

# Air-purging units and laser controllers



Laser controller with air-purging unit CTA19



Air-purging unit APU2 with integrated AC/DC power supply



Laser controller CT

## FEATURES

- Designed to remove moisture and particles from the air
- 19" rack form-factor (by customer request)
- Operates in a closed loop configuration
- Cleanroom-grade conditions for several months without service
- Optionally can be configured with AC/DC mains adapter and/or laser controller for powering and remote control

Air-Purging Unit (model **APU2**) is designed to remove water vapor and dust particles by recirculating air from the laser or harmonic generator cavity. Maintaining a clean environment helps extend the lifetime of UV optical components and eliminates water vapor absorption lines present in the near- and mid-IR ranges.

In addition, the APU2 includes an integrated AC/DC converter for powering the laser electronics.

Several versions of the air-purging unit are available with additional functionality. The unit can integrate an AC/DC mains adapter and/or a laser controller.

The laser controller provides interfaces for operating the laser from a personal computer (PC) or directly from a triggering pulse generator. Standard features include an Ethernet port for PC control, BNC sockets for applying trigger pulses to the pump-diodes and Q-switch, a safety key switch and an emergency stop connector.

Our high average power lasers (typically above 2 W) may require a 19" rack-mount AC/DC adapter, model PS19. On request, the PS19 can be upgraded with a built-in controller (CT19) and an air-purging unit (CTA19).

By default, most QLI lasers are supplied with a compact CT-type controller, which is not a 19" rack unit. Due to its small size, the CT controller can be placed close to the laser head for convenient access.

For more information about the default controller, please refer to the datasheet of each laser.

## AVAILABLE AIR-PURGING UNIT AND CONTROLLER COMBINATIONS

Model	Controller	AC/DC adapter	Air-purging	19" form-factor (by request)
CT	✓	–	–	–
CT19	✓	✓		✓
PS19	–	✓		✓
APU2	–	✓	✓	✓
CTA19	✓	✓	✓	✓

**SPECIFICATIONS <sup>1)</sup>**

Model	CT	PS19	CT19	APU2	CTA19
Laser head powering	N/A	12 or 28 VDC, depends on laser model			
Air flow	N/A			0.6 to 1 l/min	
Air filters <sup>2)</sup>	N/A			Desiccant & Molecular Sieve	
<b>Operating requirements</b>					
Ambient temperature	15–40 °C				
Relative humidity	0–95 % (non-condensing)				
Mains voltage	90–230 VAC, single phase, 47–63 Hz				
Power consumption	30–200 W, depending on laser model				
External tube fittings	N/A			FESTO for 1/4" OD tubing	
<b>Dimensions</b>					
Housing (W×L×H) <sup>3)</sup>	108 × 172 × 59 mm <sup>3</sup>	482 × 330 × 106 mm <sup>3</sup>	482 × 460 × 106 mm <sup>3</sup>		
Weight	0.8 kg	7.5–10.5 kg			

1. Due to continuous improvements all specifications are subject to change. The parameters marked typical are not specifications. They are indications of typical performance and will vary with each unit we manufacture.

2. Moisture trap capacity: 15 g.

3. 19" rack standard compatible, 2U height.

**IMAGES**



Front view of CTA19



Rear view of CTA19



Front view of air-purging unit APU2



Rear view of air-purging unit APU2

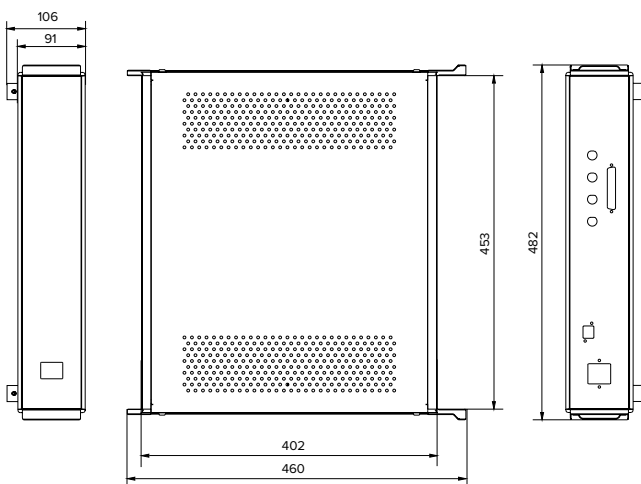


Laser controller CT  
Front view

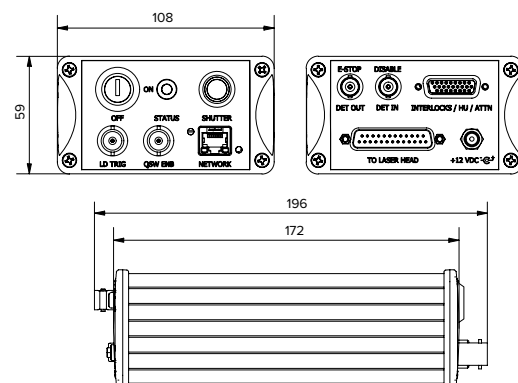


Laser controller CT  
Rear view

**DRAWINGS**



Outline drawings of CTA19 (dimensions in mm)



Outline drawings of controller unit CT (dimensions in mm)