



APEC-SUN

Submersible Pump

SN-Series



APPLICATIONS:

- Treatment processes at sewage treatment plants.
- Relaying sewage at the junctions in the sewage works.
- Drainage and sanitary equipment of buildings.
- Discharging rain water or water from roads or the roads under elevated railroads or overpasses.
- Industrial waste water treatment processes at factories.

FEATURES:

MOTOR

Dry type motor with Class E insulation is employed.

MOTOR PROTECTOR

A built-in automatic reset type motor protector (automatic cutoff or thermal protector) positively protects the motor from burnout due to overload, impeller clogging and open phase.

IMPELLER

Impellers most suitable for respective pump applications are employed.



SHAFT SEAL

A highly wear resistant silicon carbide double mechanical seal positively prevents the water from penetrating into the motor chamber. Besides, combined use of an oil seal further extends the service life of the mechanical seal.

DISCHARGE CONNECTION

When the automatic connection type submersible pump is lowered along with the guide pipe, the pump is automatically connected to the discharge pipe with the discharge connection.

CABLE OUTLET with CORE SEALER

The self-contained core sealer of the cable outlet shuts the water out from penetrating into the motor chamber through the core wires even if the cable tip is immersed in water or the sheath is damaged.

MAIN SPECIFICATIONS:

HANDLING LIQUID

- Kind of Liquid: Waste Water and Sewage including Sludge

MATERIAL

- Cable: VCT (Over 11kW: 2PNCT)
- Motor Shaft: SUS 420J2
- Pump Casing: Gray Cast Iron
- Impeller: Gray Cast Iron

ELECTRIC MOTOR

- Type: Dry-type Submersible Induction Motor
- Insulation Class: Class E
- Enclosure: IP68
- Phase: Three-Phase
- Voltage: According to the specifications

SPECIAL SPECIFICATIONS:

CABLE EXTENSION:

- Length of Cable 15, 20, and 30m

MATERIAL CHANGE:

- Impeller: Stainless Steel Casting
- Base Cover: Stainless Steel Casting
- lifting Chain: Stainless Steel (SUS 304)

MOTOR PROTECTOR:

- Micro-Thermal Protector
- Moisture Detector

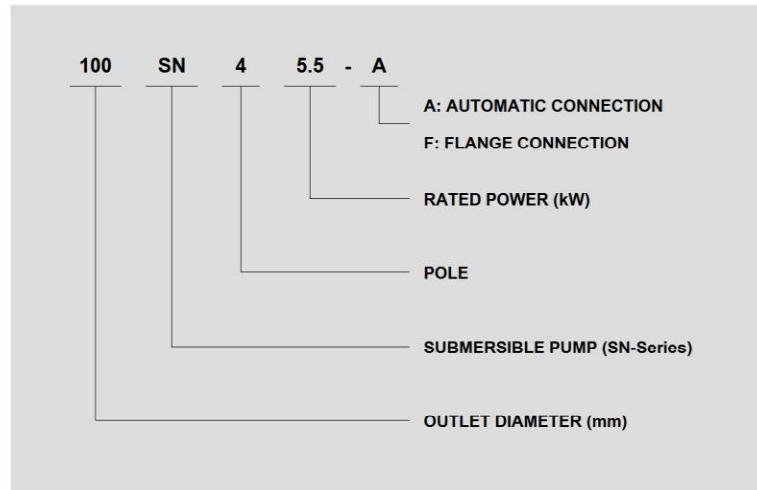
STARTING METHOD:

- Star-Delta Starting (5.5kW - 7.5kW)
(Over 11kW models are standard specifications)

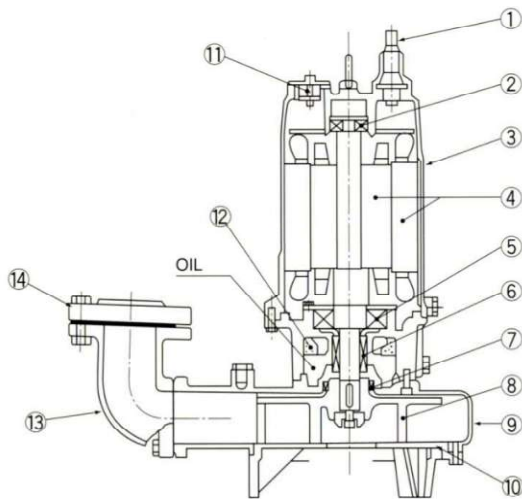
INSULATION CLASS:

- Class F

TYPE DESCRIPTION:



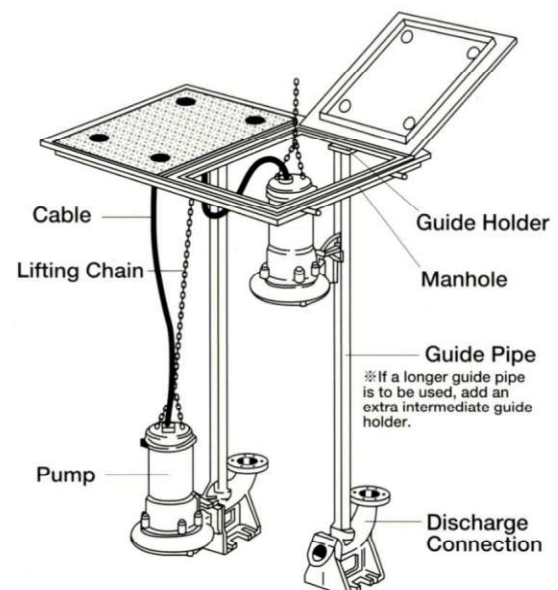
CONSTRUCTION:



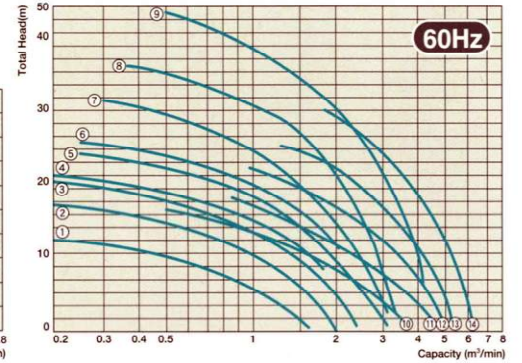
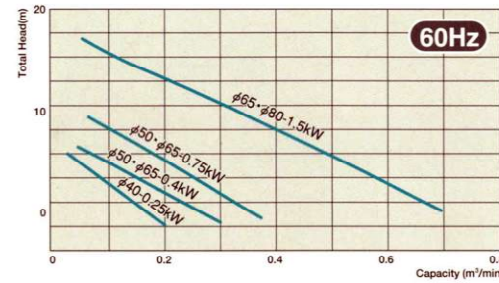
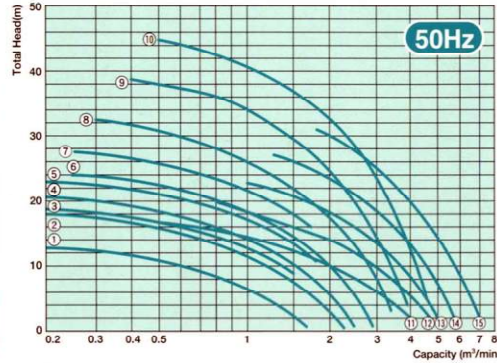
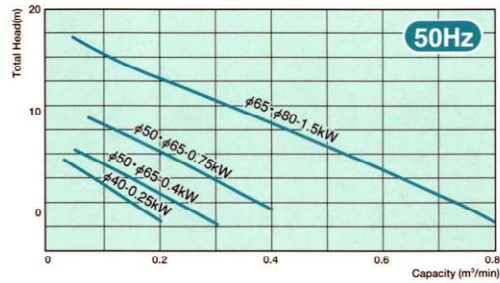
NO.	NAME	MATERIAL
1	Cable	VCT
2	Ball Bearing (Upper)	-
3	Stator Casing	FC200
4	Motor	Shaft = SUS 420J2
5	Ball Bearing (Lower)	-
6	Mechanical Seal	-
7	Oil Seal	N.B.R.
8	Impeller	FC200
9	Pump Casing	FC200
10	Base Cover	FC200
11	Thermal Protector	-
12	Equalizer	N.B.R.
13	Discharge Side Flange	FC200
14	Companion Flange	FC200

AUTOMATIC CONNECTION:

When the pump is lowered along with the guide pipe, it is automatically connected to the discharge pipe with discharge connection, to remove the pump, simply lift it up out of the tank, no bolt, nut and packing are required for the connection. The automatic connection system has simplified the maintenance. It is not necessary to enter the tank or evacuate the tank for removing the pump or loosening or tightening the bolts.



SPECIFICATIONS:

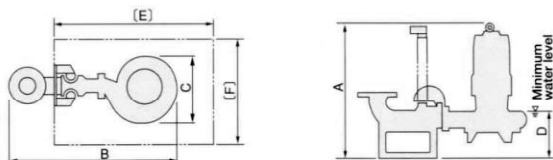


CURVE NO.		PUMP MODEL	CONNECTION PART No.		CAPACITY (m ³ /min)		HEAD (m)		POWER	POLE	DIA	IMPELLER PASSAGE (mm)		WEIGHT
50Hz	60Hz		Automatic	Flange	50Hz	60Hz	50Hz	60Hz	(kW)		(mm)	50Hz	60Hz	(kg)
		40SN20.25	A40	F40	0.1	0.1	5.5	5.5	0.25	2	40	23	23	15.5
		50SN20.4	A50	F50	0.15	0.2	6.0	6.0	0.4	2	50	32	32	17
		50SN20.75			0.2	0.2	8.2	7.5	0.75					
		65SN20.4	A65B	F65B	0.15	0.2	6.0	6.0	0.4	2	65	32	32	17
		65SN20.75			0.2	0.2	8.2	7.5	0.75					
		65SN21.5	A65	F65	0.4	0.4	10.6	10.0	1.5	4	65	43 x 41	43 x 36	29
1	1	65SN42.2			0.8	0.8	8.4	8.6	2.2			54 x 60	53 x 60	58
2	2	65SN43.7			[1] 1.0	1.0	[1] 11.8	11.8	3.7			53 x 60	54 x 60	70
3	2		[3] 0.8	1.0	[3] 14.4	11.8								
		80SN21.5	A80	F80	0.4	0.4	10.6	10.0	1.5	4	80	43 x 41	43 x 36	29
1	1	80SN42.2	0.8		0.8	8.4	8.6	2.2	54 x 60			53 x 60	58	
2	2	80SN43.7	[1] 1.0		1.0	[1] 11.8	11.8	3.7	53 x 60			54 x 60	70	
3	2		[3] 0.8		1.0	[3] 14.4	11.8							
4	3	80SN45.5	[1] 1.2		[2] 1.2	[1] 12.9	[2] 13.6	5.5	61 x 60			53 x 60	95	
5	4		[3] 0.9		[4] 0.9	[3] 18.0	[4] 18.0							
6	5	80SN47.5	[1] 1.4		[2] 1.4	[1] 15.2	[2] 16.7	7.5	67 x 60			60 x 60	108	
7	6		[3] 1.0	[4] 1.0	[3] 21.8	[4] 22.5								
1	1	100SN42.2	A100B	F100	0.8	0.8	8.4	8.6	2.2	4	100	54 x 60	53 x 60	58
2	2	100SN43.7			[1] 1.0	1.0	[1] 11.8	11.8	3.7			53 x 60	54 x 60	70
3	2				[3] 0.8	1.0	[3] 14.4	11.8						
4	3	100SN45.5			[1] 1.2	[2] 1.2	[1] 12.9	[2] 13.6	5.5			61 x 60	53 x 60	95
5	4				[3] 0.9	[4] 0.9	[3] 18.0	[4] 18.0						
6	5	100SN47.5			[1] 1.4	[2] 1.4	[1] 15.2	[2] 16.7	7.5			67 x 60	60 x 60	108
7	6				[3] 1.0	[4] 1.0	[3] 21.8	[4] 22.5						
11	10	150SN45.5	A150	F150	2.0	1.96	10.0	10.0	5.5	4	150	70 x 80	65 x 80	122
12	11	150SN47.5			2.48	2.33	12.0	12.0	7.5			75 x 85	70 x 80	134
13	12	150SN411			2.54	2.6	16.0	16.0	11			64 x 100	57 x 100	215
14	13	150SN415			2.87	3.0	19.0	19.0	15			70 x 95	62 x 100	228
15	14	150SN422			3.6	3.86	22.0	22.0	22			76 x 100	62 x 105	326

[] Number of impeller.

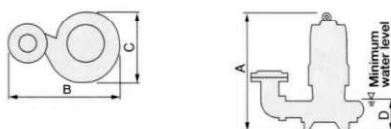
DIMENSIONS:

Automatic Connection



PUMP MODEL	PART	A	B	C	D	E	F
40SN20.25	A40	431	431	164	180	550	350
50SN20.4	A50	460	447	170	180	550	350
50SN20.75							
65SN20.4	A65B	460	520	170	180	550	350
65SN20.75							
65SN21.5	A65	530	663	192	215	550	350
65SN42.2		580	754	292	220	600	500
65SN43.7		642	773	331	220	600	500
80SN21.5	A80	570	739	192	255	550	350
80SN42.2	A80B	620	830	292	260	600	500
80SN43.7		682	849	331	260	700	600
80SN45.5		710	907	335	260	700	600
80SN47.5		745	922	387	260	700	600
100SN42.2		A100B	620	843	292	260	600
100SN43.7	682		862	331	260	700	600
100SN45.5	710		920	335	260	700	600
100SN47.5	745		935	387	260	700	600
150SN45.5	A150	779	1094	400	325	900	700
150SN47.5		814	1094	400	325	900	700
150SN411		814	1148	450	345	900	700
150SN415							
150SN422		967	1188	489	345	900	700

Flange Connection



PUMP MODEL	PART	A	B	C	D
40SN20.25	F40	377	233	164	125
50SN20.4	F50	414	249	170	135
50SN20.75					
65SN20.4	F65B	414	344	170	135
65SN20.75					
65SN21.5	F65	454	418	192	140
65SN42.2		550	509	292	190
65SN43.7		612	528	331	190
80SN21.5	F80	454	433	192	140
80SN42.2		550	524	292	190
80SN43.7		612	543	331	190
80SN45.5		640	601	335	190
80SN47.5		675	616	387	190
100SN42.2	F100	550	541	292	190
100SN43.7		612	560	331	190
100SN45.5		640	618	335	190
100SN47.5		675	633	387	190
150SN45.5	F150	713	836	400	260
150SN47.5		748	836	400	260
150SN411		804	890	450	280
150SN415					
150SN422		915	930	489	295

ACCESSORIES:

- | | | |
|------------------------|---------|-----------------------|
| - Cable (under 7.5kW.) | 1 set. | 6m. for under 0.75kW. |
| (over 11kW.) | 3 sets. | 8m. for over 1.5kW. |

Automatic Connection Set

- Connection
- Guide Holder (with Bolts and Nuts)
- Sliding Bracket
- Pump Lifting Chain (6m.)

PART	DIA (mm)	SET WEIGHT (kg)	CONNECTION WEIGHT (kg)
A40	40	11	4.5
A50	50	11	4.5
A65B	65	20	14.5
A65	65	24	15
A80B	80	31.5	18
A100B	100	40.5	27
A150	150	60	42

Flange Connection Set

- Discharge Side Flange
- Companion Flange (with Bolts, Nuts, and Packing)

PART	DIA (mm)	SET WEIGHT (kg)
F40	40	Built-in with the pump proper
F50	50	Built-in with the pump proper
F65B	65	5.5
F65	65	7
F80	80	9.5
F100	100	11
F150	150	30