

# eDrive™

## ED2U SERIES DRIVER LASER SYSTEM & LASER DIODE DRIVER

### > FEATURES AND BENEFITS



- Operates in both CW and QCW modes
- 0-375V compliance voltage range
- 100A or 300A pulsed versions available
- Water or Air cooled versions available
- CE marked versions available
- 19" rack mountable
- Coolant and safety interlocks
- Labview Compatible\*  
RS232 and RS485 interface

Configured to run diodes in either CW or QCW modes, the eDrive controller is an excellent tool for performing all critical operations for laser diode arrays in one box. With drive ratings of 70A CW and 300A QCW @  $\leq 7\%$  Duty cycle (water cooled version), the eDrive is capable of performing laser system functions such as shutter control, system interlocks, and Q-switching. The user has ultimate control with limit features for current and duty cycle, which allows the eDrive to protect the laser diode arrays.

All eDrives are equipped with multiple control options including RS232 and RS485 interface and are Labview™\* compatible. Whether you are in production or working in a research and development environment, the eDrives versatility will support your requirements well into the future. If you have any further questions, contact one of our sales representatives. We would be pleased to work with you to configure a controller to fit your needs.

\*Labview™ is the property of National Instruments Corporation.

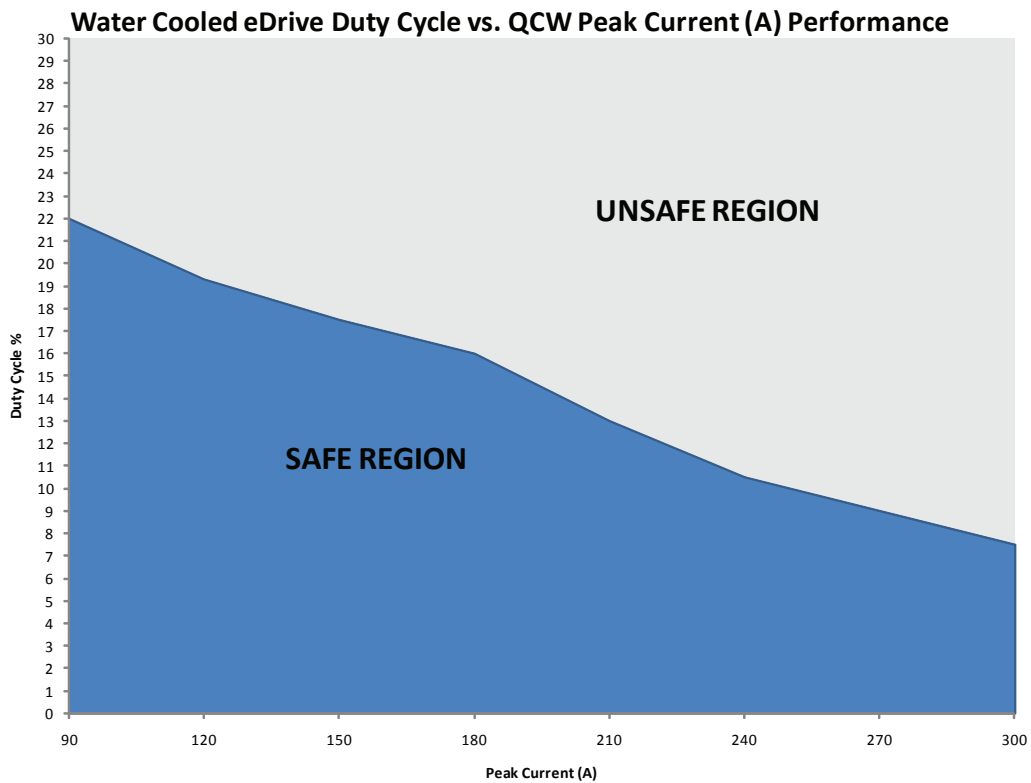
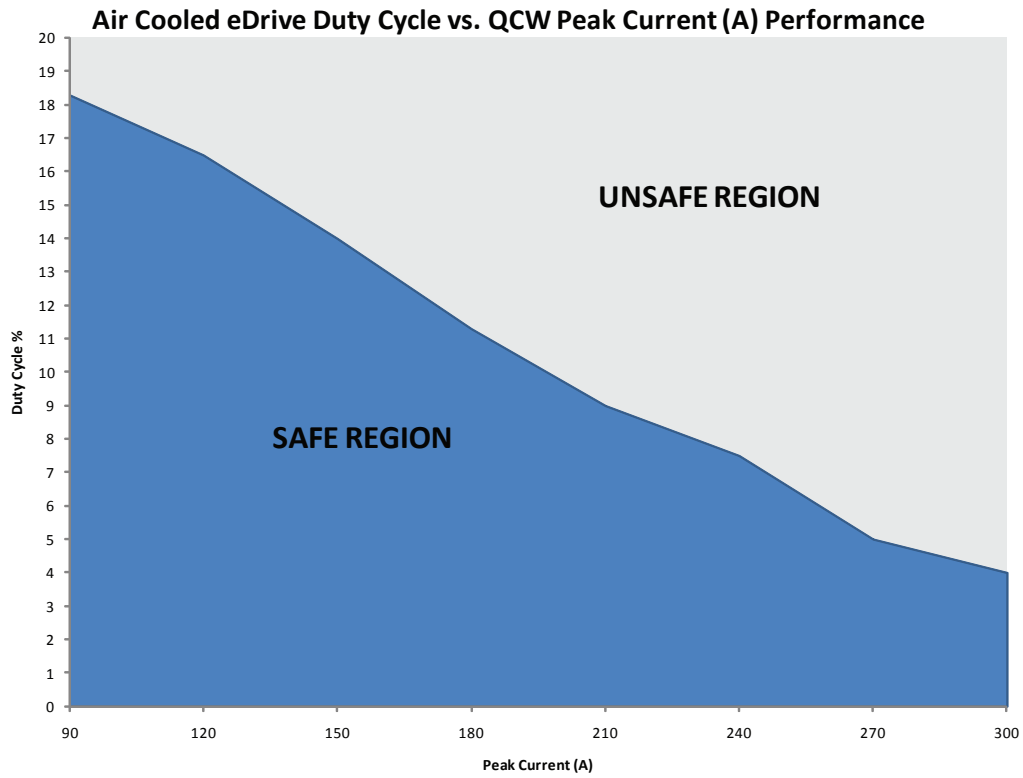
## eDrive™

## SPECIFICATIONS

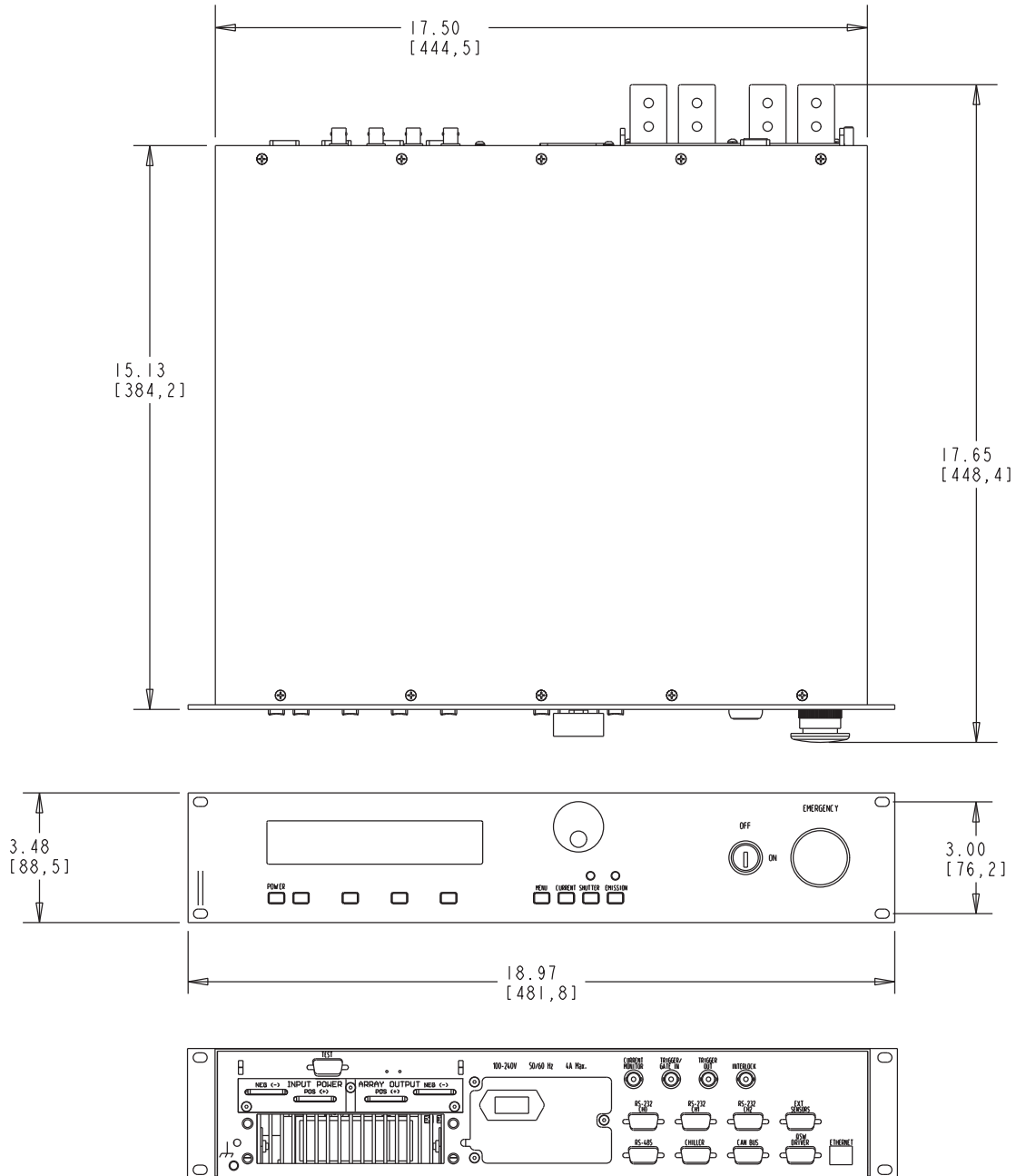
	Air Cooled		Water Cooled	
Amplitude:	CW	QCW	CW	QCW
Output Current	0 - 50 A	0 - 300 A <sup>(1)</sup>	0 - 70 A	0 - 300 A <sup>(1)</sup>
Display Resolution	100 mA			
Accuracy	± 2%			
Noise	100 mA p-p <sup>(2)</sup>			
(1) See chart on page 3 for duty cycle ratings. (2) Output current < 50 Amps				
Pulse Rate:	CW	QCW	CW	QCW
Range	0 - 100 kHz <sup>(3)</sup>			
Display Resolution (1 Hz)	0 - 100 Hz			
(10 Hz)	100 Hz - 1 kHz			
(100 Hz)	1 kHz - 50 kHz			
Accuracy	± 2%			
(3) CW Maximum pulse rate depends on the Q-switch window width. QCW Maximum pulse rate depends on current pulse width. Practical values are typically less than 10KHz.				
Pulse Width:	CW	QCW	CW	QCW
Range	40 ns - 250 μs	10 μs - 500 ms <sup>(4)</sup>	40 ns - 250 μs	10 μs - 500 ms <sup>(4)</sup>
Display Resolution	10 ns <sup>(5)</sup>	100 ns	10 ns <sup>(5)</sup>	100 ns
Transition Time	—	< 40 μs <sup>(6)</sup>	—	< 40 μs <sup>(6)</sup>
(4) Depends on output current and internal capacitance, contact factory. (5) Rounded internally to nearest 40ns. (6) Contact CEO for faster transition times.				
Trigger In:	CW	QCW	CW	QCW
Type	Positive Edge Trigger			
Signal Input	TTL or 5 V CMOS			
Minimum Width	50 μs			
Input Impedance	50 Ω			
Trigger Out:	CW	QCW	CW	QCW
Characteristics	TTL or 5V CMOS 50 Ω driver			
Compliance Voltage:	CW	QCW	CW	QCW
Range	0 - 375 V			
Display Resolution	0.1 V			
Accuracy	± 2%			
Current Monitor:	CW	QCW	CW	QCW
Type	30 A/V, 100A models; 60 A/V, 300A models			
Accuracy	± 2%			
Interlocks:	CW	QCW	CW	QCW
Open Circuit Voltage	5 VDC nominal			
Short Circuit Current	60 mA nominal			
Type	Switch contact closure			
General:	CW	QCW	CW	QCW
Operating Temperature	0 - 40°C, non condensing			
Power Input	100 - 240 VAC, 50/60 Hz, 15A max			

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## > DUTY CYCLE RATINGS



> MECHANICAL DRAWINGS



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