

Invertec® V205-T DC

Processes

Stick, TIG

Product Number

K2629-1 Invertec V205-T DC

K2671-1 One-Pak® Package

See back for complete specs

Input Power

115/208/230/1/50/60

Input Current at Rated Output

115V: 25.0 A @ 60% TIG

115V: 28.0 A @ 60% Stick

Rated Output

115V: 120A/14.8V/60% TIG

115V: 90A/23.6V/60% Stick

Output Range

6-200 A DC

Max. OCV: 53.7 V

Weight/Dimensions (H x W x D)

38 lbs. (17.3 kg)

15.0 x 8.5 x 19.0 in.

(381 x 216 x 483 mm)

For TIG and Stick Welding

The Invertec® V205-T DC is a compact TIG power source intended for critical DC TIG welding. This feature-packed inverter is flexible enough for almost any job!

FEATURES

- ▶ **Stick Crisp Mode** - For exceptional Fleetweld® 5P and 5P+ (E6010) performance.
- ▶ **Adjustable DC Strike Mode** - Allows a hotter or colder start to accommodate each tungsten diameter.
- ▶ **Voltage Reduction Device (VRD)** - When enabled, it reduces the open circuit voltage in STICK mode for use in electrically hazardous conditions or when the use of a VRD is required.
- ▶ **Auto-reconnects for single phase 115/230V 50/60 Hz input** - Weld in the shop or carry in the field where 230V may not be available.
- ▶ **Fan-As-Needed™ (F.A.N.™)** - Fan only operates only when needed to reduce power consumption, noise and dust in machine.
- ▶ **Easy to read sequence diagram** - Highlights selected parameter for easy setting with a single knob.
- ▶ **Selectable high frequency TIG starting** - For easy arc ignition or Touch Start TIG® starting capability on DC for areas where high frequency emissions are a concern.

APPLICATIONS

- ▶ Fabrication
- ▶ Motorsports
- ▶ Aerospace
- ▶ Nuclear Piping
- ▶ Shipbuilding



Shown:
K2629-1 Invertec®
V205-T DC

WHAT'S INCLUDED

K2671-1 One-Pak® Pkg. Includes:

- ▶ K2629-1 Invertec® V205-T DC
- ▶ K2266-1 TIG-Mate™ 17 Air-Cooled TIG Torch Starter Kit
- ▶ 230V Input Cord & Plug
- ▶ K870 Foot Amptrol™
- ▶ Adjustable Shoulder Strap

INPUT



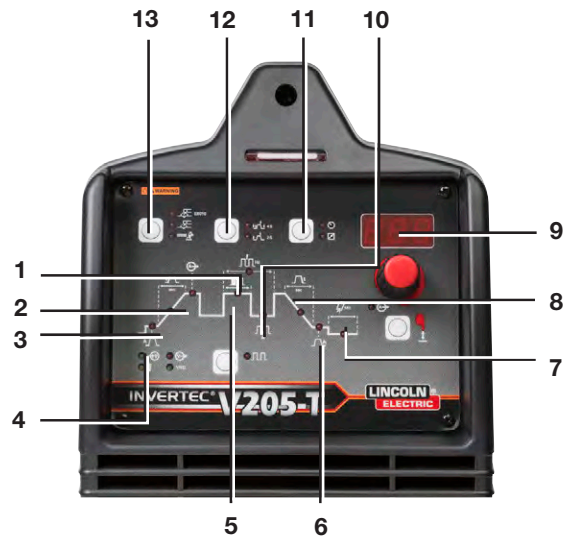
OUTPUT



Two Year Extended
Warranty Available in
the U.S.A. and Canada

KEY CONTROLS

1. Pulse Frequency
2. Presettable Amperage
3. Up-Slope Time
4. Starting Current
5. % On-Time Pulse
6. Finish Current
7. Adjustable Post-Flow Time
8. Down-Slope Time
9. Digital Output Current Display
10. Pulse Background Current
11. Local/Remote Switch allows for remote current controls in TIG welding mode
12. 2-Step and 4-Step Operation Modes
13. Weld Mode
14. 6-Pin MS-Type Remote Connector (not shown)
15. Integral Twist Mate™ Gas and Power Connections (not shown)

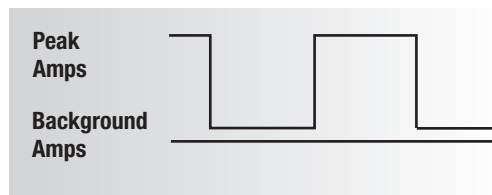


EXCELLENT WELDING PERFORMANCE

High Speed DC TIG Pulsing

Conventional TIG Pulsing (<10 pulses per second)

- Timed filler metal and consistent bead appearance.
- Reduces heat input by alternating between peak current and background to minimize distortion.

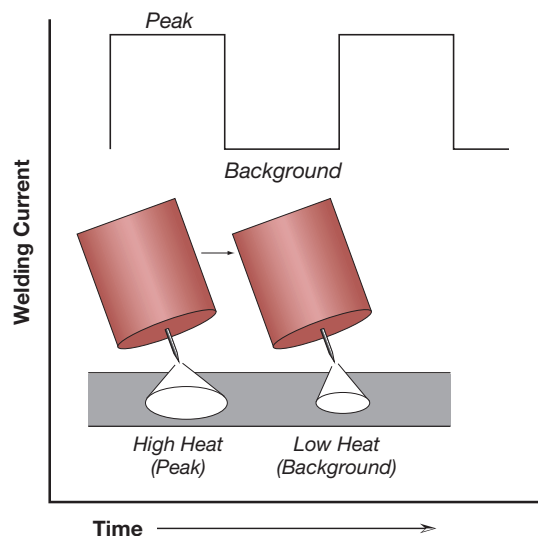


High Speed TIG Pulsing (Up to 2500 pulses per second)

- Increased puddle agitation for improved weld microstructure.
- Focused stable arc.
- Increased travel speeds.
- Reduced heat input.

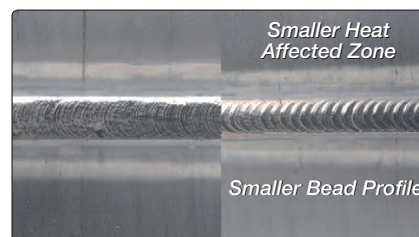


PULSE FREQUENCY: Number of Pulses Per Second



Conventional TIG (at 60 amps)

TIG Pulsing (at 60 amps)



SYSTEM SELECTION

One-Pak® Welding Package

Order a One-Pak® and get a complete welding package.

Each Package Contains:

- K2629-1 Invertec® V205-T DC
- K2266-1 TIG-Mate™ 17 Air-Cooled TIG Torch Starter Kit
- 230V Input Cord & Plug
- K870 Foot Amptrol™
- Adjustable Shoulder Strap

Order:

K2671-1 Invertec® V205-T DC One-Pak® Package



Shown:
K2671-1 One-Pak®
Package

RECOMMENDED ACCESSORIES

GENERAL OPTIONS

Small Canvas Cover

Protect your machine when not in use. Made from attractive red canvas that is flame retardant, mildew resistant and water repellent. Includes a convenient side pocket to hold welding torch or gun. **Order K2377-1**



Utility Cart

Heavy duty cart stores and transports welder, 150 cubic foot shielding gas cylinder, welding cables and accessories. Includes stable platforms for welder and gas bottle platform, lower tray for added storage capacity and adjustable height handle. **Order K520**



Welding Cart

Lightweight cart stores and transports welder, 80 cubic foot shielding gas cylinder, welding cables and accessories. Includes an angled top shelf for easy access to welder controls, a lower tray for added storage space, a sturdy handle and a convenient cable wrap hanger. **Order K2275-1**



Weld Fume Control Solutions

Lincoln Electric offers a wide variety of weld fume control solutions, ranging from portable systems easily wheeled around the shop to shop-wide central systems servicing many dedicated welding stations. **Request Publication MC08-70**



STICK OPTIONS

Stick Electrode Holder, Work Clamp, Cable & Twist Mate™ Set
Includes 200A stick electrode holder, #4 welding cable, work cable and Twist Mate™ set. **Order K2394-1**



TIG OPTIONS

TIG-Mate™ 17 Air-Cooled TIG Torch Starter Kit

Get everything you need for TIG welding in one complete easy-to-order kit packaged in its own portable carrying case. Includes: PTA-17 Ultra-Flex™ torch, parts kit, Harris® flowmeter/regulator, 10 ft. (3.0 m) gas hose, Twist Mate™ adapter, and work clamp and 10 ft. (3.0 m) cable. **Order K2266-1**



TIG-Mate™ 20 Water-Cooled TIG Torch Starter Kit

Get everything you need for TIG welding in one complete easy-to-order kit packaged in its own portable carrying case. Includes: PTW-20 torch, parts kit, Harris flowmeter/regulator, 10 ft. (3.0 m) gas hose, PTW-20 Twist Mate™ adapter, work clamp and cable and 10 ft. (3.0 m) water hose. **Order K2267-1**



Additional or alternate torches may be ordered:

Pro-Torch™ TIG Torches

One-piece air-cooled PTA-9 or -17 TIG torches may be connected directly with the included K1622-1 TIG Torch Adapter.

Order K1781-1 PTA-9, 12.5 ft., 1-cable.
Order K1782-1 PTA-17, 12.5 ft., 1-cable.
Order K1622-2 PTA-9, -17 adapter



One-piece air-cooled PTA-26 TIG torches may be connected with an optional K1622-3 Twist Mate™ adapter.
Order K1783-1 PTA-26, 12.5 ft., 1-cable.
Order K1622-3 PTA-26 adapter

PTW-20 water-cooled torch may be connected with an optional K1622-4 Twist Mate™ adapter.
Order K1784-3 PTW-20, 12.5 ft.
Order K1622-4 PTW-20 adapter

A full line of TIG torches and parts kits in various lengths and types are available.
Request Publication E12.150 for more information.

Foot Amptrol™

Provides 25 ft. (7.6 m) of remote current control for TIG welding. (6-pin plug connection) **Order K870**



Hand Amptrol™

Provides 25 ft. (7.6 m) of remote current control for TIG welding. (6-pin plug connection). Velcro straps secure torch. **Order K963-3** (one size fits all Pro-Torch™ TIG torches).



Arc Start Switch

May be used in place of the Foot or Hand Amptrol™. Comes with a 25 ft. (7.6 m) cable and 6-pin plug connector. Attaches to the TIG torch for convenient finger control to start and stop the weld cycle at the current set on the machine. **Order K814**



RECOMMENDED ACCESSORIES

TIG OPTIONS, CONT'D

Cool-Arc™ 40 Water Cooler

Energy efficient long life cooler for water-cooled welding applications.
Order K1813-1 for 115V.
Order K2187-1 for 230V.



Water Cooler Hoses (CGA to CGA)

For 5/8 in. LH CGA fitting applications at both cooler and wire feeder. Kit contains two 25 ft. (7.6 m) hoses with 5/8 in. left hand CGA fittings on both ends of hose.
Order K1859-2



Hose Coupler (11N18)

5/8 in. LH CGA female fitting on both ends allows a water hose from cooler to connect directly to the water line of the TIG torch.
Order S19558-6



Cut Length Consumables

TIG welding filler metals are available for welding stainless steel, mild steel, aluminum and copper alloys.

Request Publication C9.10 for more information

PRODUCT SPECIFICATIONS

Product Name	Product Number	Input Power	Rated Output Current/Voltage/Duty Cycle	Input Current @ Rated Output ⁽¹⁾	Output Range	H x W x D inches (mm)	Net Weight lbs. (kg)
Invertec® V205-T DC	K2629-1	115V/1/50/60	150A/16.0V/40% TIG 120A/14.8V/60% TIG 100A/14.0V/100% TIG	34.0A 25.0A 20.0A	6-200 A DC Max. OCV 53.7 V	15.0 x 8.5 x 19.0 (381 x 216 x 483)	38 (17.3)
Invertec® V205-T DC One-Pak® Package	K2671-1	230V/1/50/60 ⁽²⁾	200A/18.0V/40% TIG 170A/16.0V/60% TIG 140A/15.6V/100% TIG	30.0A 18.0A 15.0A			
		115V/1/50/60	110A/24.4V/35% Stick 90A/23.6V/60% Stick 70A/22.8V/100% Stick	34.0A 28.0A 20.0A			
		230V/1/50/60 ⁽²⁾	180A/27.2V/35% Stick 150A/26.0V/60% Stick 130A/25.2V/100% Stick	30.0A 23.0A 19.0A			

⁽¹⁾ Input current on 60 hertz input. ⁽²⁾ Also operates on 208V input.

For best welding results with Lincoln Electric equipment, always use Lincoln Electric consumables.
Visit www.lincolnelectric.com for more details.

Manufactured at a facility with certified ISO Quality and Environmental Management Systems.

CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

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