

SH SUBMERSIBLE DRAINAGE PUMP

The body of motor and pump is made of hard cast iron for long-lasting durability. Greatly increased maximum submersion depth due to mechanical seal resistant to high pressure. Hydraulic part under the motor and motor cooled by the pumped water for safe operation also with the pump only partially immersed. The top outlet design maximize the space. Hermetically sealed motor equipped. Discharge 100mm(4") to 200mm(8"), motor 22kW (30HP) to 110 kW (150HP). Motor is dry type submersible induction motor (2 poles).

Application

- Deep-well pre-dewatering or high-head dewatering
- Civil engineering and construction works
- Mines, quarries, coal ore & slurries
- Sewage treatment plants
- General pumping purposes

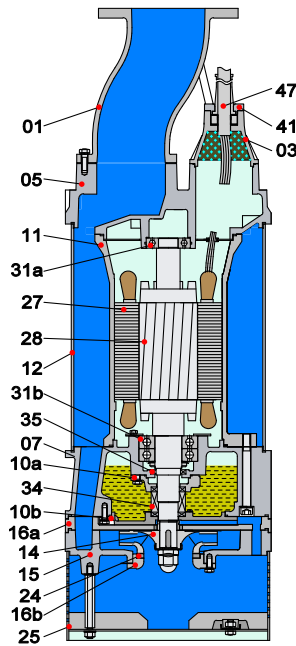
Specification

- Capacity: up to 408m³/h
- Head: up to 205 meters
- Power: 22kW (30HP) to 110 kW (150HP)
- Power supply: three phase 400V ± 10%, 50Hz
380V ± 10%, 60Hz
- Insulation class: F
- Protection class: IP68
- Cable length: 20m
- Water temperature: up to 40°C
- Max. water depth: 30m

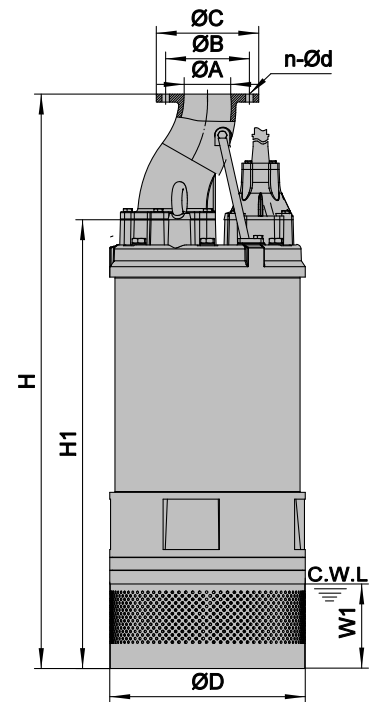


Special features on request

- Other voltages
- The length of cable is optional



SH22-75kW



C.W.L.:Continuous running water level

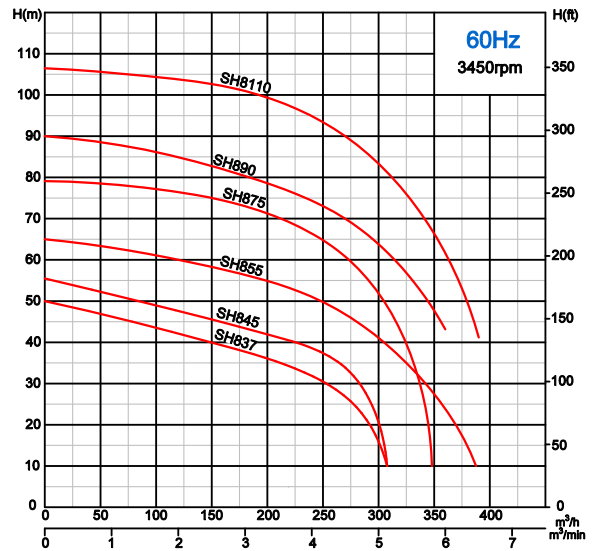
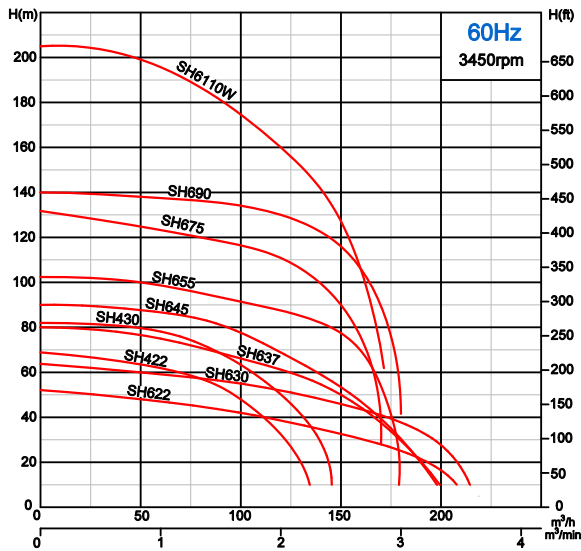
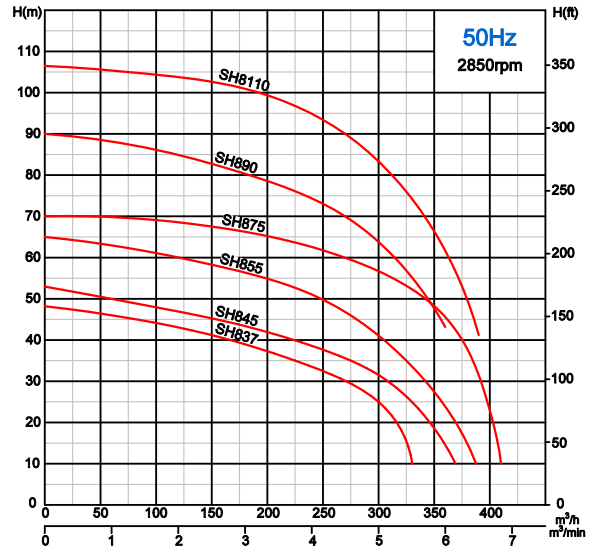
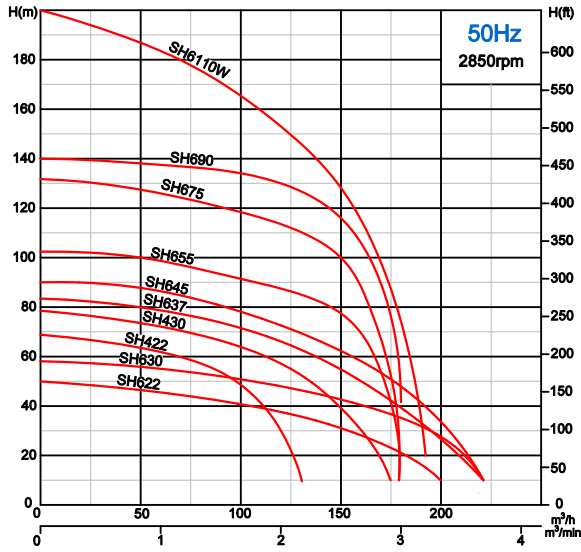
Material of construction

Item No.	Part name	Material	Item No.	Part name	Material
01	Hose coupling	Ductile iron	16b	Inlet plate	Cast iron
03	Terminal box	Cast iron	24	Neck ring	High chrome alloy
05	Upper cover	Cast iron	25	Strainer	AISI304SS
07	Bearing house	Cast iron	27	Stator	
10a	Seal bracket	Cast iron	28	Rotor	Shaft:AISI420SS
10b	Seal bracket	Cast iron	31a	Bearing	Ball bearing
11	Motor body	Cast iron	31b	Bearing	Ball bearing
12	Outer casing	Steel	34	Mechanical seal	Tc-Sic/Sic-Sic
14	Impeller	High chrome alloy	35	Oil seal	
15	Diffuser	Ductile iron	41	Shim	Cast iron
16a	Inlet plate	Ductile iron	47	Cable	

Dimensions & weights

Model (50/60Hz)	A	B	C	n-Ød	D	H	H1	W1	N.W	G.W	Packing dimension mm
	mm	mm	mm	mm	mm	mm	mm	mm	Kg	Kg	
SH422	100	180	220	8-Ø17.5	420	1374	1072	240	370	410	1495x490x700
SH430	100	180	220	8-Ø17.5	420	1374	1072	240	375	415	1495x490x700
SH622	150	240	285	8-Ø22	420	1434	1082	250	385	425	1565x490x700
SH630	150	240	285	8-Ø22	420	1434	1082	250	390	430	1565x490x700
SH637	150	240	285	8-Ø22	530	1424	1072	180	570	615	1555x600x850
SH645	150	240	285	8-Ø22	530	1424	1072	180	575	620	1555x600x850
SH837	200	295	340	12-Ø22	530	1474	1072	180	575	625	1605x600x850
SH845	200	295	340	12-Ø22	530	1474	1072	180	580	630	1605x600x850
SH655	150	240	285	8-Ø22	550	1630	1280	200	830	880	1765x620x910
SH675	150	240	285	8-Ø22	550	1630	1280	200	830	880	1765x620x910
SH855	200	295	340	12-Ø22	550	1680	1280	200	880	930	1815x620x910
SH875	200	295	340	12-Ø22	550	1680	1280	200	880	930	1815x620x910
SH690	150	250	300	8-Ø26	592	1687	1282	200	1110	1166	1825x665x965
SH890	200	295	340	12-Ø22	592	1687	1282	200	1120	1176	1825x665x965
SH6110W	150	250	300	8-Ø26	592	1793	1388	370	1245	1301	1875x665x965
SH8110	200	295	340	12-Ø22	592	1687	1282	200	1150	1206	1825x665x965

Performance curves



Performance table

Model (50/60Hz)	Outlet	Motor power		Rated current	Rated capacity		Rated Head	Max capacity		Max Head	Impeller Passage
	mm	kW	HP		A	m³/h		m³/min	m³/h		
SH422	100	22	30	41.5	66	1.1	60	130/138	2.17/2.3	68	6
SH430	100	30	40	54	72	1.2	70/75	170/144	2.83/2.4	78/82	6
SH622	150	22	30	41.5	120	2.0	37/40	200/210	3.33/3.5	50/52	15
SH630	150	30	40	54	140	2.33	45/48	220/216	3.67/3.6	58/64	15
SH637	150	37	50	66	120/100	2.0/1.7	65	220/198	3.67/3.3	83/80	6
SH645	150	45	60	80	120/100	2.0/1.7	75	220/198	3.67/3.3	90	6
SH837	200	37	50	66	216	3.6	35	330/306	5.5/5.1	48/50	20
SH845	200	45	60	80	270	4.5	35	372/305	6.2/5.1	53/56	20
SH655	150	55	75	100	90	1.5	90	180	3.0	102	8
SH675	150	75	100	134	90	1.5	120	180/168	3.0/2.8	132	8
SH855	200	55	75	100	240	4.0	50	390	6.5	65	20
SH875	200	75	100	134	270	4.5	60	408/348	6.8/5.8	70/78	20
SH690	150	90	120	162	120	2.0	128	180	3.0	140	10
SH890	200	90	120	162	270	4.5	70	360	6.0	90	20
SH6110W	150	110	150	198	120	2.0	150/160	192/171	3.2/2.85	200/205	8
SH8110	200	110	150	198	270	4.5	90	390	6.5	107	20

The body of motor and pump is made of hard cast iron for long-lasting durability.

Greatly increased maximum submersion depth due to mechanical seal resistant to high pressure.

The pump can be only partially immersed, with hydraulic part under motor and motor cooled by pumped water for safe operation. The top discharge design maximize the utilization of space. Hermetically sealed motor equipped with built-in thermal protection. Seal pressure relief ports is incorporated to prevent the pumping pressure from applying to the shaft seal.

The back-to-back design of the double impeller greatly reduces the axial force of the pump and improves the service life of the bearing.

Discharge 50mm(2") to 150mm(6"), motor 3.0kW (4.0HP) to 150 kW (200HP).

Motor is dry type submersible induction motor (2 poles).



Specification

- Capacity: up to 218m³/h
- Head: up to 230 meters
- Power: 3.0kW (4.0HP) to 150 kW (200HP)
- Power supply: three phase 400V ± 10%,50Hz
380V ± 10%,60Hz
- Insulation class: F
- Protection class: IP68
- Cable length: 20m
- Water temperature: up to 40°C
- Max. water depth: 30m

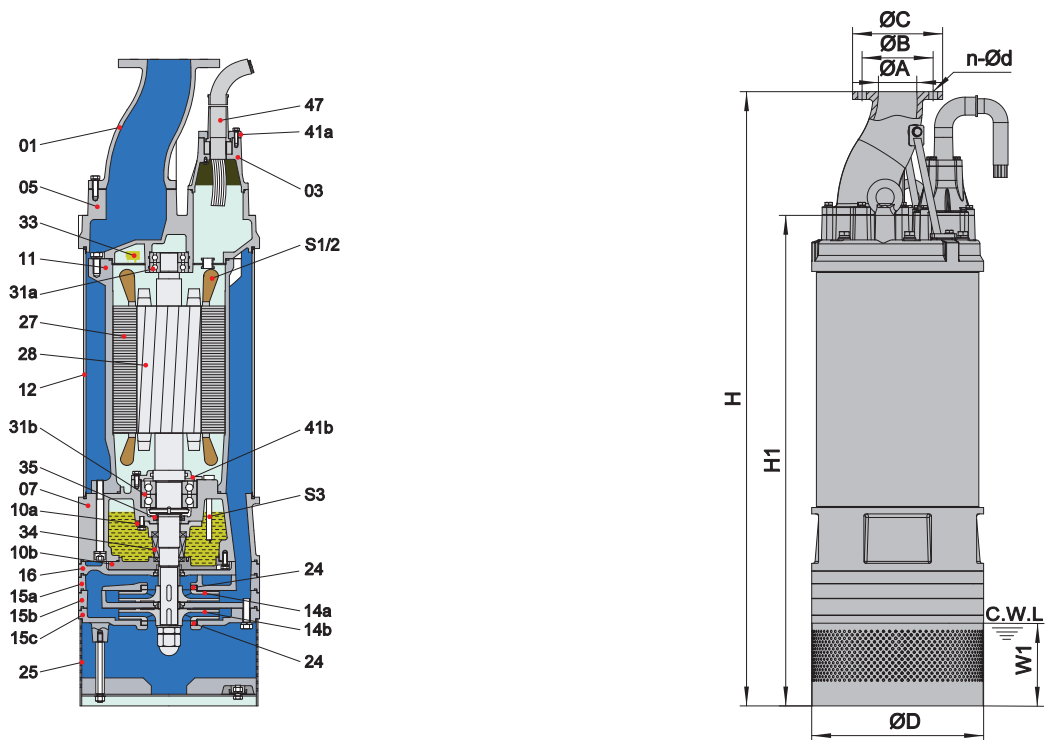
Application

- Deep-well pre-dewatering or high-head dewatering
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Special features on request

- Other voltages
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SH-W SUBMERSIBLE DRAINAGE PUMP



C.W.L: continuous running water level

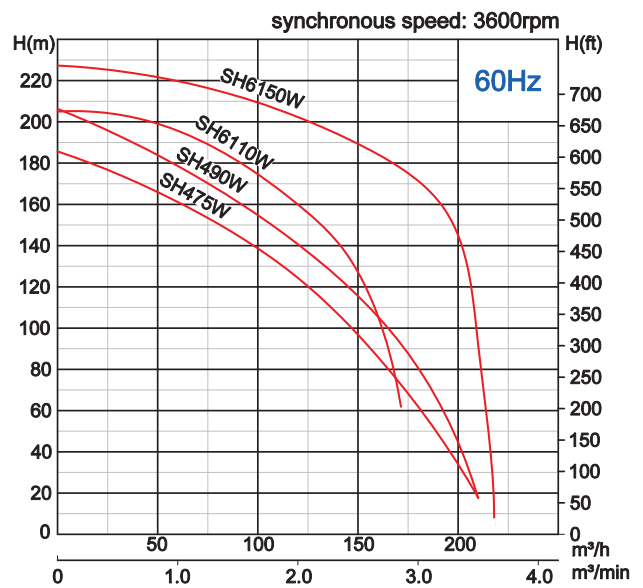
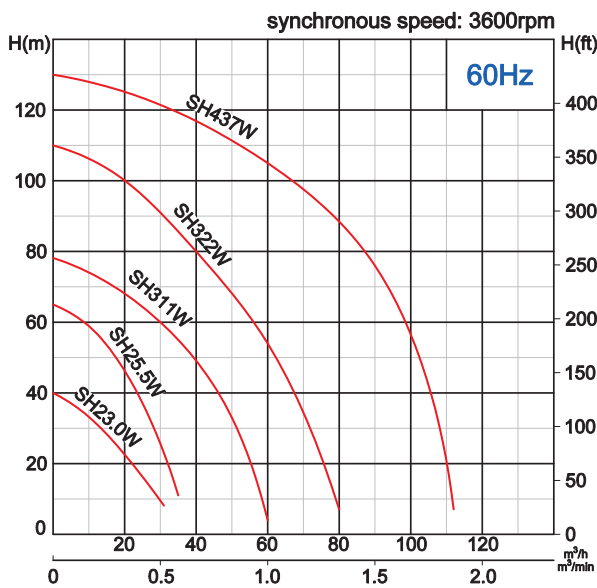
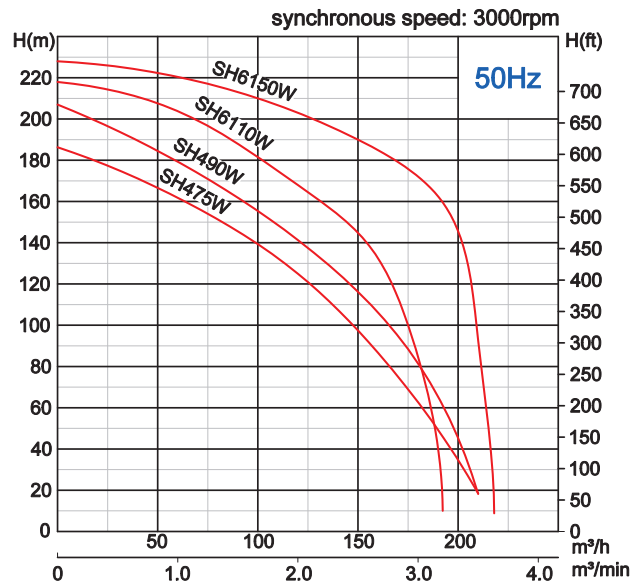
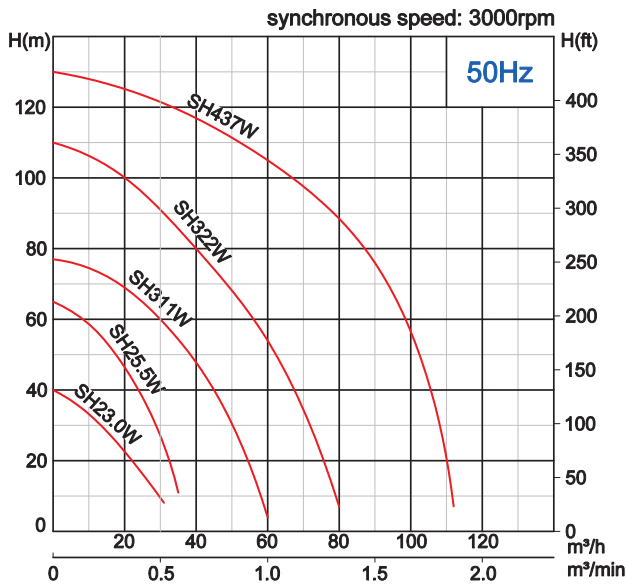
Materials of components

Item No.	Part name	Material	Item No.	Part name	Material
01	Discharge connection	Ductile iron	25	Strainer	Stainless steel
03	Terminal box	Cast iron	27	Stator	
05	Upper cover	Cast iron	28	Rotor	Shaft:AISI420SS
07	Bearing house	Cast iron	31a	Bearing	
10a	Seal bracket	Cast iron	31b	Bearing	
10b	Seal bracket	Cast iron	33	Motor protector	3~11kW
11	Motor body	Cast iron	34	Mechanical seal	
12	Outer casing	Steel	35	Oil seal	
14a	Impeller	High chrome alloy	41a	Cable fixing plate	Cast iron
14b	Impeller	High chrome alloy	41b	Bearing fixing plate	Cast iron
15a	Diffuser & Casing	Ductile iron	47	Cable	
15b	Diffuser & Casing	Ductile iron	S1/2	Overheat protector : 22~150kW	
15c	Diffuser & Casing	Ductile iron	S3	Oil water leakage probe : 37~150kW (22kW : on option)	
16	Inlet plate	Ductile iron			
24	Neck ring	High chrome alloy			

Dimensions & weights

Model (50/60Hz)	A	B	C	n-Ød	D	H	H1	W1	N.W	G.W	Packing dimension mm
	mm	mm	mm	mm	mm	mm	mm	mm	Kg	Kg	
SH23.0W	50	-	-	-	185	685	570	146	52	57	740x220x295
SH25.5W	50	125	165	4-Ø18	243	788	616	170	100	107	840x280x385
SH311W	80	160	200	8-Ø18	275	1036	824	210	160	172	1085x310x415
SH322W	80	160	200	8-Ø18	330	1174	914	260	278	308	1225x375x545
SH437W	100	180	220	8-Ø18	420	1500	1198	227	500	540	1625x465x705
SH475W	100	190	235	8-Ø22	550	1762	1410	400	1000	1052	1900x620x690
SH490W	100	190	235	8-Ø22	550	1822	1470	400	1055	1110	1960x620x700
SH6110W	150	250	300	8-Ø26	592	1793	1388	370	1245	1301	1935x665x965
SH6150W	150	250	300	8-Ø26	592	1925	1520	415	1428	1488	2065x665x975

Performance curves



Performance table

Model (50/60Hz)	Outlet		Motor power		Starting method	Rated current A	Rated capacity		Rated head m	Max capacity		Max head m	Impeller passage mm
	mm		kW	HP			m³/h	m³/min		m³/h	m³/min		
SH23.0W	50		3.0	4.0	D.O.L.	6.2/6.3	18	0.3	26	30	0.5	39	6
SH25.5W	50		5.5	7.5	D.O.L.	11.4/11.6	18	0.3	48	35	0.59	65	6
SH311W	80		11	15	D.O.L.	22/22.5	30	0.5	60	60	1.0	78	8.5
SH322W	80		22	30	Star-Delta	41.5/42	40	0.67	80	78	1.30	110	8.5
SH437W	100		37	50	Star-Delta	66/68	60	1.0	105	112	1.87	130	6
SH475W	100		75	100	Star-Delta	134/139	120	2.0	125	210	3.5	185	15
SH490W	100		90	120	Star-Delta	162/166	120	2.0	140	210	3.5	205	15
SH6110W	150		110	150	Star-Delta	198/203	120	2.0	168/160	192/171	3.2/2.85	218/205	8
SH6150W	150		150	200	Star-Delta	260/268	150	2.5	190	218	3.63	230	12