

Standard Muffle Furnace

FO Series

Operating temp. range 100~1150°C

Temp. control accuracy ±2°C (at 1150°C)

Internal capacity 1.5L (FO100CR/110CR) 3.75L (FO200CR/210CR) 7.5L (FO300CR/310CR) 9L (FO410CR) 11.3L (FO510CR) 17.5L (FO610CR) 23.6L (FO710CR) 30L (FO810CR)

- Wide selection of space-saving compact units with maximum inner capacity
- Easy to use controller
- Excellent heat tightness with a firmly sealed chamber door
- High temperature accuracy at ±2.0°C
- Program operation of maximum of 6 patterns: 30 steps x 1 pattern, 15 steps x 2 patterns or 10 steps x 3 patterns
- Safety features include self-diagnostic functions, calibration off-set, lock function, auto-recovery after power failure, earth leakage breaker and automatic overheat prevention device
- Selectable options include exhaust system unit, N₂ gas loading device (with flow meter), temperature output terminal, time up / alarm output terminal and sample tray
- Upgraded with long life R-thermocouple sensors
- Designed with communication port



1.5L
FO110CR

9L
FO410CR

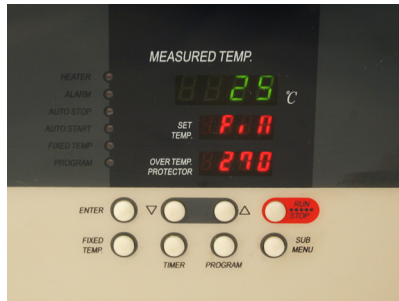
11.3L
FO510CR

30L
FO810CR

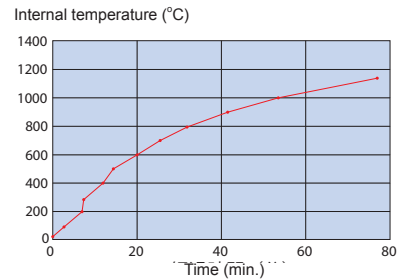
Specifications

Model	FO100CR/110CR	FO200CR/210CR	FO300CR/310CR	FO410CR	FO510CR	FO610CR	FO710CR	FO810CR
Operating temp. range	100~1150°C							
Temp. control accuracy	±2°C (at 1150°C)							
Max. temp. reaching time	~60min.			~70min.		~80min.		
Exterior material	Cold rolled steel plate with baked-on melamine resin finish							
Internal material	Ceramic fiber							
Sensor	R-thermocouple							
Heater	Iron-chrome wire							
	1kW	1.5kW	2kW	2.2kW	2.5kW	3kW	3.5kW	4kW
Exhaust port	ø20mm (top)							
Cooling Fan Type	Axial fan motor							
Temp. controller	PID control by microprocessor							
Temp. setting/display method	Digital setting by ▲/▼ keys / Digital display							
Operation function	Fixed temperature, quick auto stop, auto stop, auto start, program (maximum 6 patterns: 30 steps x 1 pattern, 15 steps x 2 patterns or 10 steps x 3 patterns)							
Additional function	Calibration offset, power failure compensation, lock, RS485 communication interface							
Timer	1 min. to 99 Hrs. 59 min. and 100 Hrs. to 999 Hrs.							
Safe Device	Self diagnostic (memory error, heater disconnection, sensor error, SSR short circuit), Electric leakage breaker, Overheat prevention device							
Internal dimensions(WxDxHmm)	100×150×100	100×250×150	200×250×150	200×300×150	300×250×150	250×350×200	270×350×250	300×400×250
External dimensions(WxDxHmm)	346×405×517	346×505×567	446×505×567	446×554×567	507×504×627	507×604×677	507×605×727	507×655×727
Internal capacity	1.5L	3.75L	7.5L	9L	11.3L	17.5L	23.6L	30L
Power source (50/60Hz)	AC115V/220V				AC220V single phase			
	10A / 5A	14.5A / 7.5A	19A / 9.5A	10.5A	12A	15A	18A	20A
Weight	~24kg	~30kg	~37kg	~38kg	~44kg	~52kg	~58kg	~62kg
Accessories	Exhaust port cap 1 pc.							

Control Panel



Temperature Rising Curve (FO300CR)



Optional items

Product code	Description
214096	Exhaust unit, 115V
214097	Exhaust unit, 220V
*281125	Communication adapter (RS485 / RS232C conversion)
*281301	Time up output terminal
*281303	N ₂ gas inlet system with flow meter
281310	Sample tray

* Please specify when ordering main unit.

Interior



Adoption of reasonable insulation structure increased thermal insulation characteristics and temperature distribution accuracy.

Sample tray



Exhaust unit



Gas generated due to the increase of temperature in the furnace will be quickly exhausted.

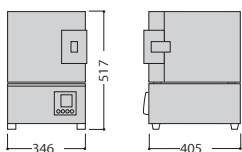
Aluminum type flexible duct
Length 1.5m / Diameter 50mm
Power source of exhaust device :
AC115V 0.27A
Single phase AC220V 0.15A

Temperature Output Terminal

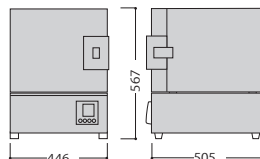


- Record and monitor internal temperature
- Temperature output: 4-20mA
- Time up output

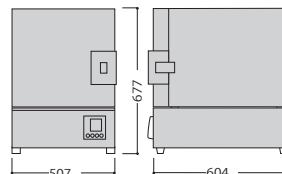
Dimensions (mm)



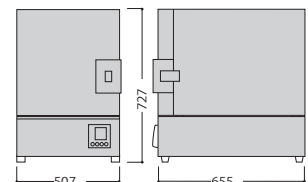
FO100CR/110CR
(1.5L)



FO300CR/310CR
(7.5L)



FO610CR
(17.5L)



FO810CR
(30L)