



Direct Diode

Monocrom @MET Direct Diode

Features:

- Actively cooled direct beam source
- Clamping™ Patented Technology (Solder free mounting of laser bars)
- Long lifetime
- High reliability
- Low thermal resistances
- Wide storage temperature - 40° C to + 85° C
- No SMILE effect

Suitable for:

- Heat assisted roll-forming
- Metal hardening
- Metal softening

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Product specification are subject to change without notice.
For complete details, please contact your local MONOCROM sales representative.

UNE EN ISO 9001:2015

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Laser Parameters ^(1,2,3,4)	
Wavelength ⁽⁵⁾	760 - 1550
Wavelength tolerance [nm]	± 20
Linewidth [nm]	5
Optical power [kW]	up to 5
Operating current [A]	125 (135 max.)
Voltage @ connectors ⁽⁶⁾ [V]	~ 2 / laser bar
Laser bars per stack	up to 6
Stack per unit	up to 8
Smile [µm]	< 0.3
Optics	
Working distance [mm]	customized
Depth of field [mm]	± 2
Line width ⁽⁷⁾ [mm]	customized (~ 1 typ.)
Line length ⁽⁸⁾ [mm]	customized
Irradiance at target area [W/mm ²]	customized (~ 20 typ.)
Operating parameters ⁽⁹⁾	
Coolant flow [l/min]	15
Coolant pressure [bar]	> 5
Coolant temperature [°C]	18 – 20
Coolant	90% distilled water + 10% ethyleneglycol
Body	
Weight [kg]	2.5
Package dimensions (W x H x L) [mm]	stack dependent (240 x 192 x 80 @ 8 stacks)
Electrical connections	Threads M6
Water connections	2x8 mm push-in connectors
Expected lifetime [h]	20000

1. This is a preliminary specification sheet, validation of specification is in process.
2. If any other requirements are needed, please contact us.
3. Specifications at 20 °C, at the beginning of the lifetime.
4. Specification are subjected to chips availability.
5. Other wavelengths on request.
6. Voltage from the power supply must be higher, as due to high current there will be a voltage drop in the cables
7. Measured at FW95% energy.
8. Determined by taking 1σ values.
9. Values for related to coolant properties are recommendations. External chiller is needed.

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