



Technical Data Sheet
Leica CM1850UV - Cryostat with automated disinfection system

Type

Mark of conformity
Nominal voltage
Nominal frequency
Power input
Max.start-up current for 5 sec.
Protective class
Automatic mains fuse
Pollution degree (acc.to IEC-1010,UL 3101)
Overvoltage installation category
Maximum heat emission

CM1850 UV	CM1850 UV	CM1850 UV	CM1850 UV	CM1850 UV
CE/UL/CSA/IEC	CE/UL/CSA/IEC	CE/UL/CSA/IEC	CE/UL/CSA/IEC	CE/UL/CSA/IEC/VDE
100V AC±10%	120V AC±10%	220V AC±10%	230V AC±10%	240V AC±10%
50/60 Hz	60 Hz	60 Hz	50 Hz	50 Hz
1440 VA	1440 VA	1440 VA	1440 VA	1440 VA
45 A eff.	45 A eff.	45 A eff.	45 A eff.	45 A eff.
I	I	I	I	I
T 12A T1	T 12A T1	T 12A T1	T 10A T1	T 10A T1
2	2	2	2	2
II	II	II	II	II
1600J/s	1600J/s	1600J/s	1600J/s	1600J/s

Site requirements

Ambient temperature range 18-35 °C/air
Relative humidity < 60 %
mainly vibration-free floor
no drafts
no direct sunlight

Distance from cabinet to wall

Rear 15 cm
Right side 30 cm
Left side 15 cm

Refrigeration System

All specifications related to temperature are valid only up to an ambient temperature of 22 C°, an air humidity lower than 60 %, sliding window closed and free-standing instrument.

Cryochamber

Temperature setting range 0° C to -35 °C (±2K)
Cooling down time up to -35 C° 4 hours
Defrosting Automatic hot gas defrosting,
1 automatic defrost cycle/24 hrs
temperature controlled
Manual defrosting
9 min.
Defrosting time
Automatic cut-out of defrosting
Safety factor 3
Compressor oil R 404A*
Refrigerant 0.6 l EMKARATE RL-22S,ICI*
Refrigerant capacity 300g ± 5 g

Quick-freeze shelf

Max. temperature -40°C (+0K/-2K)
Number of quick freeze stations 10
Defrosting manual defrosting on demand, time controlled

Peltier Element

Max. temperature -60 °C (+5K)
Number of Peltier quick freeze stations 2
Defrosting together with quick-freeze shelf

Microtome

Type of Microtome Rotary microtome
Encapsulated Splash-water proven
Section thickness setting 1-60 µm
from 1 to 10 µm in 1 µm steps
from 10 to 20 µm in 2 µm steps
from 20 to 60 µm in 5 µm steps
Horizontal specimen feed 25 mm/0.98 inches
Vertical stroke 59 mm/2.32 inches
Maximum specimen size 55 x 55 mm/2,17 x 2,17 inches
Specimen orientation 8° (x-, y-, z-axis)
Object retraction Yes

Disinfection:

Ozone free automatic UVC Disinfection
Disinfection time: 30 or 180 min. disinfection cycle
Indication of disinfection: Indication of successfully completed disinfection cycle

Electric coarse feed

Slow rapid. 0,7 mm/sec.
Rapid slow 0.2 mm/sec

Specimen Cooling

Temperature setting range
Defrosting
Defrosting time
Safety factor
Compressor oil
Refrigerant
Refrigerant capacity

Weight

Weight (incl.microtome) app. 135 kg/296.62 lbs
Weight (incl.shipping crate)

Dimensions

Width (excluding handwheel) 600 mm/23.62 inches
Width (including handwheel) 730 mm/28.74 inches
Depth 690 mm/27.17 inches
Height (total) 1210 mm/47.64 inches
Height (arm rest level) 1020 mm/40.16 inches
Dimensions shipping crate

Storage Conditions

5-55 °C
Temperature range < 85 % non condensing
Air humidity

Volume < 70 dBA
Colour white/black

Secondary fuses:

All CM1850UV instruments types require the following secondary fuses:

F1: T0.25A Fa. Schurter, Type FST; 6.3x32mm or T0.25A Fa. Littlefuse, Type 313 ;6.3x32mm
F2: T0.6A Fa. Schurter, Type FST; 6.3x32mm or T0.6 A Fa. Littlefuse, Type 313 ;6.3x32mm
F3: T1.6A Fa. Schurter, Type FST; 6.3x32mm or T1.6 A Fa. Littlefuse, Type 313 ;6.3x32mm
F4: T6.25A Fa. Schurter, Type FST; 6.3x32mm or T6.25A Fa. Littlefuse, Type 313 ;6.3x32mm
F5: T4A Fa. Schurter, Type FST; 6.3x32mm or T4A Fa. Littlefuse, Type 313 ;6.3x32mm

Lamp

50 Hz version: Osram Dulux S 11 W/21, light color LUMILUX light white
60 Hz version: Osram Dulux S 13 W/21, light color LUMILUX light white

