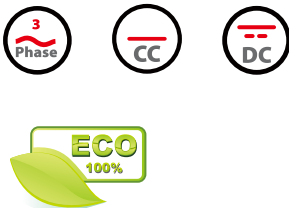


# PROTIG-315Di

Refined TIG welding for industrial applications



## Quick Specs

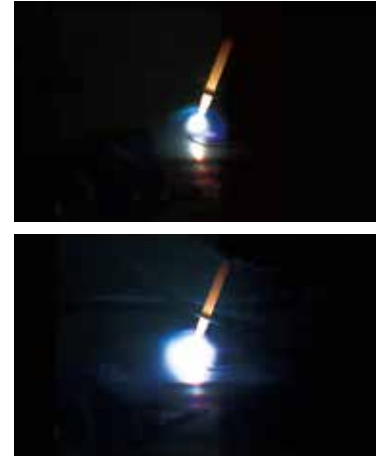
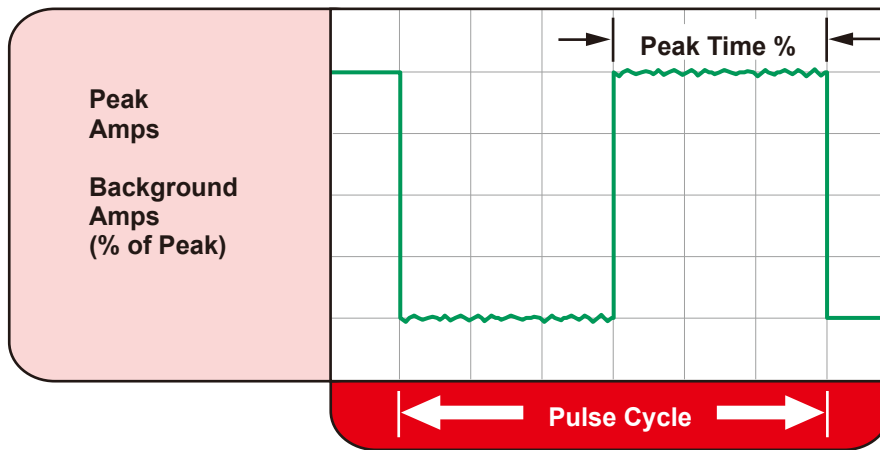
- ♦ **Processes:**  
DC TIG  
MMA(Stick)
- ♦ **Input Power:**  
400V/3-PH/50-60Hz
- ♦ **Rated Output at 40°C (104°F):**  
PROTIG-315Di:  
315A at 22.6V @60% Duty Cycle
- ♦ **Applications:**  
Installation and set-up  
Repair and maintenance  
Metal fabrication workshops  
Chemical and process industry

## TOP Features:

- ✓ **Pulse control:** Built in pulsing functions help minimize heat input on thin materials, and provide for a faster freezing weld puddle for uphill welding on curved surfaces such as process piping. The TIG pulse also helps moderate filler metal deposition for consistent bead appearance.
- ✓ **High-frequency TIG starting:** Makes it easy to establish an arc under a variety of conditions. Enhances quality by minimizing the potential for weld contamination created by tungsten inclusions in the weld.
- ✓ **Refined arc ignition from 5A (optional 3A).**
- ✓ **Hot Start Function** reliably ignites the electrode and melts perfectly to ensure the best quality even at the start of the seam.
- ✓ **Arc Force** makes it easier to weld large-drop melting electrode types at low current strengths with a short arc in particular.
- ✓ **Built-in water-cooling unit** offers a safe operation at high temperatures and during extended duty cycles.
- ✓ **Fast Spot Arc system** simply controls the spot arc parameter and offers a stable arc.
- ✓ **4T Trigger Hold** allows to hold the present current by user until press the trigger again.
- ✓ **Fast, precise, clean arc ignition and arc ending.**
- ✓ **10 channels memory capacity.**

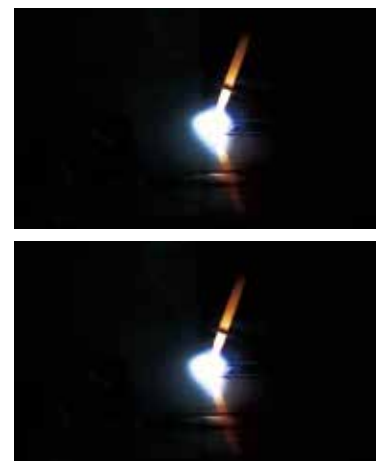
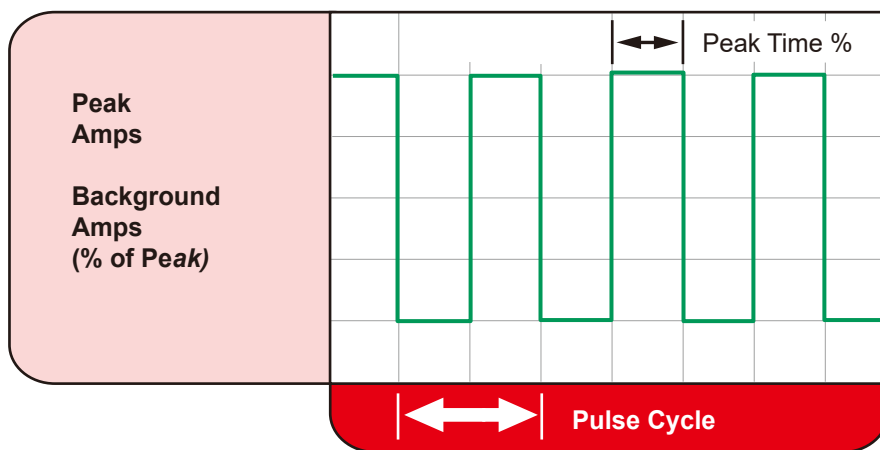
## Pulse TIG

### ◆ Conventional Pulsed TIG



Typically from 0.2 to 10 PPS. Provides a heating and cooling effect on the weld puddle and can reduce distortion by lowering the average amperage. This heating and cooling effect also produces a distinct ripple pattern in the weld bead. The relationship between pulse frequency and travel speed determines the distance between the ripples. Slow pulsing can also be coordinated with filler metal addition and can increase overall control of the weld puddle.

### ◆ High Speed Pulsed TIG



In excess of 40 PPS, Pulsed TIG becomes more audible than visible—causing increased puddle agitation for a better as-welded microstructure. Pulsing the weld current at high speeds — between a high Peak and a low Background amperage — can also constrict and focus the arc. This results in maximum arc stability, increased penetration and increased travel speeds.

## Technical Specifications

| Item No                       |                        | PROTIG-315Di            |
|-------------------------------|------------------------|-------------------------|
| Rated Input Voltage           |                        | 3PH ~ 380V ±15%         |
| Max. Load Power Capacity      |                        | TIG: 9.85KVA            |
|                               |                        | MMA: 10.38 KVA          |
| Rated Duty Cycle(40°C) 60%    |                        | TIG: 315A/22.6V         |
|                               |                        | MMA: 250A/30V           |
| 100%                          |                        | TIG: 250A/20V           |
|                               |                        | MMA: 200A/28V           |
| Welding Current/Voltage Range |                        | TIG:3A/10.1V~315A/22.6V |
|                               |                        | MMA: 20A/20.8V~250A/30V |
| Open Circuit Voltage          |                        | 70V~80V                 |
| Power Factor                  |                        | 0.85                    |
| Efficiency                    |                        | 85%                     |
| TIG                           | Peak Current           | 0.2Hz~200Hz             |
|                               | Pulse Frequency        | 1%~100%                 |
|                               | Arc-starting Current   | 5A~315A                 |
|                               | Crater-filling Current | 5A~315A                 |
|                               | Current Up-slope Time  | 0.1S~15S                |
|                               | Current Down-slop Time | 0.1S~15S                |
|                               | Pre-Gas Time           | 0.1S~15S                |
|                               | Flow-Gas Time          | 0.1S~15S                |
|                               | Spot Arc Time          | 0.1S~10S                |
|                               |                        |                         |
| MMA                           | Arc Force              | 10A~250A                |
|                               | Hot Start Time         | 0.1~3S                  |
|                               | Hot Start Current      | 10A~250A                |
| Dimension (LxWxH)             |                        | 560x230x480mm           |
| Weight (KG)                   |                        | 23KG                    |

### Water-cooling Unit: WC-100

|                            |  |                       |
|----------------------------|--|-----------------------|
| Operating Voltage          |  | 230V 50/60Hz          |
| Rated Power                |  | 260W                  |
| Cooling Power              |  | 1.5KW(1L/MIN)         |
| Maximum Pressure           |  | 0.3MPA/60HZ           |
| Recommended Cooling Liquid |  | 20%~40% ethanol/water |
| Tank Volume                |  | 6.5L                  |

## Accessories

### Standard accessories

**TIG-12**



Technical data (EN 60 974-7):

|                      |              |
|----------------------|--------------|
| Type of cooling:     | Water Cooled |
| Rating:              | 350A DC      |
|                      | 250A AC      |
| Duty cycle:          | 100%         |
| Tungsten electrodes: | Ø 1.6–4.0 mm |

#### Consumables:



Back cap



Collet



Insulating ring/Adaptor



Collet body



Gas nozzle, ceramic



Electrode holder with cable 2M  
Earth clamp with cable 2M

### Optional accessories

**BINZEL ABITIG® GRIP 18**



Technical data (EN 60 974-7):

|                      |               |
|----------------------|---------------|
| Type of cooling:     | liquid cooled |
| Rating:              | 350A DC       |
|                      | 250A AC       |
| Duty cycle:          | 100%          |
| Tungsten electrodes: | Ø 1.6–4.0 mm  |



Argon gas regular



Trolley: WT-100



Water-cooling unit: WC-100



Foot Pedal