

Invertec® V205-T DC

For TIG and Stick Welding

The Invertec® V205-T DC is a compact, TIG power source intended for critical DC TIG welding. From maintenance to production fabrication, to motorsports, aerospace, nuclear piping and shipbuilding, this feature-packed inverter is flexible enough for almost any job! The 115/230V input voltage auto-reconnect makes the V205-T DC extremely useful almost anywhere in the shop or in the field.

Processes

Stick, TIG



Output





Input





Advantage Lincoln

Precision Arc Performance

- Added Stick Crisp Mode for exceptional Fleetweld® 5P and 5P+ (E6010) Performance.
- Improved TIG Starting. Now starts DC(-) to maintain a sharp tungsten.
 - Adjustable DC Strike mode Allows adjustment of a hotter or colder start depending on the tungsten diameter.
 - DC inverter for TIG with advanced inverter technology to optimize arc performance.
 - High quality stick welding with such popular Lincoln® electrodes as Fleetweld® 5P, 35, 37, 180 and Excalibur® 7018.

Professional Features

- Voltage Reduction Device (VRD). When enabled from the set up menu reduces the open circuit voltage in STICK mode for use in electrically hazardous conditions or when the use of a VRD is required.
 - 200 amps @ 40% duty cycle is the highest output rating in this machine class.
 - Auto-reconnects for single phase 115/230V 50/60 Hz input allows the flexibility to weld in the shop or take in the field where 230V may not be available.

 Weighs in at a mere 38 lbs. (17.3 kg) making it easy to carry around the shop or job site.

Simple Controls

- Full featured TIG control –including pulse, upslope, downslope, start and finish current.
- Easy to read sequence diagram with LEDs displays 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.

Outstanding Quality

- Newly designed using the latest power electronic technology for improved reliability.
- Fan-As-Needed (F.A.N.) fan only operates when needed to reduce power consumption, noise and dust in machine.
 - CSA C/US Certified.
 - Three-Year Lincoln® Warranty on parts and labor.

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

(1) Input amps on 60Hz input. (2) Also operates on 208 input volts



PERFORMANCE

TIG Welding

Full featured TIG control with adjustable starting parameters for excellent starting and pulse control for excellent heat control.

Stick Welding

The Invertec® V205-T DC is also an excellent DC stick welder with such popular Lincoln® electrodes such as Fleetweld® 5P and 5P+, Fleetweld® 35, Fleetweld® 37, Fleetweld® 180 and Excalibur® 7018.

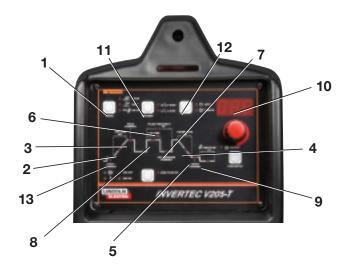
FEATURES

- Selectable high frequency TIG starting for easy arc ignition or Touch-Start™ DC TIG starting for areas where high frequency emissions are a concern.
- Hidden start up menu offers the following additional controls:
- Preflow time for purging gas lines is adjustable between 0 and 25 seconds. Factory preset at 0.5 seconds.
- High frequency is standard starting method for TIG.
 Touch-Start™ TIG may be selected for DC.
- Adjustable DC TIG strike current.
- Adjustable Arc Force for stick mode only.
- Adjustable Hot Start for stick mode only.

Key Controls

- 1) Weld Mode
- 2) Up-Slope Time
- 3) Pre-settable Amperage
- 4) Down-Slope Time
- 5) Finish Current
- 6) Pulse Frequency
- Pulse Background Current
- 8) % On-Time Pulse
- 9) Adjustable post-flow time
- 10) Digital output current display

- 11) 2-Step and 4-Step operation modes
- Local/Remote switch allows for remote current controls in TIG welding mode
- 13) Starting Current
- 14) 6-pin MS-Type remote connector (not shown)
- Integral Twist-Mate[™] gas and power connections (not shown)



QUALITY AND RELIABILITY

- Thermal and voltage overload protection for long life of internal components.
- Three year Lincoln® warranty on parts and labor.
- Line voltage compensation gives you the option to use remote generator power.

SYSTEM SELECTION

One-Pak® Welding Packages

Order a Lincoln® One-Pak® and get everything you need to complete a welding package – all with one order number. Just add shielding gas.

Invertec® V205-T DC One-Pak® Package — One product number (K2671-1) gets you all this:

Package Contains These Separate Items:

- Invertec® V205-T DC (115/230/1/50/60).... K2629-1
 TIG-Mate™ 17 Air-Cooled K2266-1
 TIG Torch Starter Pack
- Foot Amptrol® K870





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™ 9 Air-Cooled TIG **Torch Starter Pack**

Get everything you need for TIG welding in one complete easy-toorder kit packaged in its own portable carrying case. Includes: PTA-9 Ultra-Flex™ torch, gas lens parts kit, Harris® flowmeter/regulator. Twist-Mate™ adapter, gas hose, work clamp and cable.

Order K2413-1

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



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

Order K2266-1

TIG-Mate™ 20 Water-Cooled **TIG Torch Starter Pack**



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

Order K2267-1

Additional or alternate torches may be ordered:

Pro-Torch™ TIG Torches



12.5 ft., 1-cable, One-piece air-cooled PTA-26 TIG torches may be connected with an optional K1622-3

Twist-Mate™ adapter. Order K1783-1 for 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.



Arc Start Switch



May be used in place of the Foot or Hand Amptrol. Comes with a 25 ft. (7.6m) 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

Order K1784-3 for 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

Request Lincoln® Publication

E12.150 for more information.

Provides 25 ft. (7.6m) of remote

current control for TIG welding. (6 pin plug connection)

Provides 25 ft. (7.6m) of remote

current control for TIG welding.

Order K963-3 (one size fits all

(6 pin plug connection).

Pro-Torch TIG torches).

Velcro straps secure torch.

are available.

Foot Amptrol®

Order K870

Hand Amptrol

Cool-Arc[™] 40 Water Cooler Energy efficient long life cooler for water-cooled welding applications. Order K1813-1 for 115V.

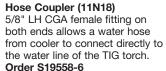


Order K2187-1 for 230V. Water Cooler Hoses

(CGA to CGA)



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

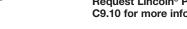




Cut Length Consumables

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

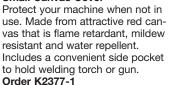
Request Lincoln® Publication C9.10 for more information





Small Canvas Cover

GENERAL OPTIONS





GENERAL OPTIONS, CONT.



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



Utililty 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

INVERTEC® V205-T DC

PRODUCT DESCRIPTION	ORDER NUMBER	QUANTITY	PRICE
Invertec® V205-T DC 115/230/1/50/60	K2629-1		
Invertec® V205-T DC One-Pak® Package	K2671-1		
Recommended Stick Options			
Stick Electrode Holder, Work Clamp, Cable & Twist-Mate™ Set	K2394-1		
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Recommended TIG Options			
TIG-Mate™ 9 Air-Cooled TIG Torch Starter Pack	K2413-1		
TIG-Mate™ 17 Air-Cooled TIG Torch Starter Pack	K2266-1		
TIG-Mate™ 20 Water-Cooled TIG Torch Starter Pack	K2267-1		
Pro-Torch™ TIG Torches:	see publication E12.150		
PTA-9 TIG Torch, 12.5 ft., 1-cable, 125 amps	K1781-1		
PTA-17 TIG Torch, 12.5 ft., 1-cable, 150 amps	K1782-1		
TIG Torch Adapter (required for PTA-9, -17)	K1622-1		
PTA-26 TIG Torch, 12.5 ft., 1-cable, 200 amps	K1783-1		
TIG Torch Adapter (required for PTA-26)	K1622-3		
PTW-20 TIG Torch, 12.5 ft., 250 amps	K1784-3		
TIG Torch Adapter (required for PTW-20)	K1622-4		
Foot Amptrol	K870		
Hand Amptrol	K963-3		
Arc Start Switch	K814		
Cool Arc™ 40 Water Cooler:			
115/1/50/60	K1813-1		
220-240/1/50/60	K2187-1		
Water Cooler Hoses (CGA to CGA)	K1859-2		
Hose Coupler (11N18)	S19558-6		
Cut Length Consumables	see publication C9.10		
Recommended General Options			
Small Canvas Cover	K2377-1		
Welding Cart	K2275-1		
Utility Cart	K520		
	TOTAL:		
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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 advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer's particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

Lincoln Electric is a responsible manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

Subject to Change - This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com for any updated information.

