FocusMed[®]

Vsilk[™] Conduction Cooled Vertical Stack Diode Laser

AA10



Device Dimension(mm)



AA10-5X3 Product Drawing

FOCUSLIGHT



AA10-5X3-Y Product Drawing of FAC

Specification

| module type ¹ | units | FL-AA10-5*3-1500 | FL-AA10-5*3-1500-Y | | | |
|--------------------------------------|---------------|---|---|--|--|--|
| Operating Mode | | QCW | QCW | | | |
| Pulse Width | ms | ≤100 | ≤100 | | | |
| Duty Cycle | % | ≪20 | $\leqslant 20$ | | | |
| Pitch | mm | 2.1 | 2.1 | | | |
| Structure Dimension | mm | 51 X19 X36.5 | 51 X19 X36.8 | | | |
| Coolant | - | Tap water (purified water recommanded) | Tap water (purified water recommanded) | | | |
| Flow Rate | L/min | 2~4 | 2~4 | | | |
| Max Inlet Pressure | M Pa | ≪0.38 | ≪0.38 | | | |
| Optical ^{3,5} | | | | | | |
| Center Wavelength A | nm | 808 | 808 | | | |
| Wavelength Tolerance | nm | ±15 | ±15 | | | |
| Output Power per Bar ² | W | 100 | 100 | | | |
| Number of Bars | - | 15 | 15 | | | |
| Fast Axis Divergence (FWHM) | o | 35 | 2~10 | | | |
| Slow Axis Divergence (FWHM | o | 8 | 8 | | | |
| Polarization Mode | - | TE | TE | | | |
| Wavelength Temp. Coefficien | nm/° C | ~0.28 | ~0.28 | | | |
| Electrical Parameters ^{3,5} | | | | | | |
| Operating Current I _{op} | А | ≤115 | ≤115 | | | |
| Threshold Current Ith | А | ≪30 | ≪30 | | | |
| Operating Voltage per Bar V_{op} | V | ≪30 | ≪30 | | | |
| Slope Efficiency per Bar | W/A | ≥1.1 | ≥1.1 | | | |
| Power Conversion Efficiency | % | ≥48 | ≥48 | | | |
| Thermal Parameters | | | | | | |
| Cooling Water Temperature | °C | 25 ±3 | 25 ±3 | | | |
| Storage Temperature ⁴ | °C | 0~55 | 0~55 | | | |
| | | | | | | |

¹Explanation for the name of Module Type: FL (abbreviation of Focuslight) –AAxx (structure code) –N (number of bars) –X (output power) -# (center

wavelength)(Q:QCW).

²Reduced lifetime if used above nominal operating conditions.

 $^3\text{Data}$ at 25 $^\circ\!\mathrm{C}$,unless otherwise stated.

⁴A non-condensing environment is required for storage and operation below ambient dew point

⁵If there are any other requirements, please contact us



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The boundary conditions (Vsilk-1500)

Notice: Focuslight keep improving its products to provide our customers with outstanding quality and reliability. We may make changes to specifications and product descriptions at any time, without notice. In addition, we offer a limited warranty to ensure customer satisfaction. For complete details, please contact our sales representative.

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| Vsilk-1500 Power Table (Single bar) | | | | | | | | | | | | |
|-------------------------------------|-----|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Power(W)/bar | | Frequency(Hz) | | | | | | | | Iop | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | ≤115 A |
| Pulse(ms) | 10 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | ≤100 A |
| | 20 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | ≪85 A |
| | 30 | 100 | 100 | 100 | 100 | 90 | 90 | NA | NA | NA | NA | ≤75 A |
| | 40 | 100 | 100 | 100 | 90 | NA | NA | NA | NA | NA | NA | ₩orking Condition: |
| | 50 | 100 | 100 | NA | |
| | 60 | 100 | 100 | NA | Cooling water T =25±3℃; |
| | 70 | 100 | NA | |
| | 80 | 100 | NA | Cooling water flow rate ≥ 2L/min |
| | 90 | 100 | NA | |
| | 100 | 100 | NA | |
| | 200 | 65 | NA | |
| | 300 | 50 | NA | |

1. The use of the above-mentioned conditions, different colors of the operating current (lop will be subject to the actual test report) is only for reference;

2. Not listed in the table above conditions of use, please consult the Focuslight technology.