

MP532-3W | GENERAL SPECIFICATIONS

	Minimum	Operation	Max. rating	
OPTICAL	Wavelength [nm]	531	532	533
	CW output peak power [W]		3	
	Modulated output peak power [W]		8	
	Output beam size [μm]		120 x 80	
	Beam position (height) [mm]		22	
	Divergence [mrad]			10
	M^2			4
ELECTRICAL	LD operating current, typ. [A]	10	28	40
	LD operating voltage [V]	1,6	1,7	1,9
	Monitor PD voltage (@3W, 10 k Ω) [V_{dc}]		1,5	2
	LD TEC current [A]			8
	LD TEC voltage [V_{dc}]		14	
	NLC TEC current [A]			2
	NLC TEC voltage [A]		4,8	
	Laser pulse duration [ms]	10		2500
	Repetition rate [Hz]	1	25	CW
	Rise and fall time [ms]	0,5 ⁽²⁾	2	5 ⁽³⁾
	Warm up time ³ [s]			30
	Power stability, short time (RMS) ¹ [%]			1
	MECHANICS	Operation temperature (housing) ⁴ [°C]	15	
Weight [g]			900	
Dimensions [mm ³]		67 x 42 x 167		
Expected Lifetime [h]			10.000	
Laser class(EN-60825)		4		

Note: Not all maximum specifications can be achieved at a time

- For the typical output power
- Rise time for pulsed conditions, measured at 25Hz and 50%DC
- Defined as the time required for laser stabilization (time to establish LD and NLC operation temperature and crystal thermal lens). In pulsed mode, the warm up time only affects the first pulses.
- Within the temperature range, optical power could vary $\pm 10\%$, to be compensated from the monitor photodiode signal through PID. For higher temperatures, laser head should be mounted on a cooled surface with a capacity to remove 60W waste heat at max. housing temp.