

# DioPower

## Integrated Laser System



- Selectable fiber coupled laser diode
- CW and pulse operation
- Laser ramp function
- RS232 PC Interface, optional USB
- User friendly LabVIEW program
- Interlock function, optional pilot laser
- Detachable fiber

Parameter	Unit	Value
<b>Specifications</b>		
Power Laser Diode Driver	W	600
Max. Laser Diode Current	A	10    13    18    27    43    53    120
Max. Laser Diode Voltage	V	60    48    36    24    15    12    5
Current Limit Range		0 ... Max. Laser Diode Current
Current Adjustment Accuracy	mA	100
Temperature Coefficient	ppm/°C	< 100
Short Term Stability (1 hr)	ppm	< 30
Long Term Stability (24 hr)	ppm	< 75
Repetition Rate	Hz	0 ... 100
Pulse Width (*)	ms	> 5
Rise- / Fall- Time (*)	ms	< 2 (10 % – 90 % of Max. Current)
<b>Analog Modulation</b>		
Input (BNC Connector)		0 ... 10 V, 1 kΩ
Transfer Function	A/V	10
Bandwidth	Hz	0 ... 100
<b>Pilot Laser</b>		
Pilot Laser Voltage		5 V
Pilot Laser Current	mA	Max. 300 mA
Pilot Laser Power Adjustment	ppm/°C	1 ... 100 %
<b>Power Monitor</b>		
Output Voltage	V	0 ... 10
Transfer Function	A/V	10
<b>TEC Controller</b>		
Temperature Range	°C	0 ... 50
Temperature Stability	K	< 0,1
Temperature Adj. Accuracy	K	0,1
Control Loop		PI
<b>Output Cooler</b>		
TEC Output Power	W	600
TEC Current	A	0 ... 13
TEC Voltage	V	0 ... 48
TEC Current Limit Range	A	0 ... 13
Ripple	mA	100
Fan Voltage Adjustment Range (Manual)	%	0 ... 100% (12 V)
Fan Current	A	Max. 1

<b>Temperature Sensors</b>		
Sensor Types		Thermistor / PT100 / PT1000
Thermistor		NTC, 10 kΩ @ 25°C, Current: 100 μA
<b>Power Supply</b>		
Line Voltage	V	85 - 264 AC, Auto Ranging
Frequency	Hz	50 - 60
Power Consumption	W	1.500
Fuses Rating for 115 V AC		16 A Slow Acting (5x20 mm)
Fuses Rating for 230 V AC		8 A Slow Acting (5x20 mm)
<b>General Characteristics</b>		
Ambient Temperature, Operating	°C	0 ... 30
Relative Humidity, Operating	%	30 ... 70
Weight	kg	6,4
Dimensions	mm <sup>3</sup>	426 x 172 x 300 (W x H x D)

#### Notes

(\*) The rise time, the fall time and the pulse width may be prolonged by long cables between the power supply and the laser diode.

