

IN-LINE CENTRIFUGAL ELECTROPUMPS

in AISI 304



In-line centrifugal pumps with stainless steel hydraulic components AISI 304.

APPLICATIONS

- Industrial and civil heating systems
- Domestic hot water handling systems
- Fire systems, heating and air conditioning systems
- Handling low pressure fluids in general

TECHNICAL FEATURES

- Versatile
- Silent running
- Reliable

PUMP SPECIFICATIONS

- Max intake 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°C – +100°C
- Flanges: DN 25 to DN 50
- 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 consult our Data Books on the website www.ebara.eu

MOTOR SPECIFICATIONS

- IE2 high energy-efficiency motors starting from 0.75kW
- Self-ventilated asynchronous 2-pole motor
- Insulation Class F
- Protection rating IP55
- Single-phase voltage 230V ±10%, 50Hz, three-phase voltage 230/400V ±10% 50Hz
- Permanently inserted capacitor and incorporated thermo-ampereometric protection device with automatic rearm for single-phase motor
- Protection to be arranged by the user for three-phase version

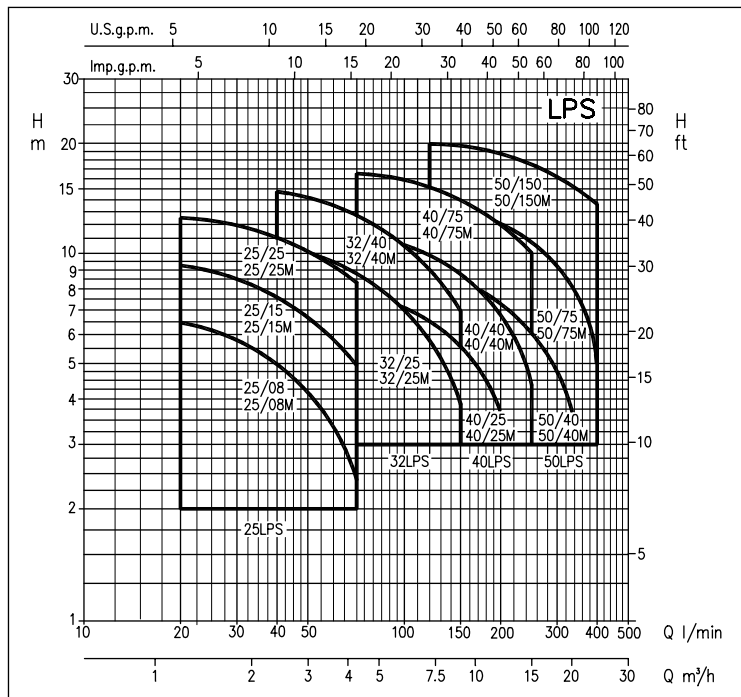
MATERIALS

- Pump body, impeller and seal disk in AISI 304
- Shaft (part coming into contact with liquid) in AISI 303
- Motor mount and housing in aluminium
- Ceramic/carbon fibre/NBR mechanical seal
- Elastomers in NBR

ACCESSORIES (on request)

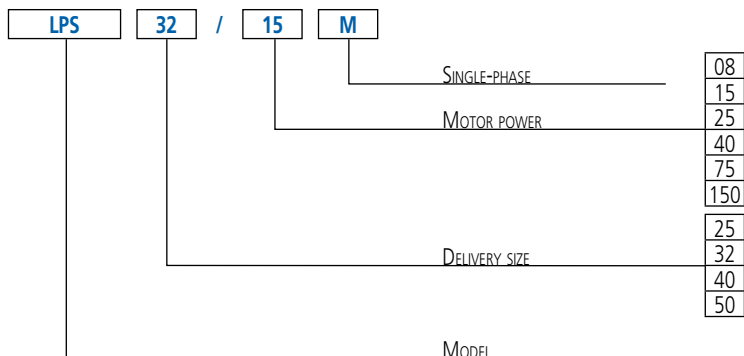
- Counterflange kit available in AISI 304 or galvanised

PERFORMANCE RANGE (ISO 9906 Annex A)



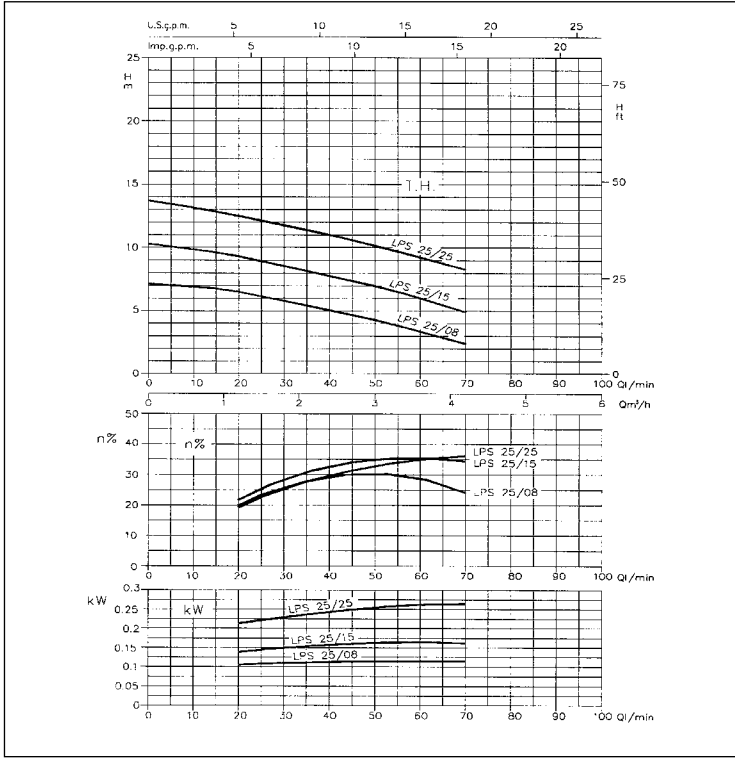
NB: Some models are not for sale in the EU

CODE

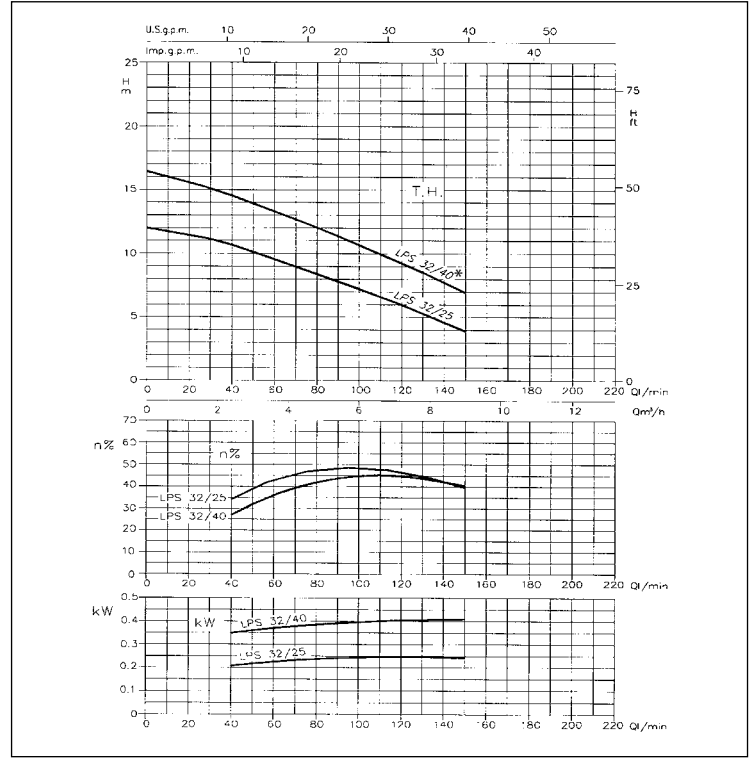


IN-LINE CENTRIFUGAL ELECTROPUMPS in AISI 304

PERFORMANCE CURVES for LPS 25 series (ISO 9906 Annex A)

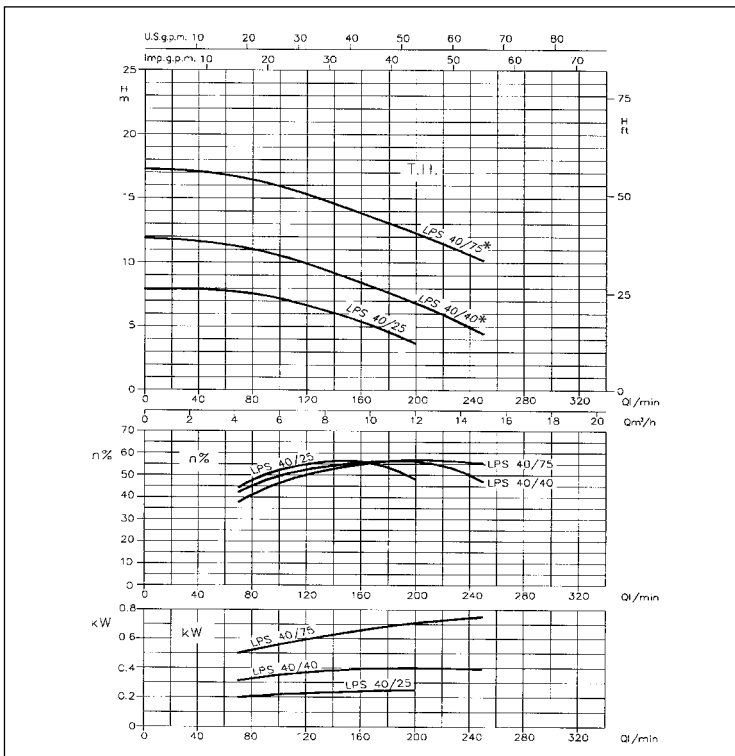


PERFORMANCE CURVES for LPS 32 series (ISO 9906 Annex A)



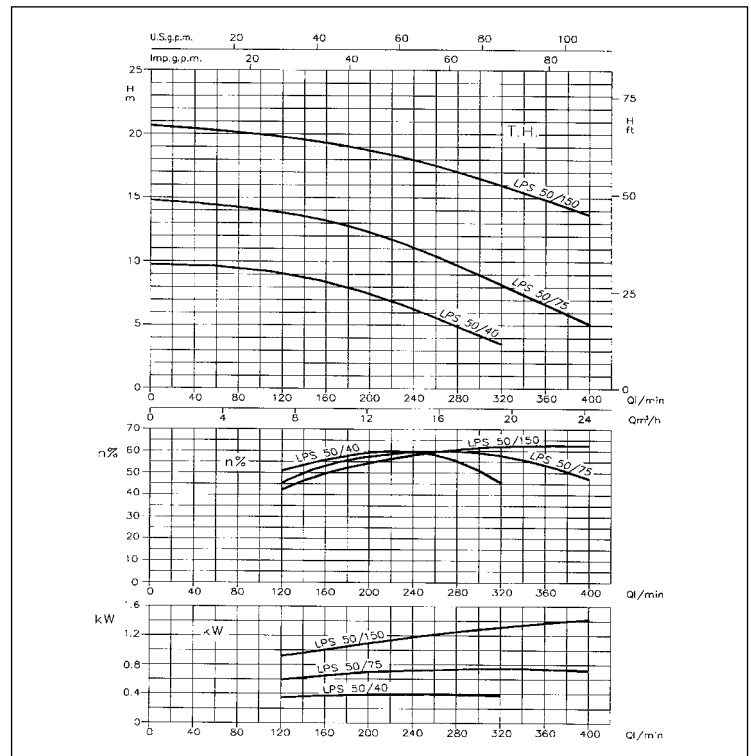
NB: Models with an asterisk (*) are not for sale in the EU

PERFORMANCE CURVES for LPS 40 series (ISO 9906 Annex A)



NB: Models with an asterisk (*) are not for sale in the EU

PERFORMANCE CURVES for LPS 50 series (ISO 9906 Annex A)



IN-LINE CENTRIFUGAL ELECTROPUMPS

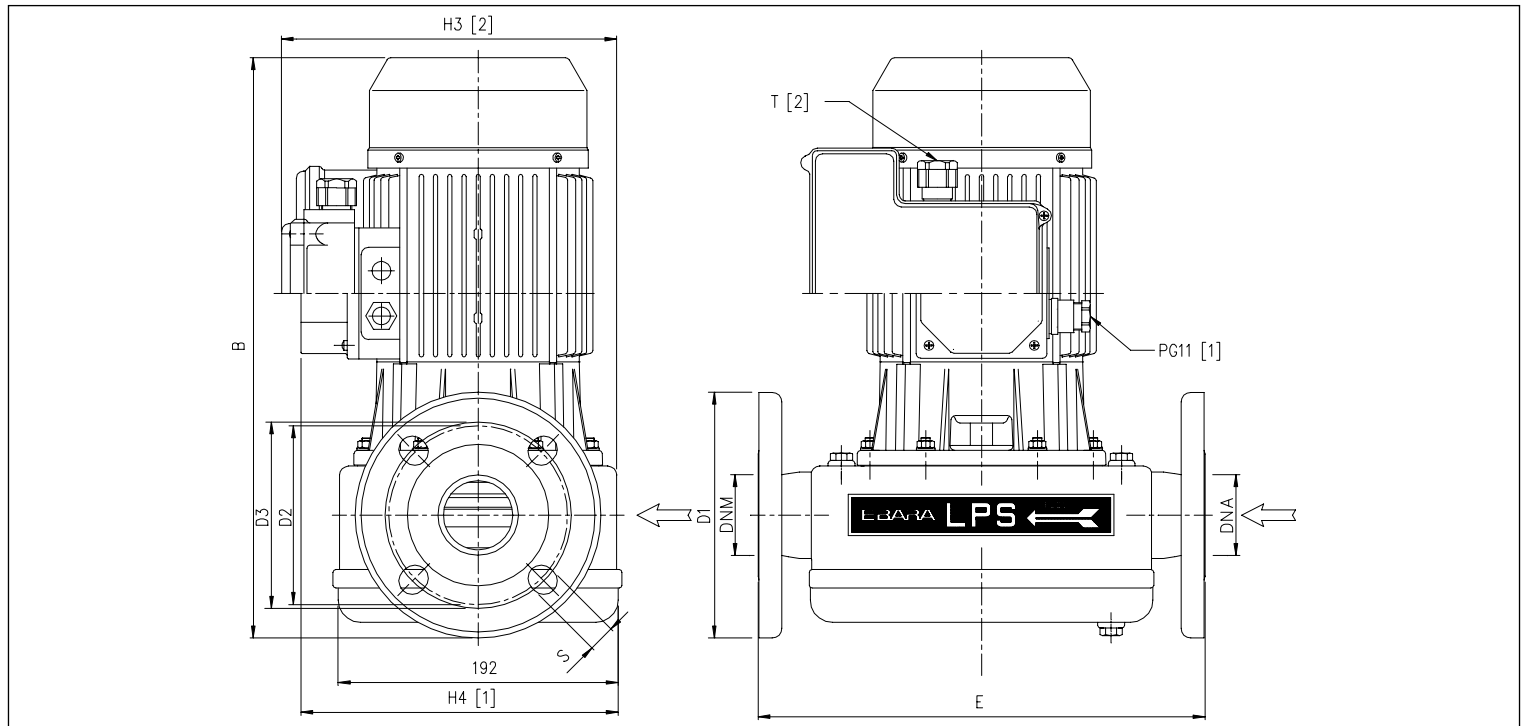
in AISI 304

PERFORMANCE DATA 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 for sale in the EU

DIMENSIONS LPS



DIMENSION CHART

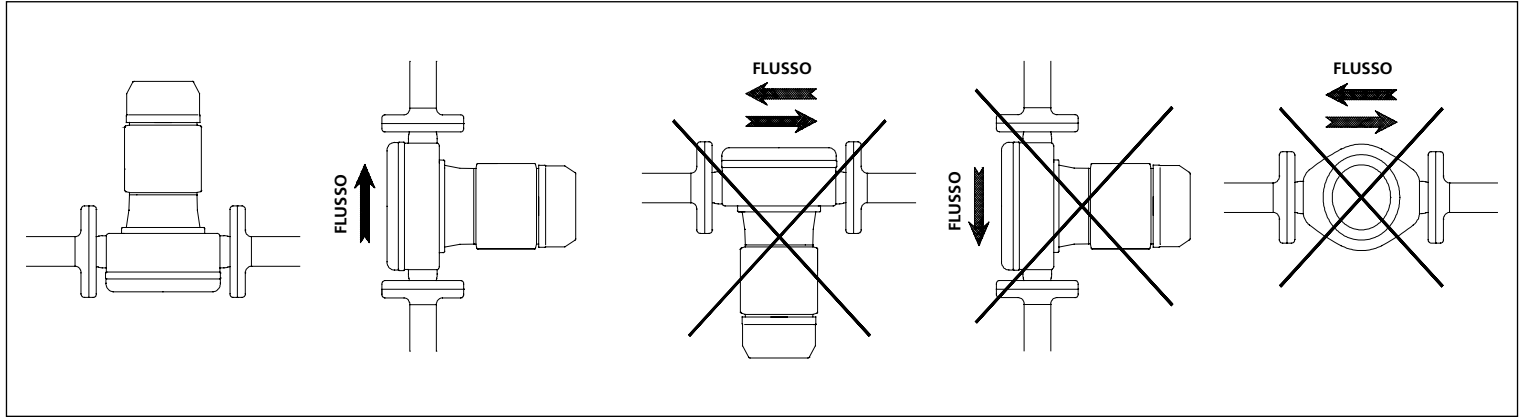
Model		Dimensions [mm]												Weight [kg]	
Single-phase	Three-phase	E	B [2]	B [1]	H3 [2]	H4 [1]	T [2]	DNA	DNM	D1	D2	D3	S	[2]	[1]
LPS 25/08M	LPS 25/08	300	322	322	206	197.5	PG11	25	25	115	85	85	14	10.0	10.0
LPS 25/15M	LPS 25/15	300	322	322	206	197.5	PG11	25	25	115	85	85	14	10.0	10.0
LPS 25/25M	LPS 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 for sale in the EU

LPS INSTALLATION



SECTIONAL VIEW LPS

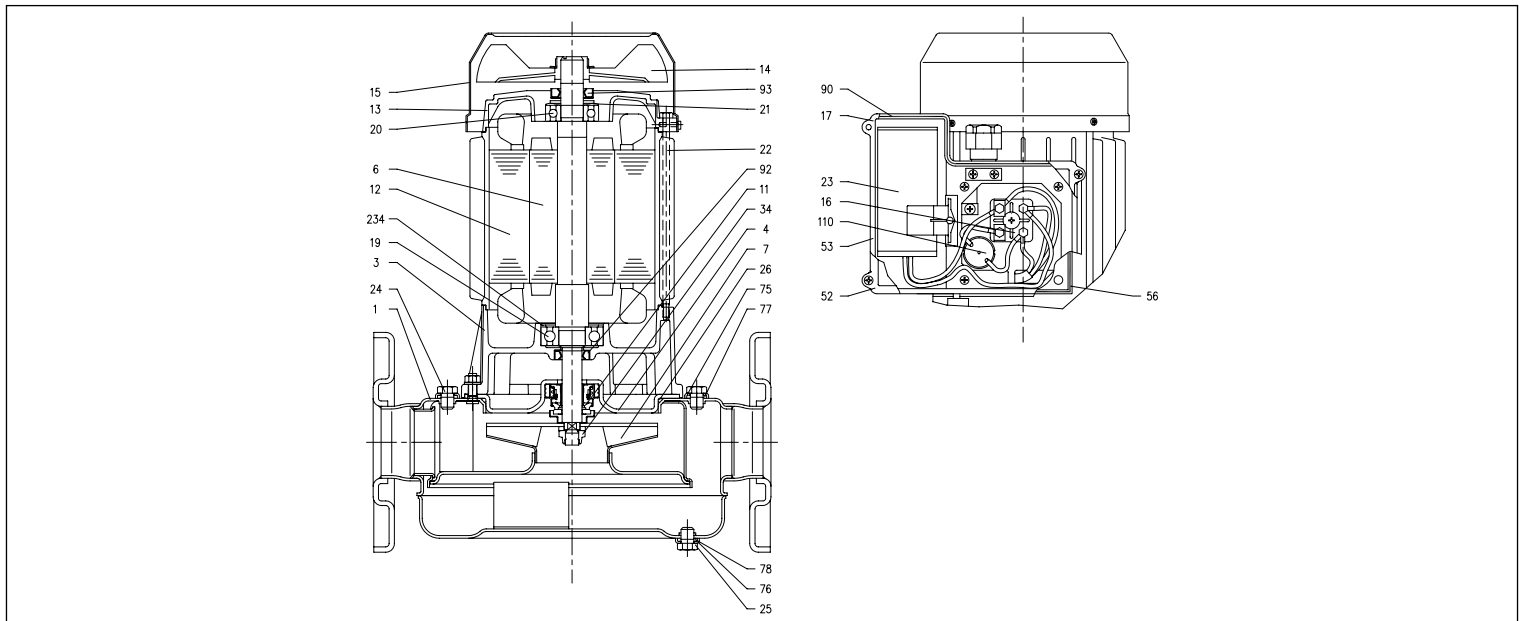


TABLE OF MATERIALS

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 (part coming into contact with liquid)	34	Impeller nut	AISI 304
7	Impeller	AISI 304	52	Capacitor enclosure [2]	ABS
11	Mechanical seal	Carbon fibre/Ceramic/NBR	53	Capacitor enclosure lid [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	Bearing (pump side)	-	92	Seal ring (pump side)	NBR
20	Bearing (motor side)	-	93	Seal ring (motor side)	NBR
21	Compensator ring	Steel C70	110	Motor protection device [3]	-
22	Linkage	Fe 42 galvanised	234	Circlip	Carbon
23	Capacitor [2]	-			

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

IN-LINE CENTRIFUGAL ELECTROPUMPS

in AISI 304

MECHANICAL SEAL LPS

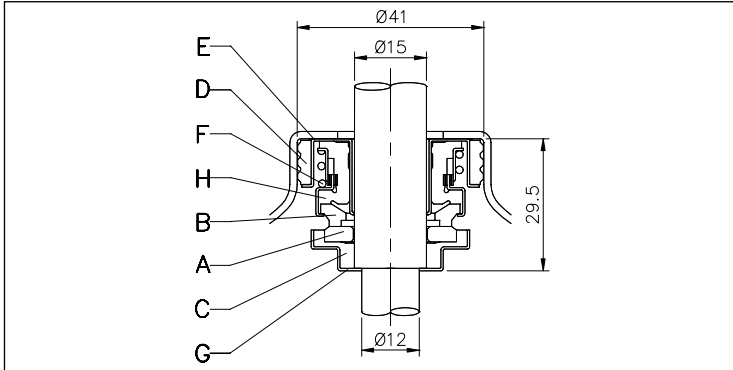


TABLE OF MATERIALS

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

ELECTRICAL DATA TABLE

Model		P ₂		Capacitor		Efficiency (%)			P ₁		Current absorption [A]		
Single-phase 230V	Three-phase 230/400V	[HP]	[kW]	Single-phase µF	V _i	50%	75%	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	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 for sale 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 at 1 m from pump.
Tolerance ± 2.5 dB.