



**KAWAMOTO PUMP**



Comfort Earth®

**Tough & High Performance**

Immersion  
type

# COOLANT PUMP Series

**RCC/RCD/RCE/RCJ/RCA**

Long Life

IE3, GB2, NEMA PREMIUM, KS-C motor

Varieties of standard application

PATENT



*Kawamoto*

Reduce annoying pump maintenance

# Kawamoto Immersion Coolant Pump

## High pressure type

### Application

Pressurised delivery of coolant liquid after primary filtration to machine tool at high pressure.

Realization of longer life of pump with adoption of mechanical seal-less and unique relief structure

NEW

## RCC type

Maintenance reduction structure

Please refer to page 3.



## Tough on dirty liquid

### Application

Dirty liquid generated in the machine tool is pumped to the filtration device.

Boasting overwhelming durability, reducing delay to the manufacturing site due to pump trouble.



## RCD type

Overwhelming endurance!

Please refer to page 23.



## RCE type

High-efficiency, high flow rate type!

Please refer to page 28.



## RCJ type

Excellent foreign substance permeability!

Please refer to page 32.



## RCA type

Small bore size & output type!

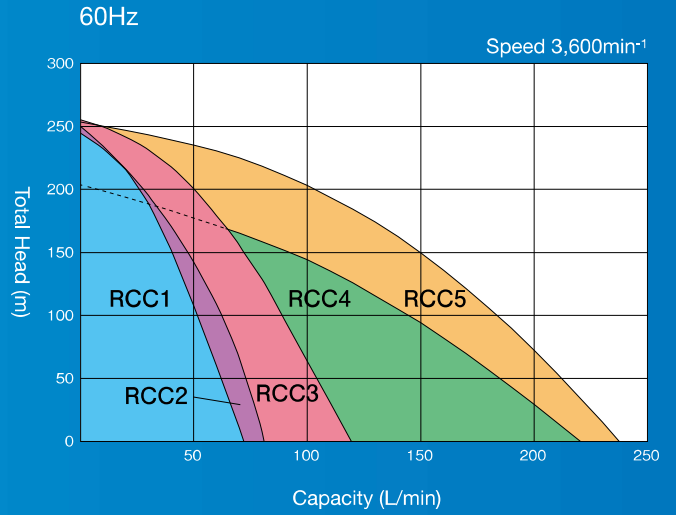
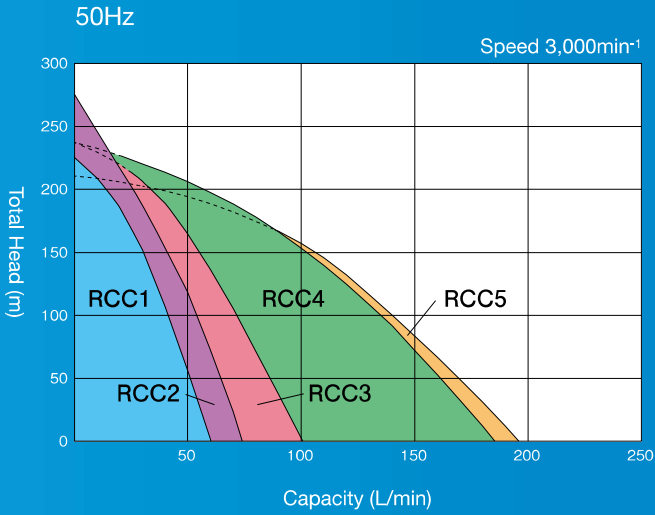
Please refer to page 35.

Compatible with national standards and high efficiency regulation with our own in-house motors.

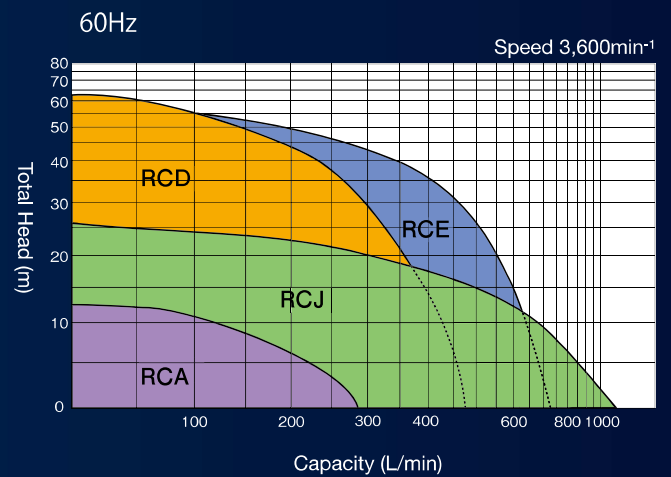
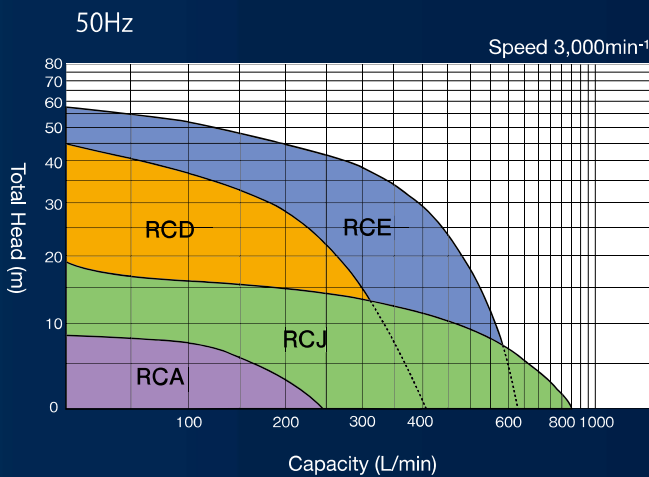
IE3  GB2  NEMA Premium  KS-C 

\* Some output is excluded. Also, since the RCA type is small output, it is excluded. Please contact us for details.

■ Selection range



■ Selection range



# RCD type Compliant motor standard IE1 / IE3 / GB2 / NEMA PREMIUM / KS-C

## Tough On Dirty Liquids!

RCD

Standard Specifications		RCD Coolant Pump
Scope of application	Model / Name	RCD Coolant Pump
	Installation location	Indoors
	Installation conditions	Vertical installation (horizontal installation not possible)
	Ambient conditions	Temperature: 0 to 40°C Humidity: 90% RH or lower (Non condensing)
	Liquid type*1	Coolant, other
	Liquid temp	0 to 40°C
Motor	Kinetic viscosity	75 mm <sup>2</sup> /s or lower *2
	Type	TEFC indoor, 2 poles, three phase 200V class / 400V class
	Efficiency	Standard efficiency (IE1) or Premium efficiency (IE3)



\*1 Cannot be used with clean water.  
 \*2 Use kinetic viscosity of 60 mm<sup>2</sup>/S or lower in case with the 3.0kW high-head type (special spec.)  
 \*3 Use kinetic viscosity of 32 mm<sup>2</sup>/S in case with the UL & NEMA Premium type.

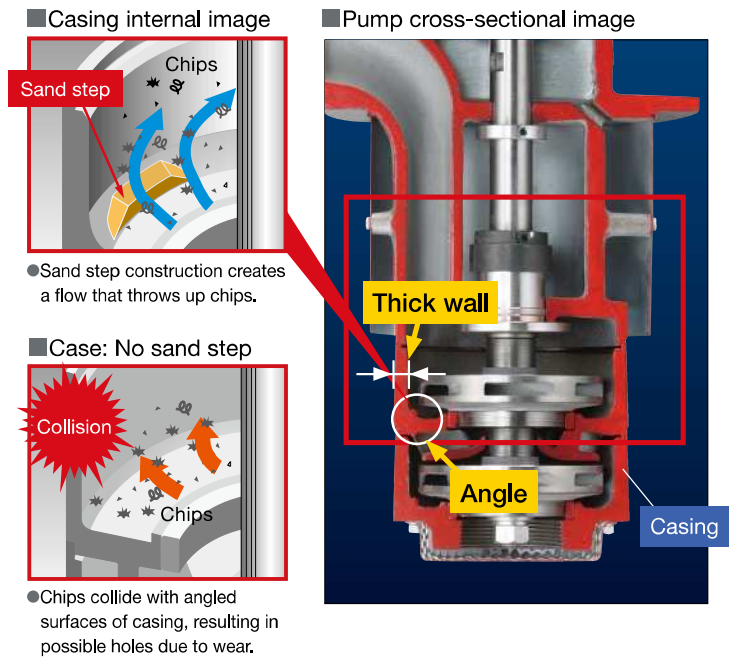
## Tough Pump Construction

Ideal for grinding and gear cutting applications.

**Pump section material**  
 FCD500 offering outstanding durability.

**Tough casing construction** Patent  
 The casing's unique sand step construction offers protection from chips contained in liquids, and its large angles and overall thick design offer peace of mind during use.

**Motor section**  
 The pump's overall tough design is rounded off with the adoption of a solid motor fan cover and aluminum die cast terminal box.



# Superb sealless structure

## Reduced environmental impact structure

(Replaceable shaft sealing parts)

Patent

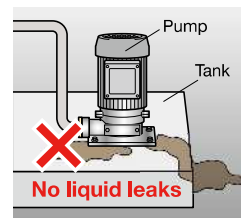
Highly durable quenched materials have been used for the shaft sealing section. Moreover, the environmental burden has been reduced through a design which allows replacement of the shaft sealing section alone if liquid leaks have become frequent as a result of wear.

Replacement Parts	●Sleeve (rotating ring) : Quenched SUS440
	●Bush (securing ring) : Quenched S45C

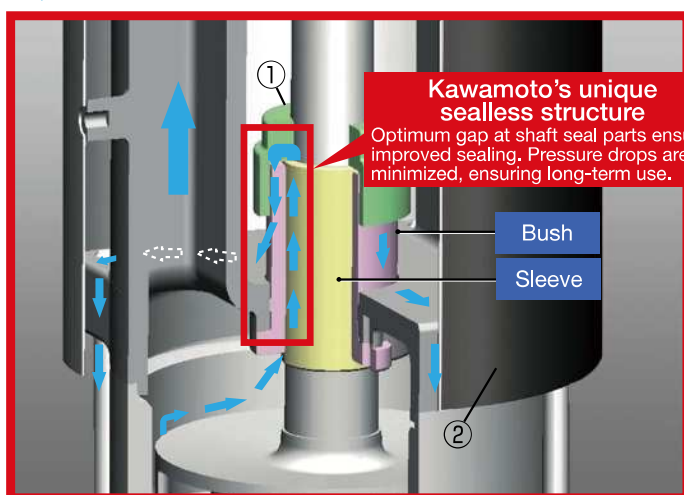
## Unique double anti-splash structure

Patent

Shaft seal parts offer protection from coolant splashes with the first anti-splash cover (see following Fig.①), and sealing has been improved with the adoption of a unique sealless structure. The pump has been enclosed with a second anti-splash cover (see following Fig.②) to protect it from coolant splashes.

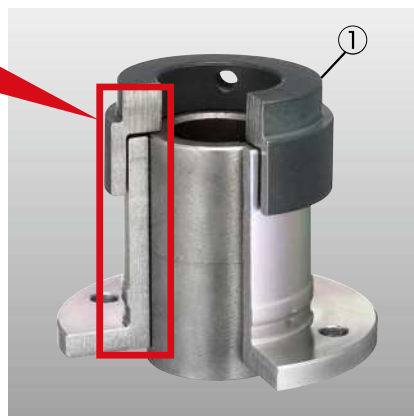


← Direction of coolant flow



**Kawamoto's unique sealless structure**  
Optimum gap at shaft seal parts ensures improved sealing. Pressure drops are minimized, ensuring long-term use.

■ Shaft seal part cross-sectional image



▶ Shaft seal parts sealing has been improved with the adoption of a unique sealless structure.

# Wide adaptability

## Standard Specifications

### ●Two types of leg length

Two types of leg length are available depending on tank depth.

\*Refer to the page 7 for detailed dimensions.



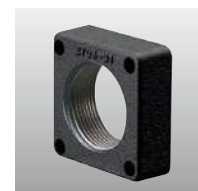
## Special specifications

- Many Standards motors are available. (GB2, UL & NEMA Premium)
- Adjustable terminal box position (90°, 180°, 270°)

## Optional accessory

### ●Mating flange set

\*Please contact distributor or Kawamoto pump if necessary.



## Model Explanation

RCD – 40 H A 0.75 T4

① ② ③ ④ ⑤ ⑥

RCD – 40 A E 0.75

⑦

RCD – 40 A 0.75 G

⑧

① Model code

② Bore

③ H : High-head type (special spec.)  
Blank : standard

④ Leg length A: standard  
B: long leg

⑤ Pump nominal output (kW)

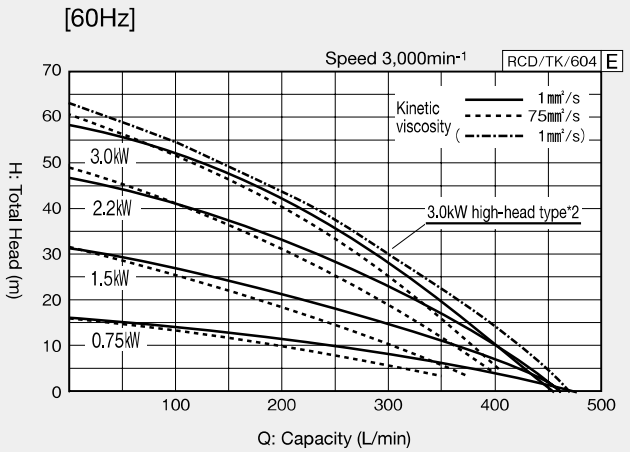
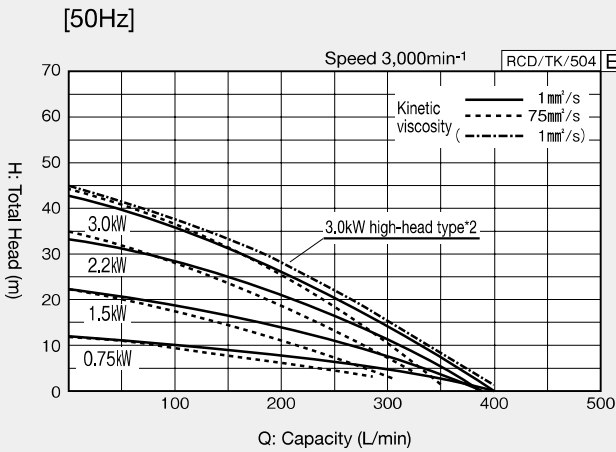
⑥ T4 : 400 V class product  
Blank : 200V

⑦ E : Premium efficiency standard (IE3) compliance model

⑧ G: Compliant with Chinese high-efficiency regulation class GB2  
U: Compliant with U.S. safety standard UL certification & NEMA Premium (IE3)  
K: Compliant with Korea high-efficiency regulation class IE3

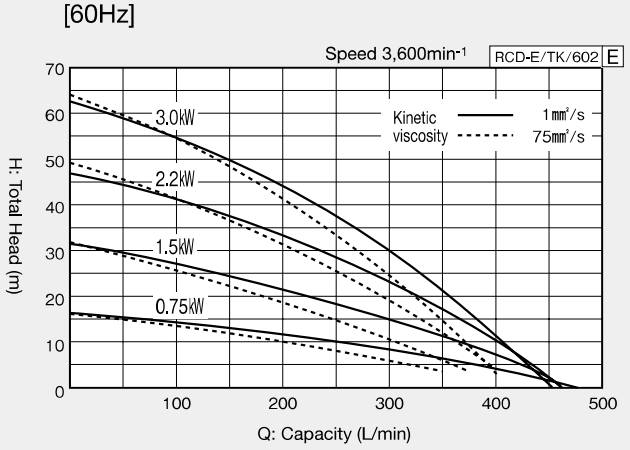
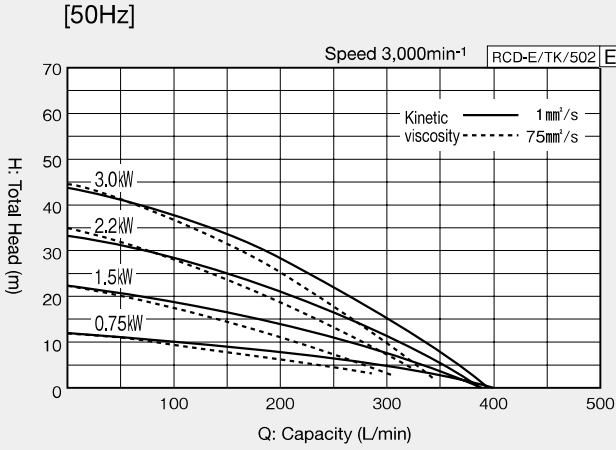
Selection chart

RCD



Note: Use kinetic viscosity of 60 mm<sup>2</sup>/S or lower with the high-head type (special spec.)

RCD-E



Selection chart application table in each motor standard

Model (motor standard)	Operating frequency (Hz)	Selection chart symbol
RCD (IE1)	50	A
	60	B
RCD-E (IE3)	50	C
	60	D
RCD-G (GB2)	50 only	A
RCD-U (UL&NEMA Premium)	60 only	D
RCD-K (KS C)	60 only	D

Specification table

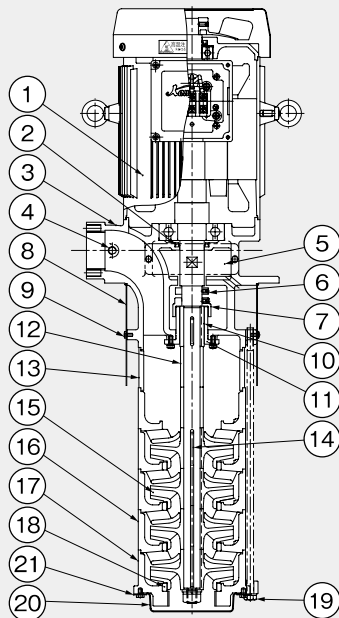
RCD/ST/000 E

Motor standard (selection chart symbol)	Bore mm	Model	Motor kW	Frequency	Voltage	Current	Q	H
				Hz	V	A	L/min	m
IE1 (A·B)	40	RCD-40A0.75	0.75	50	200	3.4	300	5
				60	200/220/230	4.7/4.4/4.2	300	8.5
		RCD-40A(B)1.5	1.5	50	200	5.8	300	8
				60	200/220/230	8/7.6/7.4	300	15
		RCD-40A(B)2.2	2.2	50	200	9	300	12
				60	200/220/230	12/11.5/11.5	300	23.5
		RCD-40A(B)3.0	3.0	50	200	11	300	14
				60	200/220/230	15/14/14	300	28
		RCD-40HA(B)3.0	3.0	50	200	11	300	15
				60	200/220/230	15.2/14/14	300	30
		RCD-40A0.75T4	0.75	50	380/400	1.7/1.7	300	5
				60	400/440/460	2.4/2.2/2.1	300	8.5
		RCD-40A(B)1.5T4	1.5	50	380/400	2.9/2.9	300	8
				60	400/440/460	4/3.8/3.7	300	15
RCD-40A(B)2.2T4	2.2	50	380/400	4.3/4.5	300	12		
		60	400/440/460	6/5.7/5.7	300	23.5		
RCD-40A(B)3.0T4	3.0	50	380/400	5.4/5.5	300	14		
		60	400/440/460	7.5/7/7	300	28		
RCD-40HA(B)3.0T4	3.0	50	380/400	5.4/5.5	300	15		
		60	400/440/460	7.6/7/7	300	30		
IE3 (C·D)	40	RCD-40AE0.75	0.75	50	200	3.1	300	5
				60	200/220/230	4.5/4.1/4	300	8.5
		RCD-40A(B)E1.5	1.5	50	200	5.6	300	8
				60	200/220/230	8/7.4/7.2	300	15
		RCD-40A(B)E2.2	2.2	50	200	8	300	12
				60	200/220/230	12/11/11	300	23.5
		RCD-40A(B)E3.0	3.0	50	200	11.5	300	15
				60	200/220/230	16/15/14.5	300	30
		RCD-40AE0.75T4	0.75	50	380/400	1.6/1.6	300	5
				60	400/440/460	2.3/2.1/2	300	8.5
RCD-40A(B)E1.5T4	1.5	50	380/400	2.8/2.8	300	8		
		60	400/440/460	4/3.7/3.6	300	15		
RCD-40A(B)E2.2T4	2.2	50	380/400	4.1/4	300	12		
		60	400/440/460	6/5.5/5.4	300	23.5		
RCD-40A(B)E3.0T4	3.0	50	380/400	5.6/5.7	300	15		
		60	400/440/460	8/7.5/7.3	300	30		
GB2 (A)	40	RCD-40A0.75G	0.75	50	200	3.1	300	5
		RCD-40A(B)1.5G	1.5	50	200	5	300	8
		RCD-40A(B)2.2G	2.2	50	200	7.6	300	12
		RCD-40A(B)3.0G	3.0	50	200	9.3	300	14
		RCD-40A0.75GT4	0.75	50	380	1.6	300	5
		RCD-40A(B)1.5GT4	1.5	50	380	2.7	300	8
		RCD-40A(B)2.2GT4	2.2	50	380	4	300	12
RCD-40A(B)3.0GT4	3.0	50	380	4.9	300	14		
UL & NEMA Premium (D)	40	RCD-40A0.75U	0.75	60	208-230/460	3.8-3.5/1.8	300	8.5
		RCD-40A(B)1.5U	1.5	60	208-230/460	6.7-6.2/3.1	300	15
		RCD-40A(B)2.2U	2.2	60	208-230/460	9.9-9.3/4.7	300	23.5
		RCD-40A(B)3.0U	3.0	60	208-230/460	13.6-12.8/6.4	300	30
KS C (D)	40	RCD-40A0.75K	0.75	60	220/380**	4.2/2.4	300	8.5
		RCD-40A(B)1.5K	1.5	60	220/380**	7.3/4.2	300	15
		RCD-40A(B)2.2K	2.2	60	220/380**	11.3/6.5	300	23.5
		RCD-40A(B)3.0K	3.0	60	220/380**	14.7/8.5	300	30

\*\*440V type is also available. Please inquire further information.

Structure drawing / Dimensional drawings

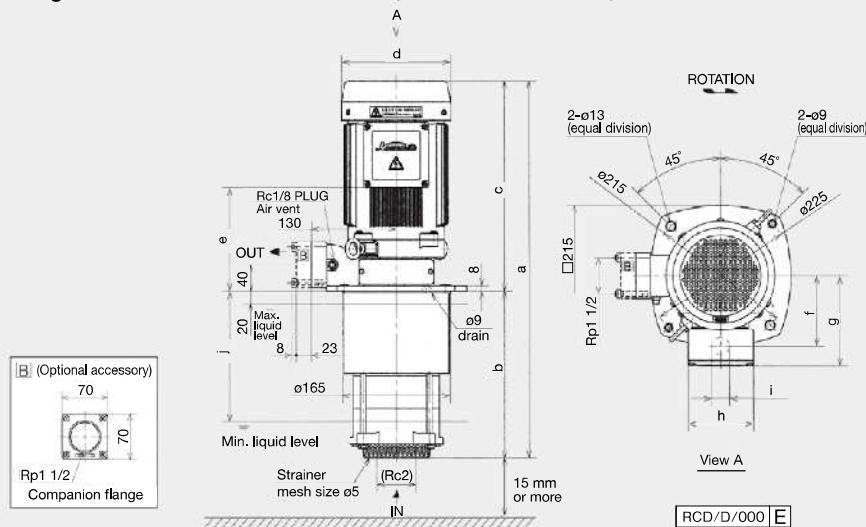
Structure drawing



No.	Name	Material
1	Motor	—
2	Oil seal	NBR
3	Discharge casing	FC
4	Plug	SWCH10K
5	Cover	SPCC
6	Deflector	S45C
7	Deflector	SMF4040
8	Cover	SPCC
9	Screw	C2700
10	Sleeve	SUS440
11	Bush	S45C
12	Sleeve	S45C
13	Spacer	STKM13A
14	Key	S45C
15	Impeller	FC
16	Stage casing	FCD
17	Suction casing	FCD
18	Liner ring	SUS304
19	Bolt	SS400
20	Strainer	SPCC
21	Plain washer	SS400

RCD/HC/000 E

Dimensional drawings Inquire specification sheet and drawings in case of actual working plan.



RCD/D/000 E

unit: mm

Model	Motor kW	Dimensions										Mass kg
		a	b	c	d	e	f	g	h	i	j	
RCD (IE1) RCD-G (GB2)	0.75	548	256	292	ø168	136	107	134	86	ø22	200	27
	1.5	578 (728)	256 (406)	322	ø168	158	108	139	100	ø27	200 (350)	31 (36)
	2.2	594 (744)	256 (406)	338	ø194	174	121	152	100	ø27	200 (350)	39 (44)
RCD-E (IE3) RCD-U (UL&NEMA Premium) RCD-K (KS C)	0.75	548	256	292	ø168	136	107	134	86	ø22	200	27
	1.5	578 (728)	256 (406)	322	ø168	158	108	139	100	ø27	200 (350)	33 (38)
	2.2	594 (744)	256 (406)	338	ø194	174	121	152	100	ø27	200 (350)	40 (45)
	3.0	644 (744)	306 (406)	338	ø194	174	121	152	100	ø27	250 (350)	43 (47)

※The value enclosed in ( ) shows the dimension of type B (long leg type).

RCD/d/001 E

Motor connection diagram...Please refer to page 22.