



# SV series

## 60Hz

### Submersible Sewage / Effluent Pumps

Submersible Sewage / Effluent PumSTAIRS  
SV series Submersible Sewage / Effluent  
Pumps are designed for commercial and industrial  
wastewater transferring and dewatering applications.ps



STAIRS INDUSTRIAL CO., LTD.


**SV**
**General Data**

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**SV series Submersible Sewage / Effluent Pumps**

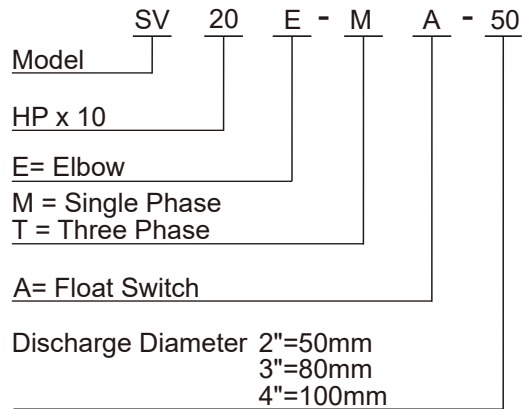
STAIRS SV series Submersible Sewage / Effluent Pumps are designed for commercial and industrial wastewater transferring and dewatering applications.

The innovative vortex impeller design reduces the risk of clogging problem. Moreover, STAIRS SV series include a stainless steel motor frame to prevent corrosion and are designed to provide great heat dissipation from the motor, ensuring a long service life.

As with STAIRS pump, each one is 100% tested to ensure quality and reliability for years of trouble-free performance.



**Model Code**



**Applications**

- Basement water removal
- Waste water drainage
- Water transfer
- Sump/effluent handling
- Dewatering
- Fish pond & fountain circulation
- Factory waste water handling

**Motor**

- Motor Type : 2 POLE , dry type
- Frequency : 50Hz  
Nominal Speed : 2850 rpm
- Insulation Class : F class (155°C)
- Enclosure Protection Class : IP 68
- Protection Device :  
Thermal Protector (Single phase)  
Overload Protector (Three phase)

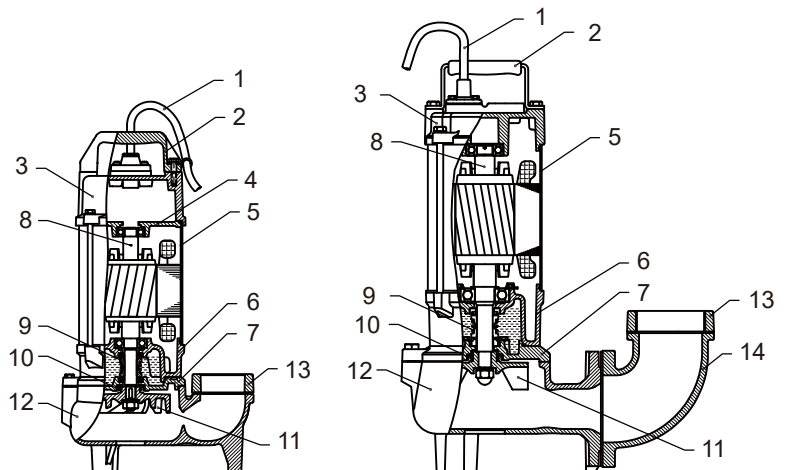
**Pump**

- Impeller : Vortex impeller
- Shaft Seal : Double mechanical seal + oil seal
- Bearing : Double-shielded Ball Bearing

**Operation Conditions**

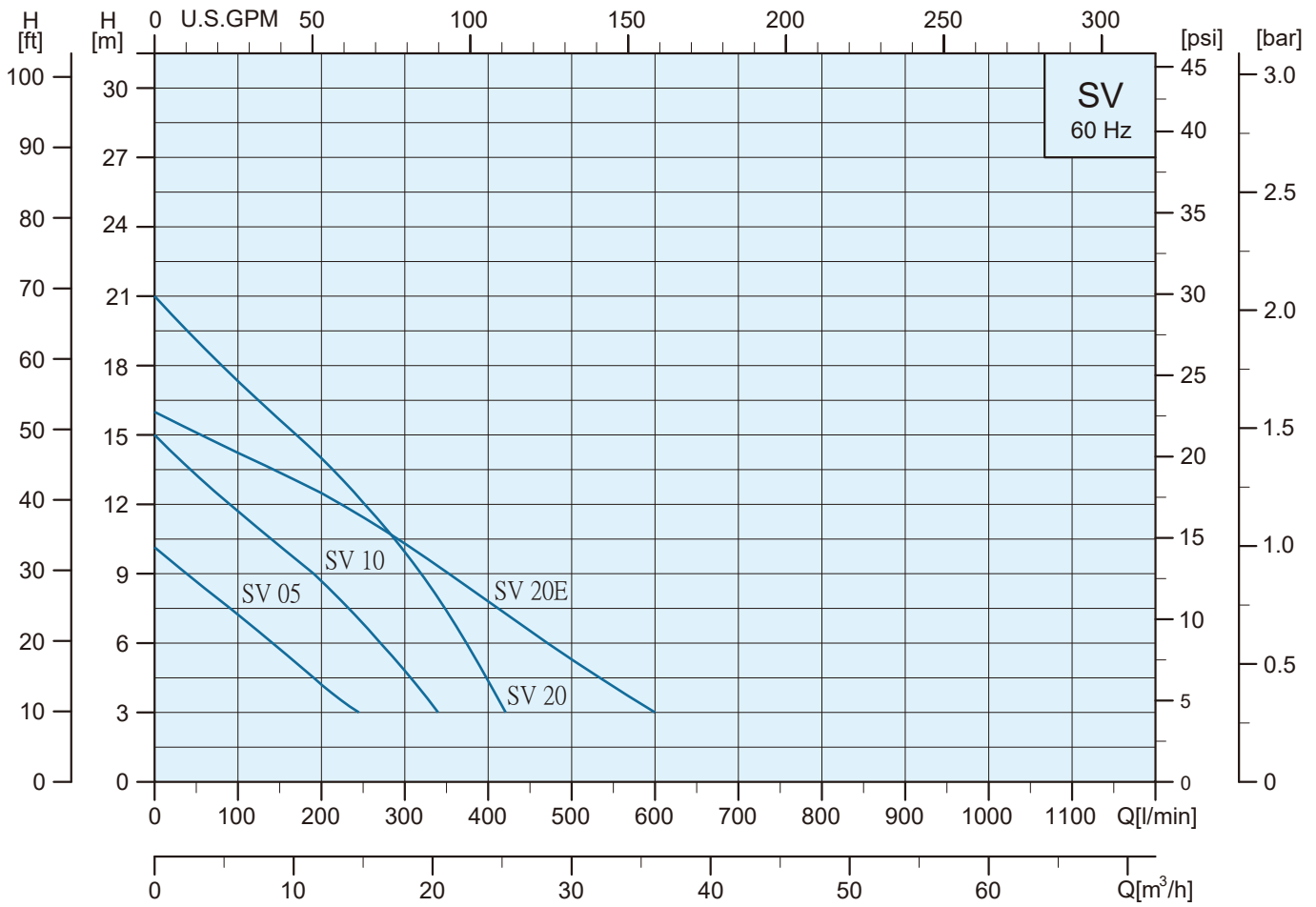
- Fluid Temperature: 0 to 40°C (122°F)

**Material**



No.	Name	Material
1	Cable	H07RN-F
2	Handle	Nylon6+30GF(0.5~1.0HP)
		AISI 304+NBR(2.0~5.0HP)
3	Motor Cover	FC200
4	Bearing Cap	FC200
5	Motor Frame	AISI 304
6	Bearing Bracket	FC200
7	Mechanical Seal Bracket	FC200
8	Shaft	SUS 410
9	Mechanical Seal	CA/CE,SIC/SIC
10	Oil Seal	NBR 70
11	Impeller	FC200
12	Pump Casing	FC200
13	Flange	FC200
14	Elbow	FC200

### Performance Curves



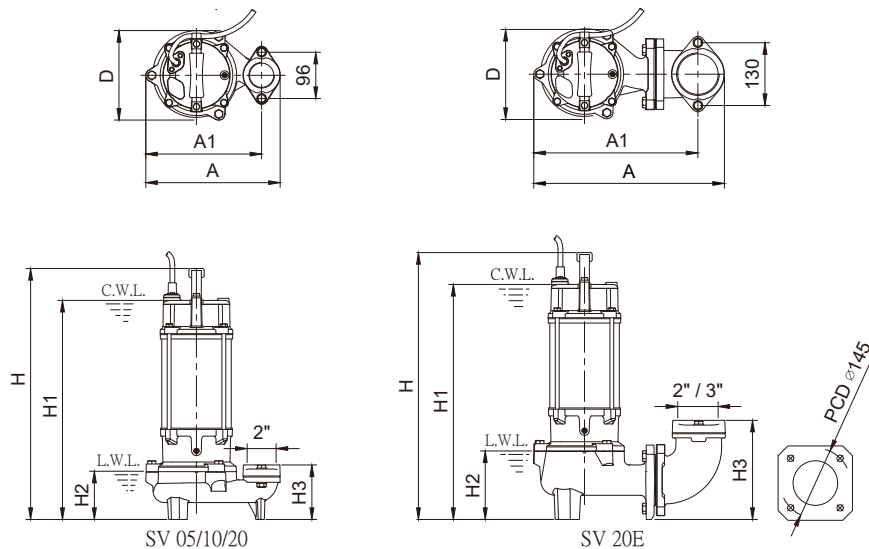
### Specifications

Model	Q = DELIVERY											
	L/min	0	100	200	300	400	500	600	700	800	900	1000
	m³/h	0	6	12	18	24	30	36	42	48	54	60
<b>Single Phase</b>												
SV 05-M-50	H(m)	10.0	7.2	4.2	—	—	—	—	—	—	—	—
SV 10-M-50		15.0	11.5	8.5	4.8	—	—	—	—	—	—	—
SV 20-M-50		21.0	17.2	14.0	10.0	4.4	—	—	—	—	—	—
SV 20E-M-50		16.0	14.3	12.5	10.4	7.8	5.3	3.0	—	—	—	—
SV 20E-M-80		16.0	14.3	12.5	10.4	7.8	5.3	3.0	—	—	—	—
<b>Single Phase Auto Float Switch</b>												
SV 05-MA-50	H(m)	10.0	7.2	4.2	—	—	—	—	—	—	—	—
SV 10-MA-50		15.0	11.5	8.5	4.8	—	—	—	—	—	—	—
SV 20-MA-50		21.0	17.2	14.0	10.0	4.4	—	—	—	—	—	—
SV 20E-MA-50		16.0	14.3	12.5	10.4	7.8	5.3	3.0	—	—	—	—
SV 20E-MA-80		16.0	14.3	12.5	10.4	7.8	5.3	3.0	—	—	—	—

### Specifications

Model	Power		Input kW	Capacitor				Max.Amp [A]		Head		Flow		Discharge inch
	HP	kW		110-127V		220-240V		110-127V	220-240V	Rated (m)	Max. (m)	Rated (L/min)	Max. (L/min)	
			μF	V	μF	V								
<b>Single Phase</b>														
SV 05-M-50	0.5	0.37	0.6	50	250	12	450	6.7-6.1	3.3-3.1	5.5	10.0	160	250	2"
SV 10-M-50	1.0	0.75	1.0	80	250	20	450	10.8-9.5	5.0-4.6	8.5	15.0	200	340	2"
SV 20-M-50	2.0	1.5	2.2	—	—	40	450	—	10.3-9.5	14.0	21.0	200	420	2"
SV 20E-M-50	2.0	1.5	2.2	—	—	40	450	—	10.3-9.5	10.0	16.0	310	600	2"
SV 20E-M-80	2.0	1.5	2.2	—	—	40	450	—	10.3-9.5	10.0	16.0	310	600	3"
<b>Single Phase Auto Float Switch</b>														
SV 05-MA-50	0.5	0.37	0.6	50	250	12	450	6.7-6.1	3.3-3.1	5.5	10.0	160	250	2"
SV 10-MA-50	1.0	0.75	1.0	80	250	20	450	10.8-9.5	5.0-4.6	8.5	15.0	200	340	2"
SV 20-MA-50	2.0	1.5	2.2	—	—	40	450	—	10.3-9.5	14.0	21.0	200	420	2"
SV 20E-MA-50	2.0	1.5	2.2	—	—	40	450	—	10.3-9.5	10.0	16.0	310	600	2"
SV 20E-MA-80	2.0	1.5	2.2	—	—	40	450	—	10.3-9.5	10.0	16.0	310	600	3"

### Dimensions and Weights

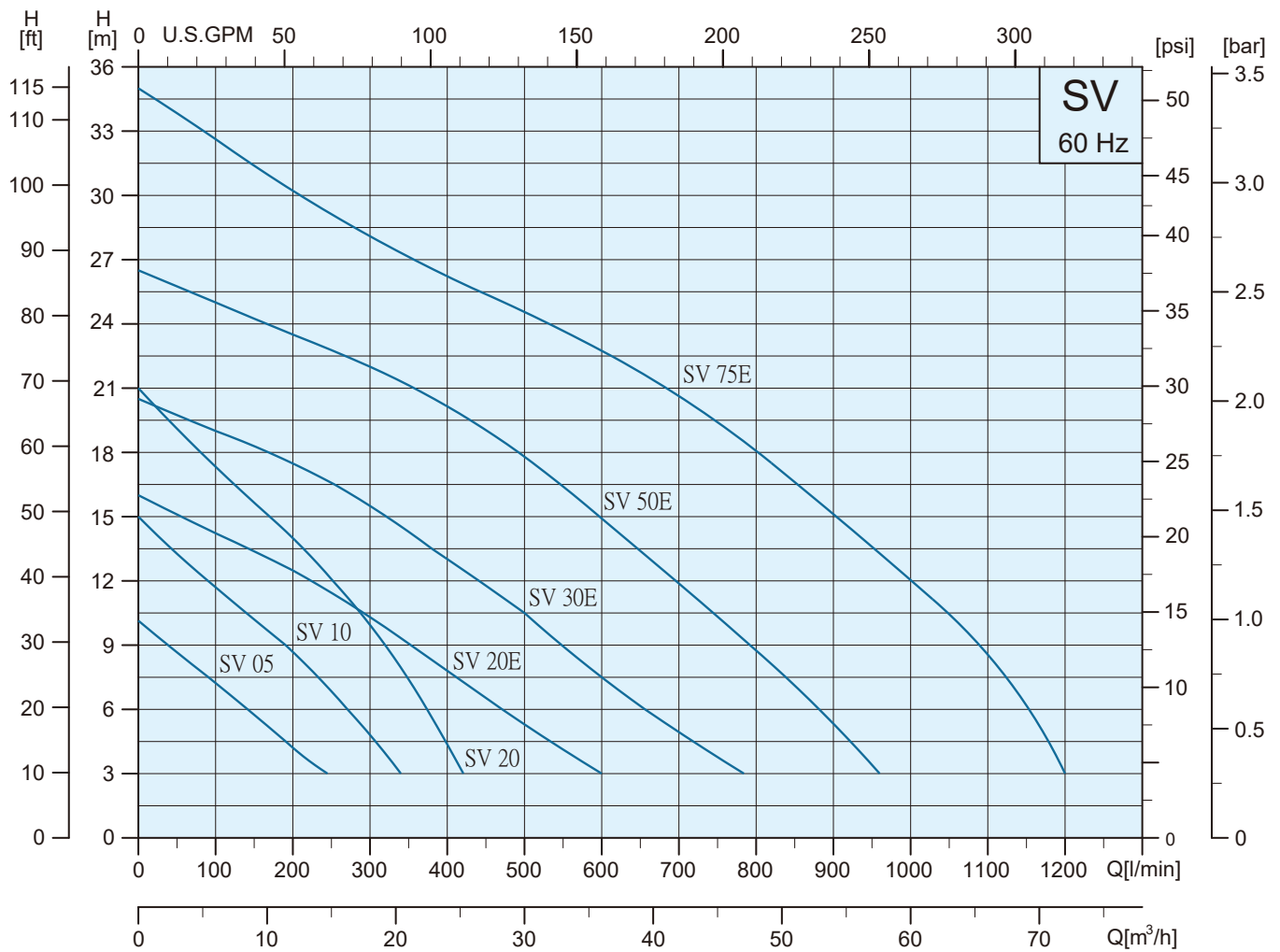


Model	Solids Passage (mm)	Dimensions (mm)							Cable		Net Weights (kg)
		A	A1	D	H	H1	H2	H3	m	UL(AWG)	
<b>Single Phase</b>											
SV 05-M-50	35	240	201	153	406	352	110	124	10	16x3C	17.0
SV 10-M-50	35	240	201	153	426	372	110	124	10	16x3C	18.5
SV 20-M-50	35	279	240	186	520	454	100	112	10	14x3C	30.0
SV 20E-M-50	50	395	340	186	562	496	141	205	10	14x3C	37.0
SV 20E-M-80	50	395	340	186	562	496	141	205	10	14x3C	37.0
<b>Single Phase Auto Float Switch</b>											
SV 05-MA-50	35	240	201	153	406	352	110	124	10	16x3C	17.0
SV 10-MA-50	35	240	201	153	426	372	110	124	10	16x3C	18.5
SV 20-MA-50	35	279	240	186	520	454	100	112	10	14x3C	30.0
SV 20E-MA-50	50	395	340	186	562	496	141	205	10	14x3C	37.0
SV 20E-MA-80	50	395	340	186	562	496	141	205	10	14x3C	37.0

C.W.L. : Continuous running water level

L.W.L. : Lowest running water level

### Performance Curves



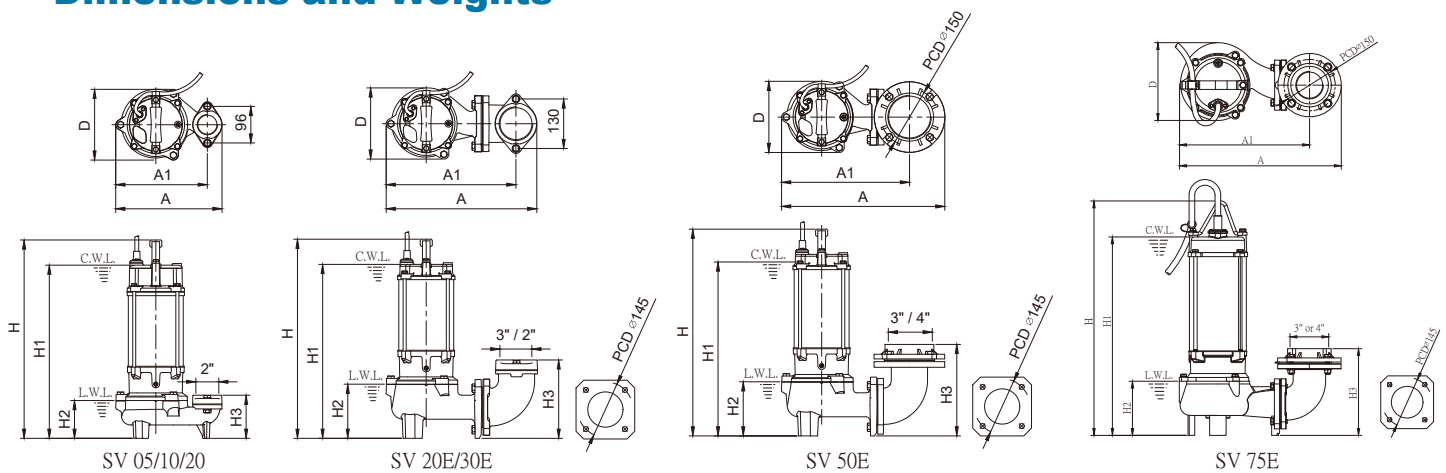
### Specifications

Model	Q = DELIVERY													
	L/min	0	100	200	300	400	500	600	700	800	900	1000	1100	1200
	m³/h	0	6	12	18	24	30	36	42	48	54	60	60	60
Three Phase														
SV 05-T-50	H(m)	10.0	7.2	4.2	—	—	—	—	—	—	—	—	—	—
SV 10-T-50		15.0	11.5	8.5	4.8	—	—	—	—	—	—	—	—	—
SV 20-T-50		21.0	17.2	14.0	10.0	4.4	—	—	—	—	—	—	—	—
SV 20E-T-50		16.0	14.3	12.5	10.4	7.8	5.3	3.0	—	—	—	—	—	—
SV 20E-T-80		16.0	14.3	12.5	10.4	7.8	5.3	3.0	—	—	—	—	—	—
SV 30E-T-50		20.5	19.0	17.5	15.5	13.0	10.5	7.5	4.8	2.4	—	—	—	—
SV 30E-T-80		20.5	19.0	17.5	15.5	13.0	10.5	7.5	4.8	2.4	—	—	—	—
SV 50E-T-80		26.5	25.0	23.5	22.0	20.1	18.0	15.0	12.0	8.7	5.3	—	—	—
SV 50E-T-100		26.5	25.0	23.5	22.0	20.1	18.0	15.0	12.0	8.7	5.3	—	—	—
SV 75E-T-80		35.0	32.5	30.0	28.0	26.0	24.5	22.7	20.5	18.0	15.0	12.0	8.5	3.0
SV 75E-T-100	35.0	32.5	30.0	28.0	26.0	24.5	22.7	20.5	18.0	15.0	12.0	8.5	3.0	

### Specifications

Model	Power		Input	Max.Amp [A]			Head		Flow		Discharge inch
	HP	kW	kW	220-240V	380-480V	460-480V	Rated (m)	Max. (m)	Rated (L/min)	Max. (L/min)	
<b>Three Phase</b>											
SV 05-T-50	0.5	0.37	0.6	2.3-2.1	1.3-1.1	1.3-1.1	5.5	10.0	160	205	2"
SV 10-T-50	1.0	0.75	1.0	3.5-3.3	2.1-2.0	1.9-1.7	8.5	15.0	200	340	2"
SV 20-T-50	2.0	1.5	2.2	6.5-6.2	3.8-3.6	3.2-3.0	14.0	21.0	200	420	2"
SV 20E-T-50	2.0	1.5	2.2	6.5-6.2	3.8-3.6	3.2-3.0	10.0	16.0	310	600	2"
SV 20E-T-80	2.0	1.5	2.2	6.5-6.2	3.8-3.6	3.2-3.0	10.0	16.0	310	600	3"
SV 30E-T-50	3.0	2.2	3.0	8.8-8.5	5.0-4.8	4.8-4.7	13.0	20.5	400	785	2"
SV 30E-T-80	3.0	2.2	3.0	8.8-8.5	5.0-4.8	4.8-4.7	13.0	20.5	400	785	3"
SV 50E-T-80	5.0	3.7	4.6	13.6-13.0	8.0-7.8	7.7-7.3	18.0	26.5	500	950	3"
SV 50E-T-100	5.0	3.7	4.6	13.6-13.0	8.0-7.8	7.7-7.3	18.0	26.5	500	950	4"
SV 75E-T-80	7.5	5.5	6.8	20.0-19.0	11.7-10.5	20.0	22.0	35.0	640	1200	3"
SV 75E-T-100	7.5	5.5	6.8	20.0-19.0	11.7-10.5	20.0	22.0	35.0	640	1200	4"

### Dimensions and Weights

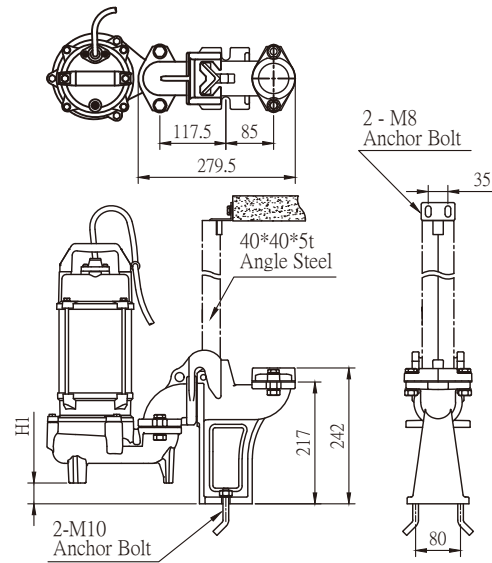


Model	Solids Passage (mm)	Dimensions (mm)							Cable		Net Weights (kg)
		A	A1	D	H	H1	H2	H3	m	UL(AWG)	
<b>Three Phase</b>											
SV 05-T-50	35	240	201	153	406	352	110	124	10	16x4C	16.0
SV 10-T-50	35	240	201	153	426	372	110	124	10	16x4C	17.5
SV 20-T-50	35	279	240	186	480	414	100	112	10	14x4C	27.0
SV 20E-T-50	50	395	340	186	522	456	141	205	10	14x4C	34.0
SV 20E-T-80	50	395	340	186	522	456	141	205	10	14x4C	34.0
SV 30E-T-50	50	395	340	186	522	456	141	205	10	14x4C	36.5
SV 30E-T-80	50	395	340	186	522	456	141	205	10	14x4C	36.5
SV 50E-T-80	50	428	335	186	542	476	141	240	10	14x4C	41.0
SV 50E-T-100	50	428	335	186	542	476	141	240	10	14x4C	41.0
SV 75E-T-80	50	472	380	227	680	579	158	253	10	12x4C	62.0
SV 75E-T-100	50	472	380	227	680	579	158	253	10	14x4C	62.0

C.W.L. : Continuous running water level  
 L.W.L. : Lowest running water level

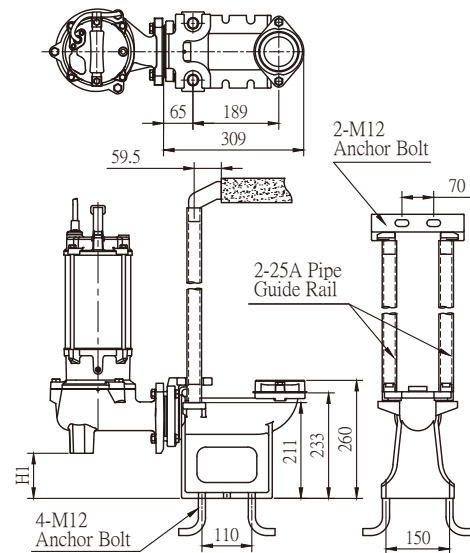
TS

Guide Rail Model	Model	Dimensions (mm)
		H1
TS 50	SV 05	37.0
	SV 10	



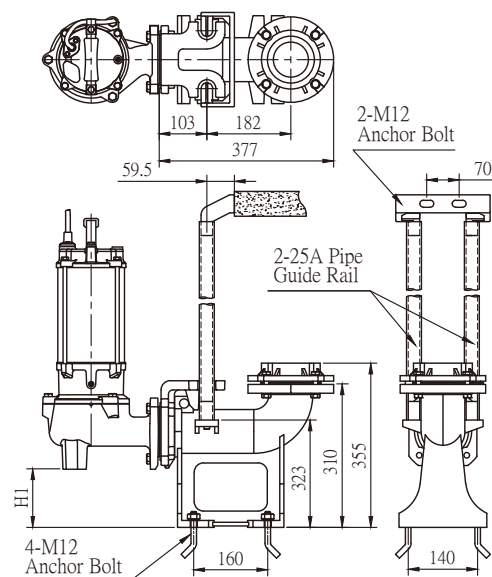
TM

Guide Rail Model	Model	Dimensions (mm)
		H1
TM 50 TM 80	SV 20E	99.5
	SV 30E	
	SV 50E	



TL

Guide Rail Model	Model	Dimensions (mm)
		H1
TL 80 TL 100	SV 50E	126.5
	SV 75E	













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1100916



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## 60Hz

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