

Muffle Furnace

LMF-I Series



Muffle Furnace LMF-I series

LMF-I series models of muffle furnace are microprocessor controlled furnaces that are uniquely designed with optimum heat insulation properties and are ideal for ashing of food, plastic and other organic materials. With heating elements MoSi_2 vertically aligned next to the side walls, S and B type thermocouple, dual sheet housing for low outer surface temperature, they are perfect for continuous and maximum working temperature of 1600°C. Having user friendly menu in 4 line display for easy operation and current limit control for safe operation, they are designed for minimal space requirement in the laboratory and are equipped with instantaneous energy consumption indicator, total working hour counter, control unit overheating sensor etc.

Features

- ▼ PID controller
- ✓ LCD display that shows current and target temperature
- Optimum insulation properties
- 4, 8, 16 step heating program available
- MoSi₂ heating elements vertically aligned next to the side walls
- Accurate temperature measurement and control using S and B type thermocouple
- ☑ Unique electronic design and software
- Durable inside lining made of high quality light insulating bricks and ceramic fibre board
- ☑ Dual shell housing for low outer surface temperature
- ✓ Current limit control for safe operation
- Provision of sound warning as the step changes and at the end of the program
- Equipped with step indicator
- Instantaneous energy consumption indicator
- Step indicator
- Total working hour counter
- ✓ Descriptive error indicator
- Control unit over heating sensorn door sensor
- Open door sensor
- Provision of automatic power cutoff to the heating element if the control unit/ control card is over heated.
- User friendly operating menu

Applications

They are used for applications such as: Fusing glass, Creating enamel coatings, Ceramics, Soldering, Brazing, Rubbers & Polymers. They are also used for metallurgical applications, for ash content determination and in research centers and medical laboratories to determine the volatile & non-combustible proportion of the sample.

Specifications

Model No.	LMF-I10	LMF-III	LMF-I12
Max. Temperature	1600°C		
Capacity		1 L	
Heating Program	4 step	8 step	16 step
Thermal Rate		3-20°C	
Heating element	MoSi₂	(Molybdenum dis	ilicide)
Program Memories	4	6	5
Thermocouple Type		S Type	
Display		4 x 20" LCD	
Heating Element Placement	Vertically a	aligned next to the	side walls
Inner Insulation Material	Ceramic Fibre Board		d
Front Face Insulation Material	Insulating Fire Brick		
Door Insulation Material	Ceramic Fibre Board		
Housing Material	Steel Sheet		
Housing Coating	Epoxy powder coating		ng
Chimney	Standard without fan		n
Lockable Door Handle	Sidewards		
Temperature Control Accuracy	±1°C (can vary at low temperatures)		eratures)
Measurement Accuracy	±1°C		
Inner Volume Temperature Homogenity	±10°C		
Auto Start at Certain Date	Yes	Yes	Yes
Show Remaining Waiting Time	Yes	Yes	Yes
Skip the Waiting Step	Yes	Yes	Yes

Burst Heating Mode	Yes	Yes	Yes
Max. Current	16 A		
Power	1.900 W		
Inner Chamber Dimension (W x H x D)	100 x 125 x 106 mm		
Product Outer Dimension (W x H x D)	432 x 826 x 530 mm		
Gross Dimension (WxHx D)	492 x 886 x 690 mm		
Net Weight	73 kg		
Gross weight	90 kg		

Model No.	LMF-I20	LMF-I21	LMF-I22
Max. Temperature		1600°C	
Capacity		3 L	
Heating Program	4 step	8 step	16 step
Thermal Rate		3-20°C	
Heating element	MoSi ₂	(Molybdenum disi	licide)
Program Memories	4	6	5
Thermocouple Type		S Type	
Display		4 x 20" LCD	
Heating Element Placement	Vertically aligned next to the side walls		side walls
Inner Insulation Material	Ceramic Fibre Board		
Front Face Insulation Material	Insulating Fire Brick		₹
Door Insulation Material	Ceramic Fibre Board		d
Housing Material	Steel Sheet		
Housing Coating	Epoxy powder coating		ng
Chimney	Standard without fan		า
Lockable Door Handle	Sidewards		
Temperature Control Accuracy	±1°C (can vary at low temperatures)		
Measurement Accuracy	±1°C		
Inner Volume Temperature Homogenity	±10°C		

Auto Start at Certain Date	Yes	Yes	Yes
Show Remaining Waiting Time	Yes	Yes	Yes
Skip the Waiting Step	Yes	Yes	Yes
Burst Heating Mode	Yes	Yes	Yes
Max. Current		16 A	
Power	3.780 W		
Inner Chamber Dimension (W x H x D)	115 x 150 x 175 mm		
Product Outer Dimension (W x H x D)	467 x 920 x 634 mm		
Gross Dimension (WxHxD)	527 x 980 x 794 mm		
Net Weight	96 kg		
Gross weight	116 kg		

Model No.	LMF-I30	LMF-I31	LMF-I22
Max. Temperature		1600°C	
Capacity		3 L	
Heating Program	4 step	8 step	16 step
Thermal Rate		3-20°C	
Heating element	MoSi ₂	(Molybdenum disi	licide)
Program Memories	4	6	5
Thermocouple Type	S Type		
Display	4 x 20" LCD		
Heating Element Placement	Vertically aligned next to the side walls		side walls
Inner Insulation Material	Ceramic Fibre Board		d
Front Face Insulation Material	Insulating Fire Brick		
Door Insulation Material	Ceramic Fibre Board		d
Housing Material	Steel Sheet		
Housing Coating	Epoxy powder coating		
Chimney	Standard without fan		

Lockable Door Handle	Sidewards		
Temperature Control Accuracy	±1°C (can vary at low temperatures)		eratures)
Measurement Accuracy		±1°C	
Inner Volume Temperature Homogenity		±10°C	
Auto Start at Certain Date	Yes	Yes	Yes
Show Remaining Waiting Time	Yes	Yes	Yes
Skip the Waiting Step	Yes	Yes	Yes
Burst Heating Mode	Yes	Yes	Yes
Max. Current	2 x 20 A		
Power	8.200 W		
Inner Chamber Dimension (W x H x D)	150 x 185 x 220 mm		า
Product Outer Dimension (W x H x D)	502 x 955 x 634 mm		
Gross Dimension (WxHx D)	562 x 1015 x 839 mm		
Net Weight	110 kg		
Gross weight	133 kg		

Model No.	LMF-I40	LMF-I41	LMF-142
Max. Temperature		1600°C	
Capacity		9 L	
Heating Program	4 step	8 step	16 step
Thermal Rate	3-20°C		
Heating element	MoSi₂(Molybdenum disilicide)		ilicide)
Program Memories	4 6 5		5
Thermocouple Type	S Type		
Display	4 x 20" LCD		
Heating Element Placement	Vertically aligned next to the side walls		
Inner Insulation Material	Ceramic Fibre Board		
Front Face Insulation Material	Insulating Fire Brick		

Door Insulation Material	Ceramic Fibre Board		
Housing Material	Steel Sheet		
Housing Coating	Ep	oxy powder coati	ing
Chimney	St	andard without fa	an
Lockable Door Handle		Sidewards	
Temperature Control Accuracy	±1°C (can	vary at low temp	eratures)
Measurement Accuracy		±1°C	
Inner Volume Temperature Homogenity	±10°C		
Auto Start at Certain Date	Yes	Yes	Yes
Show Remaining Waiting Time	Yes	Yes	Yes
Skip the Waiting Step	Yes Yes Yes		Yes
Burst Heating Mode	Yes	Yes	Yes
Max. Current	2 x 22 A		
Power	8.200 W		
Inner Chamber Dimension (W x H x D)	170 x 205 x 260 mm		
Product Outer Dimension (W x H x D)	522 x 975 x 869 mm		
Net Weight	136 kg		
Gross weight		162 kg	

Model No.	LMF-I50	LMF-I51	LMF-I52
Max. Temperature		1600°C	
Capacity		16 L	
Heating Program	4 step	8 step	16 step
Thermal Rate		3-20°C	
Heating element	MoSi ₂	(Molybdenum disi	ilicide)
Program Memories	4	6	5
Thermocouple Type	S Type		
Display	4 x 20" LCD		

Heating Element Placement Inner Insulation Material Front Face Insulation Material Door Insulation Material Housing Material Ceramic Fibre Board Front Face Insulation Material Door Insulation Material Termic Fibre Board Housing Material Front Face Insulation Material Ceramic Fibre Board Steel Sheet Epoxy powder coating Standard without fan Sidewards Temperature Control Accuracy ±1°C (can vary at low temperatures) ±1°C Inner Volume Temperature Homogenity Auto Start at Certain Date Yes Yes Yes Yes Yes Yes Yes Y				
Front Face Insulation Material Door Insulation Material Door Insulation Material Ceramic Fibre Board Housing Material Steel Sheet Housing Coating Chimney Standard without fan Lockable Door Handle Temperature Control Accuracy Measurement Accuracy Inner Volume Temperature Homogenity Auto Start at Certain Date Skip the Waiting Step Yes Yes Yes Yes Yes Max. Current Power Inner Chamber Dimension (W x H x D) Froduct Outer Dimension (W x H x D) Gross Dimension (W x H x D) Froduct Outer Dimension (W x H x D)	Heating Element Placement	Vertically aligned next to the side walls		side walls
Door Insulation Material Housing Material Housing Coating Chimney Standard without fan Lockable Door Handle Temperature Control Accuracy Inner Volume Temperature Homogenity Auto Start at Certain Date Show Remaining Waiting Time Skip the Waiting Step Max. Current Power Inner Chamber Dimension (W x H x D) Product Outer Dimension (W x H x D) Gross Dimension (W x H x D) Epoxy powder Epoxy powder Coating Epoxy powder Coating Epoxy powder Coating Epoxy powder Coating Fepoxy powder Coating Epoxy powder Coati	Inner Insulation Material	C	eramic Fibre Boa	rd
Housing Material Housing Coating Epoxy powder coating Chimney Standard without fan Lockable Door Handle Temperature Control Accuracy Measurement Accuracy Inner Volume Temperature Homogenity Auto Start at Certain Date Skip the Waiting Step Yes Yes Yes Yes Yes Yes Was Was Was Was Yes Yes Yes Yes Yes Yes Yes Y	Front Face Insulation Material	lr	nsulating Fire Bric	k
Housing Coating Chimney Standard without fan Lockable Door Handle Temperature Control Accuracy Measurement Accuracy Inner Volume Temperature Homogenity Auto Start at Certain Date Skip the Waiting Step Max. Current Power Inner Chamber Dimension (W x H x D) Gross Dimension (W x H x D) Standard without fan Sidewards For C Lockable Door Handle Sidewards Sidewards For C Sidewards YeC (can vary at low temperatures) #10°C	Door Insulation Material	C	eramic Fibre Boa	rd
Chimney Chimney Standard without fan Lockable Door Handle Temperature Control Accuracy Measurement Accuracy Inner Volume Temperature Homogenity Auto Start at Certain Date Show Remaining Waiting Time Yes Yes Yes Yes Yes Yes Yes Y	Housing Material		Steel Sheet	
Lockable Door Handle Temperature Control Accuracy Measurement Accuracy Inner Volume Temperature Homogenity Auto Start at Certain Date Show Remaining Waiting Time Yes Yes Yes Yes Yes Yes Yes Y	Housing Coating	Ep	oxy powder coati	ng
Temperature Control Accuracy Measurement Accuracy Inner Volume Temperature Homogenity Auto Start at Certain Date Show Remaining Waiting Time Yes Yes Yes Yes Yes Yes Yes Y	Chimney	St	andard without fa	ın
Measurement Accuracy Inner Volume Temperature Homogenity Auto Start at Certain Date Show Remaining Waiting Time Yes Yes Yes Yes Yes Yes Yes Y	Lockable Door Handle		Sidewards	
Inner Volume Temperature Homogenity Auto Start at Certain Date Yes Yes Yes Yes Yes Yes Yes Y	Temperature Control Accuracy	±1ºC (can	vary at low temp	eratures)
Auto Start at Certain Date Yes Yes Yes Yes Yes Yes Yes Show Remaining Waiting Time Yes Yes Yes Yes Yes Yes Yes Y	Measurement Accuracy	±1°C		
Show Remaining Waiting Time Yes Yes Yes Yes Yes Yes Yes Y		±10°C		
Skip the Waiting Step Yes Yes Yes Yes Yes Yes Yes Y	Auto Start at Certain Date	Yes Yes Yes		Yes
Burst Heating Mode Yes Yes Yes Max. Current 3 x 24 A Power 8.600 W Inner Chamber Dimension (W x H x D) 200 x 255 x 315 mm Product Outer Dimension (W x H x D) 532 x 981 x 889 mm Gross Dimension (W x H x D) 592 x 1041 x 1049 mm	Show Remaining Waiting Time	Yes	Yes	Yes
Max. Current 3 x 24 A Power 8.600 W Inner Chamber Dimension (W x H x D) 200 x 255 x 315 mm Product Outer Dimension (W x H x D) 532 x 981 x 889 mm Gross Dimension (W x H x D) 592 x 1041 x 1049 mm	Skip the Waiting Step	Yes	Yes	Yes
Power 8.600 W Inner Chamber Dimension (W x H x D) 200 x 255 x 315 mm Product Outer Dimension (W x H x D) 532 x 981 x 889 mm Gross Dimension (W x H x D) 592 x 1041 x 1049 mm	Burst Heating Mode	Yes	Yes	Yes
Inner Chamber Dimension (W x H x D) 200 x 255 x 315 mm Product Outer Dimension (W x H x D) 532 x 981 x 889 mm Gross Dimension (W x H x D) 592 x 1041 x 1049 mm	Max. Current	3 x 24 A		
Product Outer Dimension (W x H x D) Gross Dimension (W x H x D) 532 x 981 x 889 mm 592 x 1041 x 1049 mm	Power	8.600 W		
Gross Dimension (W x H x D) 592 x 1041 x 1049 mm	Inner Chamber Dimension (W x H x D)	200 x 255 x 315 mm		
	Product Outer Dimension (W x H x D)	532 x 981 x 889 mm		
Net Weight 150 kg	Gross Dimension (WxHx D)	592 x 1041 x 1049 mm		ım
	Net Weight		150 kg	
Gross weight 180 kg	Gross weight		180 kg	

Model No.	LMF-I60	LMF-I61	LMF-I62
Max. Temperature		1600°C	
Capacity		30 L	
Heating Program	4 step	8 step	16 step
Thermal Rate		3-20°C	
Heating element	MoSi₂	(Molybdenum dis	ilicide)
Program Memories	4	6	5
Thermocouple Type		S Type	
Display		4 x 20" LCD	
Heating Element Placement	Vertically a	aligned next to the	side walls
Inner Insulation Material	C	Ceramic Fibre Boar	d
Front Face Insulation Material	li	nsulating Fire Bric	k
Door Insulation Material	C	Ceramic Fibre Boar	d
Housing Material	Steel Sheet		
Housing Coating	Epoxy powder coating		
Chimney	Standard without fan		n
Lockable Door Handle	Sidewards		
Temperature Control Accuracy	±1°C (can vary at low temperatures)		eratures)
Measurement Accuracy	±1°C		
Inner Volume Temperature Homogenity	±10°C		
Auto Start at Certain Date	Yes	Yes	Yes
Show Remaining Waiting Time	Yes	Yes	Yes
Skip the Waiting Step	Yes	Yes	Yes
Burst Heating Mode	Yes	Yes	Yes
Max. Current	3 x 30 A		
Power	10.700 W		
Inner Chamber Dimension (W x H x D)	250 x 310 x 390 mm		m
Product Outer Dimension (W x H x D)	582 x 310 x 390 mm		m
Gross Dimension (W x H x D)	642 x 1096 x 1049 mm		

Net Weight	170 kg
Gross weight	204 kg

Model No.	LMF-I70	LMF-171	LMF-I72
Max. Temperature	1600°C		
Capacity	60 L		
Heating Program	4 step	8 step	16 step
Thermal Rate	3-20°C		
Heating element	MoSi2 (Molybdenum disilicide)		
Program Memories	4	6	5
Thermocouple Type	S Type		
Display	4 x 20" LCD		
Heating Element Placement	Vertically aligned next to the side walls		
Inner Insulation Material	Ceramic Fibre Board		
Front Face Insulation Material	Insulating Fire Brick		
Door Insulation Material	Ceramic Fibre Board		
Housing Material	Steel Sheet		
Housing Coating	Epoxy powder coating		
Chimney	Standard without fan		
Lockable Door Handle	Sidewards		
Temperature Control Accuracy	±1°C (can vary at low temperatures)		
Measurement Accuracy	±1°C		
Inner Volume Temperature Homogenity	±10°C		
Auto Start at Certain Date	Yes	Yes	Yes
Show Remaining Waiting Time	Yes	Yes	Yes
Skip the Waiting Step	Yes	Yes	Yes
Burst Heating Mode	Yes	Yes	Yes
Max. Current	3 x 41 A		

Power	14.700 W
Inner Chamber Dimension (W x H x D)	320 x 420 x 450 mm
Product Outer Dimension (W x H x D)	652 x 1146 x 1024 mm
Gross Dimension (WxHx D)	712 x 1026 x 1184 mm
Net Weight	185 kg
Gross weight	224 kg

Optional Features

- Over Temperature Limiter
- Lift-up Door
- Stainless Steel body
- Gas Supply Connection
- Open Door Sensor
- Second Thermocouple
- Observation Hole
- PC Connection
- 110 V Power Suppl

Spare Parts

- Inner Module: Changing inner module renews your furnace close to a brand new furnace
- Door Insulation: With sheet metal holder vessel
- Control Card: Easy-to-replace, pre-programmed
- Power Card: Easy-to-replace
- Display: 4 x 20 LCD display
- Cooling Fan: 80 x 80 x 20/ 220 V fan
- Chimney Fan: 40 x 40 x 10/5V fan

Sr. No.	Accessory	
1.	High Temperature Gloves	
2.	Tongs	
3.	Alumina Crucibles	
4.	Metal Crucibles	
5.	Alumina Combustion Boats	
6.	Ceramic pipes	
7.	Extra Thermocouples	