Kawamoto

Submersible deep well pump

SANRONG®

Stainless steel

US2 type

US

Long-life stainless steel

Submersible pump powerful against sand and rust

Bringing valuable "water" to you

KAWAMOTO PUMP MFG. CO., LTD

Long-awaited debut of the US2 type stainless steel SANRONG

Strong against sand

In addition to the popular structure which is strong against sand, the TU-type pump incorporates a sufficiently thick precision cast stainless steel impellers.
The 3.7kW and smaller canned motor incorporates a structure to prevent sand from entering the motor.


Impeller

Stainless steel

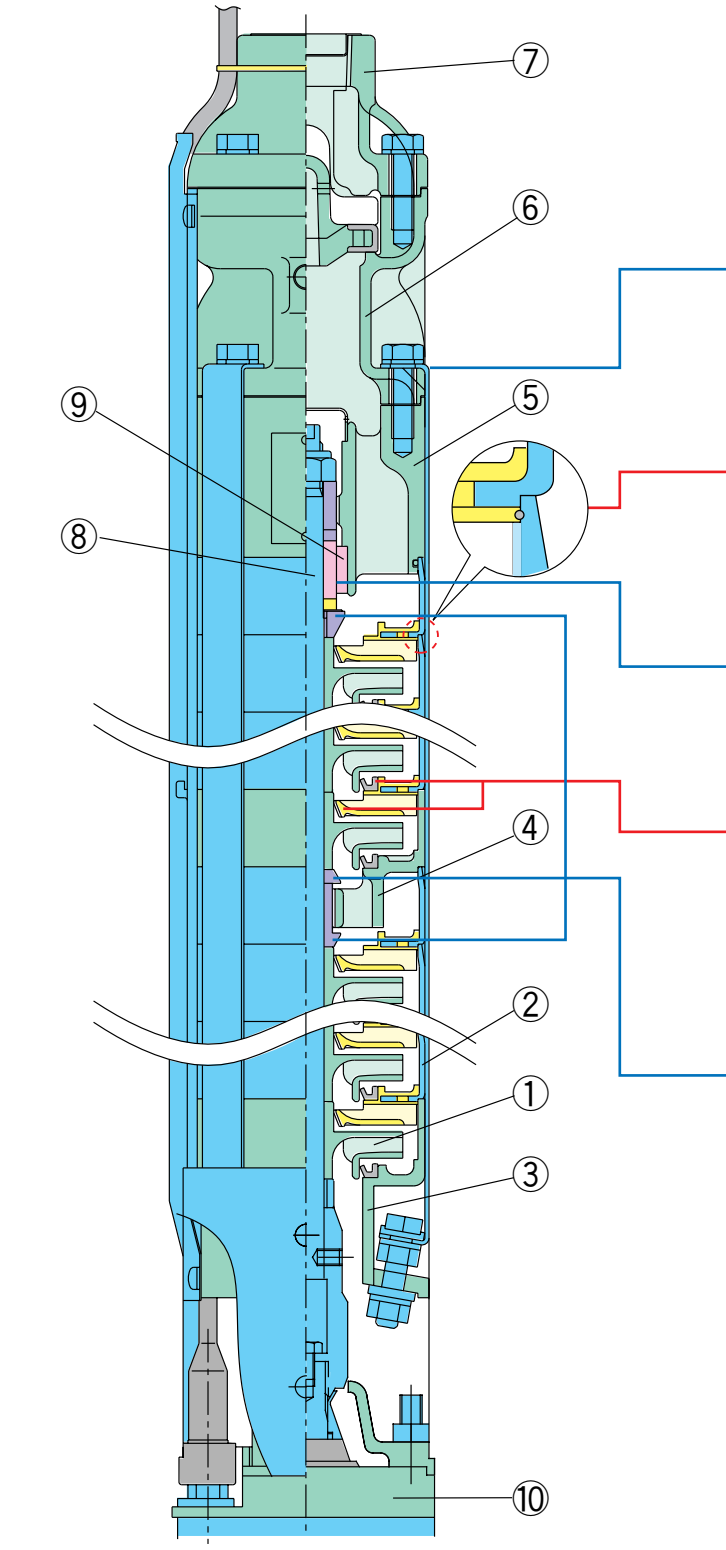
The pump is made of stainless steel and resin, and the motor is made of stainless steel to prevent the generation of red water. The well cover is also made of stainless steel for sanitary purposes.

High performance

The surface of the pump's water passage is smooth, eliminating loss and enabling a high pumping performance to be achieved. A shorter pump length and reduced weight (compared to conventional product) further facilitates use.

Long life

The key components are stainless steel precision cast parts which resist rust and wear. When used in combination with the new stainless steel motor having outstanding rust-resistance properties, stable water supply operation can be achieved for a long time.



The figure shows an example of the stainless steel US2-25.

Stronger against sand! Cleaner! Easier to use!

Kawamoto's original structure promises reliability

(Patent pending)

Tie band structure

With this structure having no welded sections, the bending stress resulting from tightening is not applied on the bands, thereby realizing a strong and corrosion-resistant structure.

Sealing structure

Water leaks from the stage casing are prevented with the close-contact sealing structure which uses O-rings.

New ceramic bearings

The SiC bearings prevent eccentric movement of the shaft caused by sand wear.

Rubber seal liner ring and polygonal bushing

* Rubber material prevents the pump from sticking by sand.
* The bushing with polygonal inner side also prevents the pump from sticking by sand.

Bearing structure to prevent entry of foreign matter

The foreign matter prevention structure provided at the top and bottom of the bearing section prevent wear and sticking caused by sand.

Symbol	Part name	Material
①	Impeller	SCS13
②	Stage casing	SCS13 (US2-25&32, SUS304 + resin)
③	Suction casing	SCS13
④	Stage casing	SCS13
⑤	Discharge casing	SCS13
⑥	Valve casing	SCS13
⑦	Valve casing	SCS13
⑧	Shaft	SUS304 or SUS403
⑨	Submersible bearings	SiC
⑩	Submersible motor	SCS+SUS

Applications

Water intake from deep wells

●Service water ●Small water supply system

●Farmland irrigation ●Snow elimination

■Standard specifications

Application		
Suction fluid	Well diameter	100mm～300mm
	Fluid quality	Clean water (Hydrogen ion concentration: pH 6.5 to 8.0; Chlorine content: 200mg/ℓ or less; Sand contents: 50mg/ℓ or less; (Fine sand 0.1 to 0.25mm or less))
	Fluid temperature	5 to 30˚C (5 to 35˚C for 3.7kW or less)
Material	Impeller	SCS13
	Shaft	SUS304 or SUS403
	Casing	SCS13(US2-25&32, stage casing SUS304 + resin)
	Bearings	SiC×SiC
Motor	Type	Canned
	Power supply	3-phase
	Maximum pump submersion depth	1.5kW or less: 70m 1.9kW or more: 150m
	Synchronous rotation speed	50Hz:3,000min^{-1} 60Hz:3,600min^{-1}
	Starting method	Direct ON (7.5kW or less) Star-Delta (11kW or more)

●Special specification cable extension part (40 to 80m)

■Standard accessories

Motor cable	5m
Cable support band	
Vinyl tape	
Flange, flange packing	150 to 300mm for wells (Excluding USN2-80, US2-80 to 150 flange)

■Special accessories

Well cover unit	Stainless steel
Valve set	*
Control panel	ECA3, ECA3, ECAJ3, ECASN type
Compound pressure gauge	
Sole plate	200mm, 250mm for applicable well diameter
Stainless steel welded flange	For USN2-80, US2-80 to 150, SDT-SN80, SDT-S100 well cover
Pumping pipe	Stainless steel, nylon coasting, SGPW

* Details of valve set	
Sluice valve	1
Check valve	1
Packing and bolts	1 set
Gauge mounting accessories	1 set

Stainless steel well cover

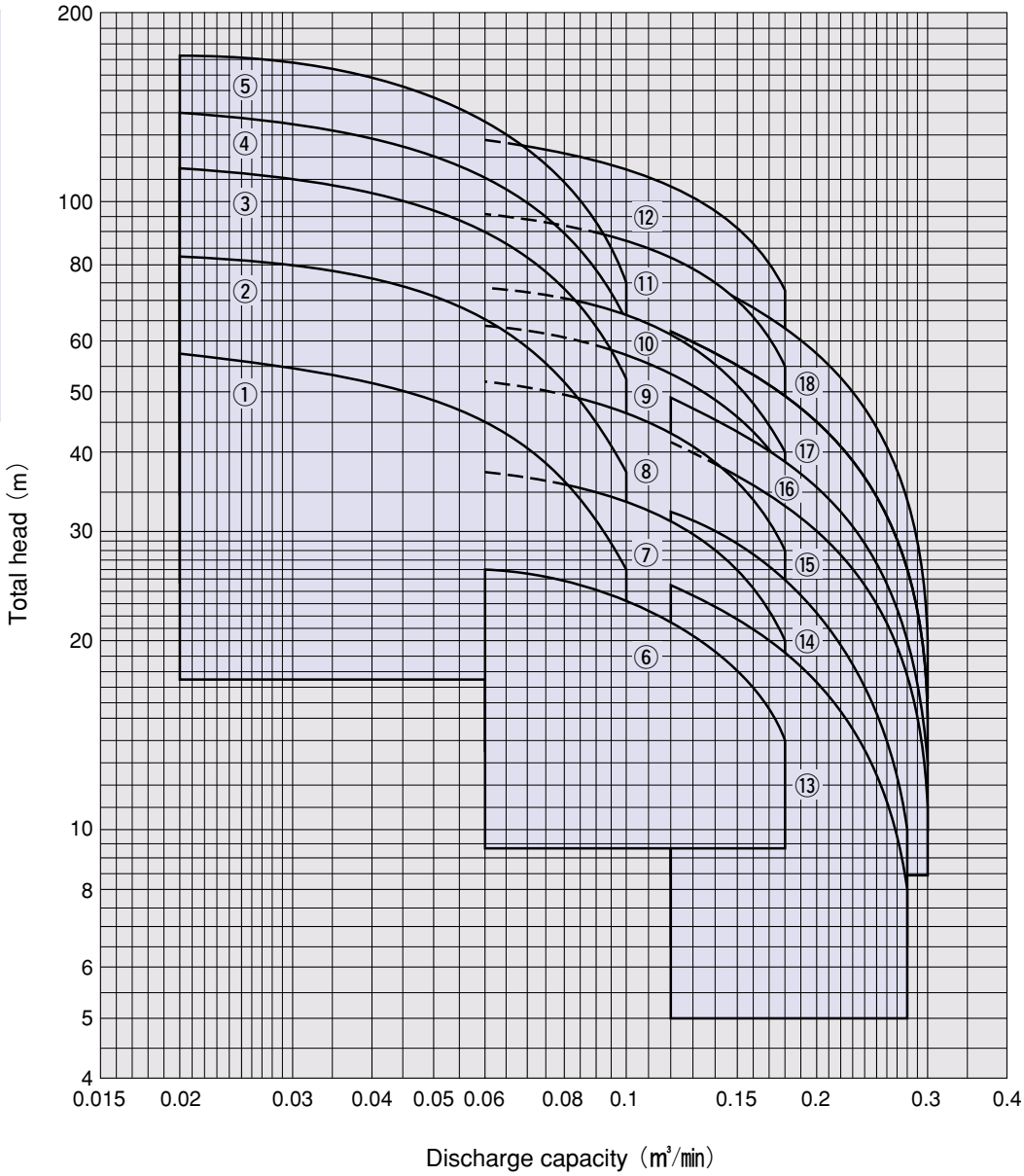
Selection table

Stainless steel

50Hz

Minimum well diameter

100mm



■Specifications table

Type	Well diameter	Bore	Symbol	Model	Motor	No. of stages	Standard specifications			
							Discharge capacity	Total head	Discharge capacity	Total head
	mm	mm			kW		m³/min	m	m³/min	m
Stainless steel	100	25・32	1	US2-$\frac{255}{325}$-0.75K	0.75	11	0.02	57	0.1	26
			2	US2-$\frac{255}{325}$-1.1K	1.1	16	0.02	83	0.1	38
			3	US2-$\frac{255}{325}$-1.5K	1.5	22	0.02	114	0.1	51
			4	US2-$\frac{255}{325}$-1.9KL	1.9	27	0.02	140	0.1	65
			5	US2-$\frac{255}{325}$-2.2KL	2.2	34	0.02	173	0.1	75
		40	6	USN2-405-0.75K	0.75	5	0.06	26	0.18	14
			7	USN2-405-1.1K	1.1	7	0.06	37	0.18	20
			8	USN2-405-1.5K	1.5	10	0.06	52	0.18	28
			9	USN2-405-1.9KL	1.9	12	0.06	64	0.18	37
			10	USN2-405-2.2KL	2.2	14	0.06	74	0.18	40
			11	USN2-405-2.7K	2.7	18	0.06	97	0.18	55
			12	USN2-405-3.7K	3.7	24	0.06	127	0.18	72
		50	13	USN2-505-1.1K	1.1	6	0.12	24.5	0.28	7.5
			14	USN2-505-1.5K	1.5	8	0.12	32.5	0.28	9
			15	USN2-505-1.9KL	1.9	10	0.12	42	0.3	9
			16	USN2-505-2.2KL	2.2	12	0.12	49	0.3	10.5
			17	USN2-505-2.7K	2.7	15	0.12	63	0.3	14
			18	USN2-505-3.7K	3.7	20	0.12	80	0.3	15.5

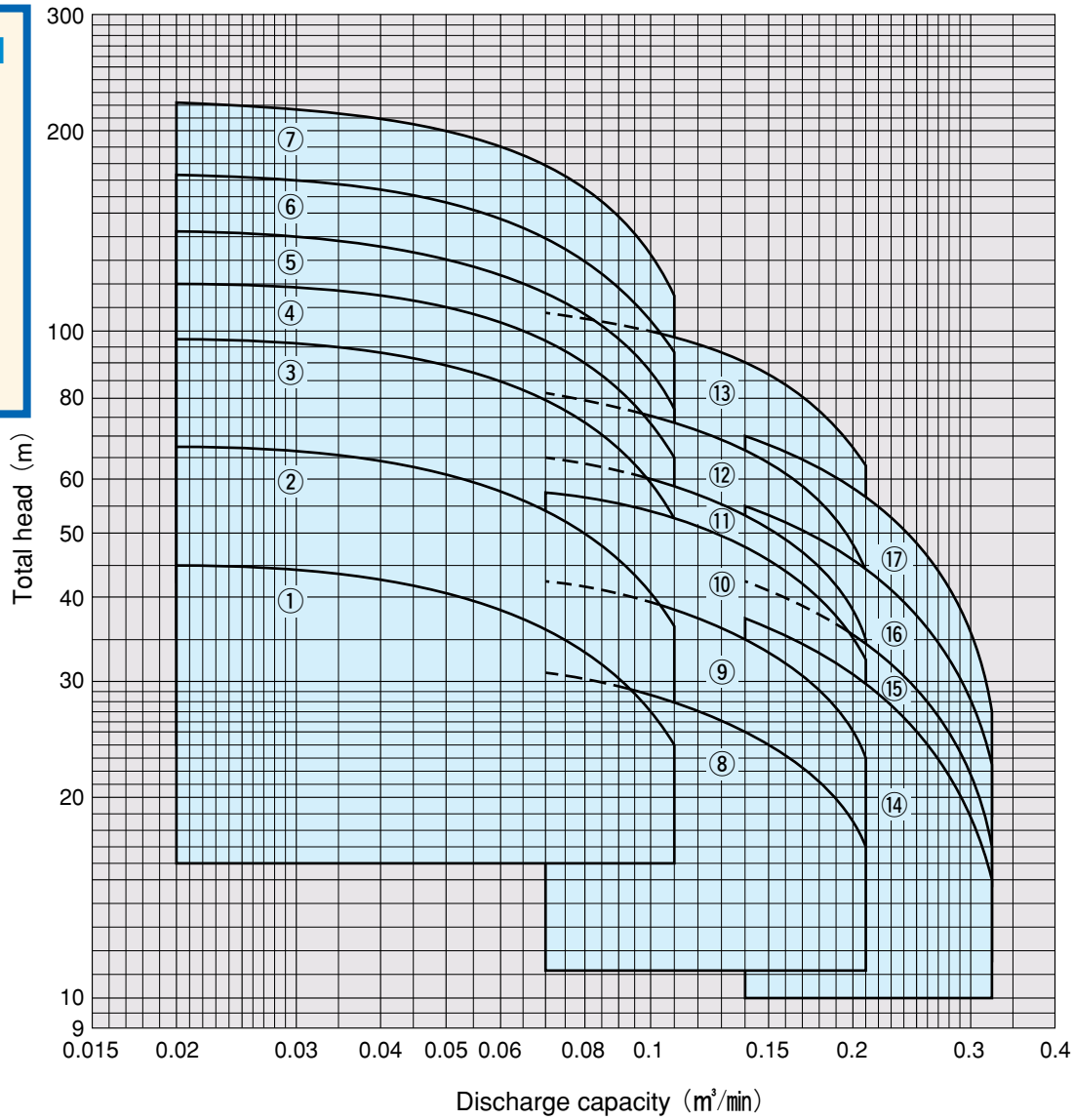
● The pumping rate type is also available for the 25mm bore. Contact Kawamoto for details.

Stainless steel

60Hz

Minimum well diameter

100mm



■Specifications table

Type	Well diameter	Bore	Symbol	Model	Motor	No. of stages	Standard specifications			
							Discharge capacity	Total head	Discharge capacity	Total head
	mm	mm			kW		m³/min	m	m³/min	m
Stainless steel	100	25・32	1	US2-256/326-0.75K	0.75	6	0.02	45	0.11	24
			2	US2-256/326-1.1K	1.1	9	0.02	68	0.11	36
			3	US2-256/326-1.5K	1.5	13	0.02	98	0.11	52
			4	US2-256/326-1.9KL	1.9	16	0.02	120	0.11	64
			5	US2-256/326-2.2KL	2.2	19	0.02	143	0.11	76
			6	US2-256/326-2.7K	2.7	23	0.02	173	0.11	92
			7	US2-256/326-3.7K	3.7	30	0.02	222	0.11	114
		40	8	USN2-406-1.1K	1.1	4	0.07	31	0.21	17
			9	USN2-406-1.5K	1.5	6	0.07	43	0.21	23
			10	USN2-406-1.9KL	1.9	8	0.07	59	0.21	32
			11	USN2-406-2.2KL	2.2	9	0.07	65	0.21	35
			12	USN2-406-2.7K	2.7	11	0.07	81	0.21	44
			13	USN2-406-3.7K	3.7	14	0.07	108	0.21	63
		50	14	USN2-506-1.9KL	1.9	6	0.14	37	0.32	15
			15	USN2-506-2.2KL	2.2	7	0.14	42	0.32	17
			16	USN2-506-2.7K	2.7	9	0.14	55	0.32	22.5
			17	USN2-506-3.7K	3.7	12	0.14	70	0.32	27

● The pumping rate type is also available for the 25mm bore. Contact Kawamoto for details.

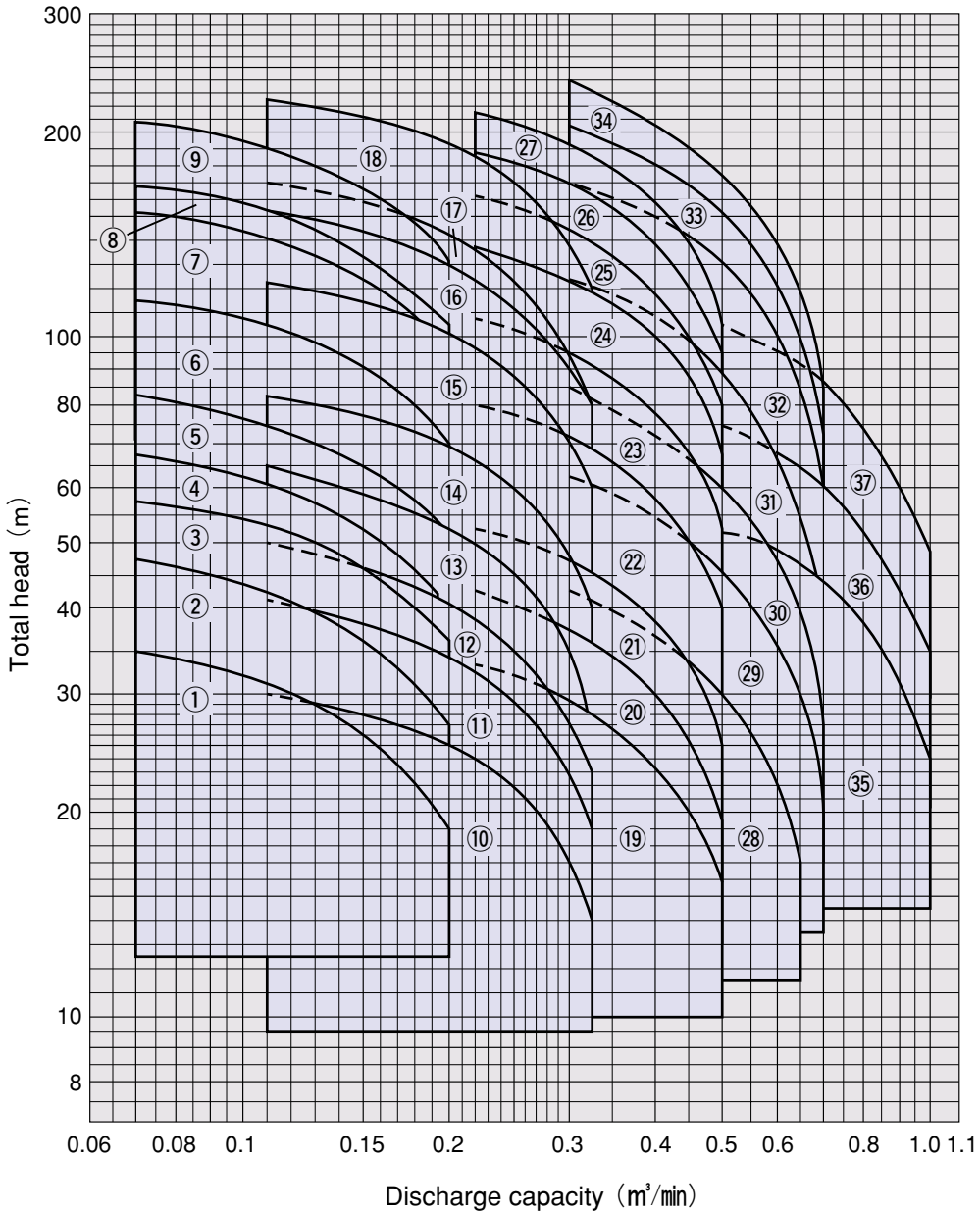
Selection table

Stainless steel

50Hz

Minimum well diameter

150mm



■Specifications table

Type	Well diameter	Bore	Symbol	Model	Motor	No. of stages	Standard specifications			
							Discharge capacity	Total head	Discharge capacity	Total head
	mm	mm			kW		m³/min	m	m³/min	m
Stainless steel	150	40	1	US2-405-1.1K	1.1	4	0.07	35	0.2	19
			2	US2-405-1.5K	1.5	5	0.07	47	0.2	27.5
			3	US2-405-1.9KL	1.9	6	0.07	58	0.2	36
			4	US2-405-2.2KL	2.2	7	0.07	67	0.2	40
			5	US2-405-2.7K	2.7	9	0.07	83	0.2	52
			6	US2-405-3.7K	3.7	12	0.07	115	0.2	70
			7	US2-405L-5.5	5.5	15	0.07	152	0.2	98
			8	US2-405-5.5	5.5	18	0.07	168	0.2	104
			9	US2-405-7.5	7.5	21	0.07	207	0.2	132
		50	10	US2-505-1.5K	1.5	3	0.11	30	0.32	14
			11	US2-505-1.9KL	1.9	4	0.11	40.5	0.32	19.5
			12	US2-505-2.2KL	2.2	5	0.11	50	0.32	23
			13	US2-505-2.7K	2.7	7	0.11	65	0.32	25
			14	US2-505-3.7K	3.7	8	0.11	82	0.32	40
			15	US2-505-5.5	5.5	12	0.11	122	0.32	60
			16	US2-505L-7.5	7.5	15	0.11	152	0.32	73
			17	US2-505-7.5	7.5	18	0.11	170	0.32	75
			18	US2-505-11	11	22	0.11	225	0.32	115

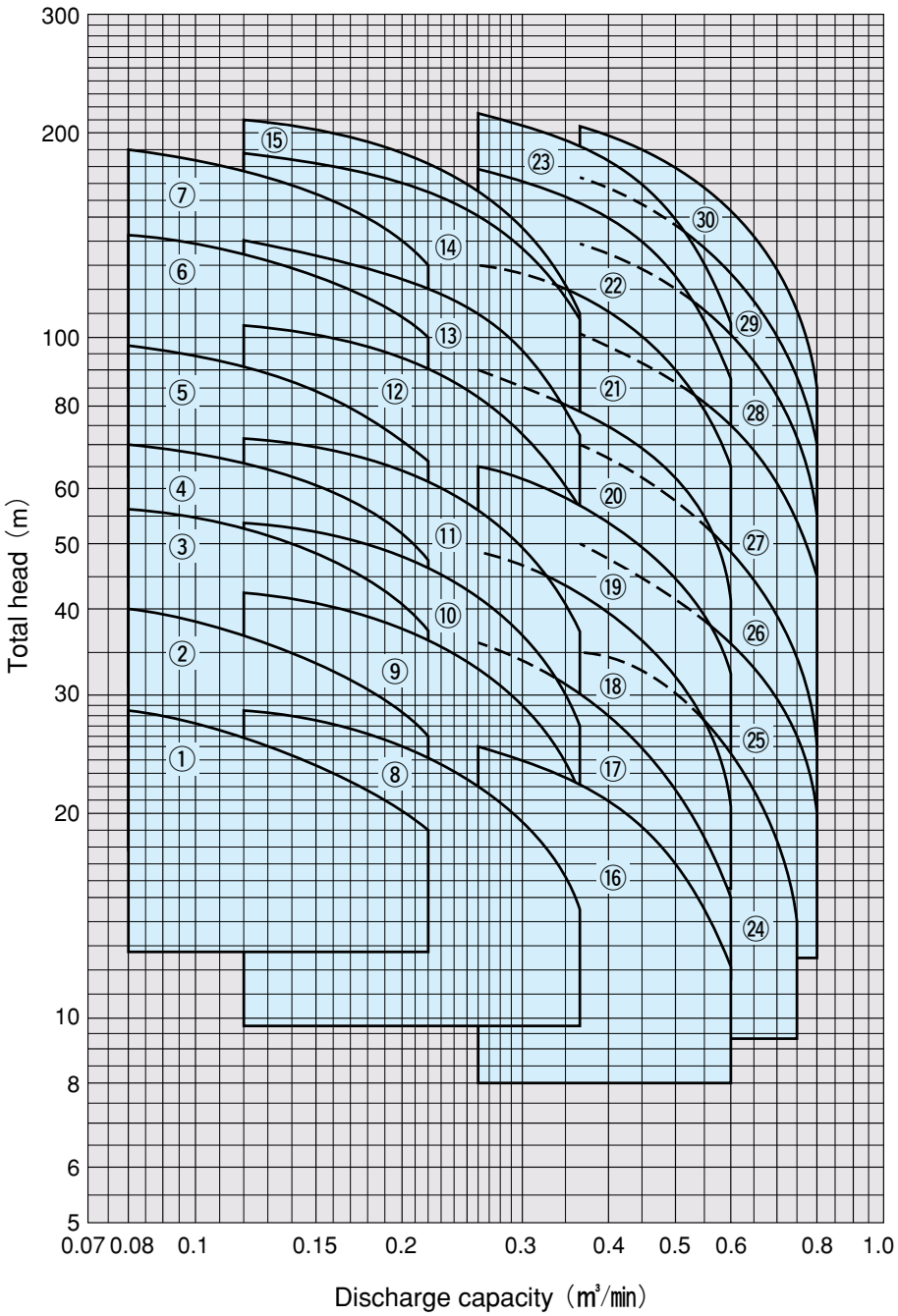
Type	Well diameter	Bore	Symbol	Model	Motor	No. of stages	Standard specifications			
							Discharge capacity	Total head	Discharge capacity	Total head
	mm	mm			kW		m³/min	m	m³/min	m
Stainless steel	150	65	19	US2-655-2.2KL	2.2	4	0.22	33	0.5	15
			20	US2-655-2.7K	2.7	5	0.22	43	0.5	19
			21	US2-655-3.7K	3.7	6	0.22	52	0.5	25
			22	US2-655-5.5	5.5	9	0.22	80	0.5	39
			23	US2-655-7.5	7.5	12	0.22	107	0.5	52
			24	US2-655L-11	11	15	0.22	138	0.5	68
			25	US2-655-11	11	18	0.22	162	0.5	80
			26	US2-655L-15	15	21	0.22	188	0.5	95
			27	US2-655-15	15	24	0.22	215	0.5	105
		80	28	USN2-805-3.7K	3.7	5	0.3	42	0.65	17
			29	USN2-805-5.5	5.5	7	0.3	62	0.7	20
			30	USN2-805-7.5	7.5	10	0.3	84	0.7	26
			31	USN2-805-11	11	14	0.3	122	0.7	40
			32	USN2-805-15	15	19	0.3	170	0.7	62
			33	USN2-805-18	18.5	24	0.3	205	0.7	73
			34	USN2-805-22	22	27	0.3	237	0.7	82
			35	USN2-805B-7.5	7.5	5	0.5	52	1.0	24
			36	USN2-805B-11	11	7	0.5	74	1.0	35
			37	USN2-805B-15	15	10	0.5	105	1.0	49

Stainless steel

60Hz

Minimum well diameter

150mm



■Specifications table

Type	Well diameter	Bore	Symbol	Model	Motor	No. of stages	Standard specifications			
							Discharge capacity	Total head	Discharge capacity	Total head
	mm	mm			kW		m³/min	m	m³/min	m
Stainless steel	150	40	1	US2-406-1.1K	1.1	2	0.08	28.5	0.22	19
			2	US2-406-1.5K	1.5	3	0.08	40	0.22	26
			3	US2-406-2.2KL	2.2	4	0.08	56	0.22	38
			4	US2-406-2.7K	2.7	5	0.08	70	0.22	49
			5	US2-406-3.7K	3.7	7	0.08	98	0.22	66
			6	US2-406-5.5	5.5	10	0.08	143	0.22	98
			7	US2-406-7.5	7.5	14	0.08	192	0.22	128
		50	8	US2-506-1.5K	1.5	2	0.12	28.5	0.36	14.5
			9	US2-506-2.2KL	2.2	3	0.12	42.5	0.36	21.5
			10	US2-506-2.7K	2.7	4	0.12	54	0.36	26.5
			11	US2-506-3.7K	3.7	5	0.12	71	0.36	37
			12	US2-506-5.5	5.5	7	0.12	105	0.36	56
			13	US2-506-7.5	7.5	10	0.12	141	0.36	72
			14	US2-506L-11	11	13	0.12	188	0.36	105
			15	US2-506-11	11	15	0.12	212	0.36	110

Type	Well diameter	Bore	Symbol	Model	Motor	No. of stages	Standard specifications			
							Discharge capacity	Total head	Discharge capacity	Total head
	mm	mm			kW		m³/min	m	m³/min	m
Stainless steel	150	65	16	US2-656-2.2KL	2.2	2	0.26	25	0.6	12
			17	US2-656-2.7K	2.7	3	0.26	36	0.6	15
			18	US2-656-3.7K	3.7	4	0.26	49	0.6	21
			19	US2-656-5.5	5.5	5	0.26	65	0.6	32
			20	US2-656-7.5	7.5	7	0.26	90	0.6	44
			21	US2-656-11	11	10	0.26	130	0.6	65
			22	US2-656-15	15	14	0.26	178	0.6	87
			23	US2-656-18	18.5	17	0.26	215	0.6	103
		80	24	USN2-806-3.7K	3.7	3	0.36	35	0.75	14
			25	USN2-806-5.5	5.5	4	0.36	50	0.8	19
			26	USN2-806-7.5	7.5	6	0.36	71	0.8	25
			27	USN2-806-11	11	8	0.36	102	0.8	42
			28	USN2-806-15	15	11	0.36	138	0.8	55
			29	USN2-806-18	18.5	14	0.36	172	0.8	68
			30	USN2-806-22	22	16	0.36	205	0.8	85

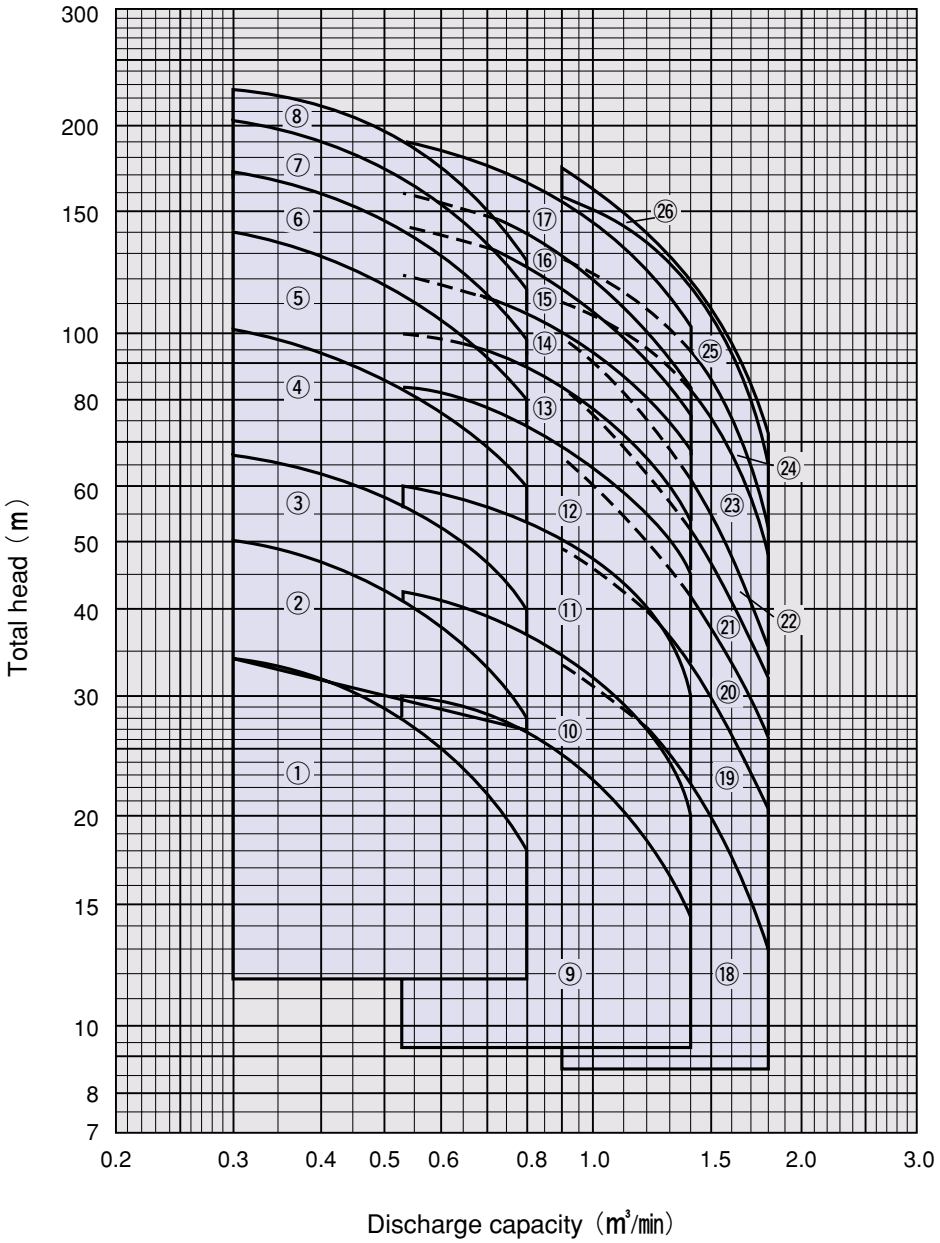
Selection table

Stainless steel

50Hz

Minimum well diameter

200mm



■Specifications table

Type	Well diameter	Bore	Symbol	Model	Motor	No. of stages	Standard specifications			
							Discharge capacity	Total head	Discharge capacity	Total head
	mm	mm			kW		m³/min	m	m³/min	m
Stainless steel	200	80	1	US2-805-3.7	3.7	2	0.3	34	0.8	18
			2	US2-805-5.5	5.5	3	0.3	50	0.8	28
			3	US2-805-7.5	7.5	4	0.3	67	0.8	38
			4	US2-805-11	11	6	0.3	102	0.8	58
			5	US2-805-15	15	8	0.3	140	0.8	80
			6	US2-805-18	18.5	10	0.3	170	0.8	96
			7	US2-805-22	22	12	0.3	205	0.8	118
			8	US2-805-26	26	14	0.3	228	0.8	128

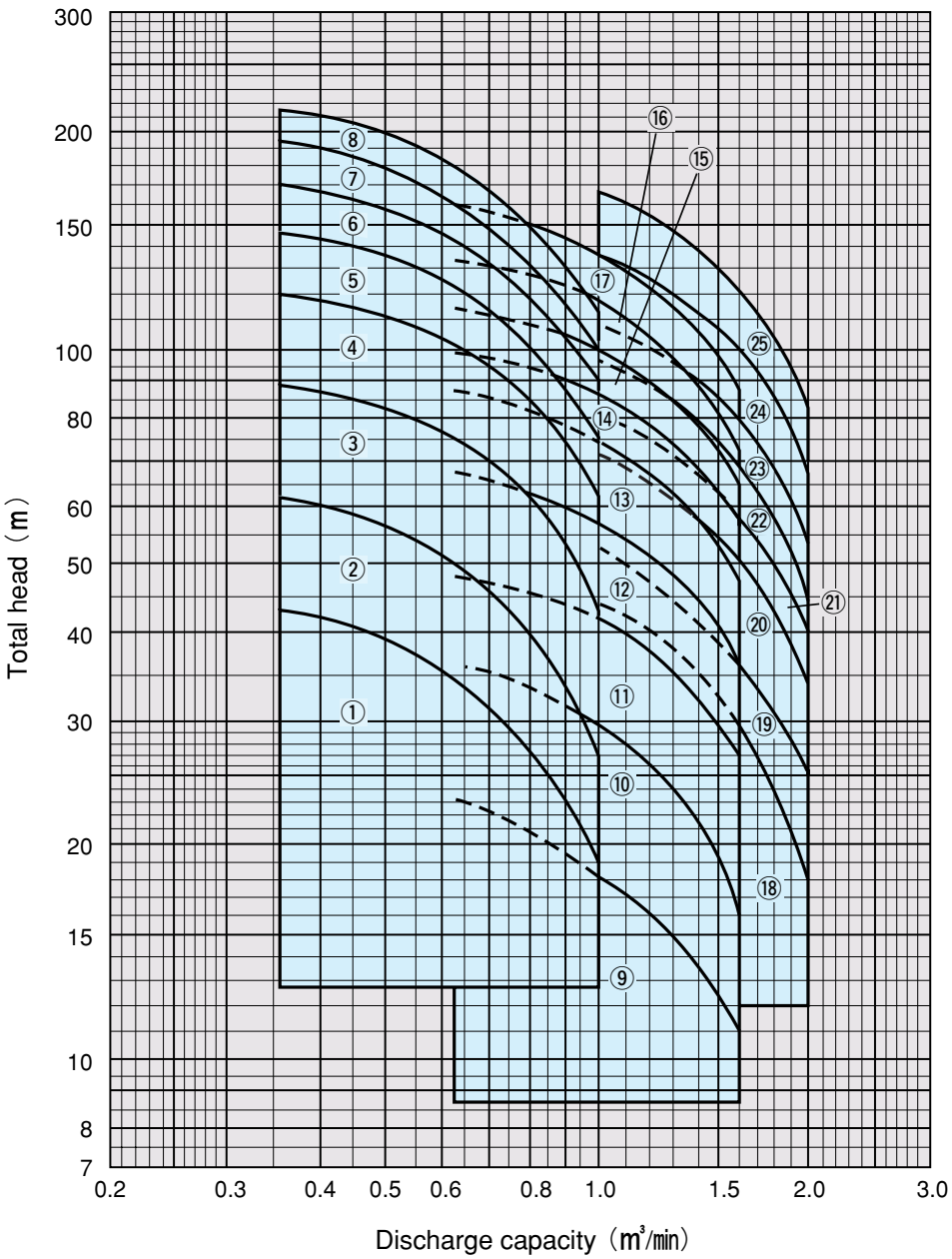
Type	Well diameter	Bore	Symbol	Model	Motor	No. of stages	Standard specifications			
							Discharge capacity	Total head	Discharge capacity	Total head
	mm	mm			kW	S	m³/min	m	m³/min	m
Stainless steel	200	100	9	US2-1005-5.5	5.5	2	0.53	30	1.4	14
			10	US2-1005-7.5	7.5	3	0.53	42	1.4	20
			11	US2-1005-11	11	4	0.53	60	1.4	31
			12	US2-1005-15	15	5	0.53	82	1.4	45
			13	US2-1005-18	18.5	6	0.53	100	1.4	55
			14	US2-1005-22	22	7	0.53	119	1.4	68
			15	US2-1005-26	26	9	0.53	143	1.4	76
			16	US2-1005-30	30	10	0.53	160	1.4	84
			17	US2-1005-37	37	12	0.53	190	1.4	102
			18	US2-1005B-7.5	7.5	2	0.9	33	1.8	13
			19	US2-1005B-11	11	3	0.9	49	1.8	20.5
			20	US2-1005B-15	15	4	0.9	67	1.8	26
			21	US2-1005B-18	18.5	5	0.9	83	1.8	32.5
			22	US2-1005B-22	22	6	0.9	99	1.8	36
			23	US2-1005B-26	26	6	0.9	110	1.8	48
			24	US2-1005B-30	30	7	0.9	128	1.8	54
			25	US2-1005B-37	37	9	0.9	158	1.8	65
			26	US2-1005B-45	45	11	0.9	173	1.8	72

Stainless steel

60Hz

Minimum well diameter

200mm



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Type	Well diameter	Bore	Symbol	Model	Motor	No. of stages	Standard specifications			
							Discharge capacity	Total head	Discharge capacity	Total head
	mm	mm			kW		m³/min	m	m³/min	m
Stainless steel	200	80	1	US2-806-5.5	5.5	2	0.36	42	1.0	19
			2	US2-806-7.5	7.5	3	0.36	61	1.0	27
			3	US2-806-11	11	4	0.36	89	1.0	43
			4	US2-806-15	15	5	0.36	120	1.0	62
			5	US2-806-18	18.5	6	0.36	145	1.0	76
			6	US2-806-22	22	7	0.36	170	1.0	91
			7	US2-806-26	26	9	0.36	192	1.0	100
			8	US2-806-30	30	10	0.36	215	1.0	112

Type	Well diameter	Bore	Symbol	Model	Motor	No. of stages	Standard specifications			
							Discharge capacity	Total head	Discharge capacity	Total head
	mm	mm			kW	S	m³/min	m	m³/min	m
Stainless steel	200	100	9	US2-1006-5.5	5.5	1	0.63	23	1.6	11
			10	US2-1006-7.5	7.5	2	0.63	36	1.6	16
			11	US2-1006-11	11	2	0.63	48	1.6	27
			12	US2-1006-15	15	3	0.63	68	1.6	37
			13	US2-1006-18	18.5	4	0.63	86	1.6	47
			14	US2-1006-22	22	4	0.63	98	1.6	58
			15	US2-1006-26	26	5	0.63	114	1.6	65
			16	US2-1006-30	30	6	0.63	134	1.6	73
			17	US2-1006-37	37	7	0.63	160	1.6	88
			18	US2-1006B-11	11	2	1.0	44	2.0	18
			19	US2-1006B-15	15	2	1.0	53	2.0	25.5
			20	US2-1006B-18	18.5	3	1.0	72	2.0	34
			21	US2-1006B-22	22	3	1.0	80	2.0	40
			22	US2-1006B-26	26	4	1.0	97	2.0	44
			23	US2-1006B-30	30	4	1.0	108	2.0	53
			24	US2-1006B-37	37	5	1.0	136	2.0	67
			25	US2-1006B-45	45	6	1.0	166	2.0	82

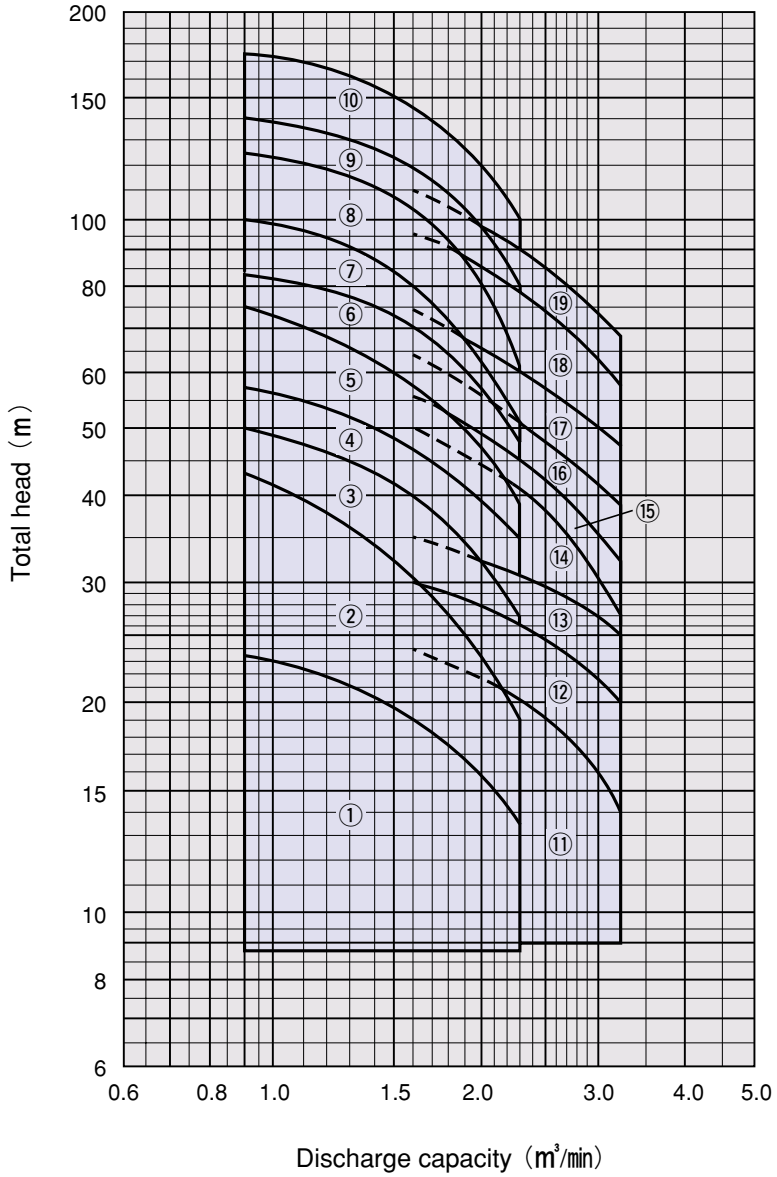
Selection table

Stainless steel

50Hz

Minimum well diameter

250mm
300mm



■Specifications table

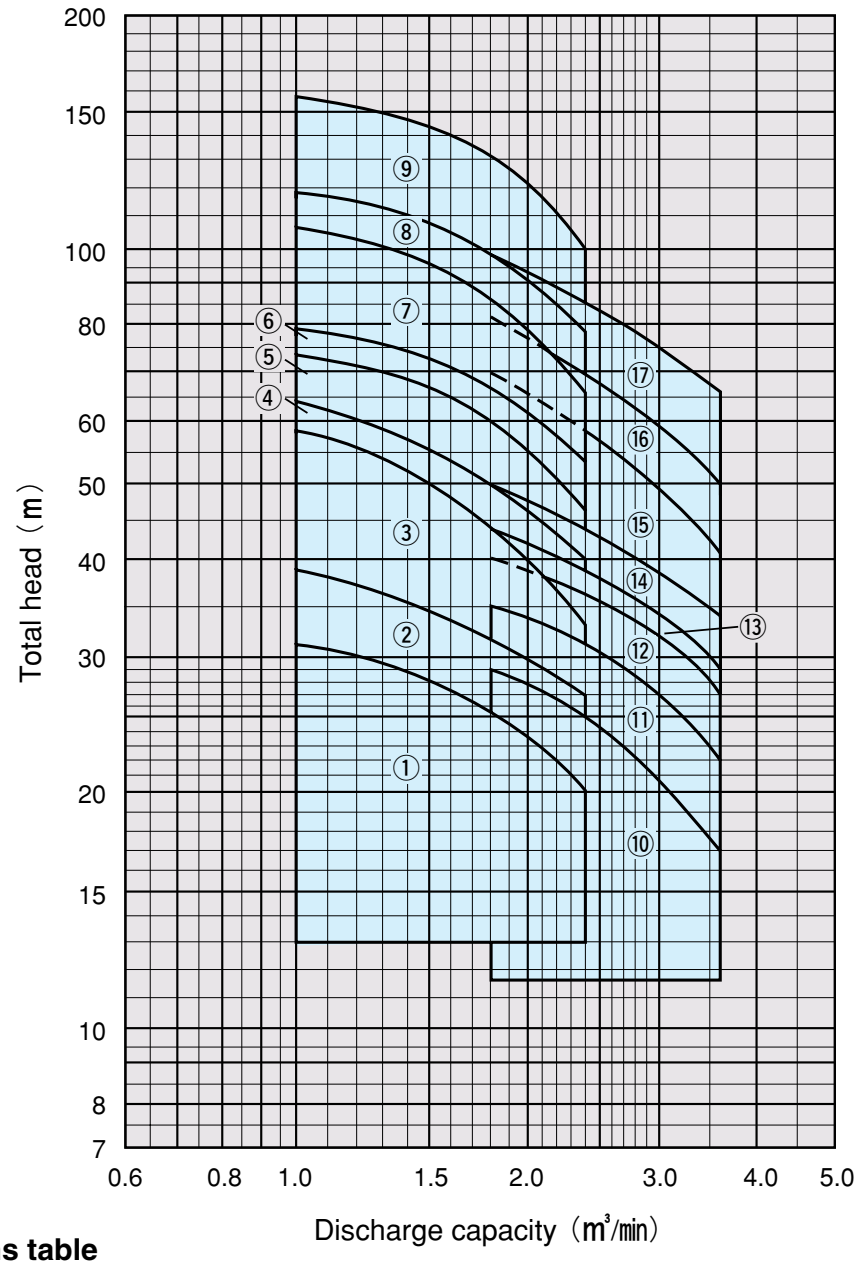
Type	Well diameter	Bore	Symbol	Model	Motor	No. of stages	Standard specifications			
							Discharge capacity	Total head	Discharge capacity	Total head
	mm	mm			kW		m³/min	m	m³/min	m
Stainless steel	250	125	1	US2-1255-7.5	7.5	1	0.9	23.5	2.3	13.5
			2	US2-1255-11	11	2	0.9	42	2.3	19
			3	US2-1255-15	15	2	0.9	50	2.3	27
			4	US2-1255-18	18.5	2	0.9	57	2.3	35
			5	US2-1255-22	22	3	0.9	75	2.3	39
			6	US2-1255-26	26	3	0.9	83	2.3	47
			7	US2-1255-30	30	4	0.9	100	2.3	51
			8	US2-1255-37	37	5	0.9	124	2.3	62
			9	US2-1255-45	45	5	0.9	140	2.3	80
			10	US2-1255-55	55	6	0.9	174	2.3	100
	300	150	11	US2-1505-11	11	1	1.6	24	3.2	14
			12	US2-1505-15	15	1	1.6	30	3.2	20
			13	US2-1505-18	18.5	1	1.6	35	3.2	25
			14	US2-1505-22	22	2	1.6	50	3.2	27
			15	US2-1505-26	26	2	1.6	56	3.2	32
			16	US2-1505-30	30	2	1.6	64	3.2	39
			17	US2-1505-37	37	2	1.6	74	3.2	48
			18	US2-1505-45	45	3	1.6	96	3.2	57
			19	US2-1505-55	55	3	1.6	110	3.2	70

Stainless steel

60Hz

Minimum well diameter

250mm
300mm



■Specifications table

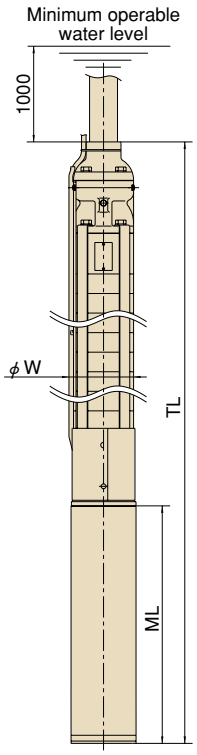
Type	Well diameter	Bore	Symbol	Model	Motor	No. of stages	Standard specifications			
							Discharge capacity	Total head	Discharge capacity	Total head
	mm	mm			kW		m³/min	m	m³/min	m
Stainless steel	250	125	1	US2-1256-11	11	1	1.0	31	2.4	20
			2	US2-1256-15	15	1	1.0	38	2.4	27
			3	US2-1256-18	18.5	2	1.0	58	2.4	33
			4	US2-1256-22	22	2	1.0	64	2.4	40
			5	US2-1256-26	26	2	1.0	73	2.4	47
			6	US2-1256-30	30	2	1.0	79	2.4	53
			7	US2-1256-37	37	3	1.0	106	2.4	66
			8	US2-1256-45	45	3	1.0	118	2.4	79
			9	US2-1256-55	55	4	1.0	154	2.4	100
	300	150	10	US2-1506-15	15	1	1.8	29	3.6	17
			11	US2-1506-18	18.5	1	1.8	35	3.6	22
			12	US2-1506-22	22	1	1.8	40	3.6	27
			13	US2-1506-26	26	1	1.8	43	3.6	29
			14	US2-1506-30	30	1	1.8	49	3.6	34
			15	US2-1506-37	37	2	1.8	70	3.6	41
			16	US2-1506-45	45	2	1.8	82	3.6	50
			17	US2-1506-55	55	2	1.8	98	3.6	66

50Hz dimension drawing

Always obtain the delivery specifications when planning the system.
This drawing shows the stainless steel pump.

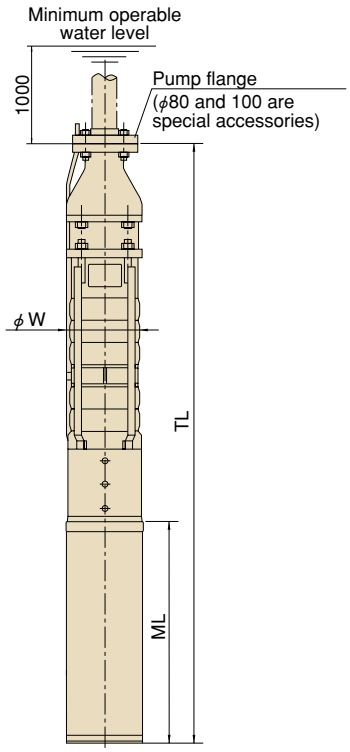
Well diameter 100mm

Example 1



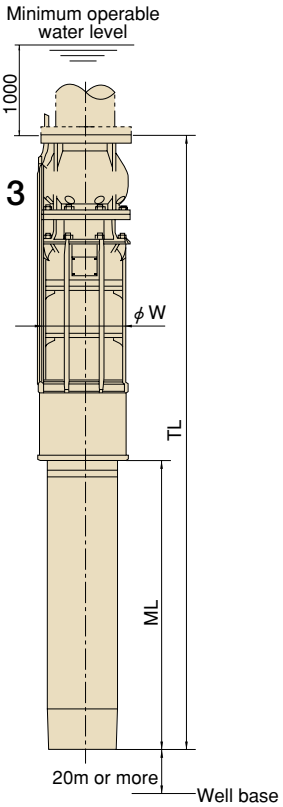
Well diameter 150mm

Example 2



Well diameter 200 to 300mm

Example 3



Type	Frequency	Well diameter	Bore	Model	Motor	Pump			Weight *	Applicable well cover	Dimension drawing
	Hz	mm	mm		kW	ML	TL	W	kg		
Stainless steel	50	100	25・32	US2-[25/32]-0.75K	0.75	298	928	98	19	SDT-S25・32	1
				US2-[25/32]-1.1K	1.1	298	1096	98	22		
				US2-[25/32]-1.5K	1.5	346	1312	98	25		
				US2-[25/32]-1.9KL	1.9	408	1514	98	27		
				US2-[25/32]-2.2KL	2.2	408	1710	98	30		
			40	USN2-405-0.75K	0.75	298	856	97	17	SDT-SN40	
				USN2-405-1.1K	1.1	298	940	97	21		
				USN2-405-1.5K	1.5	346	1114	97	24		
				USN2-405-1.9KL	1.9	408	1288	97	27		
				USN2-405-2.2KL	2.2	408	1372	97	29		
				USN2-405-2.7K	2.7	564	1697	97	41		
				USN2-405-3.7K	3.7	564	1948	97	47		
			50	USN2-505-1.1K	1.1	298	955	97	19	SDT-SN50	
				USN2-505-1.5K	1.5	346	1101	97	23		
				USN2-505-1.9KL	1.9	408	1289	97	26		
				USN2-505-2.2KL	2.2	408	1387	97	28		
				USN2-505-2.7K	2.7	564	1690	97	39		
				USN2-505-3.7K	3.7	564	1935	97	45		
		150	40	US2-405-1.1K	1.1	298	880	140	30	SDT-S40	2
				US2-405-1.5K	1.5	346	968	140	33		
				US2-405-1.9KL	1.9	408	1070	140	35		
				US2-405-2.2KL	2.2	408	1110	140	37		
				US2-405-2.7K	2.7	564	1346	140	47		
				US2-405-3.7K	3.7	564	1466	140	52		
				US2-405L-5.5	5.5	543	1615	141	77		
				US2-405-5.5	5.5	543	1735	141	82		
				US2-405-7.5	7.5	603	1915	141	96		
			50	US2-505-1.5K	1.5	346	898	140	31	SDT-S50	
				US2-505-1.9KL	1.9	408	1000	140	32		
				US2-505-2.2KL	2.2	408	1040	140	34		
				US2-505-2.7K	2.7	564	1276	140	44		
				US2-505-3.7K	3.7	564	1316	140	46		
				US2-505-5.5	5.5	543	1465	141	71		
				US2-505L-7.5	7.5	603	1685	141	87		
				US2-505-7.5	7.5	603	1805	141	92		
				US2-505-11	11	733	2095	142	121		

* Excluding cable weight

Type	Frequency	Well diameter	Bore	Model	Motor	Pump			Weight *	Applicable well cover	Dimension drawing
	Hz	mm	mm		kW	ML	TL	W	kg		
Stainless steel	50	150	65	US2-655-2.2KL	2.2	408	1050	140	34	SDT-S65	2
				US2-655-2.7K	2.7	564	1256	140	43		
				US2-655-3.7K	3.7	564	1306	140	46		
				US2-655-5.5	5.5	543	1445	141	70		
				US2-655-7.5	7.5	603	1655	141	87		
				US2-655L-11	11	733	1985	142	108		
				US2-655-11	11	733	2135	142	113		
				US2-655L-15	15	818	2370	142	126		
				US2-655-15	15	818	2520	142	131		
			80	USN2-805-3.7K	3.7	564	1256	140	46	SDT-SN80	
				USN2-805-5.5	5.5	543	1345	141	68		
				USN2-805-7.5	7.5	603	1555	141	80		
				USN2-805-11	11	733	1935	142	106		
				USN2-805-15	15	818	2270	142	122		
				USN2-805-18	18.5	890	2592	142	140		
				USN2-805-22	22	970	2822	142	163		
				USN2-805B-7.5	7.5	603	1593	142	96		
				USN2-805B-11	11	733	1963	142	126		
				USN2-805B-15	15	818	2408	142	157		
		200	80	US2-805-3.7	3.7	488	1108	186	68	SDT-S80	2
				US2-805-5.5	5.5	543	1213	186	76		
				US2-805-7.5	7.5	603	1323	186	86		
				US2-805-11	11	733	1553	187	108		
				US2-805-15	15	818	1738	187	124		
				US2-805-18	18.5	890	1910	187	139		
				US2-805-22	22	970	2140	187	165		
				US2-805-26	26	992	2277	189	210		
			100	US2-1005-5.5	5.5	543	1223	186	73	SDT-S100	2
				US2-1005-7.5	7.5	603	1358	186	83		
				US2-1005-11	11	733	1563	187	102		
				US2-1005-15	15	818	1723	187	115		
				US2-1005-18	18.5	890	1870	187	126		
				US2-1005-22	22	970	2025	187	146		
				US2-1005-26	26	992	2262	189	193		
				US2-1005-30	30	992	2337	189	197		
				US2-1005-37	37	1057	2487	191	222		
				US2-1005B-7.5	7.5	603	1383	186	85		
				US2-1005B-11	11	733	1638	187	109		
				US2-1005B-15	15	818	1848	187	126		
				US2-1005B-18	18.5	890	2045	187	142		
				US2-1005B-22	22	970	2250	187	166		
				US2-1005B-26	26	992	2293	187	203		
				US2-1005B-30	30	992	2418	187	212		
				US2-1005B-37	37	1057	2733	187	245		
				US2-1005B-45	45	1122	3048	187	273		
		250	125	US2-1255-7.5	7.5	603	1183	234	95	SDT-S125	3
				US2-1255-11	11	733	1433	234	121		
				US2-1255-15	15	818	1518	234	129		
				US2-1255-18	18.5	890	1590	234	136		
				US2-1255-22	22	970	1790	234	157		
				US2-1255-26	26	992	1822	234	198		
				US2-1255-30	30	992	1942	234	208		
				US2-1255-37	37	1057	2127	234	234		
				US2-1255-45	45	1122	2192	234	244		
				US2-1255-55	55	1212	2402	234	270	SDT-S150	
		300	150	US2-1505-11	11	733	1383	282	120		
				US2-1505-15	15	818	1468	282	128		
				US2-1505-18	18.5	890	1540	282	135		
				US2-1505-22	22	970	1740	282	165		
				US2-1505-26	26	992	1772	282	205		
				US2-1505-30	30	992	1772	282	205		
				US2-1505-37	37	1057	1837	282	220		
				US2-1505-45	45	1122	2022	282	245		
				US2-1505-55	55	1212	2112	282	260		

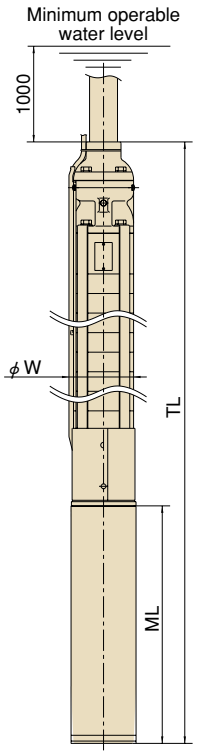
* Excluding cable weight

60Hz dimension drawing

Always obtain the delivery specifications when planning the system.
This drawing shows the stainless steel pump.

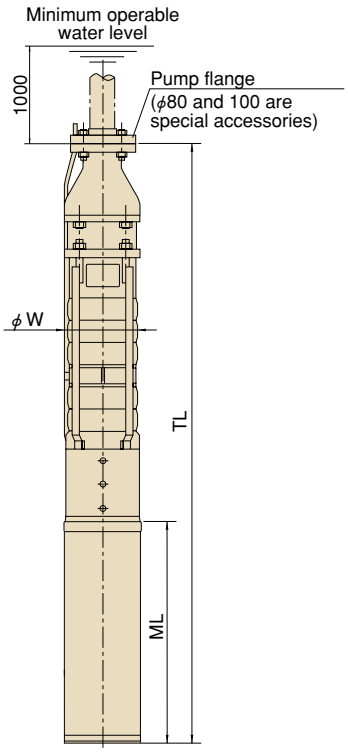
Well diameter 100mm

Example 1



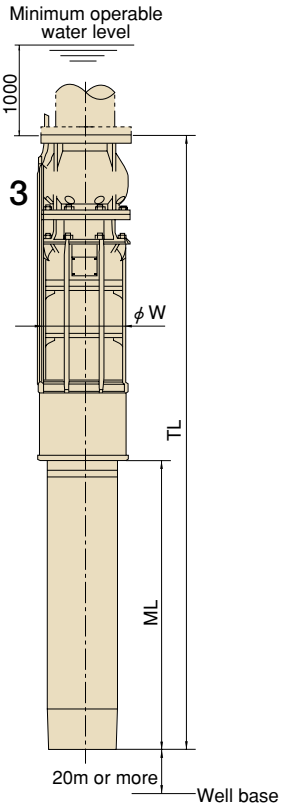
Well diameter 150mm

Example 2



Well diameter 200 to 300mm

Example 3



Type	Frequency	Well diameter	Bore	Model	Motor	Pump			Weight *	Applicable well cover	Dimension drawing
	Hz	mm	mm		kW	ML	TL	W	kg		
Stainless steel	60	100	25・32	US2-$\frac{256}{326}$-0.75K	0.75	298	788	98	17	SDT-S25・32	1
				US2-$\frac{256}{326}$-1.1K	1.1	298	872	98	18		
				US2-$\frac{256}{326}$-1.5K	1.5	346	1032	98	21		
				US2-$\frac{256}{326}$-1.9KL	1.9	408	1206	98	23		
				US2-$\frac{256}{326}$-2.2KL	2.2	408	1290	98	24		
				US2-$\frac{256}{326}$-2.7K	2.7	564	1558	98	34		
				U2S-$\frac{256}{326}$-3.7K	3.7	564	1754	98	37		
			40	USN2-406-1.1K	1.1	298	814	97	17	SDT-SN40	
				USN2-406-1.5K	1.5	346	946	97	20		
				USN2-406-1.9KL	1.9	408	1092	97	22		
				USN2-406-2.2KL	2.2	408	1134	97	23		
				USN2-406-2.7K	2.7	564	1402	97	34		
				USN2-406-3.7K	3.7	564	1528	97	37		
			50	USN2-506-1.9KL	1.9	408	1065	97	21	SDT-SN50	
				USN2-506-2.2KL	2.2	408	1114	97	22		
				USN2-506-2.7K	2.7	564	1396	97	33		
				USN2-506-3.7K	3.7	564	1543	97	36		
		150	40	US2-406-1.1K	1.1	294	800	140	27	SDT-S40	2
				US2-406-1.5K	1.5	346	888	140	30		
				US2-406-2.2KL	2.2	408	990	140	32		
				US2-406-2.7K	2.7	564	1186	140	40		
				US2-406-3.7K	3.7	564	1266	140	43		
				US2-406-5.5	5.5	543	1375	141	67		
				US2-406-7.5	7.5	603	1635	141	85		
			50	US2-506-1.5K	1.5	346	858	140	29	SDT-S50	
				US2-506-2.2KL	2.2	408	960	140	31		
				US2-506-2.7K	2.7	564	1156	140	39		
				US2-506-3.7K	3.7	564	1196	140	40		
				US2-506-5.5	5.5	543	1265	141	62		
				US2-506-7.5	7.5	603	1445	141	77		
				US2-506L-11	11	733	1735	142	104		
				US2-506-11	11	733	1815	142	108		

* Excluding cable weight

Type	Frequency	Well diameter	Bore	Model	Motor	Pump			Weight *	Applicable well cover	Dimension drawing
	Hz	mm	mm		kW	ML	TL	W	kg		
Stainless steel	60	150	65	US2-656-2.2KL	2.2	408	950	140	31	SDT-S65	2
				US2-656-2.7K	2.7	564	1156	140	40		
				US2-656-3.7K	3.7	564	1206	140	41		
				US2-656-5.5	5.5	543	1245	141	63		
				US2-656-7.5	7.5	603	1405	141	77		
				US2-656-11	11	733	1685	142	97		
				US2-656-15	15	818	2020	142	113		
				US2-656-18	18.5	890	2242	142	127		
			80	USN2-806-3.7K	3.7	564	1156	140	43	SDT-SN80	
				USN2-806-5.5	5.5	543	1195	141	62		
				USN2-806-7.5	7.5	603	1355	141	72		
				USN2-806-11	11	733	1585	142	93		
				USN2-806-15	15	818	1870	142	107		
				USN2-806-18	18.5	890	2092	142	122		
				USN2-806-22	22	970	2272	142	142		
		200	80	US2-806-5.5	5.5	543	1163	186	73	SDT-S80	2
				US2-806-7.5	7.5	603	1273	186	82		
				US2-806-11	11	733	1453	187	100		
				US2-806-15	15	818	1588	187	113		
				US2-806-18	18.5	890	1710	187	124		
				US2-806-22	22	970	1840	187	143		
				US2-806-26	26	992	1927	189	186		
				US2-806-30	30	992	1977	189	190		
			100	US2-1006-5.5	5.5	543	1148	186	69	SDT-S100	2
				US2-1006-7.5	7.5	603	1283	186	79		
				US2-1006-11	11	733	1413	187	94		
				US2-1006-15	15	818	1573	187	107		
				US2-1006-18	18.5	890	1720	187	118		
				US2-1006-22	22	970	1800	187	133		
				US2-1006-26	26	992	1912	189	174		
				US2-1006-30	30	992	1987	189	178		
				US2-1006-37	37	1057	2177	191	202		
				US2-1006B-11	11	733	1513	187	100		
				US2-1006B-15	15	818	1598	187	109		
				US2-1006B-18	18.5	890	1795	187	125		
				US2-1006B-22	22	970	1875	187	140		
				US2-1006B-26	26	992	2043	187	186		
				US2-1006B-30	30	992	2043	187	186		
				US2-1006B-37	37	1057	2233	187	209		
				US2-1006B-45	45	1122	2423	187	228		
		250	125	US2-1256-11	11	733	1313	234	110	SDT-S125	3
				US2-1256-15	15	818	1398	234	119		
				US2-1256-18	18.5	890	1590	234	136		
				US2-1256-22	22	970	1670	234	146		
				US2-1256-26	26	992	1702	234	187		
				US2-1256-30	30	992	1702	234	187		
				US2-1256-37	37	1057	1887	234	213		
				US2-1256-45	45	1122	1952	234	223		
				US2-1256-55	55	1212	2162	234	249		
		300	150	US2-1506-15	15	818	1468	282	128	SDT-S150	
				US2-1506-18	18.5	890	1540	282	135		
				US2-1506-22	22	970	1620	282	150		
				US2-1506-26	26	992	1652	282	190		
				US2-1506-30	30	992	1652	282	190		
				US2-1506-37	37	1057	1837	282	220		
				US2-1506-45	45	1122	1902	282	230		
				US2-1506-55	55	1212	1992	282	245		

* Excluding cable weight

Control Panel

(ECA3 type)

(ECAW3 type)

(ECAJ3 type)

(ECAD3 type)

(ECASN type)

- This control panel dedicated for SANRONG guarantees accurate control and protection.
- In addition to the indoor type (ECA3 type) control panel, the outdoor type (ECAW3 type, ECAD3 type with pole), simple outdoor type (ECAJ3 type), and snow eliminating dedicated type (ECASN type) are available.
- The reservoir full and dry alarms are provided as a standard.
- The 11kW and larger capacity has space for mounting a residual current circuit breaker and power capacitor.
- The 11kW or larger capacity star-delta starting control panel uses a 3-contactor method. The type with power capacitor (special specification No. 02) uses a 4-contactor method to ensure accurate operation of the 3E relay.

Type			ECA3 type (indoor type)	ECAW3 type, ECAD3 type (outdoor type) *1	ECAJ3 type (simple outdoor type) *2	ECASN type (snow eliminating dedicated type) *3		
Standard specifications (Note)		3E relay Digital ammeter, voltmeter Power source, fault, operation pilot lamps Fault (overload, phase failure, reverse phase) Reservoir (full, dry) pilot lamp Well (dry) pilot lamp No-voltage external signal (operation, fault, full/dry)	0.75kW to 55kW	ECAW3: 0.75kW to 55kW ECAW3: 0.75kW to 7.5kW	0.75kW to 7.5kW	*3 0.75kW to 22kW		
Special specifications	01	Residual current circuit breaker	0.75kW to 22kW	ECAW3: 0.75kW to 22kW ECAW3: 0.75kW to 7.5kW	0.75kW to 7.5kW	01	With space for mounting snow sensor control section	0.75kW to 22kW
	02	Residual current circuit breaker Power capacitor				02	Outdoor self-standing pole installation type (With snow sensor control section)	0.75kW to 7.5kW
						03	Outdoor self-standing pole installation type (With space for mounting snow sensor control section)	0.75kW to 7.5kW

*1 JIS C 0920 (Degrees of protection provided by enclosures (IP Code)) Protection Grade 3 (Rain-proof type)
*2 JIS C 0920 Protection Grade 3 (Rain-proof type): Dedicated for use under roof
*3 With snow sensor control section, residual current circuit breaker, power capacitor and small box

Control parts

●Submersible electrode, electrode holder

EHS-2 type submersible electrode

EHC type electrode holder

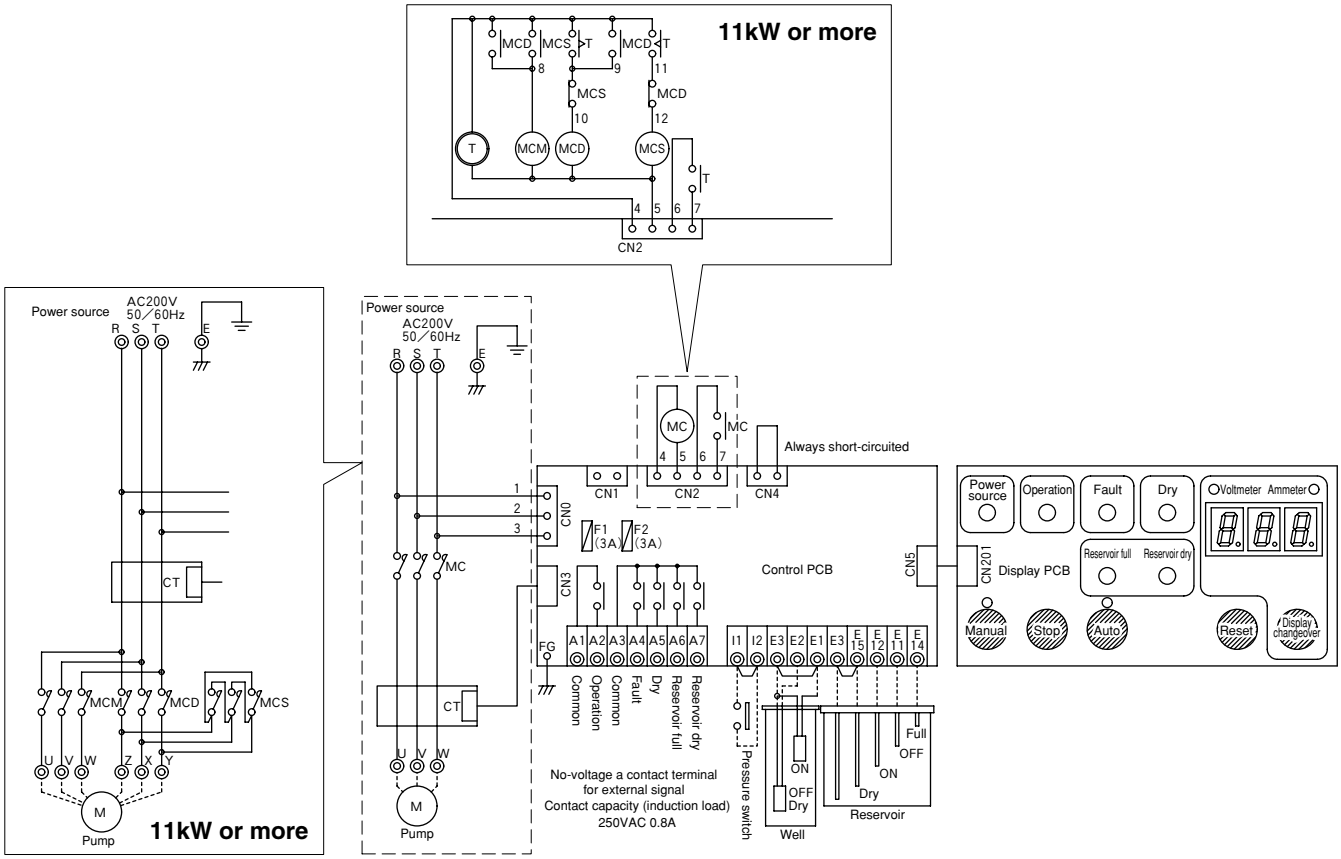
Sole plate

●Use this when installing the pump in a well with a large well diameter.

Well cover and sole plate
(Example for cast steel iron cover)

Example of control panel connection

■For ECA3 type standard specifications

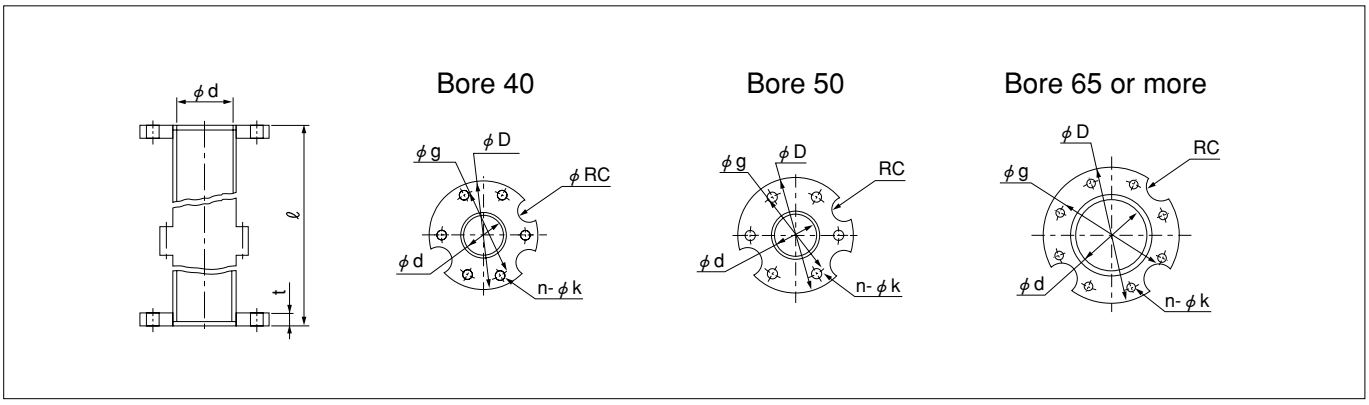


(Precautions)

- If the 3E relay trips, remove the cause and then reset. If the relay must be reset as is, always provide a cooling period of at least 10 minutes before resetting. (To protect the motor.)
- When connecting the pressure switch or water supply limit timer, etc., between L1 and L2, always remove the short-circuit wire first.
- When using the submersible electrode EHS-2, remove the short-circuit wire across E3 and E1. Connect the black cord to E3 and the white cord to E2 (E1).
- When detecting the reservoir dry state, remove the short-circuit wire across E3 and E15.
- The display will change between the power voltage and motor current each time the display changeover button is pressed.
- The reset button is used for resetting 3E trip and the dry state.
- The 3E trip can be tested by holding down the display changeover button and pressing the reset button.

Display	Status
OL	Overload
rEV	Reverse phase
PF	Phase failure
CHA	Excessive working frequency

■Pumping pipe For "dedicated city water" applications, use the nylon coated pumping pipe or stainless steel pumping pipe.



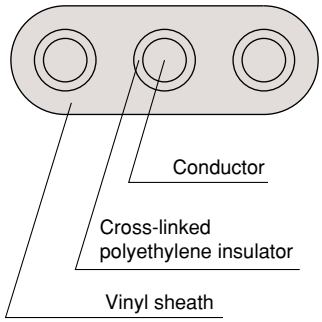
Bore d	Applicable pump	Flange						Weight (kg)					
								Pumping pipe (SGPW)		Short pumping pipe (SGPW)	Nylon-coated pumping pipe	Stainless steel pumping pipe * (SUS304)	
mm		D	g	n	k	t	C	ℓ=5510	ℓ=2760	ℓ=310	ℓ=2760	ℓ=2000	ℓ=4000
40	US2-40	115	90	6	12	14	18	24	12.4	2.9	13	8	14
50	US2-50	125	100	6	12	14	18	31	16.5	3.5	17.4	11	21
65	US2-65	140	115	8	12	14	18	44	22.7	4.4	24	14	27
80	USN2	140	118	8	12	16	18	51	26.5	4.9	28	19	36
	US2-80	165	136	8	15	18	20	52	27.7	6.1	29.2	20	37
100	US2-100	180	155	8	15	18	24	71	37	7.2	39.5	26	48
125	US2-125	224	190	8	19	20	27	89	48	11	51	40	73
150	US2-150	258	224	8	19	22	27	118	63.5	15	67	48	88

* Use stainless steel pipe schedule 20S

■Extension cable specifications

Refer to the following table and select the extension cable.

600V cross-linked polyethylene insulated vinyl cab tyre cable flat type (CVCTF)



Nominal cross-section area mm²	Conductor outer diameter mm	Finished outer diameter (mm)		Conductor resistor (20˚C) Ω/km	Tolerable current * (Ambient temperature 30˚C) A	Approx. weight kg/km
		Long axis	Short axis			
1.25	1.5	12.7±0.9	6.5±0.5	14.7	19	121
2.0	1.8	13.8±1.0	7.0±0.6	9.5	25	148
3.5	2.5	15.9±1.0	7.7±0.7	5.09	36	212
5.5	3.1	19.3±1.0	9.1±0.8	3.27	47	322
8.0	3.7	21.3±1.0	9.9±0.8	2.32	58	411
14	4.9	25.1±1.1	11.3±0.9	1.32	82	632
22	7.0	33.4±1.3	14.6±0.9	0.844	110	1,051
30	8.0	36.9±1.5	15.9±1.0	0.625	133	1,347
38	9.1	40.1±1.6	17.1±1.0	0.496	152	1,630
50	10.4	46.4±1.7	19.6±1.2	0.389	177	2,092
60	11.6	50.7±1.8	21.2±1.3	0.311	202	2,553
80	13.5	59.7±1.9	24.7±1.4	0.23	215	3,460

* Value calculated at the tolerable conductor maximum temperature 90˚C.

●Well diameter and cable size

The usable cable size differs according to the diameter of the well in which the deep well submersible pump is to be installed and the well casing material. When using a thick cable, take care to the well diameter and casing material.
Note) Refer to page 19 for the valid cable sizes when using the well cover.

Type \ Well diameter	Cable size (mm²)									
	100		150		200		250		300	
	VP pipe	SGP pipe	VP pipe	SGP pipe	VP pipe	SGP pipe	VP pipe	SGP pipe	VP pipe	SGP pipe
US2-25	38	50								
US2-32	22	30								
USN2-40	22	22								
USN2-50	14	14								
US2-40			30	38						
US2-50			22	30						
US2-65			14	14						
US2N			14	14						
US2-80					30	38				
US2-100					30	30				
US2-125							50	60		
US2-150									60	80

■Cable extension selection table

Motor			Enclosed cable size (mm²×m)	Tolerable cable length (including enclosed cable)											Remarks
				Cable size (mm²)											
Starting	Frame No.	kW		1.25	2	3.5	5.5	8	14	22	30	38	50	60	80	
Direct ON	M4	0.75	1.25 ×5	120	175	330										US2-25 to 63 (3.7kW or less) USN2-40, 50 USN2-80(3.7kW)
		1.1	1.25 ×5	80	130	240										
		1.5	1.25 ×5	60	95	175	270									
		1.9	1.25 ×5	50	80	145	230									
		2.2	1.25 ×5	40	65	120	185	265								
		2.7	1.25 ×5	35	55	100	155	220								
		3.7	1.25 ×5		40	75	115	160	280							
	M6	3.7	5.5 ×5				100	145	250							US2-805-3.7
		5.5	5.5 ×5				75	105	185	280						US2-40 to 150 (5.5kW to 22kW) USN2-80
		7.5	5.5 ×5				60	80	145	225						
Star-Delta		11	3.5 ×5				60	85	150	230						
		15	3.5 ×5				45	60	110	170	230					
		18.5	5.5 ×5					50	90	140	190	240				
		22	5.5 ×5						80	120	160	205				
	M8	26	8 ×5						65	100	130	170	220			US2-80 to 150 (26kW to 37kW)
		30	8 ×5						55	85	120	150	190	230		
		37	14 ×5							70	95	120	150	190	260	
		45	14 ×4								80	100	130	170	220	US2-100 to 150 (44, 55kW)
		55 (Note)	8 ×4(400V)						130	200	270					

Reading the table (1) Using cable extension 85m with 0.75kW output
1.25mm²×85m

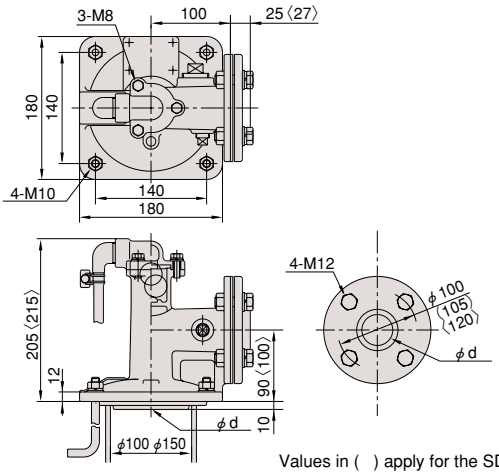
(2) Using cable total length 175m with 0.75kW output
1.25mm²× 5 m＋2.0mm²×170m＝175m

(Note) 55kW is the tolerable cable length for 400V

* Select the extension cable size from the above table, and add the value obtained by subtracting the length of the cable enclosed as a standard from the corresponding cable size and length.
Two cables are required when using Star-Delta starting.

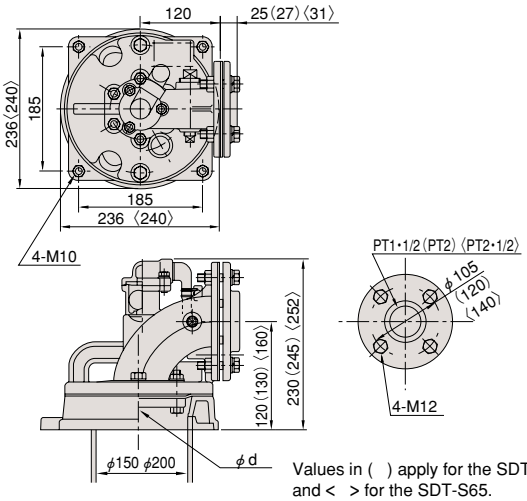
Stainless steel

●SDT-S25・32 (SDT-SN40・50)



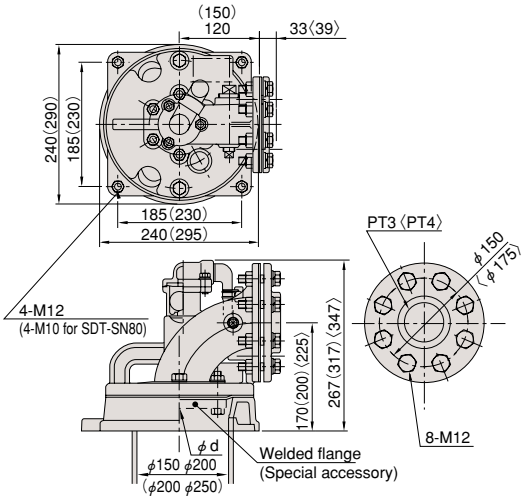
Values in ( ) apply for the SDT-SN40, and < > for the SDT-SN50.

●SDT-S40・50・65



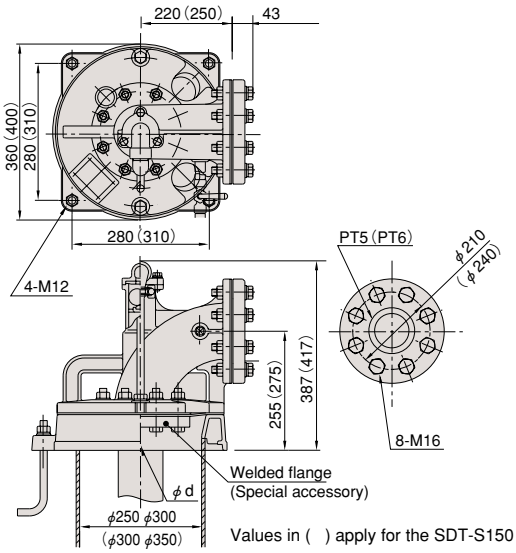
Values in ( ) apply for the SDT-S50, and < > for the SDT-S65.

●SDT-SN80・S80・100



Values in ( ) apply for the SDT-S80, 100, and < > for the SDT-S100.

●SDT-S125・150



Values in ( ) apply for the SDT-S150

Bore d(mm)	Well cover type	Applicable pump	Tolerable suspension load kN {kgf}	Leadable cable size mm²	Bore d(mm)	Well cover type	Applicable pump	Tolerable suspension load kN {kgf}	Leadable cable size mm²
25	SDT-S25	US2-25	8.8 {900}	14	80	SDT-SN80	USN2-80	43.2 {4400}	14 (150ϕ well) 30 (200ϕ well)
32	SDT-S32	US2-32	11.8 {1200}	14					
40	SDT-SN40	USN2-40	13.8 {1400}	8	80	SDT-S80	US2-80	49 {5000}	30 (200ϕ well) 50 (250ϕ well)
50	SDT-SN50	USN2-50	15.7 {1600}	5.5					
40	SDT-S40	US2-40	19.6 {2000}	22	100	SDT-S100	US2-100	60.8 {6200}	30 (200ϕ well) 50 (250ϕ well)
50	SDT-S50	US2-50	25.5 {2600}	22					
65	SDT-S65	US2-65	37.3 {3800}	14 (150ϕ well) 30 (200ϕ well)	125	SDT-S125	US2-125	79.4 {8100}	60
					150	SDT-S150	US2-150	87.3 {8900}	60

Jump
Step
Pump
KAWAMOTO

Safety Precautions

- Always read the instruction manual thoroughly before starting to ensure correct use.
- Select the product which matches the application. Use with improper applications could lead to accidents.
- All wiring and wiring work must comply to the Electrical Installation Technical Standards and Wiring Regulations, and carried out safely and correctly.
- Securely earth the equipment, and install a dedicated residual current circuit breaker.
  Failure to observe this could lead to trouble or electric shocks if residual current is present.
  Consult with your dealer on the details of earthing.

The specifications and shape are subject to change for improvements, etc.

As of August 2006

＊Contact Kawamoto for questions and reference material.

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