

1-1. Magnet Drive Seal-less Pumps SL Series

The seal-less pump SL Series are of the magnetic drive type centrifugal pumps, which incorporate permanent magnetic to the motors and by means of these magnets synchronously turn the impellers to produce fluid flow. The pump housing is made of corrosion resistant polypropylene. With magnetic driven pumps, there is no need for shaft sealing parts such as mechanical seals, packing gland, etc. The possibility of liquid leakage resulting in these, clean-up and possible corrosion attack to the pump itself and surrounding equipment is eliminated.

			
SL-06K	SL-2S	SL-7SN	SL-20N
			
SL-10S	SL-75N	SELF PRIMING TANK	

FEATURES

- **LEAK - FREE**

Since the pump has no power transmission shaft, it has no shaft sealing parts such as mechanical seals and gland packing at all. The hermetically sealed pumping chamber is absolutely free from leakage of the liquid handled to the outside.

- **CORROSION - FREE**

Highly chemical resistant polypropylene, fluor rubber and ceramics are standard materials for wetted parts. These offer a wider range of pump applications.

- **MAINTENANCE-FREE**

The pump is designed with the absence of any sealing parts makes maintenance and inspection the simplicity itself. So durably, the pumps withstand sustained continuous operation.

APPLICATIONS

- Corrosive chemical liquid, acids and alkalis
- Photograph developers, photograph filters, bleaches, inks
- Seawater, Saltwater, pure water
- Soy sauce, vinegar, juices
- plating solutions, surface treatment Liquid
- Medical equipment, scientific Liquid, pharmaceuticals, cosmetics
- electronic component etching Liquid Photoengraving Liquid

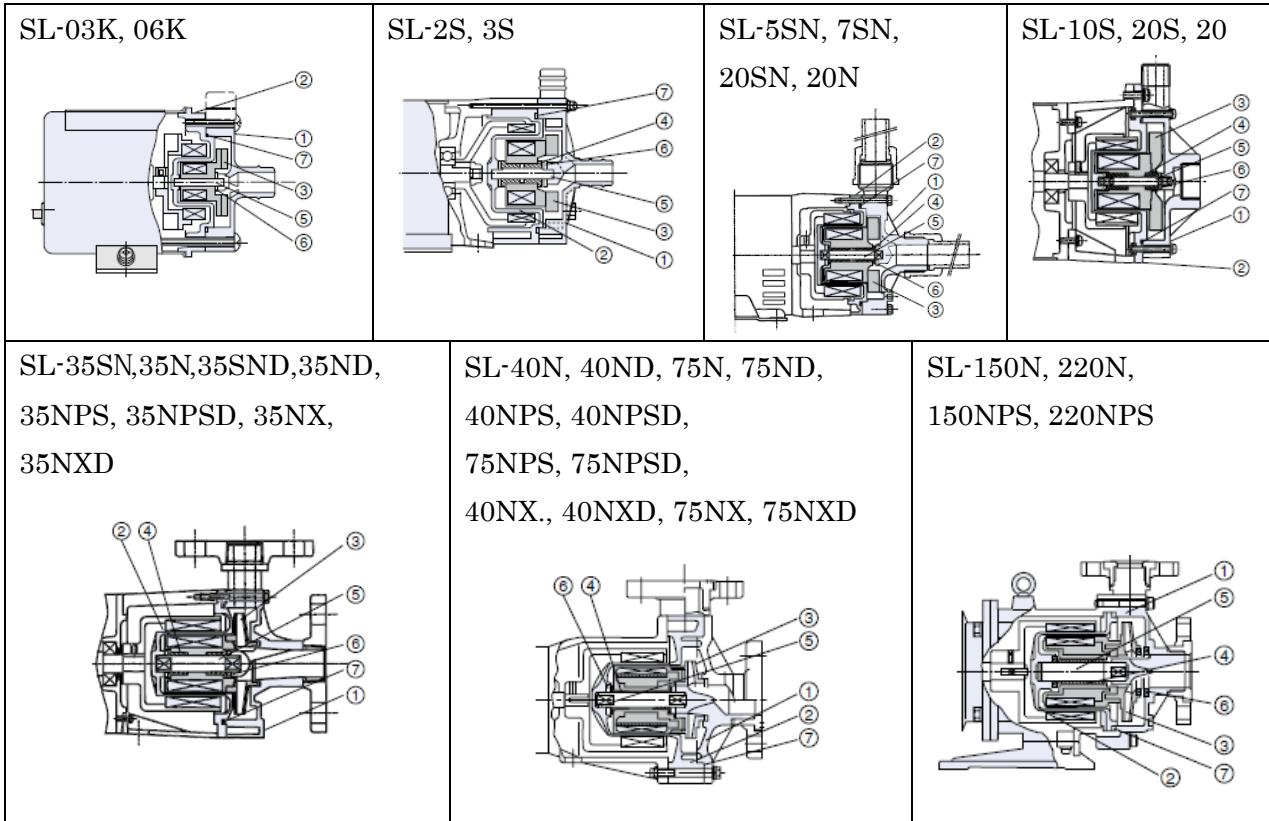
- dyeing equipment, waste liquid treatment equipment, processes,
- Hot water circulation , freezers, water-cooled show cases, air conditioners
- drink vending machines, ice machines
- laboratories, test chambers, test plants

The material of the impeller that contacts the liquid must be selected to match the above applications. Please contact ELEPON E.C.A.P. Corporation (sales@elepon.co.jp) when selecting a model. Some models cannot be used depending on the sort of chemicals. Please inform us of the name of the liquid you will be using.

MODEL				Casing Materials	Main shaft Materials		Frequency		O-ring Materials	MOTOR		
				①	②		③		④	⑤		⑥
SL	-	40	N	PS	D	-	(E)	-	E	2	-	TO

① Casing Materials		PP	Standard type (For General drug solution)
	PS	PPS	For alkaline liquid with intense high temperature or temperature change (Example: sodium hydroxide, Plating liquid, Etching liquid)
	X	PVDF	For acid liquid with intense high temperature or temperature change
② Main Shaft Materials		Ceramic	
	D	Sic (General)	Only SL-35F, 40N and 75N
③ Frequency	E	50Hz	
	W	60Hz	
		SL-20 or less	
④ O-ring Materials	F	FKM	
	E	EPDM	
	Z	Others	
⑤ Motor Voltage	1	100V (50Hz / 60Hz)	
	2	200V (50Hz / 60Hz)	
	3	220V (50Hz / 60Hz)	
	4	380V (50Hz / 60Hz)	
	5	400V (50Hz / 60Hz)	
	6	415V (50Hz)	
	7	415V (60Hz)	
	Z	Others	220V (50Hz) / 115V (50Hz) 380V (60Hz) / 460V (60Hz)
⑥ Motor	TI	Indoor	
	TO	Outdoor	
	EI	Increased safty explosion-proof type motors (Indoor)	
	EO	Increased safty explosion-proof type motors (Outdoor)	
	DI	Flame-proof and explosion-proof type motors (Indoor)	
	DO	Flame-proof and explosion-proof type motors (Outdoor)	

CONSTRUCTIONS



MODEL	SL-03K, 06K	SL-2S, 3S, 5SN, 7SN, 20SN, 20N	SL-10S, 20S, 20	SL-35N, 35ND, 35SN, 35SND, 40N, 75N, 75ND, 150N, 220N	SL-35NPS, 35NPSD, 40NPS, 40NPSD, 75NPS, 75NPSD, 150NPS, 220NPS	SL-35NX, 35NXD, 40NX, 40NXD, 75NX, 75NXD
① Pump Casing	PP + glass fiber	PP + glass fiber	PP	PP + glass fiber	PPS+ glass fiber	PVDF + carbon fiber
② Rear Casing	PP + glass fiber	PP + glass fiber	PP	PP + glass fiber	PPS+ glass fiber	PVDF + carbon fiber
③ Impeller	PP + glass fiber	PP + glass fiber	PP	PP + glass fiber / PVDF (150N, 220N rest)	PPS+ glass fiber / ETFE	PVDF + carbon fiber
④ Bearing	—	Rareflon	Rareflon	Rareflon	Rareflon	Rareflon
⑤ Pump Shaft	Ceramics	Ceramics	Ceramics	Ceramics	Ceramics	Ceramics
⑥ Thrust Shaft	PE	Ceramics	Ceramics	Ceramics	Ceramics	Ceramics
⑦ O-ring	EPDM	FKM	FKM	FKM	EPDM	FKM

※The material of ④, ⑤, and ⑥ of D type are Sic.

SPECIFICATIONS

50Hz 60Hz

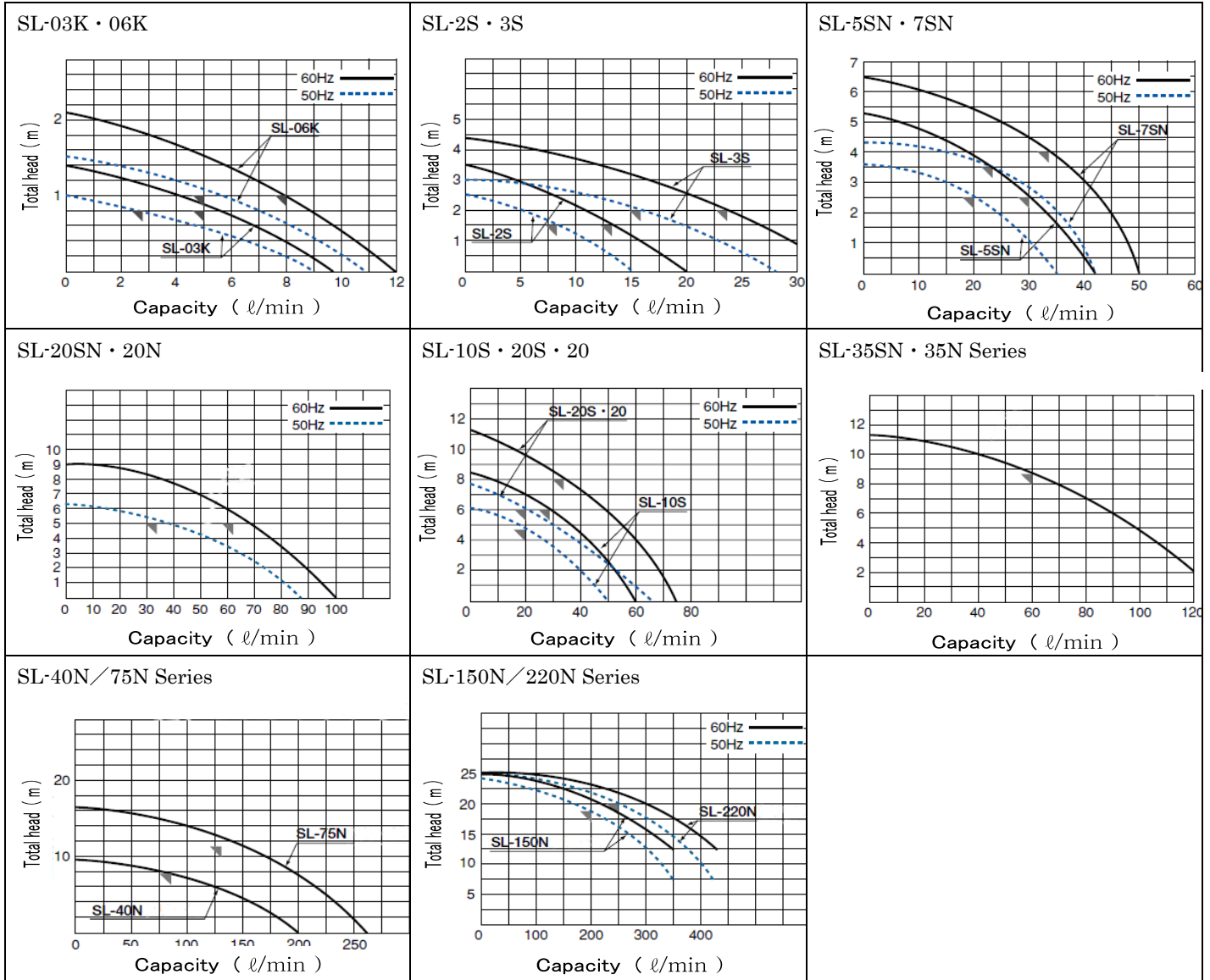
MODEL	Connection Size			Maximum Performance		Rated Performance		Motor			Weight	
	Suction	Discharge		Max. Capacity (L/min)	Max. Head (m)	Capacity (L/min)	Head (m)	Output	Power Source	Rotational Speed (min ⁻¹)	(kg)	
SL-03K	φ 12	φ 12	Hose	8	1	2.8	0.8	3W	1-phase 100V	2,700	1	
				9	1.4	5	0.8			3,100		
SL-06K	φ 12	φ 12	Hose	11	1.5	5	1	6W	1-phase 100V	2,600	1	
				12	2.1	8	1			3,000		
SL-2S	φ 12	φ 12	Hose	15	2.4	8	1.5	15W	1-phase 100V	2,850	2	
				19	3.4	13	1.5			3,430		
SL-3S	φ 15	φ 15	Hose	29	3	16	2	30W	1-phase 100V	2,840	2.5	
				34	4.3	24	2			3,430		
SL-5SN	φ 19	φ 19	Hose	34	3.6	20	2.5	45W	1-phase 100V	2,810	4.1	
	16A	16A	Union	42	5.3	30	2.5			3,380		
SL-7SN	φ 19	φ 19	Hose	42	4.3	23	3.5	65W	1-phase 100V	2,690	4.3	
	16A	16A	Union	50	6.5	34	4			3,200		
SL-20SN	φ 25	φ 25	Hose	87	6.3	33	5	200W	1-phase 100V	2,800	8	
	20A	20A	Union	100	9	62	5			3,380		
SL-20N	φ 25	φ 25	Hose	87	6.3	33	5	200W	3-phase 200V	2,840	7	
	20A	20A	Union	100	9	62	5			3,410		
SL-10S	PS3/4	PT1/2	Hoses can be connected with the hose adapter supplied with each pump as a standard accessory	50	5.8	20	4.7	100W	1-phase 100V	2,800	5.2	
				60	8.2	28	6			3,380		
SL-20S	PS3/4	PT1/2		65	7.3	20	6	200W	1-phase 100V	2,800	7	
				75	10.5	32	8			3,380		
SL-20	PS3/4	PT1/2		65	7.3	20	6	200W	3-phase 200V	2,840	7	
				75	10.5	32	8			3,410		
SL-35SN	JIS10K 25A			Flange	135	11.2	60	8.5	250W	1-phase 100V	2,800	9.6
SL-35N	JIS10K 25A				135	11.2	60	8.5		250W	3-phase 200V	
SL-40N	JIS10K 40A			Loose Flange	180	9.5	80	8	0.4kW	3-phase 200V	2,900 3,490	20
SL-75N	JIS10K 40A				250	16	130	11	0.75kW	3-phase 200V	2,800 3,450	
SL-150N	JIS10K 50A	JIS10K 40A	340		24	200	18	1.5kW	3-phase 200V	2,820 3,380	34	
SL-220N	JIS10K 50A	JIS10K 40A	415		24.5	250	20	2.2kW	3-phase 200V	2,830 3,390		35

***Note:**

- The flanges, packings, bolts, and nuts for models SL-35SF ~ SL-220NPS are optional. When these are required, please order.
- The maximum capacity is the open flow volume when the head is 0m, and the maximum head is the shutoff pressure.
- The viscosity of the handling liquid is to 30mPa·s.
- The temperature range of the handling liquid is 0-80℃. (SL-10S, SL-20S and SL-20 are up to 60 ℃.)
- Liquid including slurry can't be used.
- No-load operation is not allowed. However, the F series, D series only support no-load operation for 1 hr.

- Motor models (Standard models)
 - SL-03K, 06K.....Shading coil open type
 - SL-2S, 3S, 5SN.....Totally enclosed self-cooling type
 - SL-10S, 20S, 20SN.....Drip-proof protection
 - SL-7SN, 20, 20N, 35SN, 35N, 40N, 75N, 150N, 220N.....Totally enclosed fan-cooled (indoor)
- Please inquire an order by a motor of the special specification.

PERFORMANCE CURVE



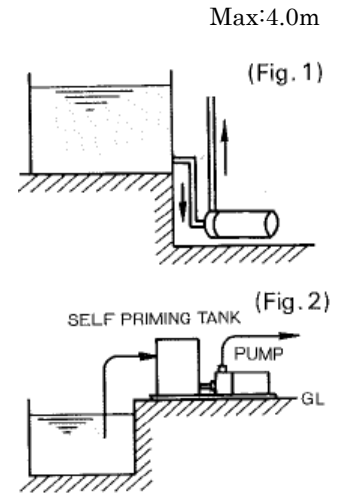
OPTIONS (FOR SL Series)

SELF PRIMING TANK

SL Series are non-self-priming pumps and are recommended for use in the force feed state as shown in Fig. 1. The use of our self-priming tank (option) as shown in Fig. 2 is recommended in the case of using these pumps in the lifting state.

MODEL	Capacity (L)	Connection Size
SL-5SN•7SN	5	20A Socket
SL-10S•20•20S	5	20A Socket
SL-20SN•20N	11.8	20A Socket
SL-35N Series	11	JIS10K25A Frange
SL-40N•75N Series	11	JIS10K40A Frange
SL-150N•220N Series	19	JIS10K50A Frange

- The materials of the tank are PVC
- Self priming height : 2.5m



■ Reference

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