

NOVA P600

Desktop Air-Cooled QCW Laser Welding & Cutting System

One machine
Precision welding & precision cutting

KEY FEATURES



QCW Laser Technology

High peak power with precise pulse control.



Welding & Cutting in One System

Switch between welding and cutting by changing the nozzle



Air-Cooled Maintenance-Free Design

No water chiller required, easier installation and lower maintenance



Compact Desktop Structure

Small size, light weight, easy to carry and save workspace



Pulse Energy up to 6J

Stronger penetration, superior welding quality



Peak Power 600W

More power for demanding applications



Built-in 5" Touchscreen

Intuitive interface, real-time parameter adjustment



Handheld Operation

Ergonomic welding torch for comfortable use



Foot Switch Control

Hands-free operation for higher efficiency



Industrial Safety Design

Multiple safety protections to ensure safe operation



PRODUCT OVERVIEW /

The iWELDer NOVA P600 is a compact desktop QCW laser welding and cutting system designed for precision manufacturing, jewelry fabrication, thin metal processing, electronics, and prototype production.

Combining high peak power, precise pulse control, and an integrated handheld welding torch, the NOVA delivers excellent weld quality while maintaining a compact air-cooled design without external chillers.

APPLICATIONS /



Jewelry Fabrication



Electronics Manufacturing



Battery Industry



Medical Devices



Advertising Letters



Hardware Processing



DIY & R & D Prototyping



And More



High Precision

Stable beam quality for fine and precise welding



Easy Operation

Intuitive interface and simple parameter setting



High Efficiency

Fast welding speed, improve production



Cost Effective

Low maintenance cost and high reliability



WHY CHOOSE NOVA P600 /



QCW TECHNOLOGY

High peak power with precise pulse control.
Excellent weld quality with low heat input.



WELDING & CUTTING IN ONE SYSTEM

Quick nozzle change between welding
and cutting. One machine for two processes.



AIR-COOLED MAINTENANCE-FREE DESIGN

No external chiller required.
Lower energy consumption and easier maintenance.



COMPACT DESKTOP STRUCTURE

Small size and light weight.
Fits every workbench and saves workspace.



HIGH PERFORMANCE

600 W peak power.
Pulse energy up to 6J for stronger penetration
and superior welding quality.



INDUSTRIAL SAFETY DESIGN

Key switch, emergency stop, foot switch enable,
trigger interlock and protective cover.
Multiple protections ensure safe operation.

THREE-KNOB CONTROL SYSTEM /



Intuitive operation with real-time parameter adjustment.
Boost efficiency and ensure consistent weld quality.

TECHNICAL SPECIFICATIONS /

ITEM	NOVA P600
Average Laser Power	300 W
Peak Power	600 W
Maximum Single-Point Pulse Energy	6J
Laser Wavelength	1080±5nm
Pulse Frequency	1-300 Hz
Pulse Width	0.4-100 ms
Modulation Frequency	1-5000 Hz
Welding Thickness(SS)	0.1-1.5 mm
Control Mode	Jog/Foot Linkage
Output Fiber Length	3m(Standard)
Cooling Method	Air Cooling
Touch Screen	5 inch
Power Supply	AC 200-240V, 50/60Hz
Max. Power Consumption	≤1.2 kW
Weight	20 kg
Dimensions(L×W×H)	423×331×170 mm

PRODUCT DIMENSIONS /



CONNECTIONS & ACCESSORIES /

FRONT PANEL



- 1 Touch Screen
- 2 Power Adjustment Knob
- 3 Pulse Width Adjustment Knob
- 4 Frequency Adjustment Knob
- 5 Emergency Stop
- 6 Key Switch
- 7 Laser Output Interface
- 8 Foot Switch Interface

STANDARD ACCESSORIES

