

SINCE 1889



Cooling Water Circulator

(Externally Closed Circulation)

Neocool® Circulator

CF303-Y / CF313-X/Y

NEW

◦ Neocool is a registered trademark of Yamato Science Co., Ltd.

The cooling capacity has been increased and further reduced to a lower GWP.

GWP values: 2140

Cooling capacity: approx. 450W at liquid temperature 10

CF303-Y / CF313-X/Y

Accessories Two hose nozzles (for flexible hose connection),
One condensation waterdrainage hose 1m (inner diameter 12 mm),
Two clamps for hose fixing

External dimensions (WxDxH) : 205x396x535 mm (excluding projections)
Weight: Approx. 30 kg



Features

Temperature control range: -20 to 30°C

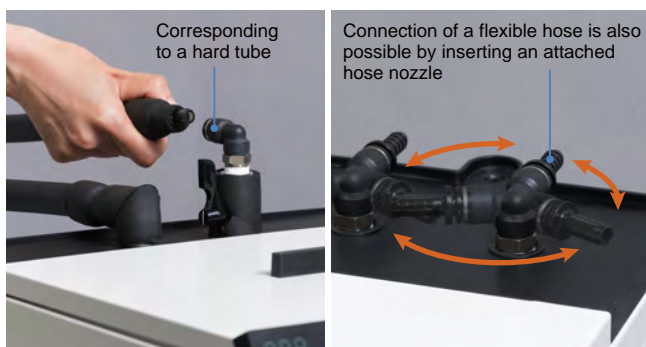
Easy maintenance of the inlet filter



New user friendly controller



Stress-free circulation connection



Safe drainage of condensation water



Yamato Scientific Co., Ltd.

Specifications

Model		CF303-Y	CF313-X/Y
Product Code		221712	
Circulation type		External closed circulation	
Circulating water		Tap water (water temperature below 10°C), Nybrine	
Operation temperature range		5°C to 35°C	
Performance	Temperature control range*1	-20°C to 30°C	
	Temperature adjustment accuracy*2	JTM K05±1.0°C (0°C) JTM K05±1.5°C (<0°C)	
	Temperature fluctuation*2	JIS 2.0°C (0°C) JIS 3.0°C (<0°C)	
	Cooling capacity*2	Approx. 450W at 10°C liquid temp. Approx. 330W at -10°C liquid temp.	
	Max. flow rate (50/60 Hz)*3	Approx. 9/10 L/min	
	Max. lift (50/60 Hz)*3	Approx. 4.3/5.7m	
Configuration	Temperature control	Refrigerator ON/OFF control	
	Temperature sensor	Pt100Ω	
	Controller	White LED digital display, key input, minimum digit 1°C	
	Refrigeration method/Rated capacity	Air-cooling/450W	
	Refrigerant	R452A	
	External circulation nozzle	One-touch connector (Flexible rotary L type) Top rear, 1 system	
	Water circulating pump (50/60Hz)	Outer diameter 10 mm rigid hose connection (Inner diameter 9 mm flexible hose mountable with attached hose nozzle) Magnet pump 10/15W (50/60 Hz)	
	Safety features	Overcurrent leakage breaker, temperature sensor error, Upper/lower temperature limit warning, Upper/lower temperature limit error, Refrigerator overload relay, Fan motor protection, circulation pump protection, Delay timer for refrigerator protection, Refrigerator high pressure switch	
Other features	Drainage hose, Circulation port condensation water drainage hose, Intake port dustproof filter, Cooling operation switch, Circulation pump switch, Calibration offset, Power failure recovery function (selected)		
Standard	Inner tank material	Stainless steel	
	Inner tank capacity	Approx. 3.9L (liquid volume 3.5L)	
	External dimensions (W×D×Hmm)	205×396×535	
	Weight	Approx. 30kg	
	Power source*4	AC115V 7A Single-phase / 60Hz	AC220V 4A Single-phase, 50Hz(CF313-X) 60Hz(CF313-Y)
Accessories*5	Two hose nozzles (for flexible hose connection), One condensation water drainage hose 1m (inner diameter 12 mm), Two clamps for hose fixing		

*1 It doesn't have a heating function.

*2 This is the capacity value at an ambient temperature of 20°C and a power supply voltage of 100V AC /50Hz.

Temperature control accuracy is JTMK05, and temperature fluctuation is a standard value calculated using the JIS standard.

*3 Capacity values for tap water at a water temperature of 20°C. *4 The length of the power cord is about 2m outside the machine. *5 Circulation insulated hose is not included.

Optional Items

No.	Model	Product Code	Product Name	Specifications
	OCF12	221581	Heat insulated circulation hose	Inner diameter 9mm, ethylene propylene (soft) hose (2m) 2 pcs., clamps 4pcs.
	OCF62	221599	Heat insulated circulation hose	High heat insulation, inner diameter 9mm, silicone (soft) hose (2m) 2pcs., clamps 4pcs.
	OCF78	281475	Heat insulated circulation hose	Outer diameter 10mm, polyurethane (hard) tube (2m) 2pcs.
	OCF80	281476	L shaped circulation nozzle	8mm R3/8 SUS304
	OCL30	221396	L shaped circulation nozzle	10.5mm R3/8 SUS304
	OCL40	221397	L shaped circulation nozzle	13mm R3/8 SUS304
	OCL50	221398	L shaped circulation nozzle	16mm R3/8 SUS304
	OCF82	281477	Flow control valve	R3/8
	OA121	281359	External linkage input terminal*1	Operation/stop by no-voltage A contact input
	OCF88	281480	One touch connector	Straight one-touch connector R3/8×outer diameter 10mm for hard tubes
	OCF90	281481	One touch connector	L-shaped swivel type one-touch connector R3/8×outer diameter 10mm for hard tubes
	OCF92	281482	Strainer set	Y-type strainer (20 mesh, Rc3/8) +Outlet connection tube
	OCF94	281483	Hose nozzle	Connection from outer diameter 10mm hard tube to inner diameter 9mm soft hose*2
	OCF26	281487	Glass bottle	1L, Accessory for secondary trap bottle, Glass bottle and stopper set
	ORG80	255512	Vacuum nozzle set	Accessories for secondary trap bottle, set of 2 (nozzle, nozzle cap, packing)
	OCF40	281494	Packing set	Accessories for secondary trap bottle, set of 12 (packing)

*1 Please specify when ordering the main unit.



Caution

The specifications and performance figures of the products listed in this catalog are presented as a user guide under general operating conditions. When using the product, please understand the contents of the instruction manual and use the product correctly. Please note that we cannot be held responsible for any damage to persons or property caused by using the product outside the conditions of use described in the instruction manual.

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For the development of scientific technologies

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