

Leica CM1520

Technical Data Sheet



Type	CM1520	CM1520	CM1520	CM1520	CM1520
Test symbol	-	c_CSA_us	-	-	-
Nominal voltage	100 VAC $\pm 10\%$	120-127 VAC $\pm 10\%$	230 VAC $\pm 10\%$	220-230 VAC $\pm 10\%$	240 VAC $\pm 10\%$
Nominal frequency	50/60 Hz	60 Hz	60 Hz	50 Hz	50 Hz
Power input	1440 VA	1440 VA	1440 VA	1440 VA	1440 VA
Max. start-up current for 5 s	45 A eff.	45 A eff.	45 A eff.	45 A eff.	45 A eff.
Protective class	I	I	I	I	I
Pollution degree ¹	2	2	2	2	2
Overtoltage inst. category	II	II	II	II	II
Heat emission (max.)	1600 J/s	1600 J/s	1600 J/s	1600 J/s	1600 J/s
Operating temperature range (ambient temperature)	18-35 °C	18-35 °C	18-35 °C	18-35 °C	18-35 °C

¹ according to IEC-1010, UL 3101

All specifications related to temperature of the cooling unit are valid only for an ambient temperature of 22 °C and a relative humidity of no more than 60 %!

Refrigeration system	(50/60 Hz)
Cryochamber	
Temperature range	0 °C to -30 °C (+ 3 K/- 3 K)
Cooling time down to -30 °C	max. 6 hrs., at 22 °C ambient temperature
Defrost	Automatic hot gas defrost 1 automatic defrost cycle/24 hours, time-controlled (duration 12 min.)
Refrigeration capacity ²	690 W
Electric coarse feed	slow 600 $\mu\text{m/s}$ rapid 900 $\mu\text{m/s}$
Safety factor	3
Refrigerant	300g $\pm 5\text{g}$ refrigerant R 404A
Compressor oil	0,6 l EMKARATE RL-22S, ICI

Quick-freeze shelf	
Maximum cooling	- 35 °C (+ 3 K/- 5 K)
Number of freezing stations	10
Defrost	Manual hot gas defrost, time-controlled (duration 12 min.)

² according to CECOMAF Liquid temperature 45 °C, evaporation temperature -25 °C

Microtome		Cryocabinet	
Type	Rotary microtome	Dimensions	
Section thickness selection	2 - 60 µm	Width (w/o handwheel)	600 mm
Total specimen feed	25 mm	Width (with handwheel)	730 mm
Vertical stroke	59 mm	Depth	730 mm
Maximum specimen size	55 x 55 mm or 50 x 80 mm	Height	1140 mm
Specimen orientation	8° (x-, y-, z-Achse)	Weight (incl. microtome, without specimen cooling)	approx. 135 kg
Electric coarse feed	slow 600 µm/s rapid 900 µm/s		
Lamp		Storage conditions	
50 Hz version	Osram Dulux S 11 W/21 Color: LUMILUX light white	Temperature	5 - 50 °C
60 Hz version	Osram Dulux S 13 W/21 Color: LUMILUX light white	Humidity	< 80 %, non-condensing
		Transport temperature	-40 °C to +55 °C

All CM1520 instrument variants need the following secondary fuses

F1	T0.25A	L250V	Type FST 6.3x32	Firma SCHURTER
F2	T1.6A	L250V	Type FST 6.3x32	Firma SCHURTER
F3	T1.0A	L250V	Type FST 6.3x32	Firma SCHURTER
F4	T6.25A	L250V	Type FST 6.3x32	Firma SCHURTER