

## 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](http://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

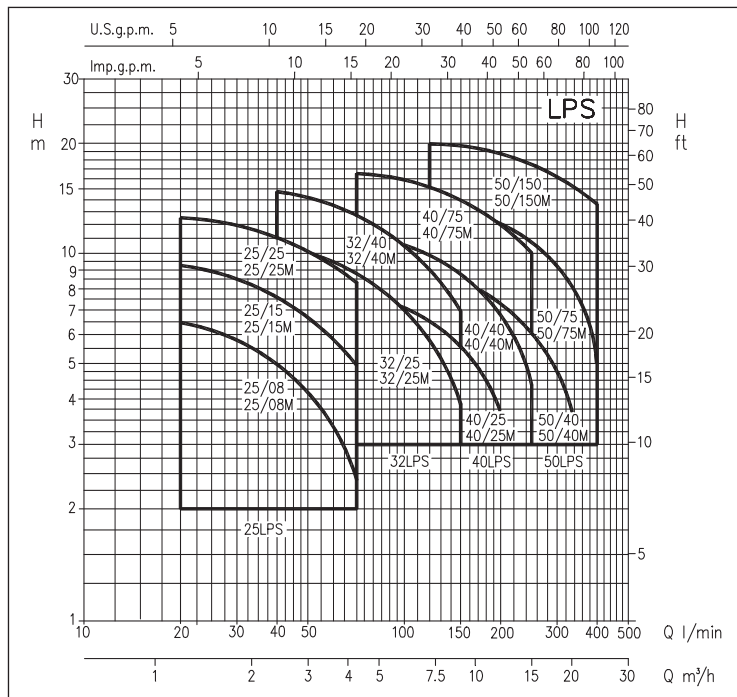
### MATERIALS

- 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)

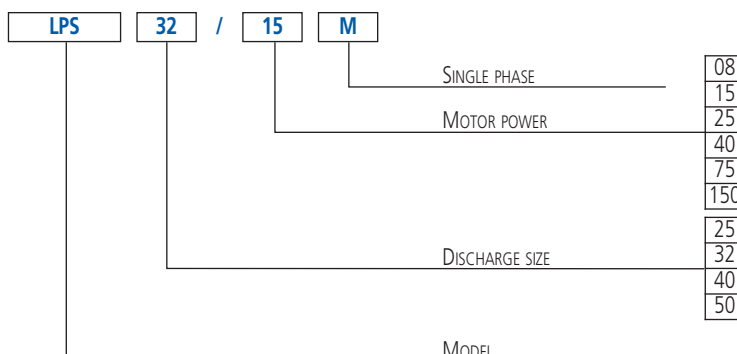
- Counter-flanges kit available in AISI 304 and galvanised

### PERFORMANCE RANGE (according to ISO 9906 Attachment A)



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

### IDENTIFICATION CODE





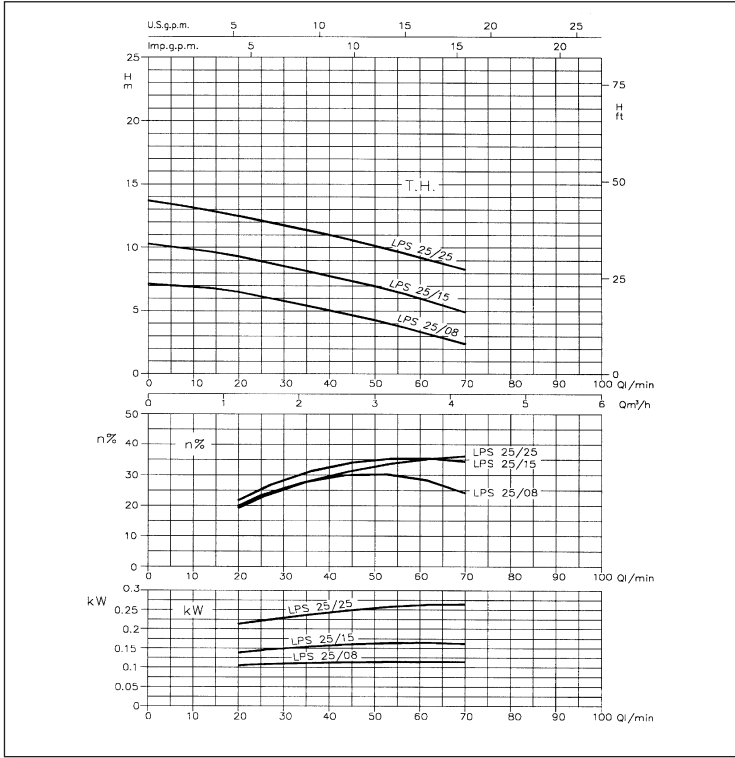
# LPS

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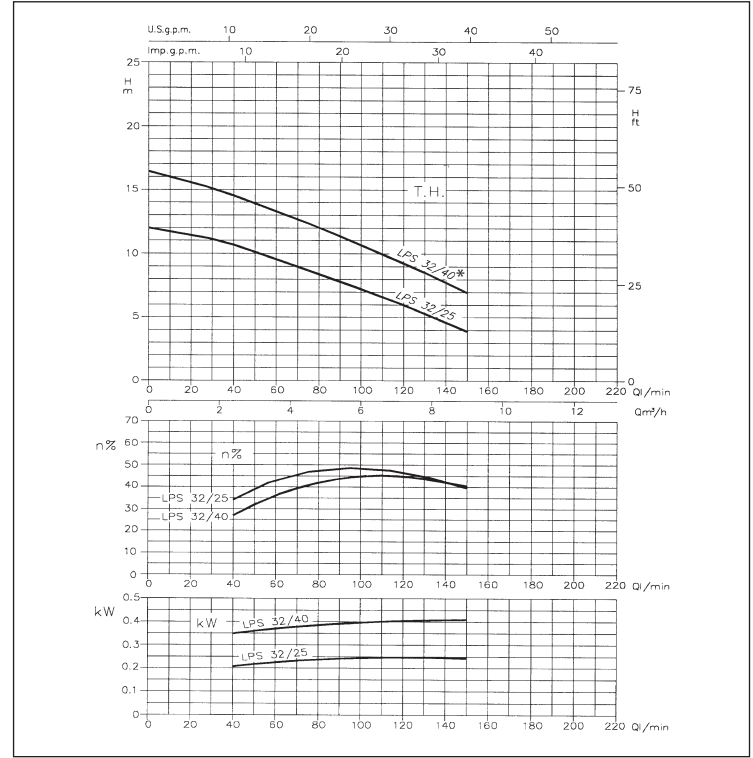
### LPS 25 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



### LPS 32 range PERFORMANCE CURVES

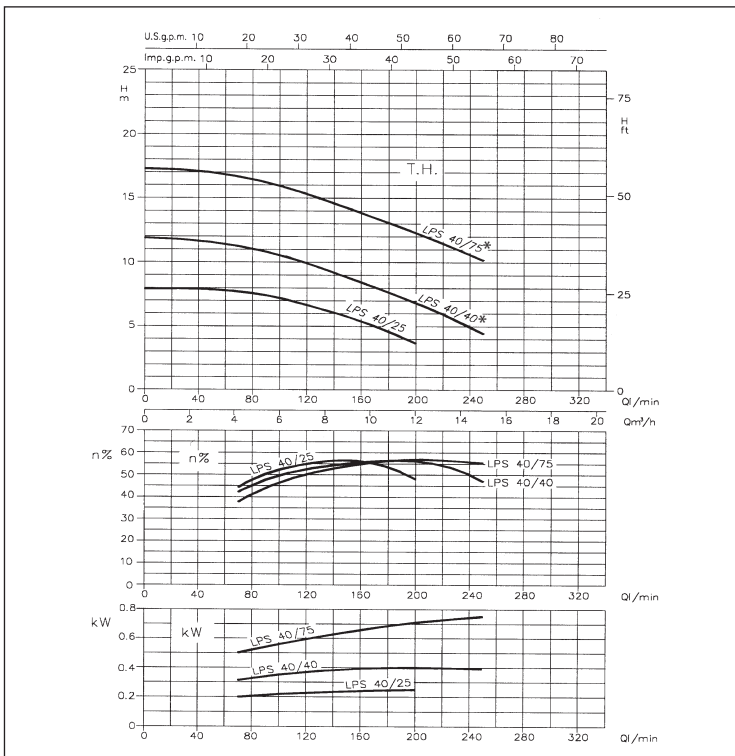
(according to ISO 9906 Attachment A)



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

### LPS 40 range PERFORMANCE CURVES

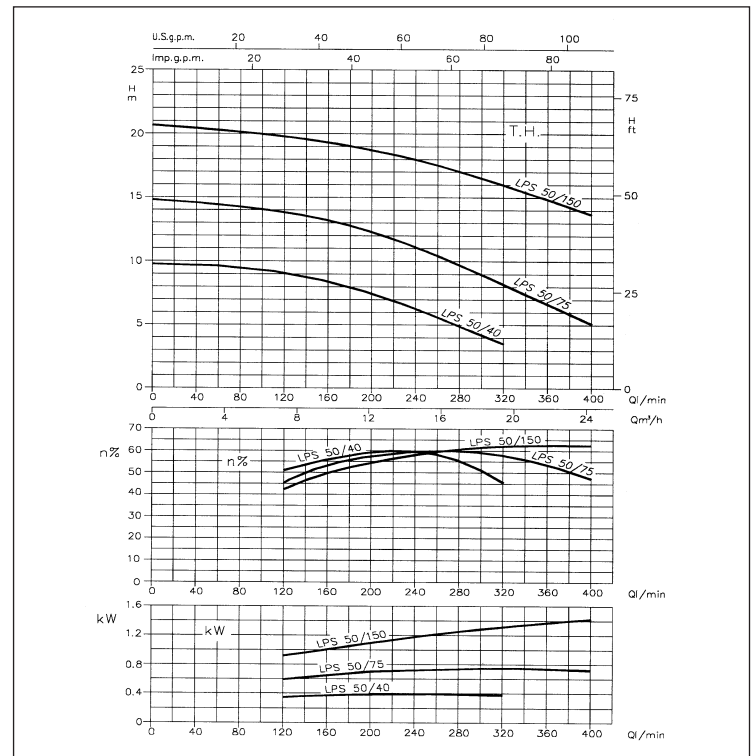
(according to ISO 9906 Attachment A)



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

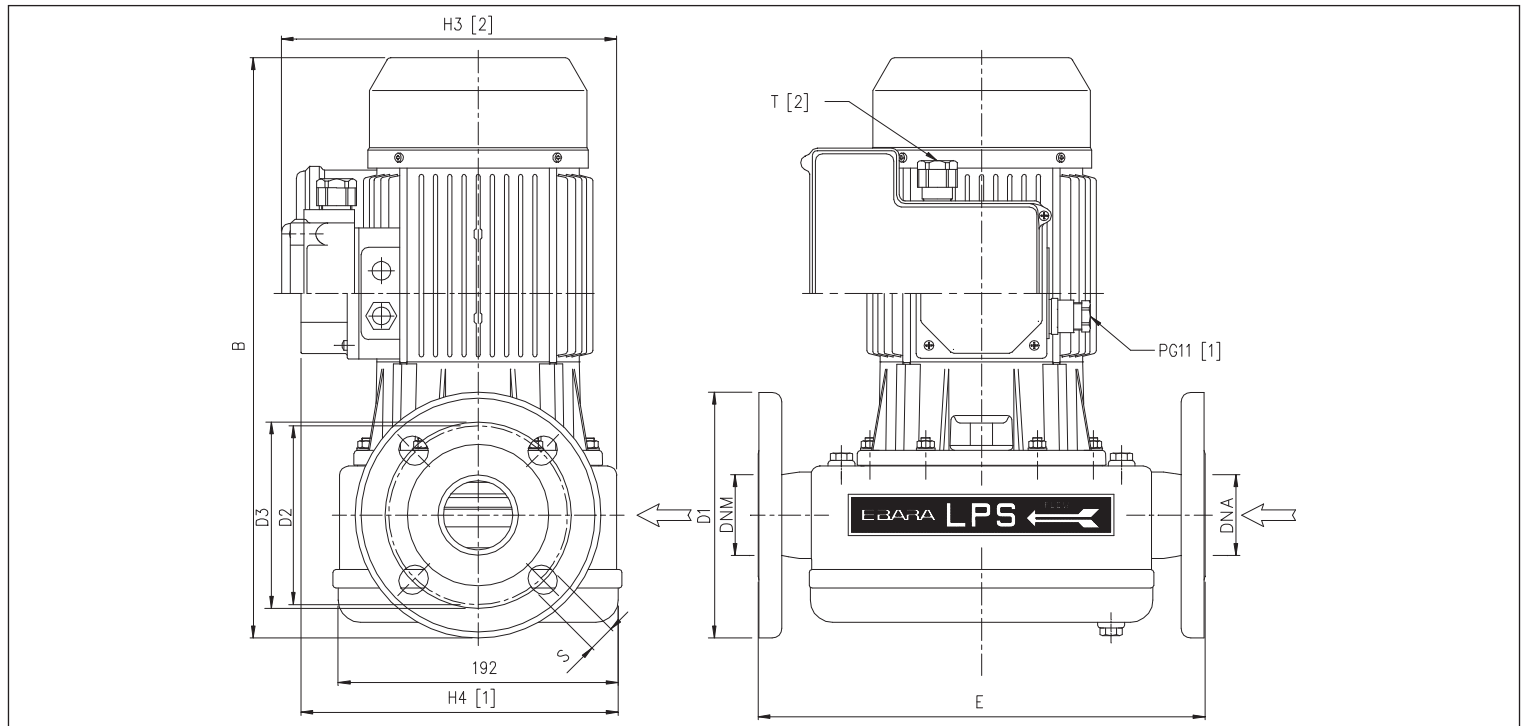
in AISI 304

### PERFORMANCE TABLE

Model		P <sub>2</sub>		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 <sup>3</sup> /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

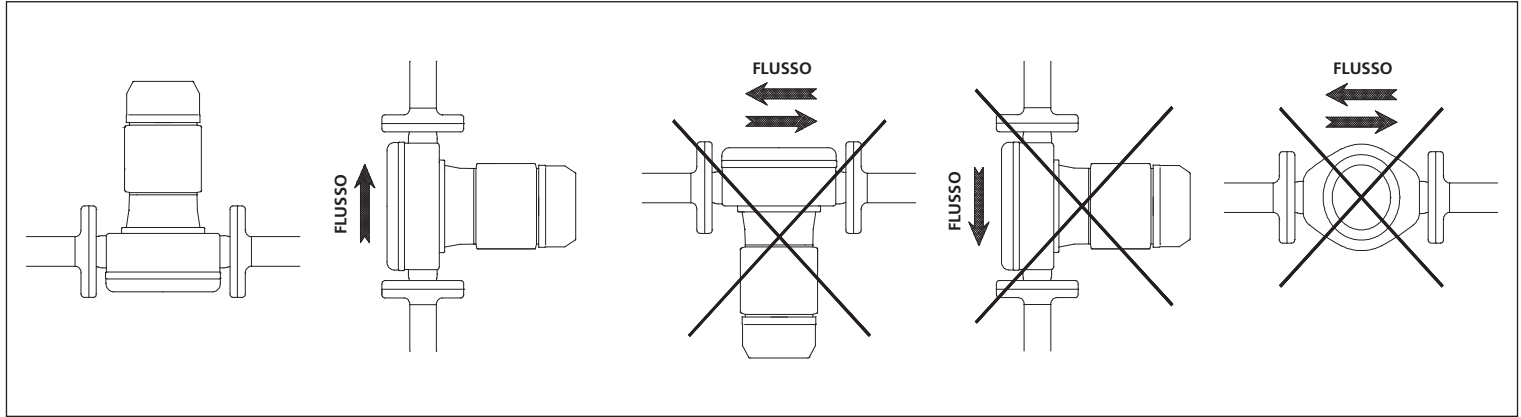
[1]= Three phase only  
[2]= Single phase only

\* Models not available for European market

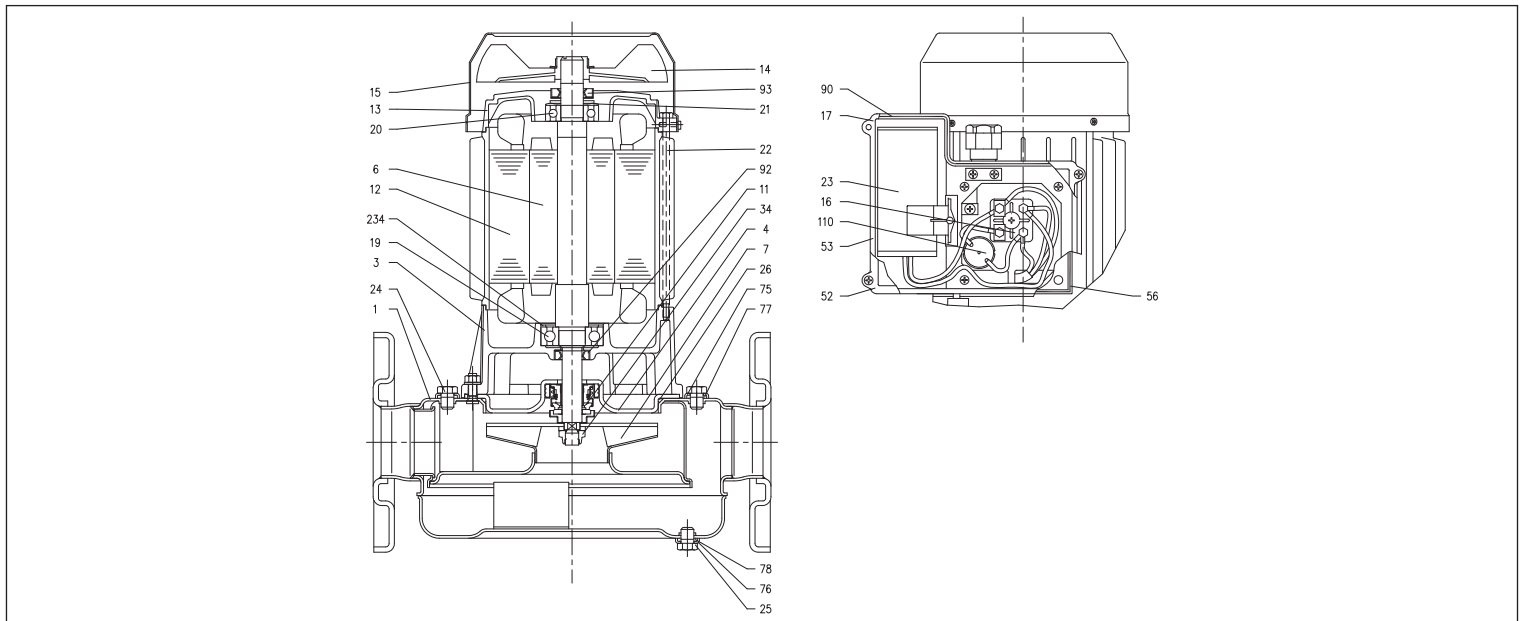
## IN-LINE CENTRIFUGAL ELECTRIC PUMPS

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### LPS 25 INSTALLATION



### LPS SECTIONAL VIEW



### MATERIALS TABLE

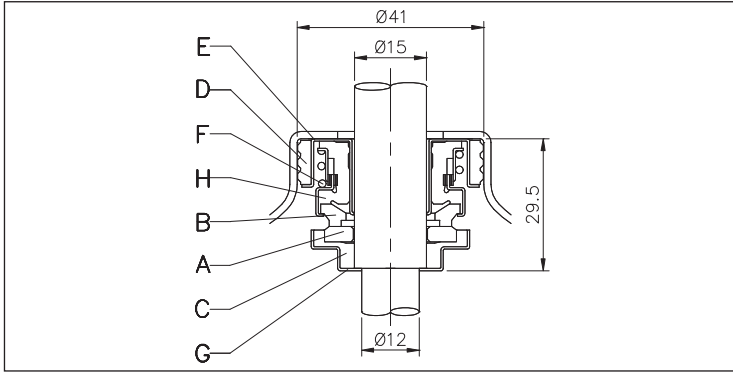
Ref.	Name	Material	Ref.	Name	Material
1	Pump body	AISI 304	24	Filler cap	AISI 304
3	Motor support	Aluminium	25	Drain plug	AISI 304
4	Seal housing disc	AISI 304	26	O-Ring	NBR
6	Shaft	AISI 303 (part in contact with the liquid)	34	Impeller nut	AISI 304
7	Impeller	AISI 304	52	Capacitor-holder box [2]	ABS
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 <sub>2</sub>		Capacitor		Efficiency (%)			P <sub>1</sub>		Absorbed current [A]		
Single phase 230V	Three phase 230/400V	[HP]	[kW]	Single phase μF	V <sub>c</sub>	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 <sub>2</sub>		L <sub>pA</sub> - 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.