

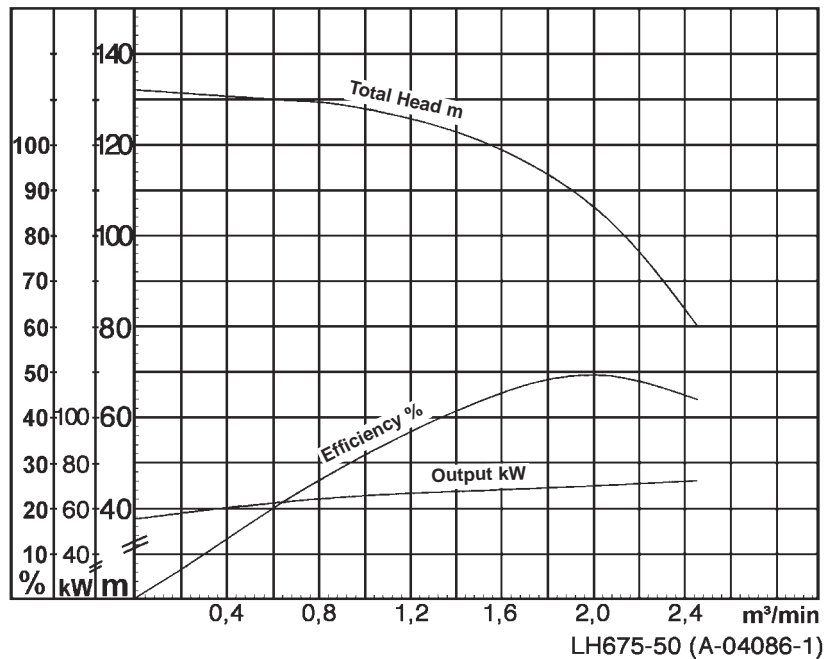
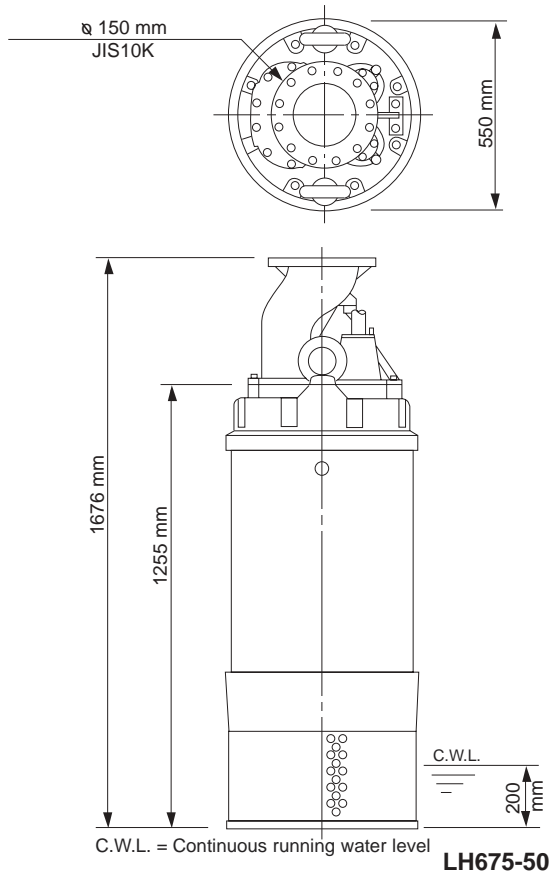


TSURUMI PUMP

LH675-50

- data sheet
 - parts list
 - exploded view
 - dimensional drawing
 - sectional drawing
 - performance curve
-
- parts list as Excel-spreadsheet

Data Sheet LH675-50



Classification

Electric submersible pump
 Protection class IP68
 Depth of submersion max. 50m
 Closed type impeller
 Max. solid handling 6mm
 Suitable for rain water, ground water, sand carrying water

Electric Motor

Dry-type submersible induction motor,
 Insulation class F, 2 poles, 2850 r.p.m.
 Star / delta start
 Voltage: 400V, 50Hz, 3-phase
 Power input: 83,5kW
 Power output: 75,0kW
 Nominal current: 130A
 Start current: 1112A

Electric Cable

20m 6Cx30mm²/1Cx22mm²/2Cx2mm²

Motor Protection

Miniature protectors in windings
 (snap-action bi-metal device)

Shaft Seal

Double mechanical seal in oil bath
 additional lubrication by oil lifting device
 Primary Seal:
 silicon carbide on silicon carbide
 Secondary Seal:
 silicon carbide on silicon carbide

Bearings

Shielded ball bearings, maintenance-free

Materials

Impeller:	Chromium iron casting
Casing:	FC200 (EN-GJL-200)
Mouth ring:	Chromium iron casting
Motor frame:	FC200 (EN-GJL-200)
Shaft:	SUS420J2 (EN-X30Cr13)

Discharge Connection

6" (150mm) JIS 20K flange

Weight

850 kg (dry weight of the pump without cable)

LH675-50

Control No. ILH-11-3-1

04.10.2002

ITEM	CODE No.	DESCRIPTION	Q'TY	SIZE	MATERIAL	REMARKS
1	010-103-21	Cable Clip	2	No.4	SPC	
2	141-006-19	Hex. Nut	3	M10	SUS304	
3	140-074-15	Hex. Bolt	3	M10x20	SUS304	
4	009-113-17	Terminal	6	R-38-10	CU	
5	009-117-11	Terminal	1	R-22-6	CU	
6	009-116-10	Terminal	3	R-2-4	CU	
7		Cabtyre Cable				
8	011-110-11	Shackle	1	6mm	SS	
9	095-100-18	Chain	1	d5(9-Link)	SS	
10	072-108-15	Eye Bolt	2	M30	SS	
11	140-058-42	Hex. Bolt	4	M8x40	SUS304	
12	141-005-18	Hex. Nut	4	M8	SUS304	
13	003-150-18	Gland	1	No.6	FC	
14	004-171-18	Cable Bush	1	d42.5xd65x25l	CR	
15	005-137-15	Bush Washer	1	d43xd62x3,2t	SPC	
16	006-118-13	Stuffing Box	1	No. 6	FC	
17	140-076-17	Hex. Bolt	4	M10x30	SUS304	
18	142-164-19	Spring Washer	4	M10	SUS304	
19	122-264-18	O-Ring	1	140xd3.5	NBR	*
20	141-004-46	Hex. Nut	6	M6	BSBM	
21	140-029-31	Hex. Bolt	6	M6x10	BSBM	
22	009-167-16	Terminal	6	R-38-S6	CU	
23	009-107-18	Terminal	6	R-14-6	CU	
24	143-041-12	Pan Screw	1	M6x8	SWRM	
25	009-117-11	Terminal	1	R-22-6	CU	
26	009-115-19	Connector	3	PC-4020F		
27	009-114-18	Connector	3	PC-4020M		
28	002-115-18	Heat Shrink Tube	m	EVA(d16,5x1t)		
29	002-116-19	Heat Shrink Tube	m	A4(d19x0,35t)		
30	141-008-11	Hex. Nut	6	M16	SUS304	
31	142-166-11	Spring Washer	6	M16	SUS304	
32	144-436-24	Stud Bolt	6	M16x69 (28/24)	SUS304	
33	140-124-11	Hex. Bolt	2	M16x40	SUS304	
34	142-166-11	Spring Washer	2	M16	SUS304	
35	037-360-21	Discharge Pipe	1	LH837/875	SGP+SS	
35.1	127-263-12	Stay (Right)	1	LH837/845 (Right)	SS	
35.2	127-264-13	Stay (Left)	1	LH837/845 (Left)	SS	
35.3	140-126-13	Hex. Bolt	2	M16x50	SUS304	
35.4	142-166-11	Spring Washer	2	M16	SUS304	
35.5	141-008-11	Hex. Nut	2	M16	SUS304	
36	121-500-16	Packing	1	LH637/875	Three Sheet	*
37	035-113-18	Air Tightness Plug	1	M12x14	SUS304	
38	121-247-12	Packing	1	d11,8xd18x2t	PE	*
39	140-093-10	Hex. Bolt	2	M10x120	SUS304	
40	142-164-19	Spring Washer	2	M10	SUS304	
41	142-297-12	Seal Washer	2	SM-10	SUS+NBR	*
42	140-076-17	Hex. Bolt	1	M10x30	SUS304	
43	142-164-19	Spring Washer	1	M10	SUS304	
44	140-130-10	Hex. Bolt	6	M16x70	SUS304	
45	142-166-11	Spring Washer	6	M16	SUS304	
46	051-231-13	Motor Head Cover	1		FC	
47	122-503-12	O-Ring	1	435xd6	NBR	*
48	122-344-13	O-Ring	1	234.3xd5,7	NBR	*
49	016-133-15	Lead Wire Protection Bush	2	d21xd40x191	CR	
50	140-126-13	Hex. Bolt	8	M16x50	SUS304	
51	142-166-11	Spring Washer	8	M16	SUS304	
52	204-037-17	Plug	1	PT-1/8	S45C	
53	050-326-26	Motor Bracket	1		FC	
54	122-363-18	O-Ring	1	486xd10	NBR	*
55	113-102-19	Upper Bearing Grease Cover	1		SS	
56	052-137-11	Bearing	1	NU310C3		
57	062-180-10	Bearing Fixing Plate (Upper)	1		FC	
58	142-163-34	Spring Washer	4	M8	SWRH	
59	140-055-49	Hex. Bolt	4	M8x25	SWRM	
60	121-349-15	Packing (Felt)	1	5x5,5x252l	SS	
61	071-165-17	Upper Bearing Sleeve	1	d61xd75x701	SS	
62	065-192-14	Outer Cover	1	GH-55/75KW	STKM	
63	055-464-13	Rotor	1			
64	147-069-18	Impeller Key	1	12x8x46l	SUS	
65		Motor Protector				
66		Stator	1			
67	122-110-18	O-Ring	1	P-340	NBR	*
68	140-127-14	Hex. Bolt	8	M16x55	SUS304	
69	142-166-11	Spring Washer	8	M16	SUS304	
70	064-392-13	Motor Frame	1		FC	
71	145-032-16	Spring Pin	2	d8(JIS)	SS	
72	122-012-19	O-Ring	2	P-12	NBR	*
73	144-526-19	Stator Set Bolt	2	M12(B=24)	SUS304	
74	122-110-18	O-Ring	1	P-340	NBR	*
75	121-350-19	Packing (Felt)	1	5x5,5x258l	Felt	
76	062-188-18	Bearing Fixing Plate (Lower)	1		FC	
77	122-147-14	O-Ring	1	G-180	NBR	*
78	113-100-17	Lower Bearing Grease Cover	1		SS	

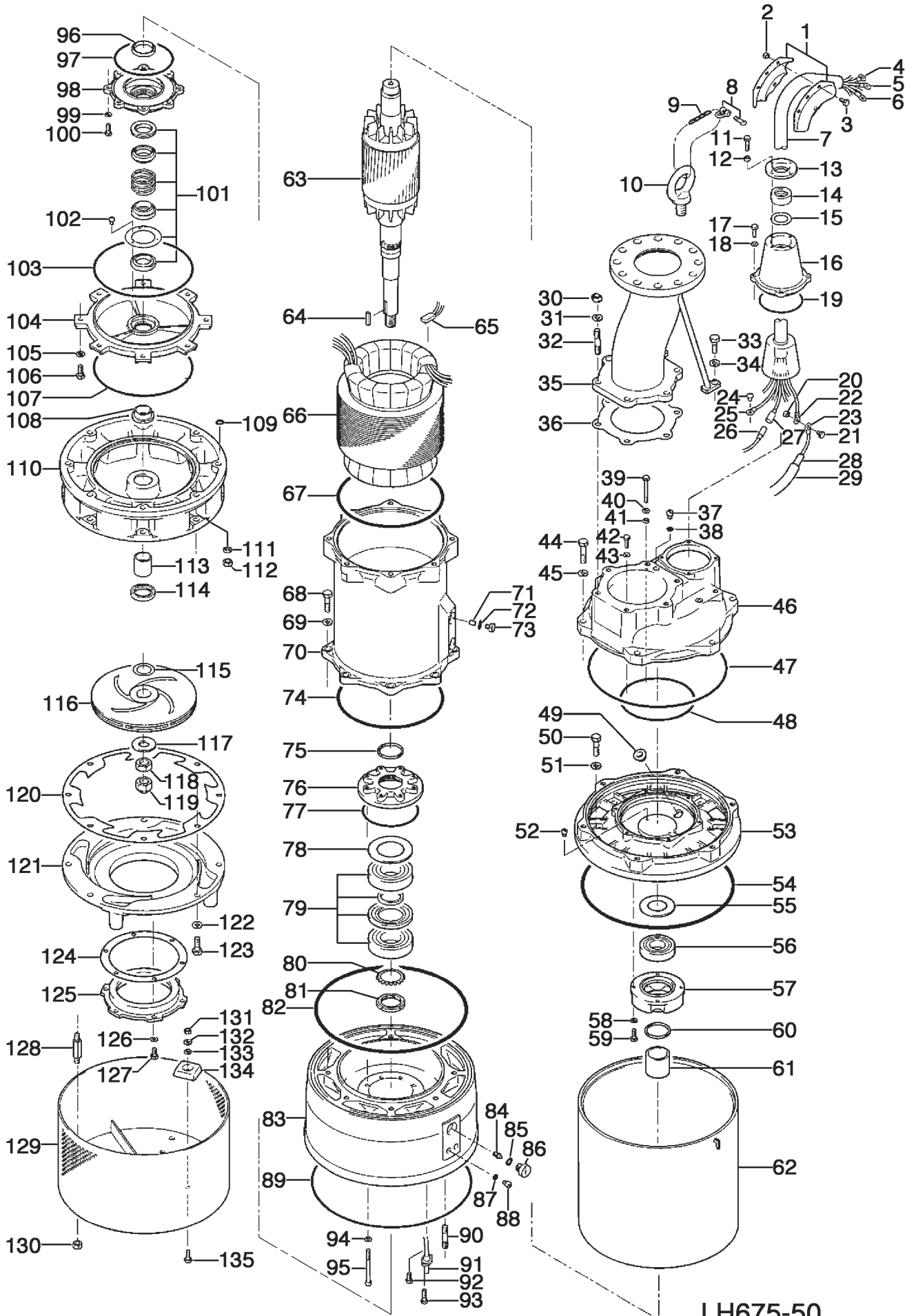
LH675-50

Control No. ILH-11-3-1

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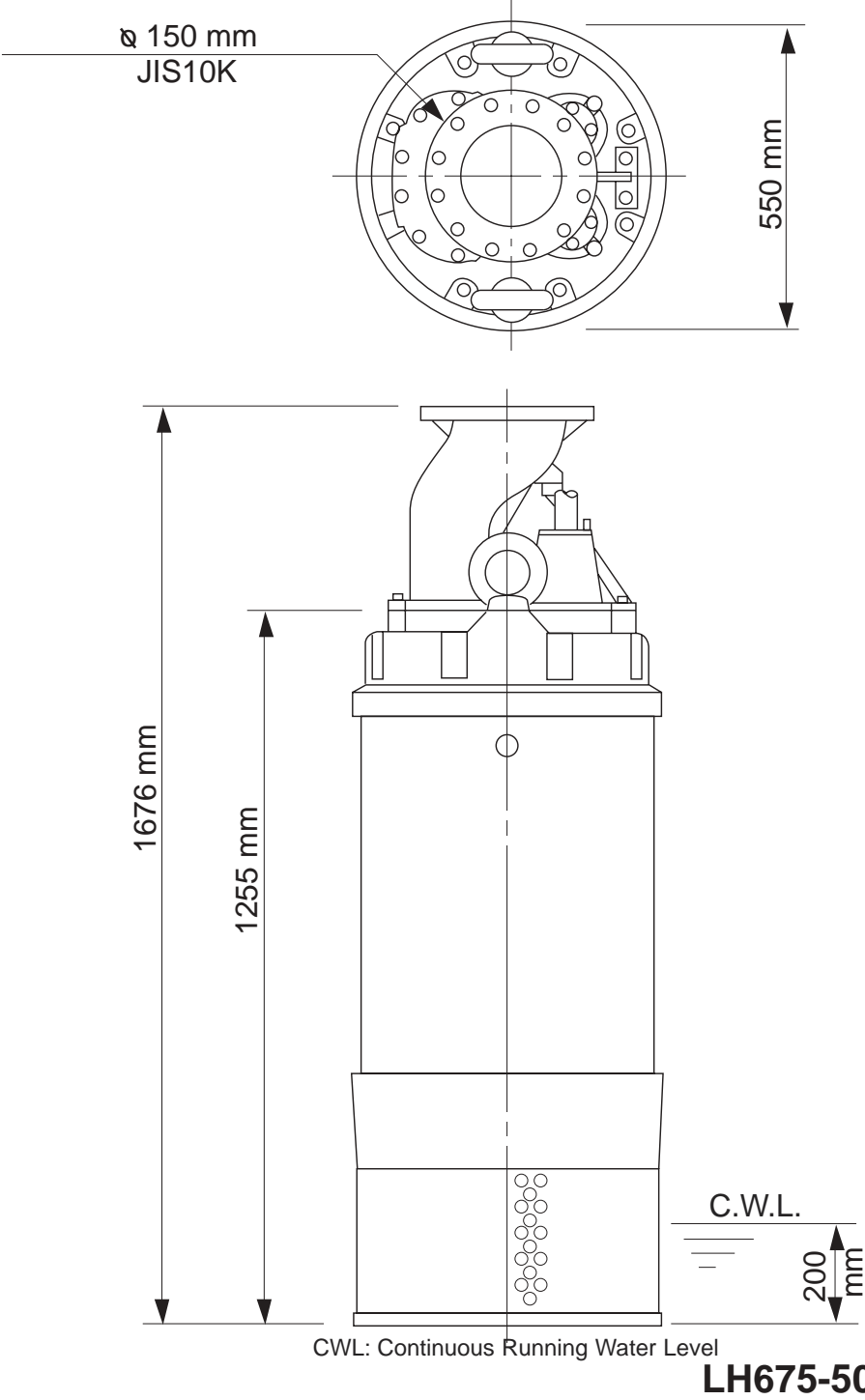
ITEM	CODE No.	DESCRIPTION	Q'TY	SIZE	MATERIAL	REMARKS
79	052-138-12	Bearing	1	7313BDBC3+SP		
80	142-246-16	Bearing Washer	1	AW13	SPCC	
81	141-078-12	Bearing Nut	1	AN13	SS	
82	122-363-18	O-Ring	1	486xd10	NBR	*
83	060-313-18	Bearing Housing	1		FC	
84	148-002-16	Grease Nipple	1	A-PT1/8	BSBM	
85	122-023-13	O-Ring	1	P-24	NBR	*
86	144-525-18	Grease Plug	1	M24	SUS304	
87	121-247-12	Packing	2	d11,8xd18x2t	PE	*
88	035-113-18	Air Tightness Test Plug	2	M12x14	SUS304	
89	122-307-14	O-Ring	1	510xd5,7	NBR	*
90	144-160-11	Stud Bolt	8	M16x80	SUS304	
91	090-122-11	Leakage Sensor (Electrode)	1			
92	140-031-10	Hex. Bolt	1	M6x14	SUS304	
93	140-020-16	Hex. Bolt	2	M5x18	SUS304	
94	142-164-19	Spring Washer	8	M10	SUS304	
95	140-439-12	Hex. Socket Cap Screw	8	M10x110	SCM	
96	026-188-16	Oil Seal	1	TC-60759	NBR	
97	122-149-16	O-Ring	1	G-190	NBR	*
98	062-179-16	Bearing Grease Receiver	1		FC	
99	142-164-19	Spring Washer	8	M10	SUS304	
100	140-076-17	Hex. Bolt	8	M10x30	SUS304	
101	025-268-18	Mechanical Seal	1	H-50T	SiC	
101.1	143-028-13	Pan Screw	3	M5x10	SWRM	
101.2	030-133-19	Oil Lifter	1	H-50(T)	SPCC	
102	143-070-10	Pan Screw	3	M5x6	SWRM	
103	122-308-15	O-Ring	1	320xd5,7	NBR	*
104	029-178-12	Oil Casing	1	GH-750H/L	FC	
105	142-165-10	Spring Washer	8	M12	SUS304	
106	140-097-14	Hex. Bolt	8	M12x30	SUS304	
107	122-308-15	O-Ring	1	320xd5,7	NBR	*
108	071-142-18	Shaft Sleeve	1	GH-550/750	SUS403	
109	122-016-13	O-Ring	8	P-16	NBR	*
110	020-A84-13	Pump Casing (Upper)	1	LH855/675(w/Labyrinth Rin	FC	
111	142-166-11	Spring Washer	8	M16	SUS304	
112	141-008-11	Hex. Nut	8	M16	SUS304	
113	071-143-19	Shaft Sleeve	1	GH-550/750	SUS403	
114	026-177-12	Oil Seal	1	TCN-557812	NBR	
115	040-127-11	Impeller Shirr		d45,2xd68x0,3t	SUS304	
116	021-412-20	Impeller 50Hz	1	50Hz	HiCrFC	
116	021-411-32	Impeller 60Hz	1	60Hz	HiCrFC	
117	142-274-13	Impeller Fixing Washer	1	d33xd75x6t	SUS304	
118	141-012-50	Hex. Nut	1	M30 (H=18)	SUS304	
119	141-036-18	Hex. Cap Nut	1	M30	SUS304	
120	121-271-15	Packing	1	d403x516x0,6t	Three Sheet	*
121	020-429-43	Pump Casing (Lower)	1	GH-550/750L	FC	
122	142-166-11	Spring Washer	8	M16x45	SUS304	
123	140-125-12	Hex. Bolt	1	M16	SUS304	
124	120-118-10	Packing (S. Cover)		d211xd274x0,5t	PE	
125	034-118-10	Suction Mouth	1	GH-750H/L	HiCrFC	
126	142-165-10	Spring Washer	6	M12	SUS304	
127	140-096-13	Hex. Bolt	6	M12x25	SUS304	
128	144-128-17	Stud Bolt	4	M16x110(24/24)	SUS304	
129	023-265-19	Strainer Stand	1	GH-750L	SS	
130	141-008-11	Hex. Nut	4	M16	SUS304	
131	141-007-10	Hex. Nut	3	M12	SUS304	
132	142-129-12	Plain Washer	3	M12	SUS304	
133	142-165-10	Spring Washer	3	M12	SUS304	
134	043-102-19	Cathodic Protection Plate	3	AB-1HS	AI	
135	140-096-13	Hex. Bolt	3	M12x25	SUS304	
		< Packing O-Ring Set >				
	173-512-12	Packing O-Ring Set	1	(*)		

Exploded View LH675-50

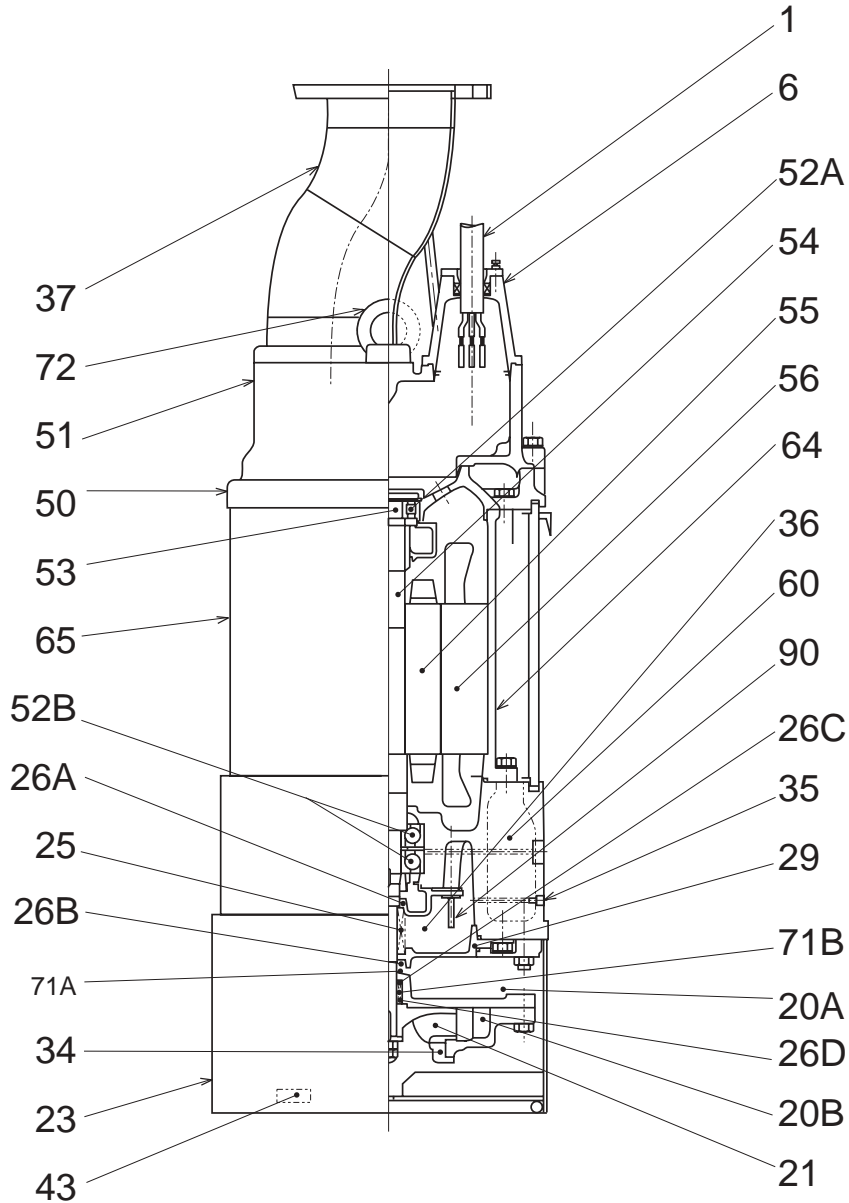


LH675-50

Dimensional Drawing LH675-50



Sectional Drawing LH675-50



LH675-50

No.	Description	Qty.	Remarks	No.	Description	Qty.	Remarks
1	Cable	1	20m 6Cx30mm ² /1Cx22mm ² /2Cx2mm ²	43	Cathodic Protection Plate	3	Aluminium Alloy ALAP
6	Stuffing Box	1	FC200 (EN-GJL-200)	50	Motor Bracket	1	FC200 (EN-GJL-200)
20A	Pump Casing upper	1	FC200 (EN-GJL-200)	51	Head Cover	1	FC200 (EN-GJL-200)
20B	Pump Casing lower	1	FC200 (EN-GJL-200)	52A	Upper Bearing	1	NU310C3
21	Impeller	1	Chromium Iron Casting HiCrFC	52B	Lower Bearing	1	7313BTDBC3
23	Strainer Stand	1	SS400 (DIN 1.0040)	53	Motor Protector	3	
25	Mechanical Seal	1	H-50T	54	Shaft	1	SUS420J2 (EN-X30Cr13)
26A	Oil Seal	1	TC60759	55	Rotor	1	
26B	Oil Seal	1	TC557812	56	Stator	1	
26C	Oil Seal	1	TCN557812	60	Bearing Housing	1	FC200 (EN-GJL-200)
26D	Labyrinth Ring	1	SUS304 (EN-X5CrNi18-10)	64	Motor Frame	1	FC200 (EN-GJL-200)
29	Oil casing	1	FC200 (EN-GJL-200)	65	Outer Cover	1	Carbon Steel STKM
34	Suction Mouth	1	Chromium Iron Casting HiCrFC	71A	Upper Shaft Sleeve	1	SUS403 (EN-X6Cr13)
35	Oil Plug	2	SUS304 (EN-X5CrNi18-10)	71B	Lower Shaft Sleeve	1	SUS403 (EN-X6Cr13)
36	Lubricant		Turbine Oil (ISO VG32)	72	Eyebolt	1	SS400 (DIN 1.0040)
37	Discharge Pipe	1	SS400 (DIN 1.0040)/Carbon Steel SGP	90	Leakage Sensor Electrode	1	

Pump Performance Curve

LH675-50

Discharge Bore	150 mm
Total Head	120 m
Capacity	1,5 m ³ /min
Motor Output	75,0 kW
Motor Input	83,5 kW
Phase	3
Voltage	400 V
Frequency	50 Hz
Rated Current	130 A
Starting Current	1112 A
Poles	2
Revolution	S.S. 2850 r.p.m.
Starting Method	star delta
Insulation Class	F

