

Features

- ① Non-seal (mechanical-seal-less) structure is adopted.
 - ② There are 3 types to choose for the immersion depth.
 - ③ The lineup including the models complying with global standards by supporting efficiency and other regulations.
 - Japan : Top Runner efficiency
 - Europe : IE3 efficiency, CE marking (EU Directive)
 - RoHS Directive (2011/65/EU) , 10 substances restricted**
 - USA : NEMA Premium efficiency (IE3 efficiency), UL standards (safety)
 - China : GB3 (GB18613-2020)
 - ④ With the lineup of VKP-A type (flow type) and VKP-H type (pressure type), a wide range of choices of head and flow rate is available. The VKP-H model offers approximately 30% more pressure than the VKP-A type.
- ※ Excluding the types that end with "L."



Please note that the paint color, etc. of the actual unit may partially differ from the photo.

Description of types

VKP 08 5 A F

- ①
- ②
- ③
- ④
- ⑤
- ⑥

- ① Model
- ② Output 03:20W, 04: 40W, 05:60W, 06:100W, 07: 180W, 08: 250W, 09: 400W, 11: 750W
- ③ Series No.
- ④ Phase, Features (L: 3-phase(cabtyre cable used), A, J^{NOTE}: 3-phase, flow type, H: 3-phase, pressure type)
 - Note) VKP□□□□J and VKP115A(-□) are bottom suction type.
- ⑤ Immersion depth F : 180mm
H : 250mm
K : 350mm
- ⑥ Motor efficiency/voltage
 - None : Standard efficiency (equivalent to IE1) / Standard voltage
 - e : Top Runner efficiency (equivalent to IE3) / Standard voltage
 - 4Z : Standard efficiency (equivalent to IE1) / Different voltage
 - 4Z-e : Top Runner efficiency (equivalent to IE3) / Different voltage
 - 7W : UL approved motor (750W is NEMA Premium efficiency)

Global standards

Type	Standards/Regulations	Output		
		20W-250W	400W	750W
VKP	IE1 equivalent	●	●	●
	CE Marking	●*1	●	●
	EU energy efficiency	—	●	●
	GB3(GB18613-2020)	—	●	—
VKP-e	Top Runner efficiency (IE3 equivalent)	X		
	CE Marking			
	EU energy efficiency			
	GB3(GB18613-2020)			
VKP-7W	NEMA Premium efficiency	—	—	●
	UL Standards (safety)	●	●	●

*1 Excluding the types that end with "L." ● : Compliant
*2 GB certification label is attached as exclusive for GB standard. — : Ineligible

Standard Specification

Used liquid	Property of liquid	Grinding liquid, cutting liquid, etc*1.
	Temperature	40°C or below (no frozen liquid)
	Allowable kinematic viscosity	VKP-A 50Hz:300mm ² /s 60Hz:150mm ² /s VKP-H 50/60Hz:37.5mm ² /s
Installation location		Indoor Ambient temperature: -20 to 40 °C, RH 85% or below (no condensation), Height above sea level : 1000m or less, Place not exposed to direct sunlight, Place in an area free of corrosive or explosive gas or vapor.
Material	Pump legs Casing	FC150
	Impeller	CAC407 or special resins Refer to the table of impeller materials
	Main shaft	S45C
Shaft seal structure		Non-seal (mechanical seal-less)
Motor	Power source	3-phase 50/60/60 Hz, 200/200/220 V**2
	Type	Output 0.25kW or less: Totally enclosed self-cooled type Output 0.4kW or more: Totally enclosed fan-cooled indoor type
	Protection method	Refer to specification table
	Thermal class	Refer to specification table
	Rating	Continuous
	Number of poles	2P
Standard		IEC60034-1 CE Marking**3
Paint color		Munsell N1

*1 Take note that special liquid such as water, printing liquid or acid liquid cannot be used. Contact us for other special liquid (ceramic, etc.).
*2 (Standard specification) different voltage: 50/50/50/60/60Hz 380/400/415/400/440V, NEMA Premium efficiency (IE3), UL Standards (safety): 60Hz 208/230/460V, GB18613-2020: 3-phase 50Hz 200V, 50Hz 380V
*3 Excluding -7W type and the types that end with "L."

Table of Consumable Parts

Type	Bearing	
	Load side	Unload side
VKP035L	6200ZZ	6200ZZ
VKP045A(L/-4Z/7W)	6200ZZ	6200ZZ
VKP055A(-4Z/7W)	6200ZZ	6200ZZ
VKP065A(-4Z/7W)	6200ZZ	6200ZZ
VKP075A(-4Z/7W)	6202ZZ	6200ZZ
VKP075AH(-7W)	6204ZZ	6200ZZ
VKP075AK(-7W)	6206ZZ	6200ZZAC
VKP075J(-7W)	6202ZZ	6200ZZ
VKP085A(-4Z/7W)	6204ZZ	6200ZZ
VKP085AF(-7W)	6204ZZ	6200ZZ
VKP085AK(-7W)	6206ZZ	6200ZZAC
VKP085J(-7W)	6202ZZ	6200ZZ
VKP095A(-4Z/7W)	6204ZZ	6202ZZ
VKP095AF(-7W)	6204ZZ	6202ZZ
VKP095AK(-7W)	6206ZZ	6202ZZAC
VKP095J(-7W)	6204ZZ	6202ZZ
VKP115A(-4Z/-7W)	6305ZZ	6203ZZ
VKP115A(-e/4Z/7W/-4Z-e)	6305ZZ	6203ZZ
VKP055H	6200ZZ	6200ZZ
VKP065H(-7W)	6200ZZ	6200ZZ
VKP075H(-7W)	6303ZZ	6200ZZ
VKP085H	6204ZZ	6200ZZ
VKP095H(-7W)	6204ZZ	6202ZZ

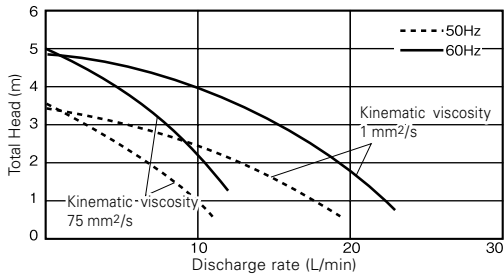
Selection chart

VKP-A type

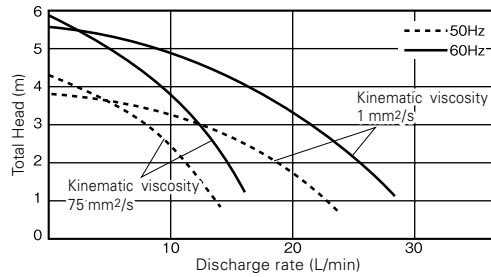
(Values at kinematic viscosity 1mm²/s, specific gravity 1)
 (Values at kinematic viscosity 75mm²/s, specific gravity 1)

Synchronous rotating speed 50Hz : 3000min⁻¹
 60Hz : 3600min⁻¹

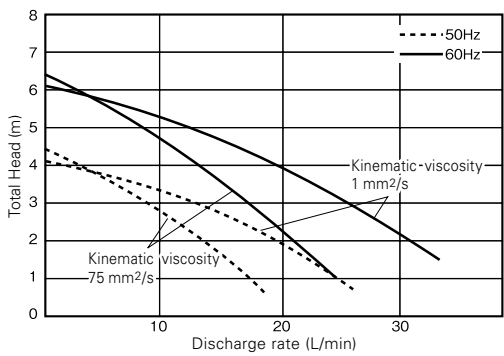
●VKP035L



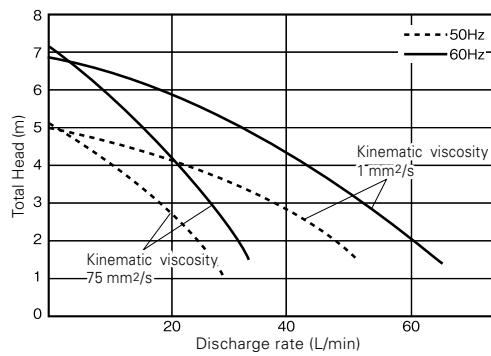
●VKP045A (L)



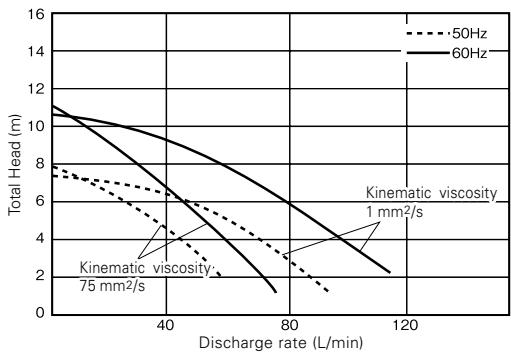
●VKP055A



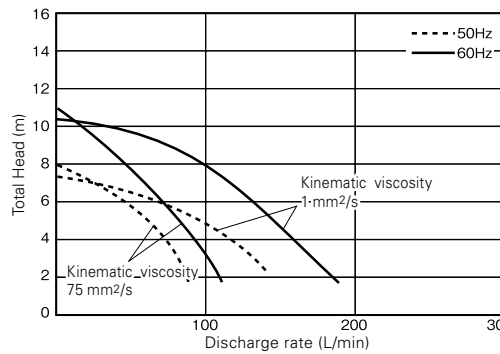
●VKP065A



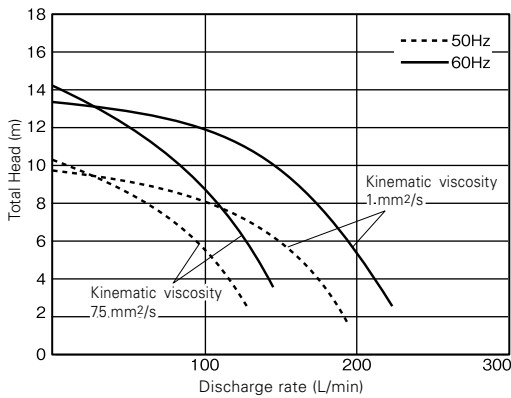
●VKP075A (AH/AK/J)



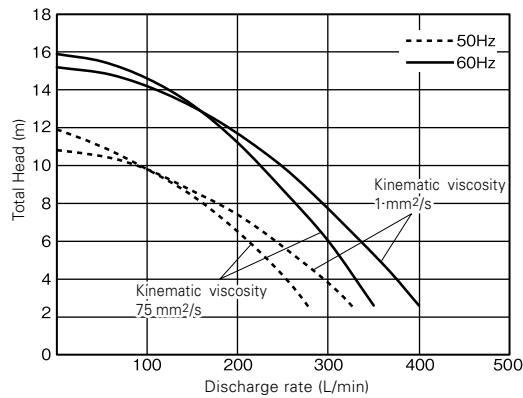
●VKP085A (AF/AK/J)



●VKP095A (AF/AK/J)



●VKP115A



※ Above selection chart is also available for -e/-4Z/-7W type.

Note 1) Take note that discharge rate varies considerably depending on the type and kinematic viscosity of liquid.

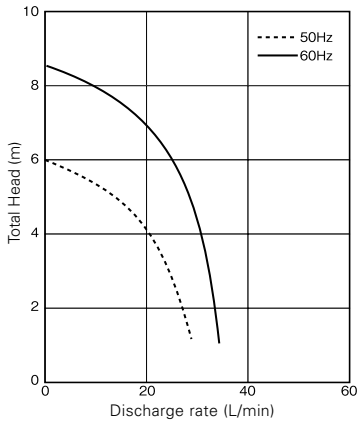
Note 2) There is virtually no change in characteristics according to leg length (LH130 to 350mm).

VKP-H type

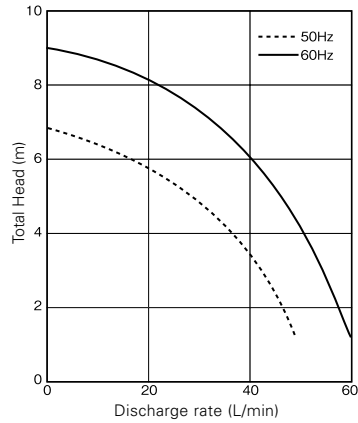
(Values at kinematic viscosity 1mm²/s, specific gravity 1)

Synchronous rotating speed 50Hz : 3000min⁻¹
60Hz : 3600min⁻¹

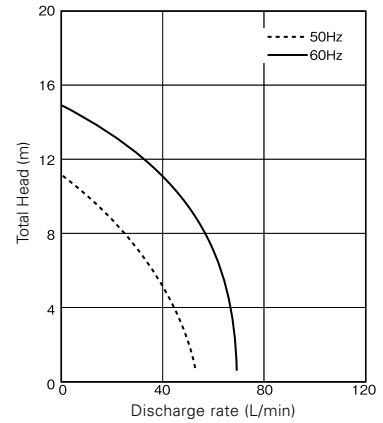
●VKP055H



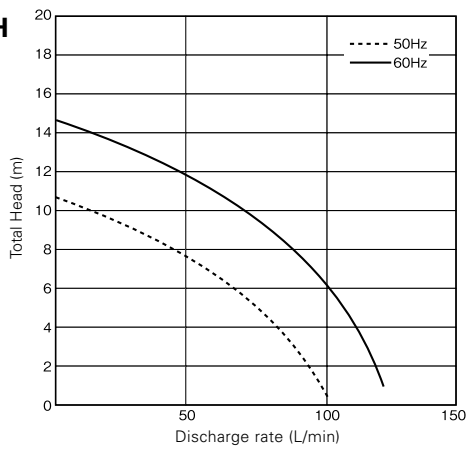
●VKP065H



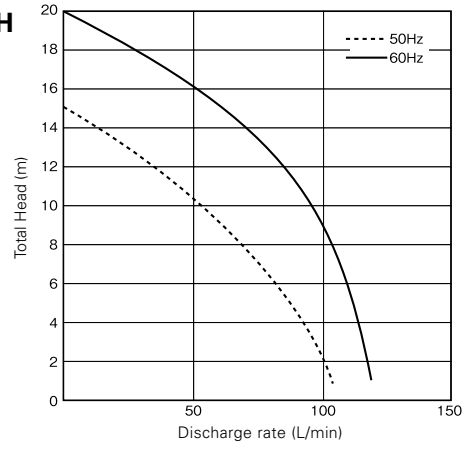
●VKP075H



●VKP085H



●VKP095H



※ Above selection chart is also available for -7W type.

Note 1) Please note that discharge rate varies considerably depending on the type and kinematic viscosity of liquid.

Specification table

VKP-A type

Bore diameter (Rp)	Type	Output (W)	50Hz					60Hz					Protection method	Thermal class	
			Rated voltage (V)	Rated current (A)	Starting current (A)	Discharge (L/min)	Total head (m)	Rated voltage (V)	Rated current (A)	Starting current (A)	Discharge (L/min)	Total head (m)			
1/4	VKP035L*	20	200	0.18	0.67	13	2	200/220	0.2/0.2	0.62/0.68	19	2	IP23	B	
	VKP045L*	40	200	0.32	1.38	19	1.5	200/220	0.31/0.31	1.24/1.36	25	1.5			
	VKP045A														
	VKP045A-4Z														
VKP045A-7W							208/230/460	0.28/0.29/0.15	1.3/1.5/0.75						
3/8	VKP055A	60	200	0.4	1.73	20	2	200/220	0.35/0.35	1.52/1.67	30	2	IP54	B	
	VKP055A-4Z		380/400/415	0.19/0.20/0.22	0.8/0.9/0.9			400/440	0.18/0.18	0.7/0.8					
	VKP055A-7W				208/230/460	0.39/0.38/0.19	1.8/2.0/1.0								
	VKP065A	100	200	0.55	2.67	45	2	200/220	0.5/0.5	2.33/2.56	60	2			
VKP065A-4Z	380/400/415		0.28/0.28/0.29	1.2/1.3/1.3	400/440			0.25/0.25	1.1/1.3						
VKP065A-7W					208/230/460			0.56/0.55/0.28	3/3.3/1.7						
1/2	VKP075A	180	200	0.85	5.86	75	3	200/220	1.0/1.0	5.52/6.08	100	3	IP54	B	
	VKP075AH														
	VKP075AK														
	VKP075J							200/220	1.0/1.0	5.52/6.08					95
VKP075A-4Z	380/400/415	0.44/0.43/0.42	2.0/2.1/2.1	400/440	0.5/0.5	1.9/2.1	100								
VKP075A-7W				208/230/460	1.0/0.95/0.48	5.4/6/3									
3/4	VKP085A	250	200	1.2	8.79	110	4	200/220	1.5/1.5	8.26/9.09	160	4	IP54	B	
	VKP085AF														
	VKP085AK														
	VKP085J							200/220	1.5/1.5	8.26/9.09					145
VKP085A-4Z	380/400/415	0.65/0.6/0.6	2.9/3.1/3.2	400/440	0.75/0.75	2.9/3.2	160								
VKP085A-7W				208/230/460	1.4/1.3/0.65	10.1/10.7/5.4									
1	VKP095A	400	200	2.4	11.0	140	5	200/220	2.5/2.4	10.0/11.0	200	5	IP54	B	
	VKP095AF														
	VKP095AK														
	VKP095J							200/220	2.5/2.4	10.0/11.0					
VKP095A-4Z	380/400/415	1.2/1.2/1.2	5.2/5.5/5.7	140	400/440	1.3/1.2	5.0/5.5								
VKP095A-7W				208/230/460	2.3/2.2/1.1	13.4/15.2/7.6									
2	VKP115A	750	200	3.3	25.7	165	7	200/220	3.7/3.6	23.3/25.7	285	7	IP54	B	
	VKP115A-e		200	3.3	29.0			200/220	3.7/3.6	28.0/30.0					
	VKP115A-4Z		380/400/415	1.7/1.7/1.7	11.1/11.7/12.1			400/440	1.9/1.8	10.6/11.6					
	VKP115A-4Z-e		380/400/415	1.7/1.7/1.7	13.5/14.5/15.3			400/440	1.9/1.9	14.0/15.0					
	VKP115A-7W							208/230/460	3.7/3.6/1.9	28.8/32.0/16.0					

Note 1) Since VKP035L and VKP045L have cabytre cable, they do not comply with CE Marking. In addition they do not comply with RoHS Directive (2011/65/EU), which restricting 10 substances. The protection method is IP23.

Note 2) Discharge rate and total head are the values obtained in the tests with a liquid kinematic viscosity of 1mm²/s (same as fresh water at normal temperature). Take note that the pump cannot be used with water.

Note 3) VKP □□□ J, VKP115A(-□) are bottom suction type.

Note 4) The pump's rated current (current value listed on the pump nameplate) is the recommended current setting for the protection device.

VKP-H type

Bore diameter (Rp)	Type	Output (W)	50Hz					60Hz					Protection method	Thermal class
			Rated voltage (V)	Rated current (A)	Starting current (A)	Discharge rate (L/min)	Total head (m)	Rated voltage (V)	Rated current (A)	Starting current (A)	Discharge rate (L/min)	Total head (m)		
3/8	VKP055H	60	200	0.42	1.73	10	5	200/220	0.55/0.52	1.52/1.67	10	7.5	IP54	B
	VKP065H	100	200	0.55	2.67	10	5.5	200/220	0.6/0.6	2.33/2.56		8		
	VKP065H-7W						208/230/460	0.56/0.55/0.28	3/3.3/1.7					
1/2	VKP075H	180	200	0.9	5.86	20	9	200/220	1.2/1.1	5.52/6.08	20	13	IP54	B
	VKP075H-7W						208/230/460	1/0.95/0.48	5.4/6/3					
3/4	VKP085H	250	200	1.2	8.79	20	9	200/220	1.5/1.5	8.26/9.09	20	8	IP54	B
1	VKP095H	400	200	2.4	11.0	20	13	200/220	2.5/2.4	10.0/11.0				
VKP095H-7W								208/230/460	2.3/2.2/1.1	13.4/15.2/7.6				

Note 1) Discharge rate and total head are the values obtained in the tests with a liquid viscosity of 1mm²/s (same as fresh water at normal temperature). Please note that the pump cannot use water.

Note 2) The pump's rated current (current value listed on the pump nameplate) is the recommended current setting for protection device.

Assembly drawing

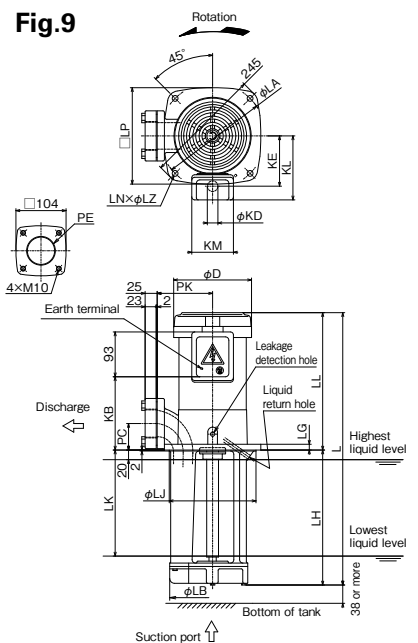
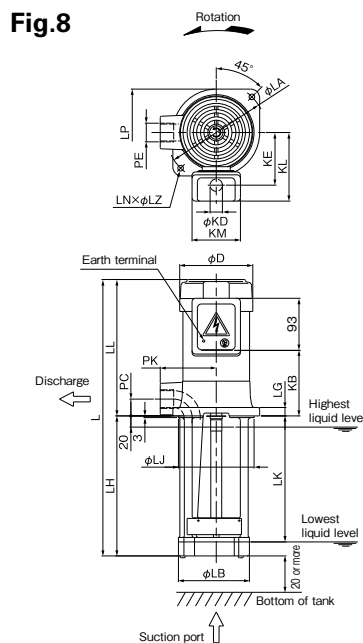
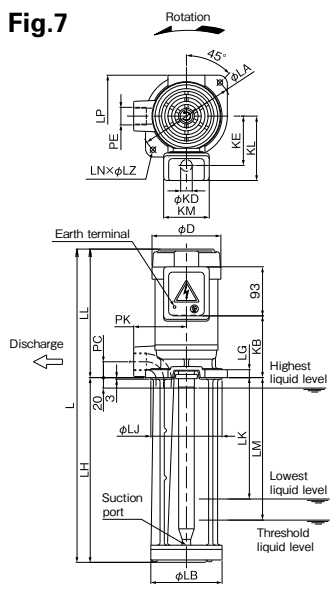
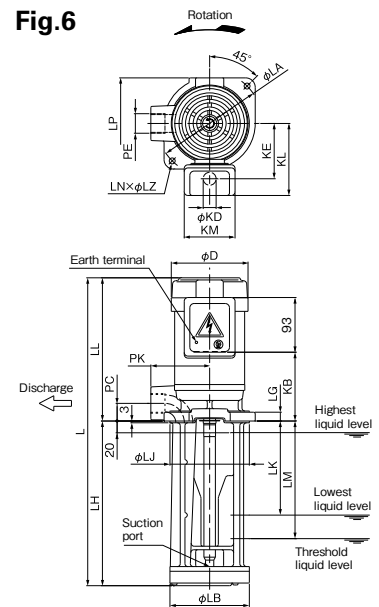
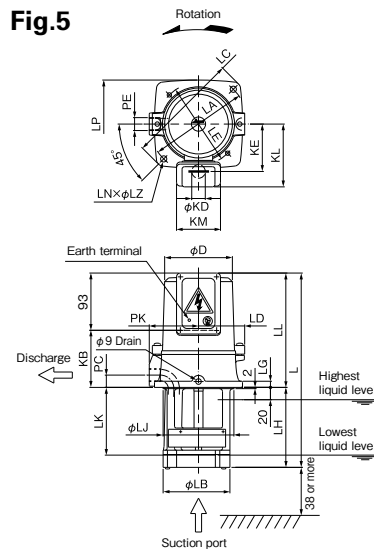
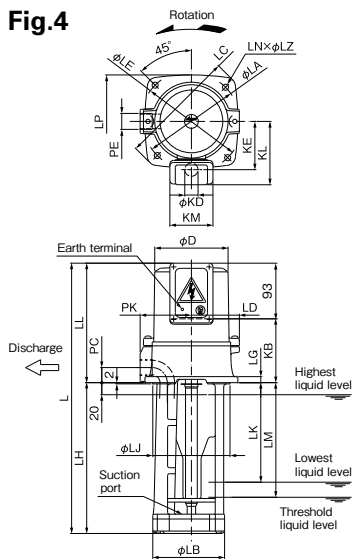
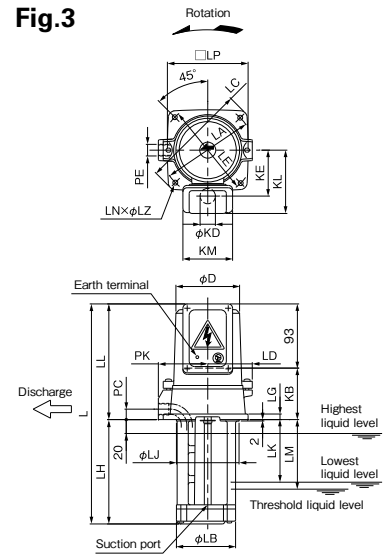
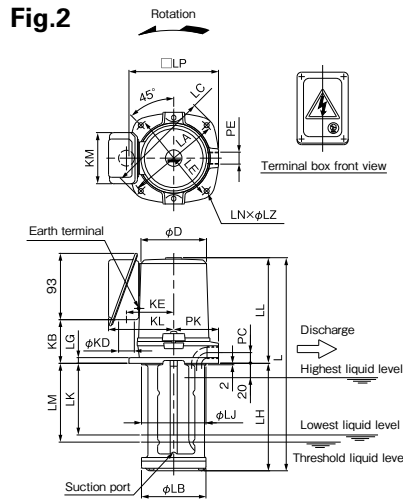
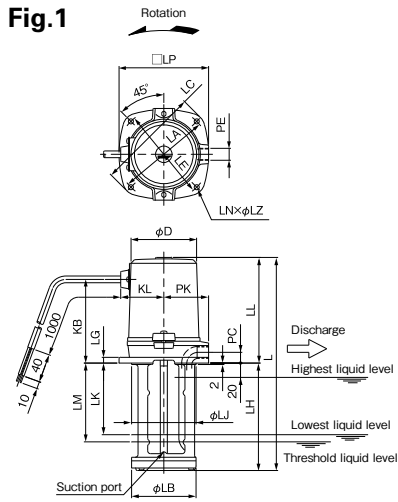


Fig.10

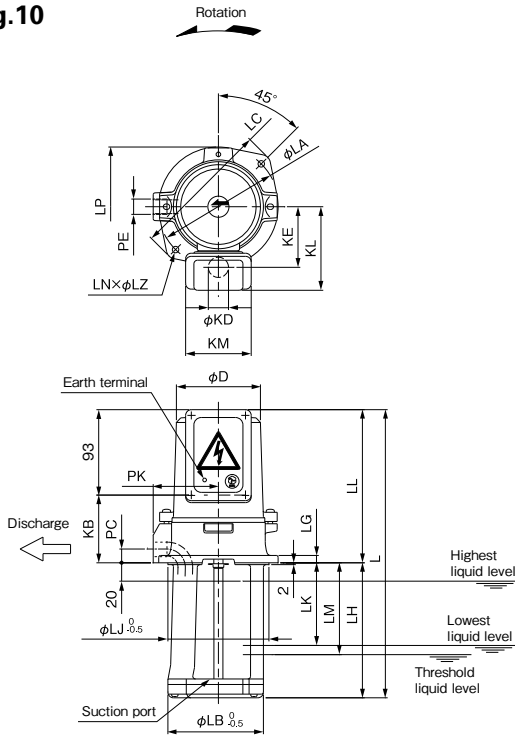
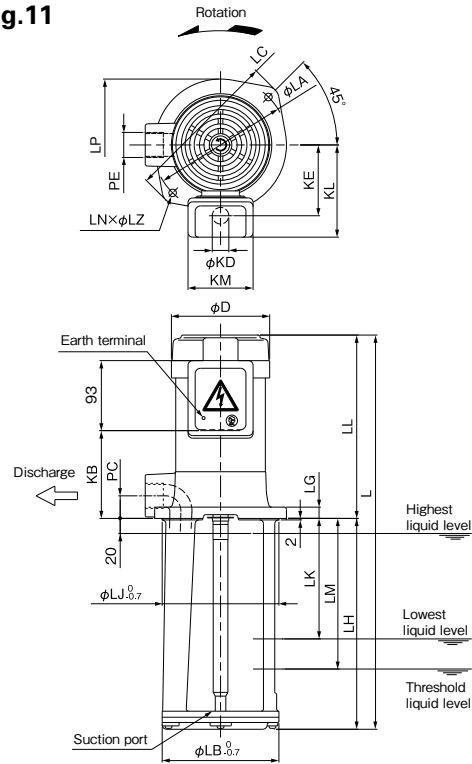


Fig.11



Dimensions

VKP-A type

(Unit : mm)

Type	Fig.	D	KB	KD	KE	KL	KM	L	LA	LB	LC	LD	LE	LG	LH	LJ	LK	LL	LM	LN	LP	LZ	PC	PE	PK	Approx. mass (kg)
VKP035L	1	92	115.5	—	—	61	—	296	130	90 ⁰ _{0.5}	143	—	130	8	148	90 ⁰ _{0.5}	105	148	115	4	125	7	15	Rp 1/4	62.5	5.3
VKP045L	1	92	115.5	—	—	61	—	298	130	90 ⁰ _{0.5}	143	—	130	8	150	90 ⁰ _{0.5}	100	148	110	4	125	7	15	Rp 1/4	62.5	5.3
VKP045A (-4Z/7W)	2	92	60.5	22	67	93	73	298*	130	90 ⁰ _{0.5}	145	—	130	8	150	90 ⁰ _{0.5}	100	148*	110	4	125	7	15	Rp 1/4	62.5	5.5
VKP055A (-4Z/7W)	3	92	74	22	67	93	73	317	132	90 ⁰ _{0.5}	152	64	130	8	150	90 ⁰ _{0.5}	100	167	110	4	116	7	15	Rp 3/8	71	6.0
VKP065A (-4Z/7W)	3	92	74	22	67	93	73	317	132	90 ⁰ _{0.5}	152	64	134	8	150	90 ⁰ _{0.5}	90	167	100	4	116	7	15	Rp 3/8	71	6.5
VKP075A (-4Z/7W)	3	111	94	22	78	104	73	367	160	115 ⁰ _{0.5}	184	75	134	10	180	115 ⁰ _{0.5}	105	187	130	2	143	19	20	Rp 1/2	80	10.0
VKP075J (-7W)	5	111	94	22	78	104	73	317	160	115 ⁰ _{0.5}	184	75	134	10	130	115 ⁰ _{0.5}	110	187	110	2	143	19	20	Rp 1/2	80	11.0
VKP075AH (-7W)	3	111	94	22	78	104	73	437	160	115 ⁰ _{0.5}	184	75	134	10	250	115 ⁰ _{0.5}	175	187	200	2	143	19	20	Rp 1/2	80	10.0
VKP075AK (-7W)	3	111	107	22	78	104	73	550	160	115 ⁰ _{0.5}	184	75	134	10	350	115 ⁰ _{0.5}	275	200	300	2	143	19	20	Rp 1/2	80	11.0
VKP085A (-4Z/7W)	4	122	106	22	81	107	73	449	160	128 ⁰ _{0.5}	194	80	170	10	250	128 ⁰ _{0.5}	165	199	190	4	154	10	25	Rp 3/4	85	15.0
VKP085J (-7W)	5	122	106	22	81	107	73	329	160	128 ⁰ _{0.5}	194	80	170	10	130	128 ⁰ _{0.5}	105	199	—	4	154	10	25	Rp 3/4	85	16.0
VKP085AF (-7W)	3	122	106	22	81	107	73	379	160	128 ⁰ _{0.5}	194	80	170	10	180	128 ⁰ _{0.5}	95	199	120	4	154	10	25	Rp 3/4	85	15.0
VKP085AK (-7W)	3	122	116	22	81	107	73	559	160	128 ⁰ _{0.5}	194	80	170	10	350	128 ⁰ _{0.5}	265	209	290	4	154	10	25	Rp 3/4	85	16.0
VKP095A (-4Z/7W)	6	131	117	22	94	122	87	524	180	135 ⁰ _{0.7}	—	—	—	15	280	135 ⁰ _{0.7}	160	244	200	2	155	10	30	Rp1	100	16.5
VKP095J (-7W)	8	131	117	22	94	122	87	494	180	135 ⁰ _{0.7}	—	—	—	15	250	135 ⁰ _{0.7}	225	244	—	2	155	10	30	Rp1	100	17.0
VKP095AF (-7W)	7	131	117	22	94	122	87	424	180	135 ⁰ _{0.7}	—	—	—	15	180	135 ⁰ _{0.7}	60	244	100	2	155	10	30	Rp1	100	17.0
VKP095AK (-7W)	7	131	117	22	94	122	87	594	180	135 ⁰ _{0.7}	—	—	—	15	350	135 ⁰ _{0.7}	230	244	270	2	155	10	30	Rp1	100	18.0
VKP115A (-4Z)	9	162	152	22	105	133	87	565	220	180 ⁰ _{0.7}	—	—	—	12	280	180 ⁰ _{0.7}	220	285	—	4	200	12	55	Rp2	115	27.0
VKP115A-e (-4Z/7W)	9	162	152	22	105	133	87	565	220	180 ⁰ _{0.7}	—	—	—	12	280	180 ⁰ _{0.7}	220	285	—	4	200	12	55	Rp2	115	28.0

*-7W type: L:296 LL:146

VKP-H type

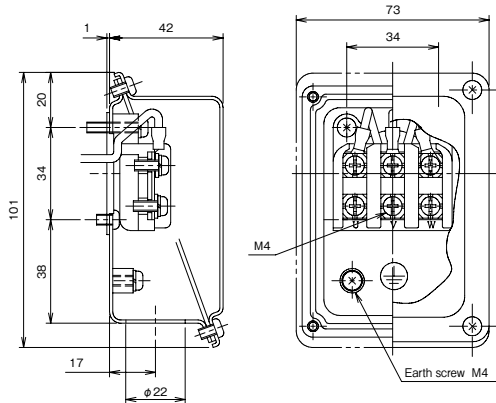
(Unit : mm)

Type	Fig.	D	KB	KD	KE	KL	KM	L	LA	LB	LC	LG	LH	LJ	LK	LL	LM	LN	LP	LZ	PC	PE	PK	Approx. mass (kg)
VKP055H	10	92	74	22	67	93	73	312	132	110	152	8	145	110	100	167	110	2	130	7	15	Rp 3/8	71	6.0
VKP065H (-7W)		92	74	22	67	93	73	317	132	110	152	8	150	110	90	167	100	2	130	7	15	Rp 3/8	71	6.5
VKP075H (-7W)		111	94	22	78	104	73	367	160	135	180	10	180	135	105	187	130	2	154	10	20	Rp 1/2	80	10.0
VKP085H		122	106	22	81	107	73	449	160	135	180	10	250	135	165	199	190	2	154	10	25	Rp 3/4	85	15.0
VKP095H (-7W)	11	131	117	22	94	122	87	524	180	155	206	15	280	155	160	244	200	2	175	10	30	Rp1	—	16.5

Detailed drawing of the terminal box

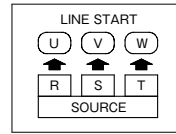
●VKP045A-085A (-4Z)
VKP055H-085H

Assembly drawing



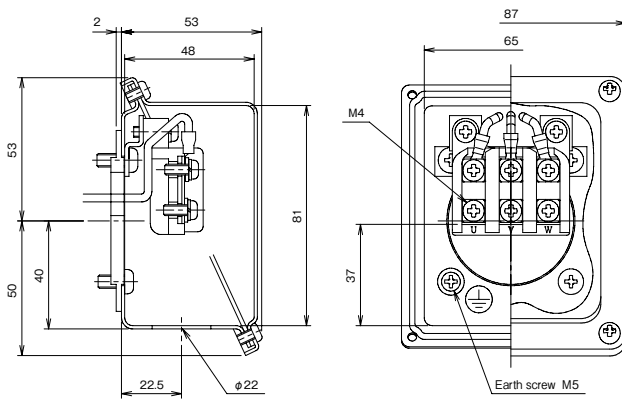
※ For the types that end with "L," cabtyre cable is used.

Connection diagram

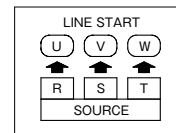


●VKP095□ (-4Z), 115A (-e/4Z)

Assembly drawing

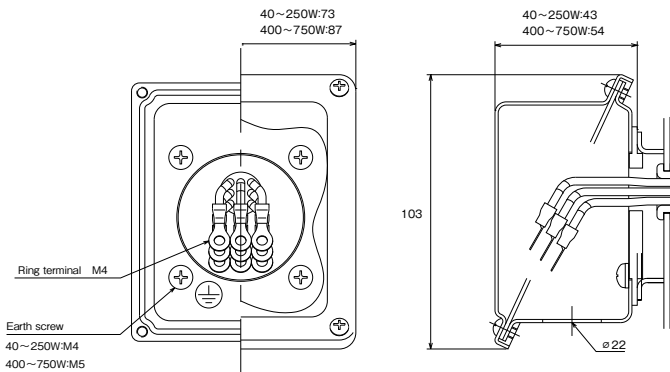


Connection diagram

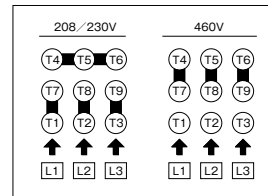


●VKP-7W

Assembly drawing

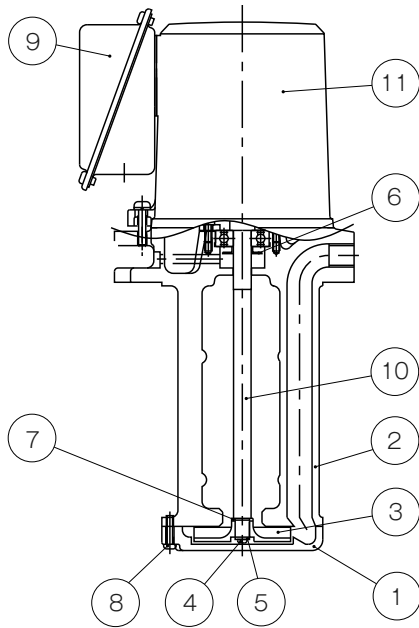


Connection diagram



Sectional drawing

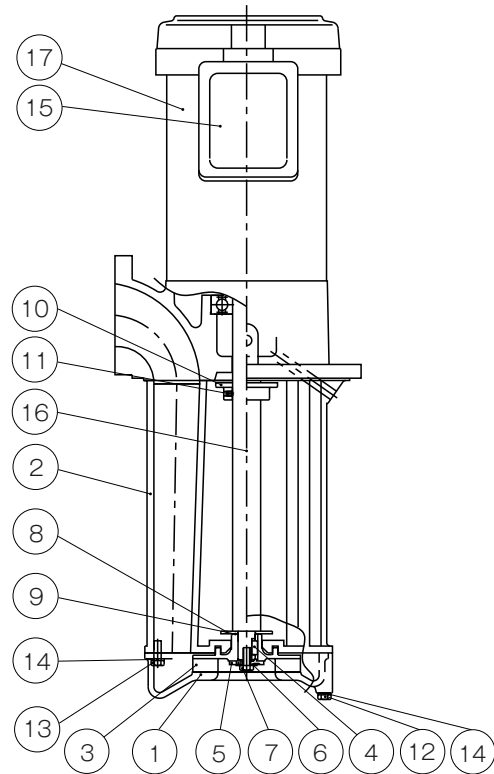
● VKP035A(L)-085A □ (-4Z/7W)
VKP065H-085H



No.	Part name	Material	No.	Part name	Material
1	Inner casing	FC150	7	Adjust seal	BsP3-1/2H
2	Pump leg	FC150	8	Small pan head screw	SU1S302
3	Impeller	Refer to the table below	9	Terminal box	SPCC
4	Small pan head screw	SS	10	Main shaft	S45C
5	Toothed washer	SK5	11	Motor	-
6	Oil thrower	SPCC			

Note 1) For the types that end with "L," cabtype cable is used.
Note 2) The materials in the table above are equivalents.
Note 3) Structure and other details are subject to change without notice.

● VKP115A (-e/4Z/7W)



No.	Part name	Material	No.	Part name	Material
1	Inner casing	FC150	10	Collar	FC150
2	Pump leg	FC150	11	Hexagon socket set screw	SS
3	Impeller	CAC407	12	Hexagon head bolt	SUS302
4	Key	S45C	13	Hexagon head bolt	SUS302
5	Press washer	SPCC	14	Spring washer	SUS302
6	Clawed washer	SPCC	15	Terminal box	SPCC
7	Impeller fixing bolt	SS	16	Main shaft	S45C
8	Oil thrower	SPHC	17	Motor	-
9	Adjust seal	BsP3-1/2H Phosphor bronze			

Note 1) The materials in the table above are equivalents.
Note 2) Structure and other details are subject to change without notice.

Table of impeller materials

VKP-A type

Type	Impeller material
VKP035L	CAC407
VKP045L	CAC407
VKP045A(-4Z/7W)	CAC407
VKP055A(-4Z/7W)	CAC407
VKP065A(-4Z/7W)	CAC407
VKP075A(-4Z/7W)	Special resins
VKP075AH(-7W)	Special resins
VKP075AK(-7W)	Special resins
VKP075J(-7W)	CAC407
VKP085A(-4Z/7W)	Special resins
VKP085AF(-7W)	Special resins
VKP085AK(-7W)	Special resins
VKP085J(-7W)	CAC407
VKP095A(-4Z/7W)	Special resins
VKP095AF(-7W)	Special resins
VKP095AK(-7W)	Special resins
VKP095J(-7W)	CAC407
VKP115A(-e/4Z/7W)	CAC407

VKP-H type

Type	Impeller material
VKP055H	CAC407
VKP065H(-7W)	CAC407
VKP075H(-7W)	CAC407
VKP085H	CAC407
VKP095H(-7W)	CAC407