

# Standard Electric Furnace

## FO100/200/310/410/510/610/710/810

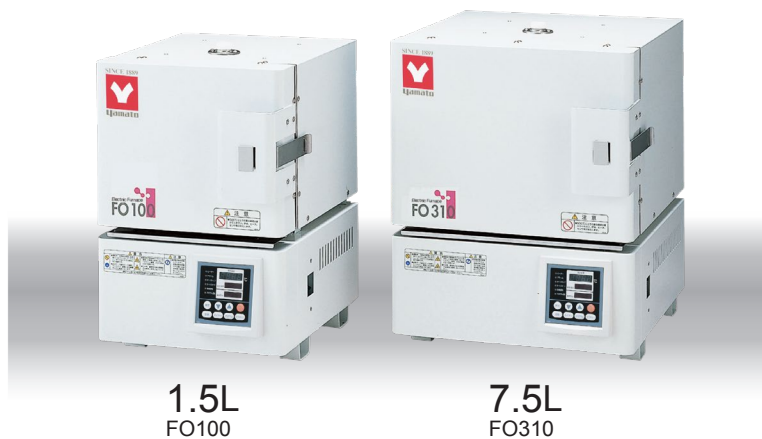
Operating temp. range 100~1150°C

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

Internal capacity 1.5L FO100 3.75L FO200 7.5L FO310 9L FO410 11.3L FO510 17.5L FO610 23.6L FO710 30L FO810

### Programmable muffle furnace with varying internal capacity.

- High precision temperature control.
- Easy up/down key setting.
- Digital display of setting temperature and indicator value.
- Digital setting of overheat protection.
- R thermocouple temp. sensor for long service life.
- Equipped with exhaust port.
- Safety device includes self-diagnosis functions and over-current electric leakage breaker.
- Option for system upgrade such as air exhaust device, sample tray, N<sub>2</sub> introduction device with flow meter and temp. output terminal.



### Specifications

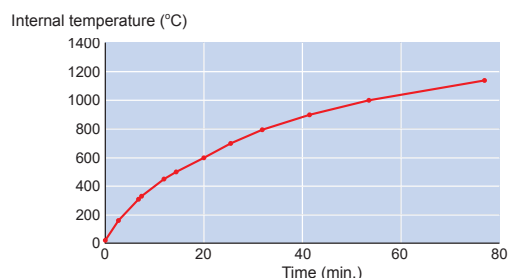
Product code	214115	214116	214117	214118	214119	214120	214121	214122	214123	
Model	FO100	FO200	FO300	FO310	FO410	FO510	FO610	FO710	FO810	
Operating temp. range	100~1150°C									
Temp. control accuracy	±2°C (at 1150°C)									
Max. temp. reaching time	Approx. 60min.			Approx. 70min.		Approx. 80min.				
Exterior material	Cold rolled steel plate with baked-on melamine resin finish									
Interior material	Ceramic fiber									
Sensor	R-thermocouple									
Heater	Iron-chrome wire									
	1kW	1.5kW	2kW		2.2kW	2.5kW	3kW	3.5kW	4kW	
Exhaust port	20 mm I.D. (upper part)									
Cooling Fan Type	Axial fan motor									
Temp. controller	PID control by microprocessor									
Temp. setting/display method	Digital setting by ▲/▼ keys / Digital display									
Overheat protection	Integrated controller									
Overheat protection set	Digital setting									
Operation function	Fixed temp., program (6 modes 30 seg.×1, 15 seg.×2, 10 seg.×3)									
Additional functions	Calibration off-set, Power outage compensation									
Timer	1min~99hr59min and 999hr 50min digital setting, Auto start, Quick auto stop									
Safety Device	Self diagnosis circuit (Abnormal temp. sensor, Auto overheat protection), Overheat protector, Overcurrent ELB									
Internal dimensions (WxDxHmm)	100×150×105	100×250×155	200×250×155		200×300×155	300×250×155	250×350×205	270×350×255	300×400×255	
External dimensions*1 (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)	AC115/220V Single phase with step down transformer				AC220V Single phase					
					9.5A	10A	13A	15A	17A	20A
Weight	Approx. 24kg	Approx. 30kg	Approx. 37kg		Approx. 38kg	Approx. 44kg	Approx. 52kg	Approx. 58kg	Approx. 62kg	
Accessories	Exhaust port cap 1 pc.									

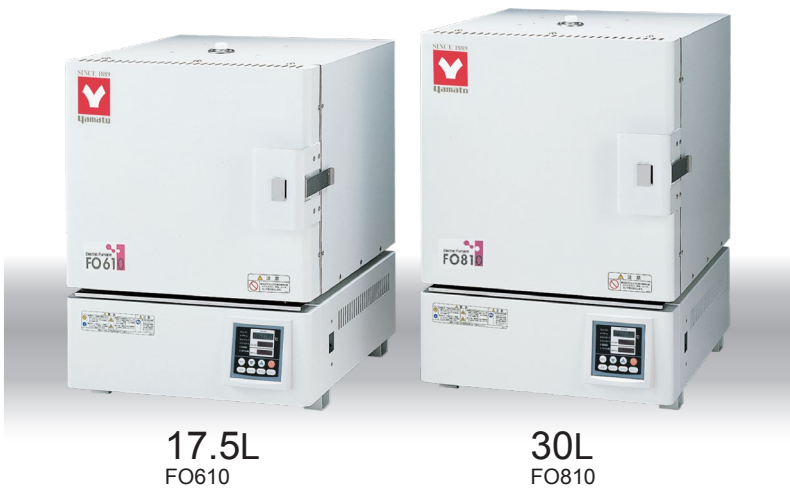
\*1 Do not include protrusions  
The length of the power cord is about 2m outside the unit.

### Control Panel



### Temperature Rising Curve (FO310)





17.5L  
FO610

30L  
FO810

## Interior



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

## Optional items

### Sample tray



## Optional items

NO.	Description		Product code
①	*Exhaust unit, 100V	FO100/200	214160
②	*Exhaust unit, 200V	FO310/410/510/610/710/810	214161
③	*Time up output terminal (Auto stop and output at program end)	All models	281301
④	*Temp. output terminal (4-20mA) (for record and monitor internal temperature)	All models	281302
⑤	*N <sub>2</sub> gas inlet system (with flow meter)	All models	281303
⑥	Sample tray	All models	281310

\* Please specify when ordering main unit.

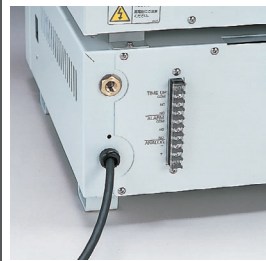
## Exhaust unit



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

Power source of exhaust device :  
AC100V 0.27A  
Single phase AC200V 0.15A

## Temperature Output Terminal



- Temperature output terminal: 4-20mA (for record and monitor internal temperature)
- Time up output terminal  
Auto stop and output at program end

## Dimensions (mm)

