

Kawamoto

COOLANT PUMP



RCA series

KAWAMOTO GEC Inc.

COOLANT PUMPS developed by engineers with expert knowledge and experience in pump technology

Impellers made of sintered metal provide far superior anti-wear performance to conventional models. Each unit is designed for worldwide use and applicable to both 200V and 400V input.



Features

- Excellent durability achieved by employing impellers made of sintered metal
- High operating reliability ensured by semi-open impeller
- Zero maintenance because of its non-seal structure
- Applicability to both 200V- and 400V-class input
- IP54 motor protection (against dust and water splash)
- CE marking (compliant with EU legislation)
- Aluminum die-cast terminal box



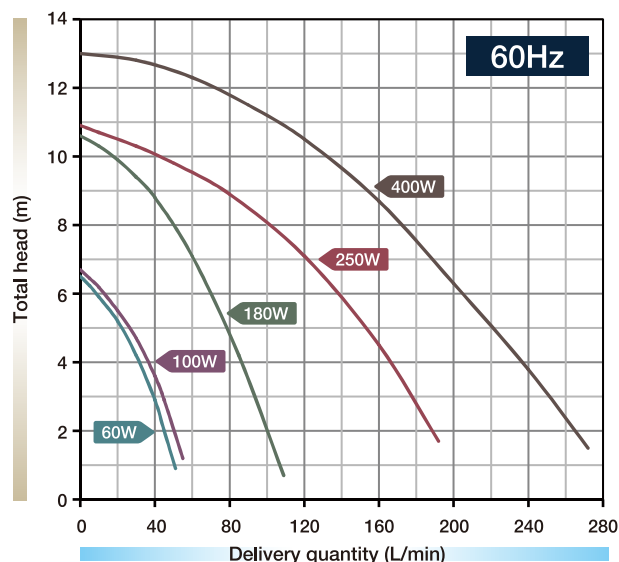
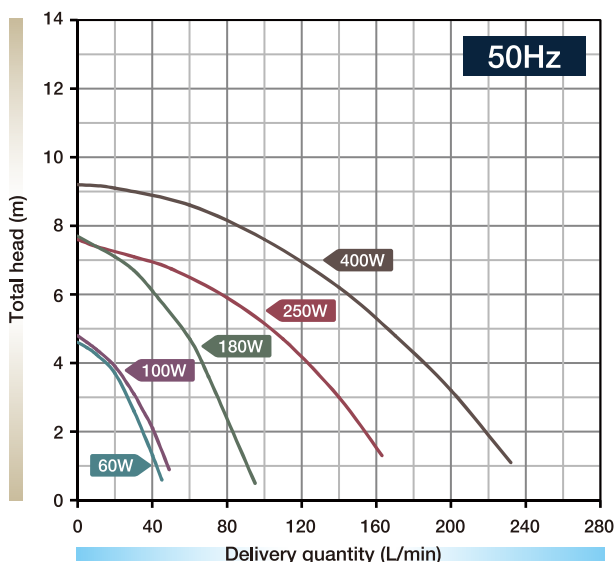
Applicability to Multiple Voltage Sources

V	200	220	230	380	400	440	460
50Hz	Low voltage (Δ) connection				High voltage (Y) connection		
60Hz							

* Factory setting is wired for 200V-class delta (Δ) connection.



Characteristic Curves



Model Designation



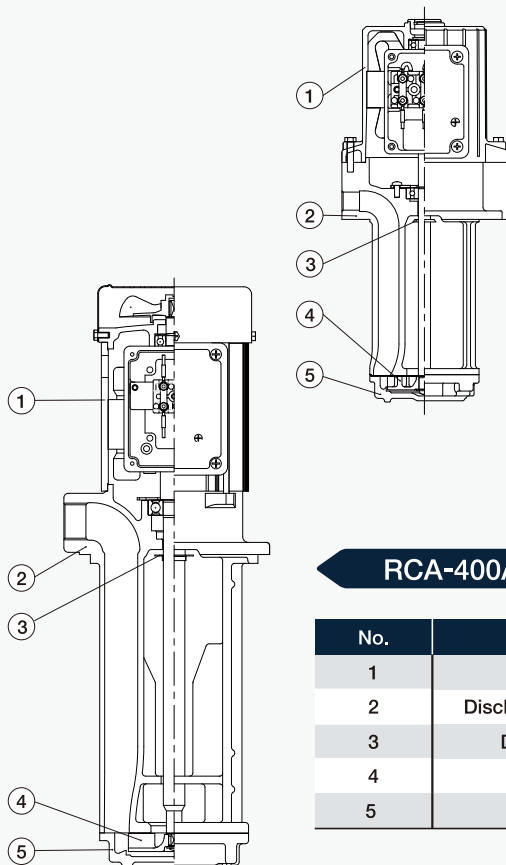


Specifications

Model	Motor	Pipe size	Wiring connection	Freq.	Voltage	Current	Delivery quantity	Total head	Weight	Compatible fluid
	W	Rp		Hz	V	A	L/min	m	kg	
RCA-60A	60	3/8	Low voltage (Δ)	50	200-220	0.36-0.41	30	2	6	<ul style="list-style-type: none"> Fluid types: coolant, cutting fluid, etc. Fluid temp: 0 – 40°C Max. allowable viscosity: 75mm²/s Note: Not compatible with fresh water
				60	200-220-230	0.41-0.41-0.41	40			
			High voltage (V)	50	380-400	0.23-0.26	30			
				60	400-440-460	0.25-0.25-0.26	40			
RCA-100A	100	3/8	Low voltage (Δ)	50	200-220	0.37-0.41	35	2	6.5	
				60	200-220-230	0.44-0.43-0.43	45			
			High voltage (V)	50	380-400	0.23-0.26	35			
				60	400-440-460	0.25-0.25-0.26	45			
RCA-180A	180	1/2	Low voltage (Δ)	50	200-220	0.71-0.68	70	3	11	
				60	200-220-230	1.1-1-0.95	85			
			High voltage (V)	50	380-400	0.4-0.4	70			
				60	400-440-460	0.56-0.52-0.51	85			
RCA-250A	250	3/4	Low voltage (Δ)	50	200-220	1.3-1.6	115	4	15.5	
				60	200-220-230	1.6-1.6-1.6	160			
			High voltage (V)	50	380-400	0.9-1.05	115			
				60	400-440-460	0.9-0.92-1	160			
RCA-400A	400	1	Low voltage (Δ)	50	200-220	1.9-2.5	160	5	18	
				60	200-220-230	2.3-2.2-2.2	210			
			High voltage (V)	50	380-400	1.4-1.7	160			
				60	400-440-460	1.3-1.4-1.6	210			



Configuration



RCA-60~250A

No.	Name	Material
1	Motor	—
2	Discharge casing	FC200
3	Deflector	NBR
4	Impeller	Sintered metal
5	Casing	FC200

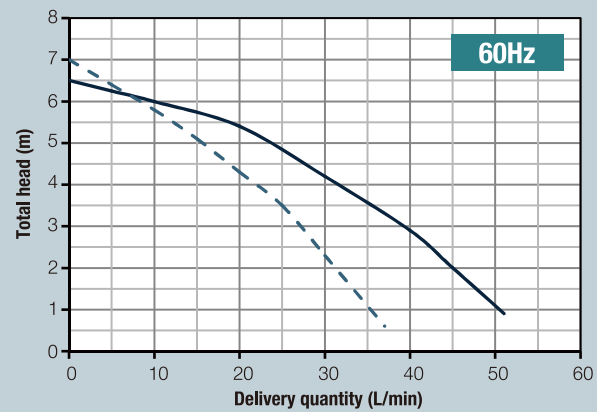
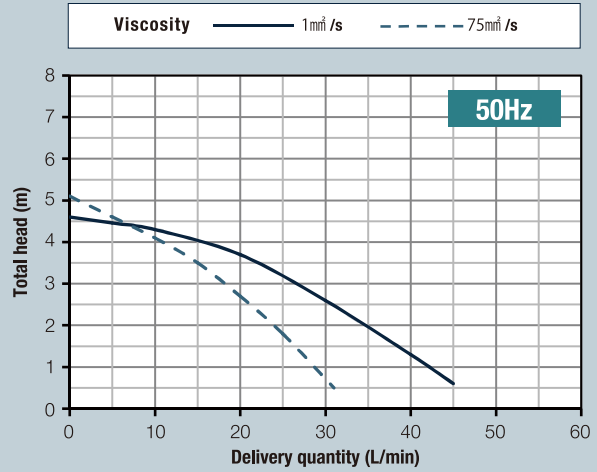
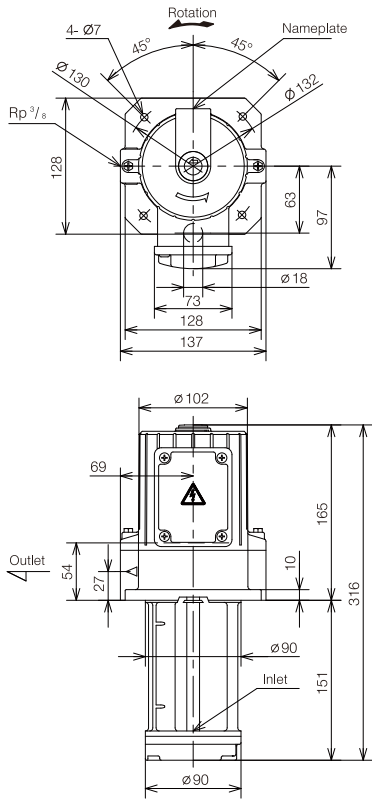
RCA-400A

No.	Name	Material
1	Motor	—
2	Discharge casing	FC200
3	Deflector	SPCC
4	Impeller	Sintered metal
5	Casing	FC200

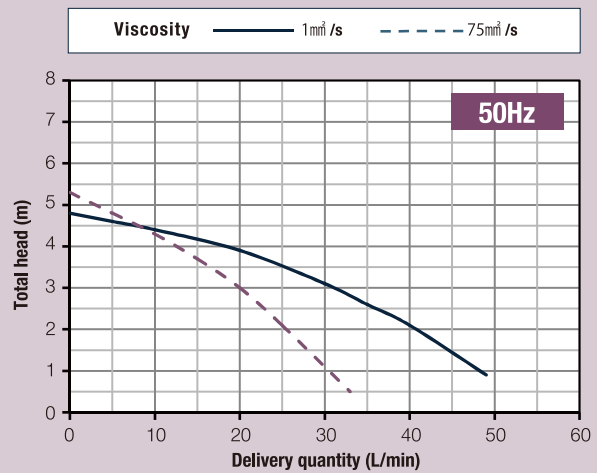
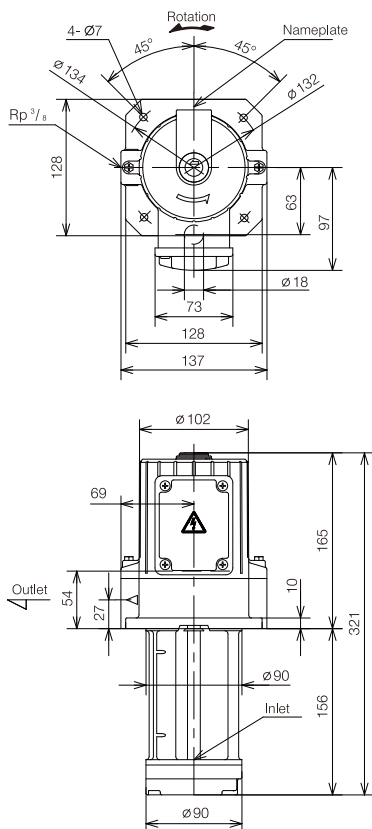


Outline Drawing / Characteristic Curves

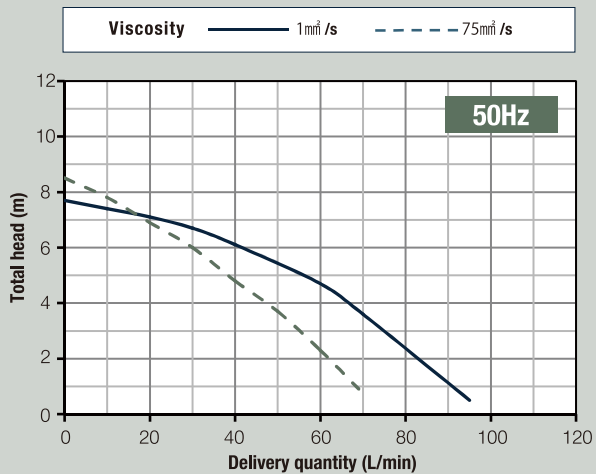
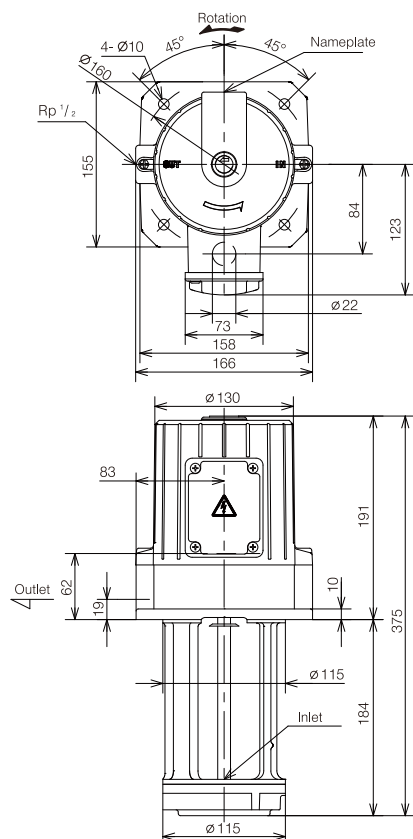
RCA-60A



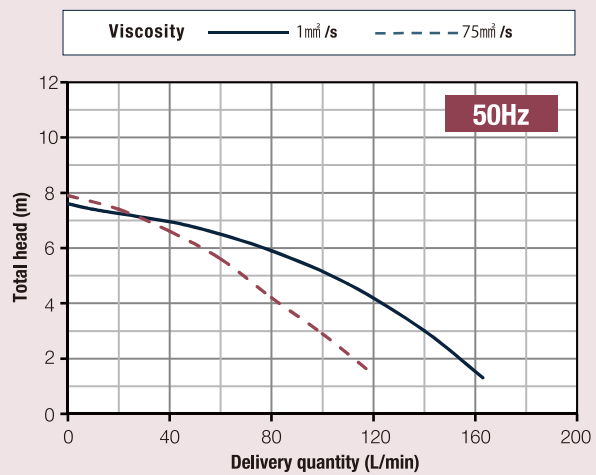
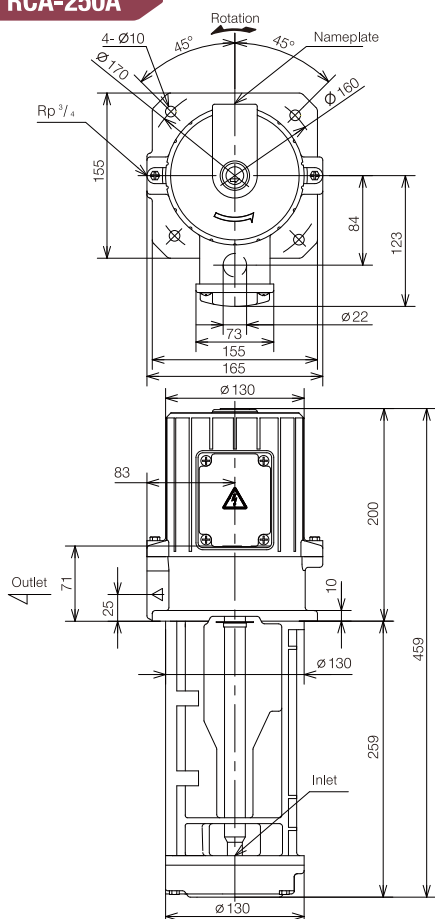
RCA-100A



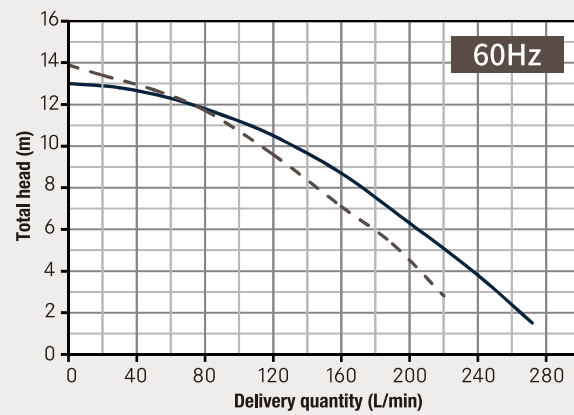
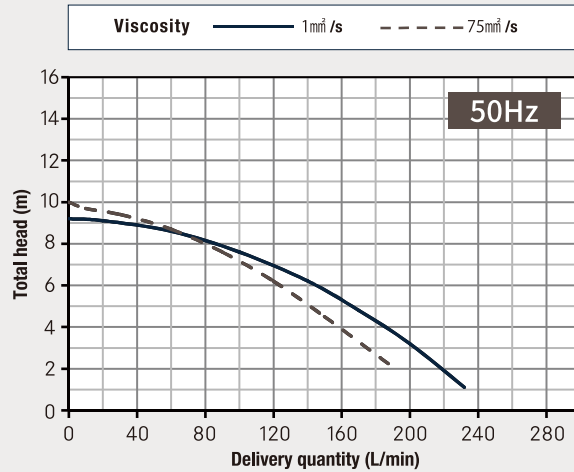
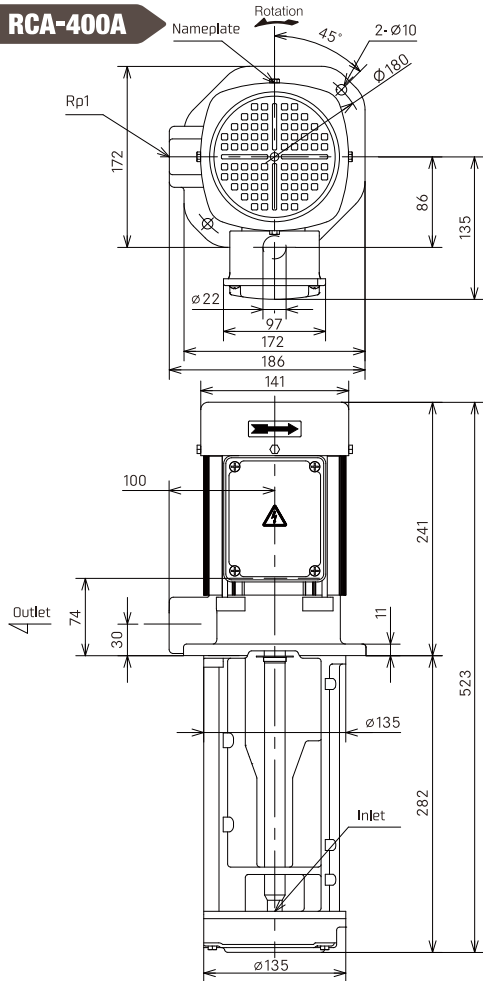
RCA-180A



RCA-250A

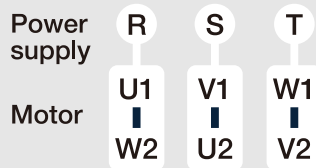


RCA-400A

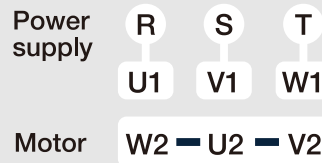


Connection Diagram

200V-class (Δ) 6 cables: DOL starting



400V-class (Y) 6 cables: DOL starting



Note: Factory setting is wired for 200V-class delta (Δ) connection.

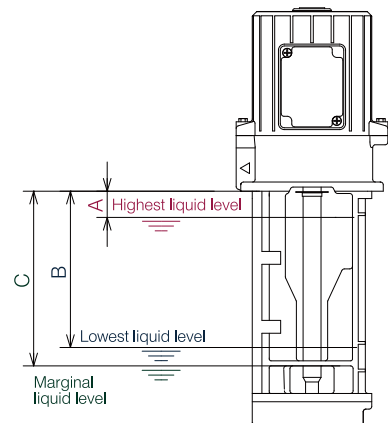
Operating liquid level

Model	Highest liquid level	Lowest liquid level	Marginal liquid level
	A[mm]	B[mm]	C[mm]
RCA-60A	20	95	105
RCA-100A	20	90	100
RCA-180A	20	110	130
RCA-250A	20	170	190
RCA-400A	20	175	205

Highest liquid level For safety, keep the fluid level as low as possible.

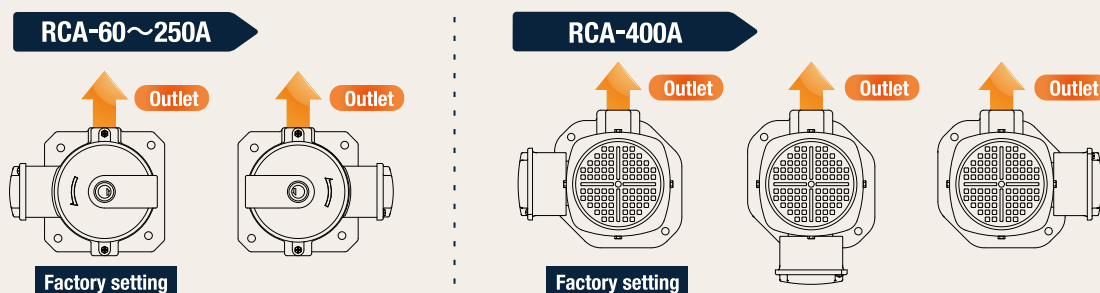
Lowest liquid level For safety, keep the fluid level as high as possible.

Marginal liquid level For the suction of air, the quantity will be about 1/2 of the rated value.



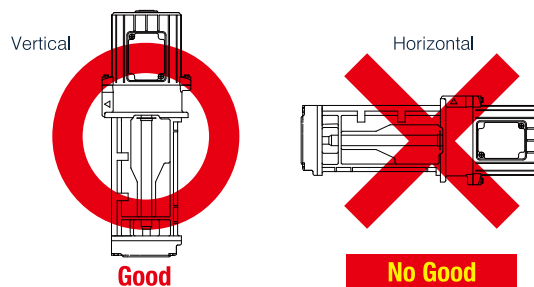
Repositioning of Terminal Box

The position of the terminal box can be changed by rearranging the motor frame.



Installation conditions

Installation location	Indoors
Ambient temperature	0~40°C
Humidity	85% RH or less (no condensation)
Installation direction	Vertical (horizontal position not allowed)



Safety Precautions

This instruction manual provides information for the customer to safely use this pump unit. Always read this manual thoroughly and fully understand the contents before starting work.

- Precautions for using this product safely and for preventing personal injuries or physical damage are given in this manual. This warranty may exclude problems arising from use in a manner outside the prescribed range, failure to observe precautions, inappropriate repairs/modifications or natural disasters; problems resulting from installation environment (power error, foreign matter, sand, etc.); problems resulting from failure to comply with laws, regulations and applicable standards; and problems resulting from accidental or intentional faults and damage, replacement of consumable parts or sale of the product, etc.
- Always use this pump within the specified product specifications. Failure to do so could result in electric shocks, fires, water leaks, etc.
- Select a product that matches the application. Using a product for an inappropriate application will cause faults.
- When using the product in an important facility, have a backup unit in place.
- Install the product according to applicable laws and regulations (Electrical Installation Technical Standards, Wiring Regulations). Failure to do so is not only illegal but it may also result in electric shock, fire, or injury from dropping or falling, etc.
- In consideration of the product life, select a well-ventilated place that is free of dust, corrosive and explosive gas, salt, humidity, steam and dew condensation, and is not subject to wind, rain or direct sunlight. The motor or control panel insulation could drop in a poor environment and lead to residual current, electric shock or fires.
- Do not install this pump in a place that has not been treated for drainage or waterproofing. Major problems could occur if water leaks.
- Where necessary, attach an appropriate filter, etc., on the outlet side and remove any debris, etc., by flushing thoroughly before using the product. Failure to do so could cause contamination of fluid with cutting oil, rubber release agent, particles, or other contaminants in pipes that are generated during manufacturing process.
- Install an alarm buzzer, etc. that alerts an operator when trouble or failure occurs so that it can be caught before it develops into a serious accident.
- Do not place flammable materials around the pump or cover the pump. The materials could overheat and ignite.
- This product must never be disassembled, repaired or modified by any person other than a qualified repair technician. Improper repairs could lead to electric shocks, fires or water leaks.
- Both periodic inspections and daily inspections are recommended for ensuring safe use for a long time. Failure to perform inspections can result in pump faults and accidents. Consult with your dealer or nearest Kawamoto Sales Office for periodic inspections.



Kawamoto

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RCAK-002 | 2016.05

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