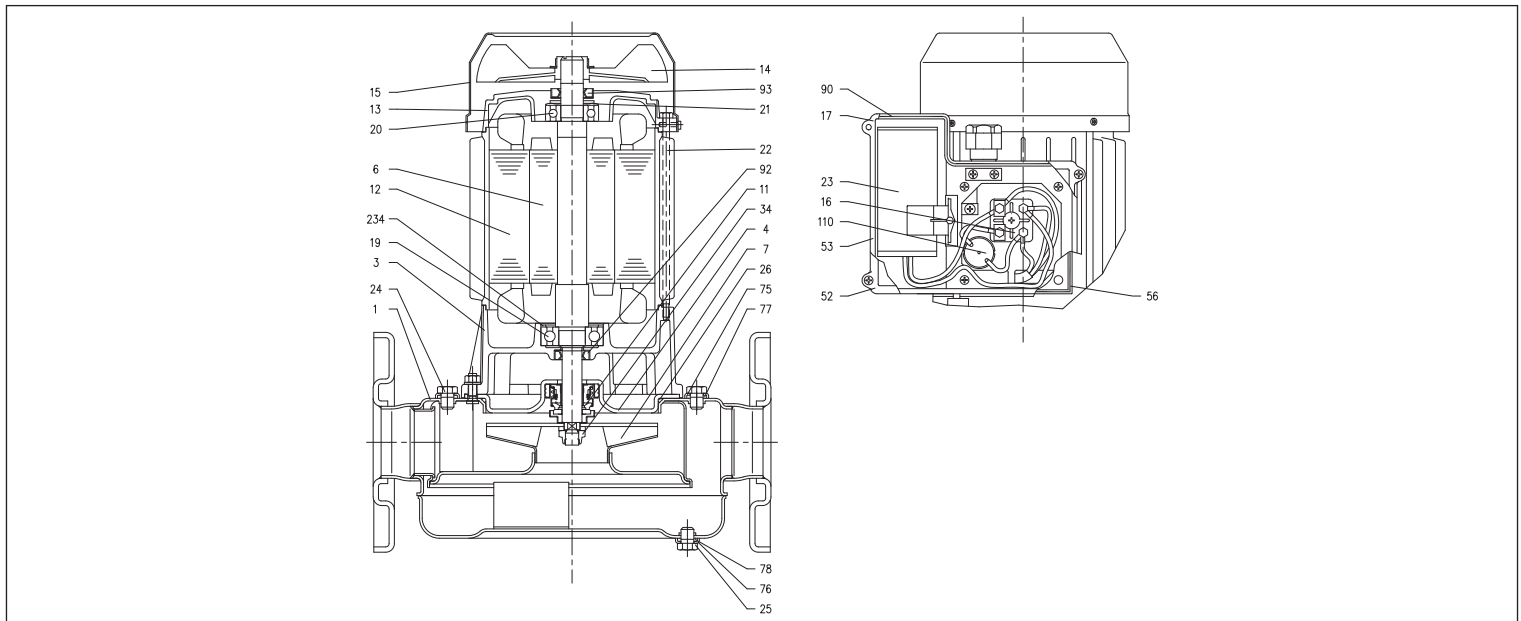
IN-LINE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

LPS 25 INSTALLATION



LPS SECTIONAL VIEW



MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Pump body	AISI 304	24	Filler cap	AISI 304
3	Motor support	Aluminium	25	Drain plug	AISI 304
4	Seal housing disc	AISI 304	26	O-Ring	NBR
6	Shaft	AISI 303 (part in contact with the liquid)	34	Impeller nut	AISI 304
7	Impeller	AISI 304	52	Capacitor-holder box [2]	ABS
11	Mechanical seal	Carbon/Ceramic/NBR	53	Capacitor-holder box cover [2]	ABS
12	Motor casing	-	56	Terminal box 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 box	-	78	O-Ring	NBR
17	Terminal box cover [1]	Aluminium	90	Terminal plate box gasket	NBR
19	Bearing pump side	-	92	Sealing ring (pump side)	NBR
20	Bearing motor side	-	93	Sealing ring (motor side)	NBR
21	Adjusting ring	Steel C70	110	Motorprotector [3]	-
22	Tie-rod	Galvanised Fe 42	234	Seeger ring	Carbon
23	Capacitor [2]	-			

[1]= Three phase only

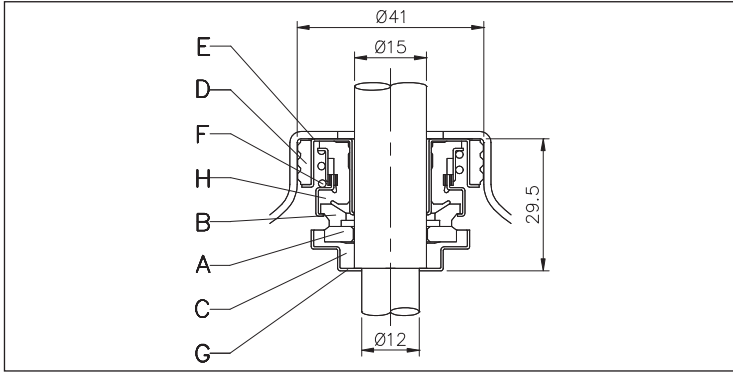
[2]= Single phase only

[3]= For single phase version only: LPS 50/150M

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LPS MECHANICAL SEAL



MATERIALS TABLE

Ref.	Name	Material
A	Rotating part	Ceramic
B	Fixed part	Carbon
C	Gasket	NBR
D	Diaphragm	NBR
E	Ring	AISI 304
F	Spring	AISI 304
G	Structure/frame	AISI 304
H	Retainer ring	NBR

ELECTRIC DATA TABLE

Model		P ₂		Capacitor		Efficiency (%)			P ₁		Absorbed current [A]		
Single phase 230V	Three phase 230/400V	[HP]	[kW]	Single phase μF	V _c	Three phase			Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase	
												230V	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	25	450	77,2	80,9	81,3	1,07	0,92	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	25	450	77,2	80,9	81,3	1,08	0,92	4,9	3,0	1,7
LPS 50/150M	LPS 50/150	2	1,5	40	450	78,6	83,0	84,2	1,82	1,78	8,07	6,3	3,7

* Models not available for European market

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	
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 value of several measures at 1m distance around the pump.
Tolerance ± 2,5 dB.