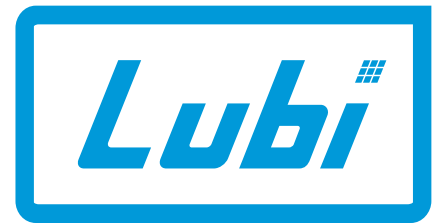


**CSP, MSP, LAP, LFP, LBP,
LHP, LGP, LLP & LAS Series**

**Drainage, Sewage,
Grinder & Propeller Pumps**

50 Hz



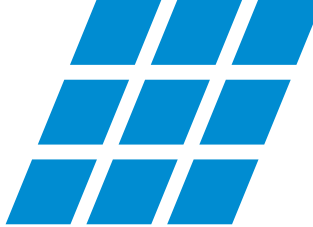
Passion for Pumps



FILTRA CONSULTANTS AND ENGINEERS LTD.

Gala No. 2 & 3, Ground Floor, Neminath Industrial Estate No. 2, Navghar, Vasai (East), Dist.: Palghar - 401 219
Tel.: +91 8691009127/26 Email: filtraw@gmail.com Website: www.ewatertreatmentindia.com





Heavy-Duty Sewage Pumps (5.0 HP to 75.0 HP)

LHP

Performance Range

- Flow rate up to 40000 l/min. (2400 m³/h)
- Dynamic head up to 49 m.

Applications

- Drainage of waste water from the liberation tank, purifying tank and sewage tank in water treatment plant.
- Drainage of waste water containing fibrous additives from leather factory, dyeing factory and food processing factory.
- Sewage management, accumulated water, septic tank, stock farm.
- Pumping sewage from single and multi family dwellings.
- Pumping sewage from hotels, restaurants, schools and public buildings.

Features

- International standard design : VCT cable, thermal overload protector, silicon carbide mechanical seal, high grade cast iron, good quality and performance.
- A water detector is provided in the seal chamber. In case of seal failure if water enters the seal chamber, a signal can be sent to the control panel so that the pump operator is made aware of a potential seal leakage problem.
- P / E Multiple impeller designs to handle solids laden sewage and/or fibrous substance.
- For Extra protection, an oil seal ring has been installed under the oil chamber. This lip seal helps prevent the ingress of silt and sand into the lower seal chamber.
- Superior abrasion resistant mechanical seal manufactured with silicon carbide to ensure the best seal effect.
- Full range offering low to high head and flow capabilities, with compact and easy installation. Also available with Guide Rail System, which allows automatic remote connection and disconnection without entering the pit.

Special Features on request

- Other Voltages, Available in 60Hz.

Direction of Rotation

- Clockwise as seen from the motor rear end.

Thermal overload protector

- Equipped with Automatic reset motor protector, prevents motor from burning due to high temperature/phase failure/voltage drop and lock impeller.

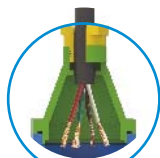


Miniature Thermal Protector

- Miniature Thermal Protector (MTP) is embedded in the windings of the motor. The MTP will transmit a signal to a control panel when windings temperature reaches a set point. This feature is available in 11 kW & above models only.

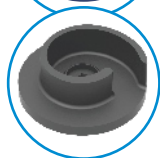
Cable base

- Epoxy resin seal cable base to prevent water intrusion into motor through the cable wire.



P Type Impeller

- Semi-open impeller enable cutting of delicate materials to prevent clogging.



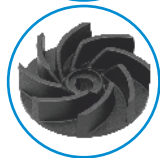
E Type Impeller

- Single channel non-clog impeller, allows large solids passage preventing clogging and allowing effective drainage/dewatering for higher head applications with solids laden media (for 7.5 kW to 55 kW).



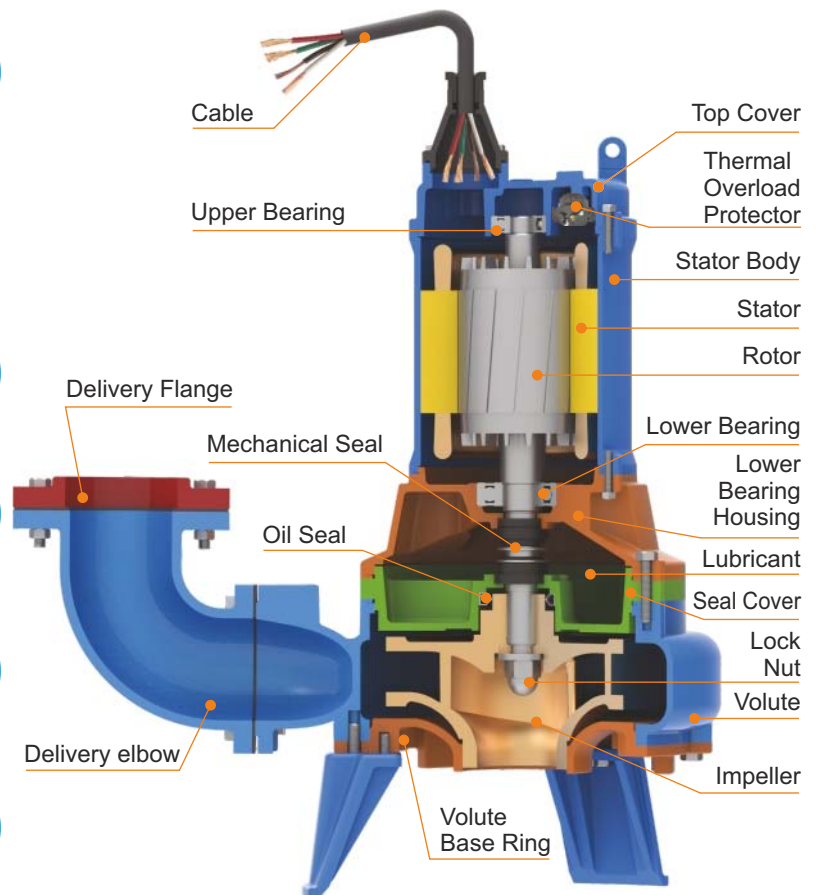
U Type Impeller

- Vortex impellers create a hydraulic passage, allowing long fibrous materials to pass through without any contact with the impeller. Pump of U type impeller (3 Phase) operating in a higher current when reverse, please adjust into fit directions.

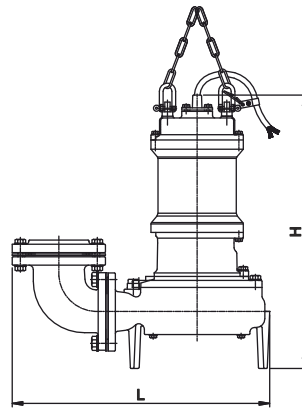


Specification

Diameter(mm)			80 - 100 - 150
Pumping liquid	Ambient temp		Max. +50°C
	Liquid temp		0°C to +50°C
	Liquid nature		Suitable for sewage waste water (with or without solids) from septic tanks, building basements and waste water form factories.
Pump	Structure	Impeller	P type : semi - open, Non - clog E type : Enclosed single channel U type : Semi-vortex
		M.seal	Double mechanical seal
		Water detector	Installed in the seal chamber to detect water leakage from water infiltrating (5.5 kW and above)
		Bearing	Ball type bearing
	Material	Impeller	Grey Iron
		Volute	Grey Iron
		Upper cover	Grey Iron
		Volute base ring	Grey Iron
		Mechanical seal	Motor side - Carbon v/s Ceramic Pump side - Silicon carbide v/s Silicon carbide
Motor	Type		Dry motor
	Insulation		F Class
	Frequency		50 Hz
	Thermal Protector		Automatic reset motor protector (up to 7.5 kW) Miniature Thermal Protector (11 kW & above)
	Material	Stator body	Grey Iron
		Shaft	S.S. AISI 410
		Cable	Thermoplastic Rubber/PVC
Protection		IP 68	
Duty		S1 - When pump is completely submerged. S3 - When pump is partially submerged.	
Voltage		3 Ph. 400 V +5/-15%	



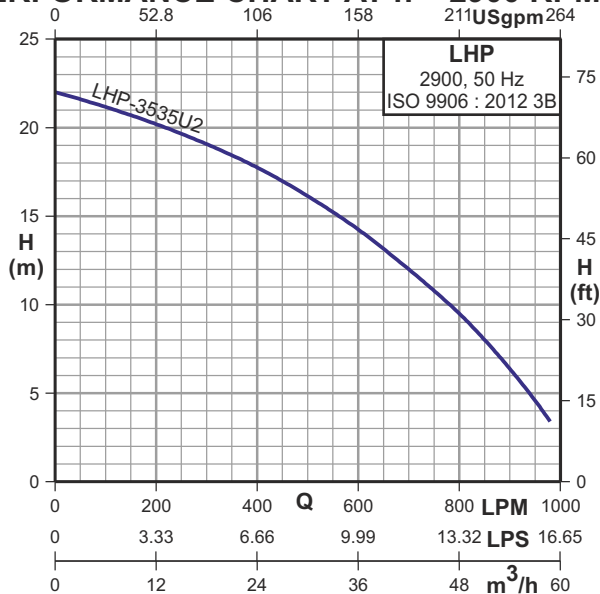
General Pump Features



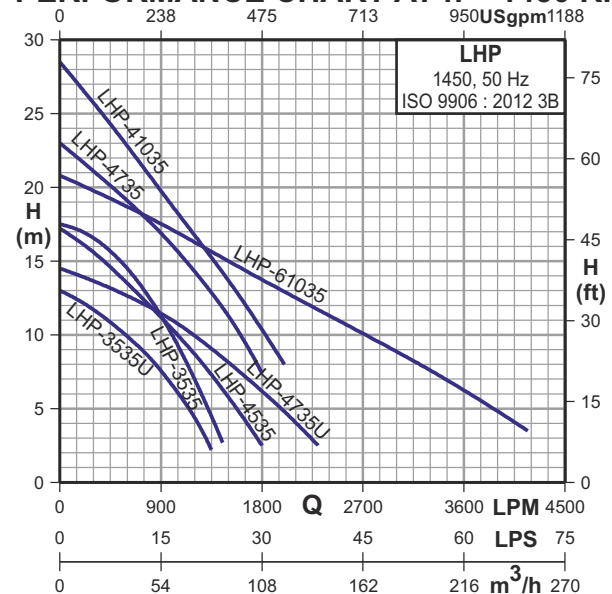
DIMENSIONS

Model	Phase	Disc. mm (Inch)	Impeller Type	Dimensions (mm)			Solid Passage (mm)	Net Weight (kg.)	Gross Weight (kg.)	Volume (m³)	Cable data cable x core x size (mm²) x length (m) x Material
				Length	Width	Height					
LHP-3535U2	3Ø	80 (3")	U	480	220	595	56	58.0	93.0	0.186	1 x 4 x 1.8 x 8 x PVC
LHP-3535	3Ø	80 (3")	P	580	310	650	50	82.0	127.0	0.288	1 x 4 x 1.8 x 8 x PVC
LHP-3535U	3Ø	80 (3")	U	552	286	695	76	80.0	125.0	0.275	1 x 4 x 1.8 x 8 x PVC
LHP-4535	3Ø	100 (4")	P	580	310	650	50	84.0	129.0	0.285	1 x 4 x 1.8 x 8 x PVC
LHP-4735	3Ø	100 (4")	E	701	404	810	40	146.0	206.0	0.475	1 x 4 x 6.0 x 8 x PVC + 1 x 1 x 0.75 x 8 x PVC
LHP-4735U	3Ø	100 (4")	U	701	404	810	65	143.0	203.0	0.475	1 x 4 x 6.0 x 8 x PVC + 1 x 1 x 0.75 x 8 x PVC
LHP-41035	3Ø	100 (4")	E	701	404	850	40	163.0	213.0	0.495	1 x 4 x 6.0 x 8 x PVC + 1 x 1 x 0.75 x 8 x PVC
LHP-61035	3Ø	150 (6")	E	850	472	905	70	230.0	317.0	0.663	1 x 4 x 6.0 x 8 x PVC + 1 x 1 x 0.75 x 8 x PVC

PERFORMANCE CHART AT n = 2900 RPM



PERFORMANCE CHART AT n = 1450 RPM

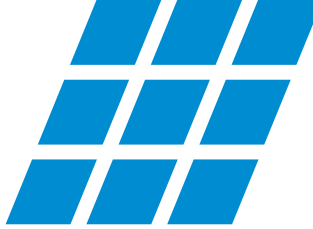


PERFORMANCE DATA AT n = 2900 RPM

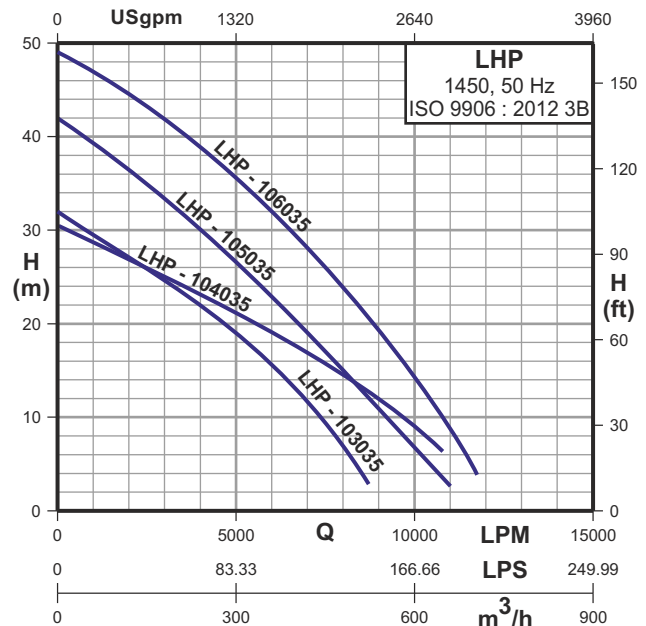
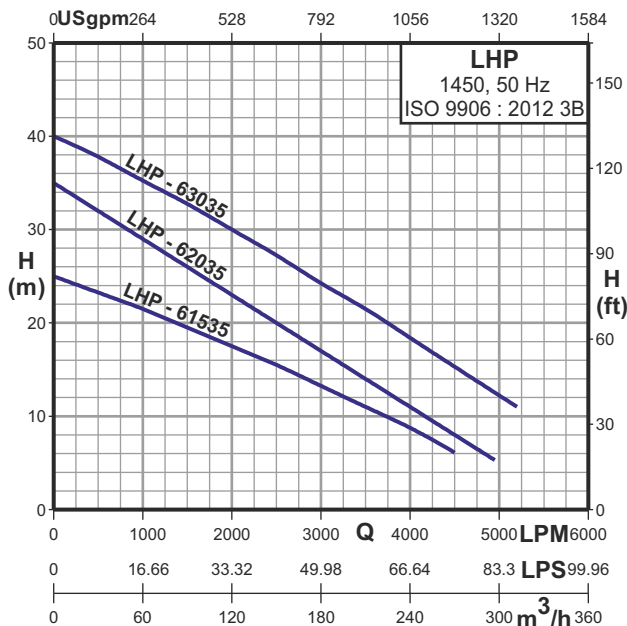
Model	Phase	Power		Start Method	m³/h l/min.	6	12	18	24	30	36	42	48	54
		kW	HP			100	200	300	400	500	600	700	800	900
LHP-3535U2	3Ø	3.7	5.0	Direct	H (m)	21.2	20.2	19	17.7	16.1	14.2	12	9.5	6.4

PERFORMANCE DATA AT n = 1450 RPM

Model	Phase	Power		Start Method	m³/h l/min.	12	24	36	48	54	60	90	120	150	180	210	240	246
		kW	HP			200	400	600	800	900	1000	1500	2000	2500	3000	3500	4000	4100
LHP-3535	3Ø	3.7	5.0	Direct	H (m)	17	15.9	14.5	12.5	11.4	10	-	-	-	-	-	-	-
LHP-3535U	3Ø	3.7	5.0	Direct		12.3	11	9.9	8.5	7.5	6.3	-	-	-	-	-	-	-
LHP-4535	3Ø	3.7	5.0	Direct		16.2	14.8	13.5	12	11.1	10.2	5.8	-	-	-	-	-	-
LHP-4735	3Ø	5.5	7.5	Direct		21.9	20.3	19	17.8	16.9	15.9	11.3	-	-	-	-	-	-
LHP-4735U	3Ø	5.5	7.5	Direct		14	13.3	12.6	12	11.5	11	8.1	4.7	-	-	-	-	-
LHP-41035	3Ø	7.5	10.0	Direct		26.7	24.5	22.7	20.8	19.7	18.5	13.6	8	-	-	-	-	-
LHP-61035	3Ø	7.5	10.0	Direct		20.1	19.4	18.7	17.9	17.5	17	15	12.9	10.8	9	6.7	4.2	3.7

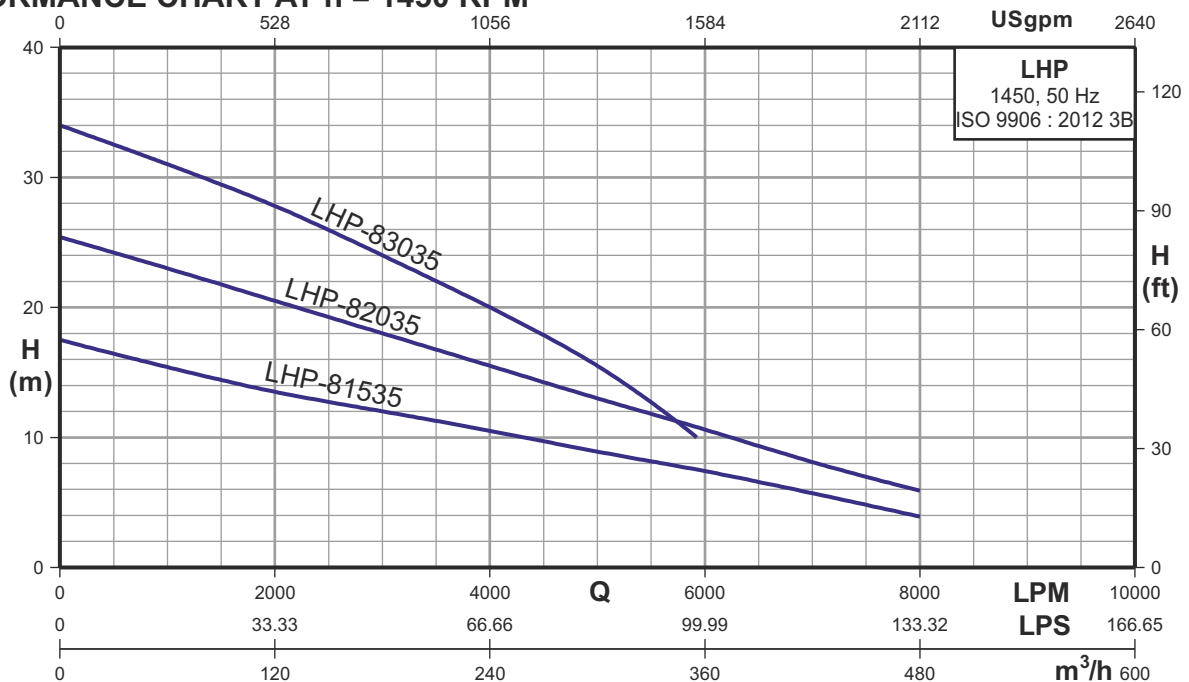


PERFORMANCE CHART AT n = 1450 RPM



Model	Phase	Power		Start Method	m³/h l/min.	60	120	150	180	240	270	300	360	420	480	540	600	660
		kW	HP			1000	2000	2500	3000	4000	4500	5000	6000	7000	8000	9000	10000	11000
LHP-61535	3Ø	11.0	15.0	Y - Δ	H (m)	21.8	17.5	15.4	13	8.7	-	-	-	-	-	-	-	-
LHP-62035	3Ø	15.0	20.0	Y - Δ		29	23	20	17	11	8	-	-	-	-	-	-	-
LHP-63035	3Ø	22.0	30.0	Y - Δ		35.3	30	27.2	24.1	18.3	15.3	12	-	-	-	-	-	-
LHP-103035	3Ø	22.0	30.0	Y - Δ		29.5	27.2	26	24.7	22	20.6	19	15.7	11.8	7	-	-	-
LHP-104035	3Ø	30.0	40.0	Y - Δ		29	27	26	25	23	22	21	19	17	15	12	9	-
LHP-105035	3Ø	37.0	50.0	Y - Δ		39.2	36.5	35	33.4	30.2	28.3	26.7	22.8	19	15.2	11	6.7	2.8
LHP-106035	3Ø	45.0	60.0	Y - Δ		47	44.6	43.2	41.9	38.8	37.3	35.5	32	28	23.7	19.2	14.1	8.7

PERFORMANCE CHART AT n = 1450 RPM

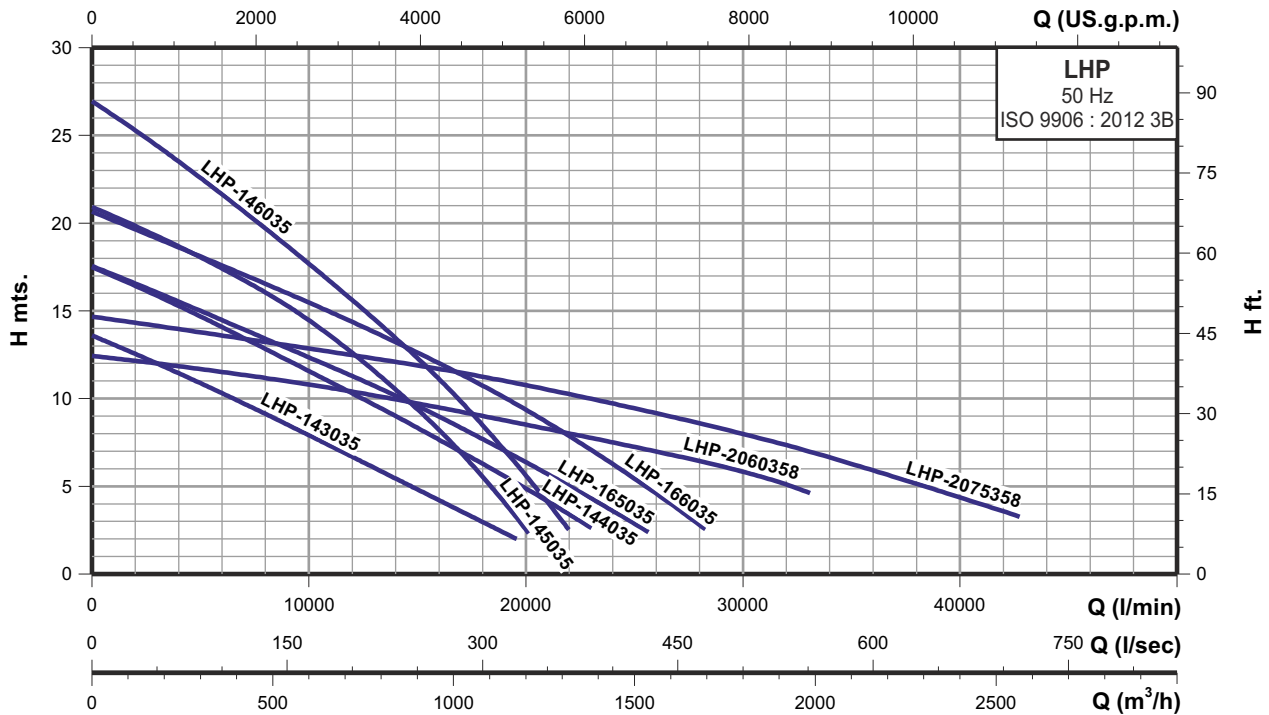


Model	Phase	Power		Start Method	m³/h	30	60	90	120	150	180	210	240	270	300	360	420	480
		kW	HP		l/min.	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	6000	7000	8000
LHP-81535	3Ø	11.0	15.0	Y - Δ	H (m)	16.5	15.4	14.6	13.4	12.8	12	11.3	10.5	9.6	9	-	-	-
LHP-82035	3Ø	15.0	20.0	Y - Δ		24.2	23	21.9	20.6	19.4	18	16.8	15.5	14.2	13	7.3	5.5	3.9
LHP-83035	3Ø	22.0	30.0	Y - Δ		32.6	31	29.4	27.9	26	24	22	20	17.9	15.5	10.6	8	5.9

Heavy-Duty Sewage Pumps (30.0 HP to 75.0 HP)

LHP

PERFORMANCE CHART AT n = 960 RPM



Model	Phase	Power		RPM	Start Method	m³/h l/min.	300	600	900	1200	1500	1800	2100	2400
		kW	HP				5000	10000	15000	20000	25000	30000	35000	40000
LHP-143035	3Ø	22.0	30.0	960	Y - Δ	H (m)	11	8	4.8	-	-	-	-	-
LHP-144035	3Ø	30.0	40.0	960	Y - Δ		14.7	11.6	8.3	4.8	-	-	-	-
LHP-145035	3Ø	37.0	50.0	960	Y - Δ		18	14.5	9.3	2.5	-	-	-	-
LHP-146035	3Ø	45.0	60.0	960	Y - Δ		22.6	17.7	12.3	5.6	-	-	-	-
LHP-165035	3Ø	37.0	50.0	960	Y - Δ		15	12.4	9.7	6.4	2.8	2.8	-	-
LHP-166035	3Ø	45.0	60.0	960	Y - Δ		18.1	15.5	12.6	9.5	5.4	5.4	-	-
LHP-2060358	3Ø	45.0	60.0	750	Y - Δ		11.7	10.8	9.7	8.5	7.2	5.8	-	-
LHP-2075358	3Ø	55.0	75.0	750	Y - Δ		13.7	12.8	11.8	10.7	9.7	8.0	6.2	4.4

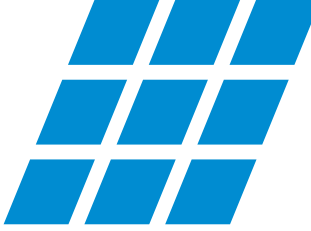
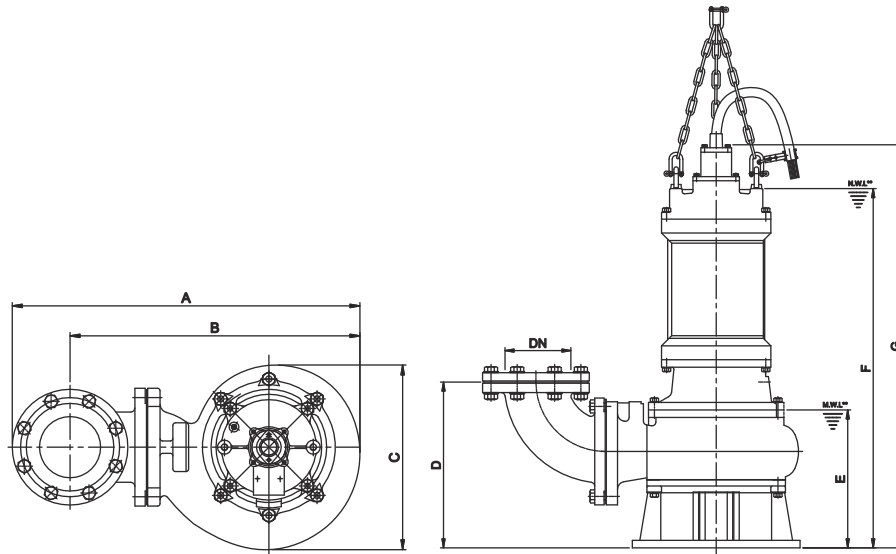


Figure 1



LHP pumps with ring stand. (11 - 55 kW)

Note : (*) Minimum level for pump to operate on a continuous basis (S1 operation).

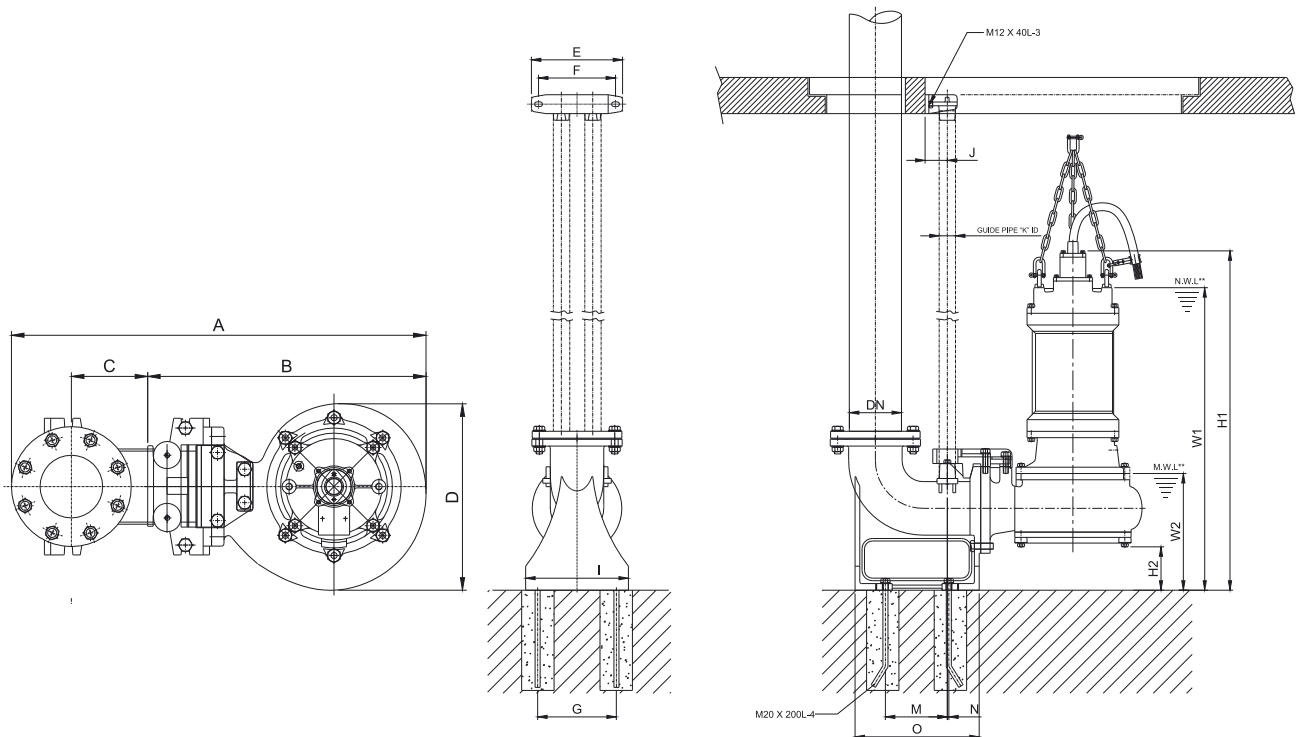
(**) Minimum acceptable liquid level of the pump. Pump should switch off at this level.

DIMENSIONS Figure 1

Model	Disc. Inch (mm)	Dimensions mm							Solid Passage (mm)	Net Weight (kg.)	Gross Weight (kg.)	Volume (m ³)
		A	B	C	D	E	F	G				
LHP - 61535	6" (150)	848	705	472	442	367	958	1075	70	263	362	0.839
LHP - 62035	6" (150)	809	666	450	387	330	885	1001	76	190	289	0.839
LHP - 63035	6" (150)	850	707	496	400	348	878	945	76	232	361	0.824
LHP - 81535	8" (200)	954	785	502	482	375	966	1084	75	277	389	0.999
LHP - 82035	8" (200)	955	785	470	442	368	966	1080	75	285	397	0.999
LHP - 83035	8" (200)	940	770	510	418	325	855	924	76	310	455	1.560
LHP - 103035	10" (250)	1388	1186	640	740	552	1340	1395	60	745	929	2.211
LHP - 104035	10" (250)	1388	1186	640	740	552	1340	1395	60	765	949	2.211
LHP - 105035	10" (250)	1388	1186	640	740	552	1340	1395	60	770	954	2.211
LHP - 106035	10" (250)	1388	1186	640	740	552	1340	1395	60	795	979	2.211
LHP - 143035	14" (350)	1533	1255	785	824	630	1352	1409	120	870	1270	3.320
LHP - 144035	14" (350)	1533	1255	785	824	630	1352	1409	120	880	1280	3.320
LHP - 145035	14" (350)	1601	1324	805	824	640	1371	1428	90	1045	1445	3.320
LHP - 146035	14" (350)	1601	1324	805	824	640	1371	1428	90	1085	1485	3.320
LHP - 165035	16" (400)	1725	1415	859	875	655	1385	1443	120	1125	1585	3.710
LHP - 166035	16" (400)	1725	1415	859	875	655	1385	1443	120	1165	1625	3.710
LHP - 2060358	20" (500)	2342	1977	1235	1130	856	1642	1789	140	2000	2400	7.250
LHP - 2075358	20" (500)	2342	1977	1235	1130	856	1642	1789	140	2240	2688	7.250

Model	Cable data		Model	Cable data	
	cable x core x size (mm ²) x length (m) x Material			cable x core x size (mm ²) x length (m) x Material	
LHP - 61535	1 x 7 x 6.0 x 8 x Thermoplastic Rubber + 1 x 3 x 0.75 x 8 x Thermoplastic Rubber		LHP - 106035	2 x 4 x 10.0 x 8 x Thermoplastic Rubber + 1 x 2 x 1.25 x 8 x Thermoplastic Rubber	
LHP - 62035	1 x 7 x 6.0 x 8 x Thermoplastic Rubber + 1 x 3 x 0.75 x 8 x Thermoplastic Rubber		LHP - 143035	2 x 4 x 10.0 x 8 x Thermoplastic Rubber + 1 x 2 x 1.25 x 8 x Thermoplastic Rubber	
LHP - 63035	2 x 4 x 8.0 x 8 x Thermoplastic Rubber + 1 x 2 x 1.25 x 8 x Thermoplastic Rubber		LHP - 144035	2 x 4 x 10.0 x 8 x Thermoplastic Rubber + 1 x 2 x 1.25 x 8 x Thermoplastic Rubber	
LHP - 81535	1 x 7 x 6.0 x 8 x Thermoplastic Rubber + 1 x 3 x 0.75 x 8 x Thermoplastic Rubber		LHP - 145035	2 x 4 x 10.0 x 8 x Thermoplastic Rubber + 1 x 2 x 1.25 x 8 x Thermoplastic Rubber	
LHP - 82035	1 x 7 x 6.0 x 8 x Thermoplastic Rubber + 1 x 3 x 0.75 x 8 x Thermoplastic Rubber		LHP - 146035	2 x 4 x 10.0 x 8 x Thermoplastic Rubber + 1 x 2 x 1.25 x 8 x Thermoplastic Rubber	
LHP - 83035	2 x 4 x 10.0 x 8 x Thermoplastic Rubber + 1 x 2 x 1.25 x 8 x Thermoplastic Rubber		LHP - 165035	2 x 4 x 10.0 x 8 x Thermoplastic Rubber + 1 x 2 x 1.25 x 8 x Thermoplastic Rubber	
LHP - 103035	2 x 4 x 10.0 x 8 x Thermoplastic Rubber + 1 x 2 x 1.25 x 8 x Thermoplastic Rubber		LHP - 166035	2 x 4 x 10.0 x 8 x Thermoplastic Rubber + 1 x 2 x 1.25 x 8 x Thermoplastic Rubber	
LHP - 104035	2 x 4 x 8.0 x 8 x Thermoplastic Rubber + 1 x 2 x 1.25 x 8 x Thermoplastic Rubber		LHP - 2060358	2 x 4 x 25.0 x 8 x Thermoplastic Rubber + 1 x 2 x 1.25 x 8 x Thermoplastic Rubber	
LHP - 105035	2 x 4 x 10.0 x 8 x Thermoplastic Rubber + 1 x 2 x 1.25 x 8 x Thermoplastic Rubber		LHP - 2075358	2 x 4 x 25.0 x 8 x Thermoplastic Rubber + 1 x 2 x 1.25 x 8 x Thermoplastic Rubber	

Figure 2



LHP pumps on auto-coupling guide rail system (3.7 to 55.0 kW)

Note : (*) Minimum level for pump to operate on a continuous basis (S1 operation).

(**) Minimum acceptable liquid level of the pump. Pump should switch off at this level.

DIMENSIONS Figure 2

Model	Disc. Inch	Dimensions mm																
Three Phase	(mm)	A	B	C	D	E	F	G	I	J	K***	M	N	O	W1	W2	H1	H2
LHP - 3535U2	3" (80)	698	454	150	216	290	245	200	247	70	50	158	22	270	604	259	670	75
LHP - 3535	3" (80)	765	521	150	285	290	245	200	247	70	50	158	22	270	658	295	728	31
LHP - 3535U	3" (80)	765	521	150	285	290	245	200	247	70	50	158	22	270	658	295	728	31
LHP - 4535	4" (100)	812	536	170	315	290	245	200	247	70	50	178	22	285	650	260	718	75
LHP - 4735	4" (100)	905	630	170	385	290	245	200	247	70	50	178	22	285	695	295	791	124
LHP - 4735U	4" (100)	905	630	170	385	290	245	200	247	70	50	178	22	285	695	295	791	124
LHP - 41035	4" (100)	905	630	170	385	290	245	200	247	70	50	178	22	285	735	295	831	124
LHP - 61035	6" (150)	992	710	140	446	340	295	280	327	90	50	235	44	400	810	370	907	168
LHP - 61535	6" (150)	992	710	140	446	340	295	280	327	90	50	235	44	400	980	370	1070	168
LHP - 62035	6" (150)	1022	710	170	450	290	245	280	325	70	50	260	20	370	927	351	1015	22
LHP - 63035	6" (150)	1060	750	170	496	290	245	280	325	70	50	260	20	370	906	358	947	10
LHP - 81535	8" (200)	1064	662	230	502	300	175	320	350	95	50	269	41	400	984	393	1102	18
LHP - 82035	8" (200)	1161	760	230	497	340	295	320	350	90	50	233	36	446	1008	397	1098	188
LHP - 83035	8" (200)	1280	885	230	510	320	280	280	350	100	40	200	80	370	891	361	960	36
LHP - 103035	10" (250)	1591	1118	270	624	420	350	360	460	110	65	310	74	560	1185	447	1225	198
LHP - 104035	10" (250)	1591	1118	270	624	420	350	360	460	110	65	310	74	560	1185	447	1225	198
LHP - 105035	10" (250)	1650	1176	270	640	420	350	360	460	110	65	310	74	560	1185	447	1225	195
LHP - 106035	10" (250)	1650	1176	270	640	420	350	360	460	110	65	310	74	560	1185	447	1225	195
LHP - 143035	14" (350)	1892	1315	305	785	610	510	580	700	220	114	601.5	89.5	950	1424	703	1481	372
LHP - 144035	14" (350)	1892	1315	305	785	610	510	580	700	220	114	601.5	89.5	950	1424	703	1481	372
LHP - 145035	14" (350)	1961	1374	305	805	610	510	580	700	220	114	602	90	950	1443	712	1500	372
LHP - 146035	14" (350)	1961	1374	305	805	610	510	580	700	220	114	602	90	950	1443	712	1500	372
LHP - 165035	16" (400)	2116	1433	373	859	610	510	580	700	220	114	602	90	950	1460	729	1517	372
LHP - 166035	16" (400)	2116	1433	373	859	610	510	580	700	220	114	602	90	950	1460	729	1517	372
LHP - 2060358	20" (500)	2742	1649	508	1235	610	510	580	700	220	114	590	6.5	850	943	865	1799	385
LHP - 2075358	20" (500)	2742	1649	508	1235	610	510	580	700	220	114	590	6.5	850	943	865	1799	385

*** Customer scope of supply as per actual site condition.