

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 6 J**
Stronger penetration, superior welding quality
-  **Peak Power 600 W**
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

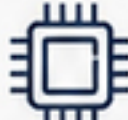


PRODUCT OVERVIEW /

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 /

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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 6 J 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 /



1 SHORT PRESS

Fine Adjustment



LED
Slow Flash

2 SHORT PRESS AGAIN

Coarse Adjustment



LED
Fast Flash

3 LONG PRESS

Exit & Save



Parameters Saved
Automatically



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	6 J
Laser Wavelength	1080 ± 5 nm
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	3 m (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

