

Data sheet



Features

- User-friendly display and keypad**
- Sterilisable handle - 200 sterilization cycles**
- Mechanical light field merging**
- Electronic focussing (SC)**
- Colour temperature adjustment (MC)**
- Light intensity control**
- Endo-mode with 5 % light intensity**
- Housing made of plastic**

Optional features

- Spot light (improved depth light, only SC)**
- Wireless camera (integrated - not removable)**
- Hand radio operation (accessory)**

Technical data and electrical data

Type of device	Operating light
Class (according to MDR)	I
Protection class/-type	I
IP protection class (IEC 60529)	IP 42
Radio interference suppression	EN 55011 (CISPR 11) EN 60601-1-2 (IEC 60601-1-2)
Temperature (for transport and storage) ¹	-25 °C to +70 °C
Ambient temperature for operation	+5 °C bis + 40 °C
Relative humidity (for transport and storage) ¹	5 % RH to 95 % RH
Relative humidity for operation	30 % bis 75 % RH
Air pressure (for transport and storage) ¹	700 hPa to 1060 hPa
Air pressure for operation	700 hPa to 1060 hPa
Operating time	Continuous operation possible
Weight of light body incl. accessories	max. 12 kg
Expected life ²	10 years
Turbulence level (DIN 1946-4)	16 %

Technical data and electrical data

Input voltage	24-30 V DC
Power consumption	32 W (Mach LED 300DF SC Spot) 46 W (Mach LED 300DF SC - camera preparation) 53 W (Mach LED 300DF SC - camera) 32 W (Mach LED 300MC -camera preparation) 39 W (Mach LED 300MC - camera)
Current consumption	2.0 A max.(Mach LED 300DF SC Spot) 2.0 A max. (Mach LED 300DF SC - camera preparation) 2.3 A max. (Mach LED 300DF SC - camera) 1.3 A max. (Mach LED 300MC - camera preparation) 1.7 A max (Mach LED 300MC - camera)

Mains power supply 200 W

Input voltage (primary)	100-240 V AC, 50/60 Hz
Current consumption (primary)	7.1 A max.
Output voltage (secondary)	28 V DC
Output power (secondary)	200 W

Mains power supply 190 W

Input voltage (primary)	100-240 V AC, 50/60 Hz
Current consumption (primary)	6.6 A max.
Output voltage (secondary)	28 V DC
Output power (secondary)	190 W

Mains power supply 100 W (Wall)

Input voltage (primary)	100-240 V AC, 50/60 Hz
Current consumption (primary)	2.2 A max.
Output voltage (secondary)	24 V DC
Output power (secondary)	100 W

¹ Transport and storage conditions for lamp body and power supply unit

² At the end of the expected (designed) service life, the lamp must be serviced more frequently for safe operation.

Lighting technical data

	Mach LED 300DF SC	Mach LED 300DF SC Spot	Mach LED 300MC
Central light intensity (Distance 1 m)	160,000 Lux*	160,000 Lux*	160,000 Lux*
Light field diameter d10	189 mm	185 mm	184 mm
Light field diameter d50	102 mm	97 mm	104 mm
Residual light intensity with one shade	41 %	38 %	44 %
Residual light intensity with two shades	42 %	47 %	44 %
Residual light intensity on the ground of a normed tube	100 %	100 %	100 %
Residual light intensity on the ground of a normed tube with one mask	41 %	38 %	44 %
Residual light intensity on the ground of a normed tube with two masks	42 %	47 %	44 %
Illumination depth 20 %	965 mm	1520 mm	915 mm
Illumination depth 60 %	552 mm	628 mm	510 mm
Colour rendering index R _a (type)	96	96	97
Colour rendering index R ₉ (type)	96	96	97
Colour rendering index R ₁₃ (type)	99	99	99
Radiation strength in the field at a distance of 1 m	584 W/m ²	582 W/m ²	574 W/m ²
Maximum radiation strength in the field at a distance of 0.94 m	588 W/m ²	-	-
Maximum radiation strength in the field at a distance of 0.90 m	-	-	674 W/m ²
Maximum radiation strength in the field at a distance of 0.85 m	-	602 W/m ²	-
Relation E _e /E _c	3.65 (mW/m ²) /lx	3.64 (mW/m ²) /lx	3.59 (mW/m ²) /lx
Focusable light field size	19 - 26 cm	19 - 26 cm	18 - 26 cm
Colour temperature (Kelvin)	4500	4500	3750, 4000, 4250, 4500, 4750
Temperature increase in the head area	0.5 °C	0.5 °C	0.5 °C
Luminous efficacy (efficiency)	274 lm/W	275 lm/W	279 lm/W
Number of LEDs	36	37	36
Working distance	70-150 cm	70-150 cm	70-150 cm
Dimming range (%)	28 - 100	28 - 100	28 - 100
Dimming levels	5	5	5
Diameter of light body	55 cm	55 cm	55 cm
Life-span of LEDs	60,000 h	60,000 h	60,000 h

All technical data are subject to certain fluctuations. For production reasons, the actual values have a tolerance of ± 5%. The values for the colour temperature can have deviations of ± 200 K.

* According to IEC 60601-2-41 the max. intensity of illumination must not exceed 160,000 lux. Therefore, the tolerance for this value is -5%.

Mechanical data

Joints on cardanic bows rotatable by 430° ($\pm 215^\circ$), on spring arm > 360° without stop

Rotatability on ceiling tube/flange tube of single suspension: > 360° without stop

Rotatability on 2-fold standard axis:

- Lower mounting pin: > 360° without stop
- Upper mounting pin: 300° ($\pm 150^\circ$)

Rotatability on stand tube of mobile stand: 64° ($\pm 32^\circ$)

Adjustable brakes on horizontal arm and light suspension

Height adjustment at full cardanic suspension:

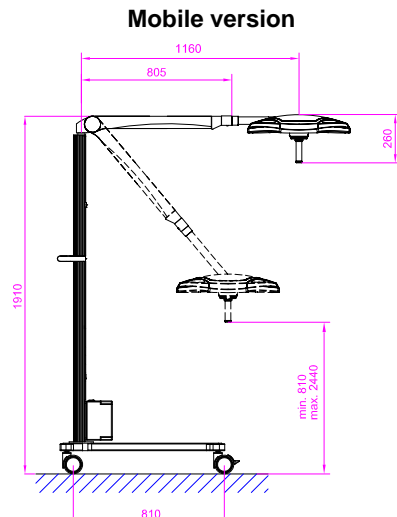
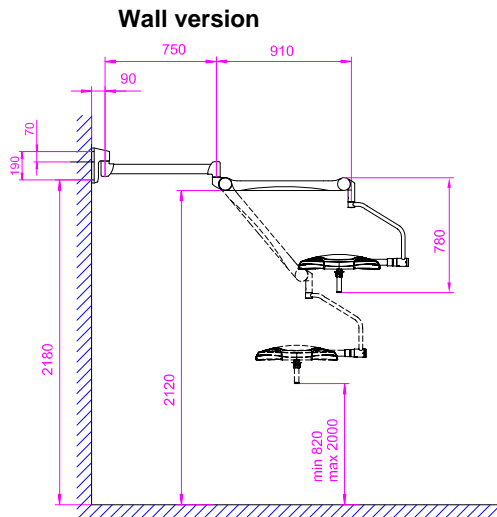
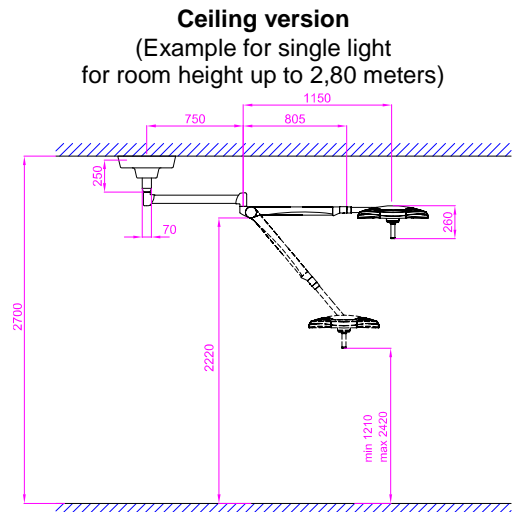
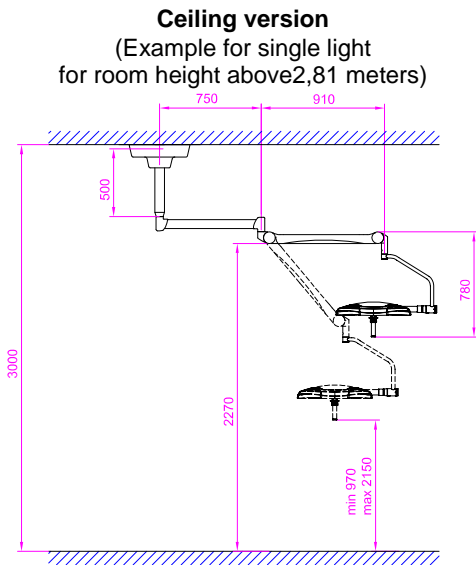
- Spring arm Acrobat 2000: 1180 mm
- Spring arm VALiA: 1290 mm

Optional version with single bow for low ceiling heights

Technical drawings

Minimum clear room height for single light

Light body	Ceiling version	Wall version
LED 300DF SC / LED 300DF MC with full cardanic suspension	2800 mm	2800 mm
LED 300DF SC / LED 300DF MC with central spring arm	2650 mm	2650 mm



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Subject to technical modification

