Sartorius MA100: Analytical Precision Combined With Flexibility and Dynamics







As accurate as an analytical balance
The **MA100** was the first infrared dryer in the world to feature a built-in weighing system with 0.1-mg resolution and an EC type-approval certificate. A motorized heating unit moves over the sample to open or close the sample chamber. This reduces interfering effects when a sample is placed on the pan or a measurement is started. The pacesetting design enables the MA100 to achieve a measuring accuracy well beyond that provided by conventional infrared dryers.

Automatic adaptation to reference values
The MA100 features "Swift Parameter Adjustment to a given Reference Method," or SPRM. This function enables the operating parameters of **MA100** to be adapted to the results of an available reference method and saved as a drying routine. Optimization of operating parameters doesn't get any faster than this.

Flexible and modular
The MA100 analyzers give you a choice of three different infrared heat sources: a halogen lamp for standard applications, a ceramic heating element for gentle heating of temperature-sensitive samples and a CQR quartz glass heater. The CQR combines the fast drying capability of a halogen lamp with the gentle heating capability of a ceramic heater for drying samples evenly over their entire surface. A printer that can be optionally integrated into the housing eliminates the familiar cable spaghetti of an external printer, while helping keep your work area tidy.

A clean solution
Did you accidentally spill a sample? Are there spatters of grease inside the sample chamber? No problem with the MA100! The Plug & Dry® feature lets you slide out the heater cover easily for thorough cleaning and without letting any dirt get inside the housing.

Specifications
MA35 | MA100 | MA150 | LMA100P

	MA35	MA100	MA150	LMA100P
Max. weighing capacity (g)	35	100	150	100
Accuracy of the weighing system (mg)	1	0.1	1	0.1
Weighing system with EC type-approval certificate		•		
Repeatability, average (%)				
– for initial sample weight approx. > 1 g	± 0.2	± 0.1	± 0.2	± 0.1
– with initial sample weight of approx. 5 g	± 0.05	± 0.02	± 0.05	± 0.02
Readability (%)	0.01	0.001	0.01	0.001
Display mode for results				
– % moisture	•	•	•	•
– volatile matter				•
– % dry weight	•	•	•	•
– % RATIO	•	•	•	•
– g residue	•	•	•	•
– g/kg residue		•	•	
– g/l residue			•	
– mg/l residue				•
– mg weight loss		•	•	
– Calculated value (measured value × factor)		•		
– ppm moisture				•
– ppm dry weight				•
Temperature range and settings				
– 40 to 160 °C, adjustable in 1-degree increments	•			
– 30 to 230 °C, adjustable in 1-degree increments		•		
– 40 to 220 °C, adjustable in 1-degree increments			•	
– 30 to 210 °C, adjustable in 1-degree increments				•
Heating modes				
– Standard drying	•	•	•	•
– Quick drying		•		
– Gentle drying		•	•	
– Phase drying		3×0.1–999 min.	1×0.1–999 min.	2×0.0–99.9 min.
Analysis modes				
– Fully automatic	•	•	•	
– Semi-automatic		1–50 mg/5–300 sec. 0.1–5.0%/5–300 sec.	1–50 mg/5–300 sec. 0.1–5.0%/5–300 sec.	0.010–9.990%/ 0.1–99.9 min.
– Timer settings	1×0.1–99 min.	3×0.1–999 min.	1×0.1–99 min.	2×0.0–99.9 min.
– Timer mode +fully/semi-automatic		2×0.1–999 min. + Automatic		
SPRM mode for parameter recognition		•		
Heating units				
– Ceramic IR heating element (infrared)		•	•	
– Halogen lamp (infrared)		•		
– CQR heater (coiled quartz radiator)		•	•	
– Metal tubular heating element (infrared dark radiator)	•			
– Quartz tube radiator (4 tubes				•
Upgrade of heating unit to Plug & Dry®*		•		
Access to sample chamber				
– hinged, flip-up cover	•		•	•
– motorized cover		•		

* Does not apply to the CQR quartz heating element

	MA35	MA100	MA150	LMA100P
Optional version compliant with FDA|HACCP regulations**	•		•	
DLG Signam approved			•	
Built-in calibration weight		•		•
Operator guidance features – Context-sensitive menu with alphanumeric interactive prompts and symbols – Text input for sample identification using soft-keys – Numeric keypad for sample identification and parameter input – Parameter input using soft-keys	•	•	•	•
		•		•
		•		
		•		•
reproTEST for determining the repeatability of the weighing system		•		
Number of program memory modules	1	30	20	300
Memory for data storage – Statistics on the last 9999 measurements – End point up to the next moisture analysis run	•	•	•	999
Password protection to prevent unauthorized changes in parameters		•	•	
Manual input of tare weights		•		
Data printer – Built-in (optional retrofit) – External (optional)	•	•	•	
Thermal printer built in				•
Printout – GLP-compliant, configurable – GLP-compliant, not configurable – Short report	•	•	•	•
	•			
Data interface port – RS-232C unidirectional – RS-232C bidirectional – Ethernet – USB	•	•	•	•
				•
				•
Bar code scanner connectivity		•		
Dust cover for the keypad		•	•	
Power consumption (VA)	max. 400	max. 700	max. 700	max. 700***
Dimensions (mm) W × D × H	224×366×191	350×453×156	213×320×180.5	495×413×235***
Weight, approx. (kg)	5.8	8.0	5.5	10***

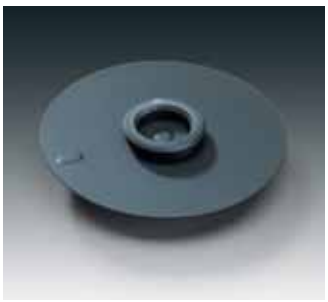
* Does not apply to the CQR quartz heating element
** Not available with halogen or CQR quartz heating element
*** Applies to the combination of one operating and one heating module

Accessories
MA35 | MA100 | MA150 | LMA100P









Accessories	Order No.			
	MA35	**MA100**	**MA150**	**LMA100P**
Disposal sample pans, 80 pcs, aluminum; round, 90 mm ∅	6965542	6965542	6965542	6965542
Reusable sample pans, 10 pcs, stainless steel, round, 100 mm ∅				0-2014
Glass fiber filters, 80 pcs, 90 mm ∅ for analysis of liquid, pasty and fatty samples	6906940	6906940	6906940	6906940
Panel replacement set (conversion kit) Aluminum panels for replacing glass panels to meet FDA|HACCP regulations	YDS05MA	YDS03MA	YDS04MA	
Windows® 2000|NT|XP-compatible software for data collection and for programming drying programs; 9|25-pin interface cable included		YMW02MA	YMW02MA	
SartoCollect, software for communication between moisture analyzer and PC; 25-pin/9-pin cable included (2 m)	•	•	•	
Carrying case		YDB03MA	YDB05MA	
Data printer				
– Built-in		YDP03-0CE		
– External	YDP01MA	YDP03-0CE	YDP03-0CE	
Color ink ribbon for data printer	6906918	6906918	6906918	
Paper rolls for data printer				
– 5 pcs, 50 m each	690693	690693	690693	
– 5 pcs, 20 m each (thermo paper)				69M30100
External calibration weight				
– 100 g (E2)			YSS43-00	
– 100 g (E2) DKD certificate			YSS43-02	
– 30 g ± 0.3 mg	YCW452-00			
– 30 g ± 0.3 mg DKD certificate	YCW452-02			
– 50 g (E2)		YCW512-00		YCW512-00
– 50 g (E2) DKD certificate		YCW512-02		YCW512-02
Temperature adjustment set	YTM01MA	YTM03MA	YTM03MA	YTM06MA
Additional heating module with integrated weighing system				LMA100PQ-000U

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