

## Air Dehumidifier and Purifier Unit ADPU60L-4.x for optoelectronic devices and equipment

### Purpose

- Air dehumidifying in IR laser and optical systems to get rid of the absorption of radiation by water vapor;
- Removing contaminated air from the volume of laser and optical systems;
- Preventing dust from entering the internal volume of laser and optical systems;

*The use of dehumidifier allows increasing reliability and durability of laser and optical systems as well as increasing service interval.*

### Information

The Air Dehumidifier and Purifier Unit ADPU60L-4.x is designed to supply clean and dry air into experimental laser and optical instruments with an unpressurized volume. Due to the creation of excess pressure in the volume of the device the air is replaced by clean and drained one. The supply of dry air allows you to reduce the temperature of the dew point, which prevents appearance of dew on the cooled elements inside the device. Using ADPU60L-4.x as a part of laser and optical devices allows increasing their reliability and durability.

The ADPU60L-4.x uses an oil-free membrane compressor and a three-stage submicron cleaning system. The filters of the cleaning system purify the air from oil mist and mechanical particles larger than 0.01 microns with 99.9% efficiency.

The ADPU60L-4.x system uses a membrane air dryer, which allows you to desiccate the air to dew point values from -5 to -15 ° C (depending on the air flow rate). The air flow in the system is adjustable in the range from 1 to 10 l/min.

ADPU60L-4.x is designed in a standard 19-inch case. The system is connected to optical and laser devices using one-touch fittings.



*Air Dehumidifier and Purifier Unit  
ADPU60L-4.x, front panel*



*Air Dehumidifier and Purifier Unit  
ADPU60L-4.x, back panel*

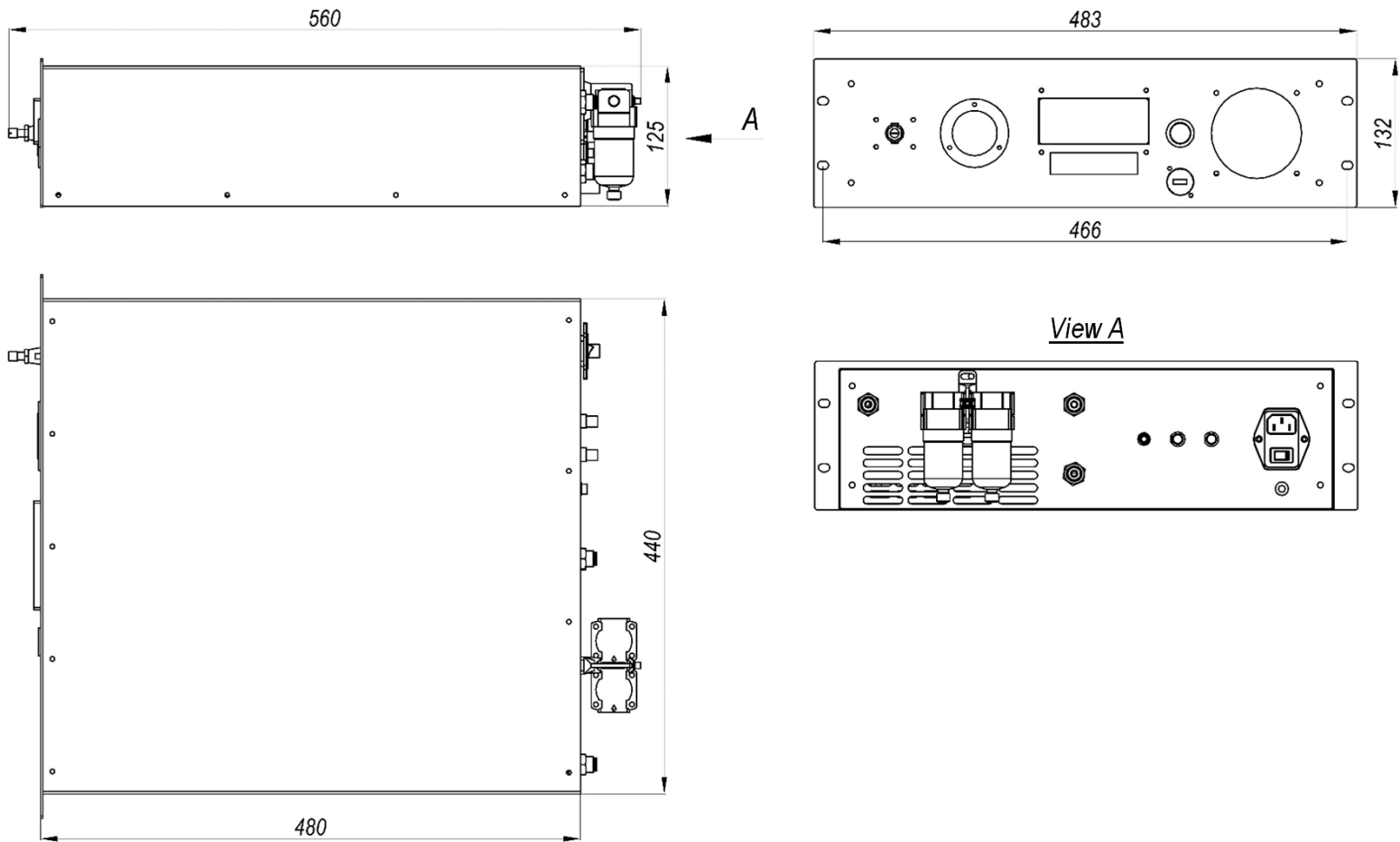
## Engineering solutions for laser and optical systems

### Specifications

Air		
Air flow rate (adjustable)		(2 - 8) l/min
Drained volume	maximal	up to 60 l
	recommended	up to 30 l
Dew point at the system outlet	at 2 l/min air flow	-25°C
	at 5 l/min air flow	-5°C
Operating ambient air temperature		from +5°C to +40°C
Filtration and drying		
Filter		Multistage, removing oil mist and particulates above 0.01 microns with an efficiency of 99.9%
Air dryer		Membrane, based on hollow fibers composed of a macro molecular membrane
Interfaces		
Control		Keyboard
Information Output Devices		20×4 character liquid crystal display, pressure gauge
Connecting hoses size		6 mm outer diameter
Output fittings type		FESTA quick coupling for 6 mm hose (external diameter)
Connecting the outer dew point sensor (optional)		Heriose HR10-4pin connector
Synchronization		Coaxial BNC connector
Blocking		Coaxial BNC connector
General characteristics		
Pump		Oil-free, membrane
Pump working pressure		From 3 to 6 bar
Power Requirements		AC voltage of 220 ± 22 V, frequency (50 ± 1) Hz
Power consumption		Up to 0.2 kW
Dimensions (H×W×L)		483×130×560 mm
Case type		19", 3U
Mass		15 kg
Supply package		
Air Dehumidifier and Purifier Unit ADPU60L-4.x		1 pc.
IEC C13 power cable		1 pc.
Outer temperature, humidity and dew point sensor with 10 m connecting cable and connector (optional)		1 pc.
10 m connecting polyurethane hose with 6 mm outer and 4 mm inner diameter		1 pc.
Replaceable filters	Microfilter	1 pc.
	Submicrofilter	1 pc.
Manual		1 pc.



## Dimensions



*Air Dehumidifier and Purifier Unit ADPU60L-4.x, dimensions*