

PROTIG-500CT

Reliable and powerful DC TIG equipment



Quick Specs

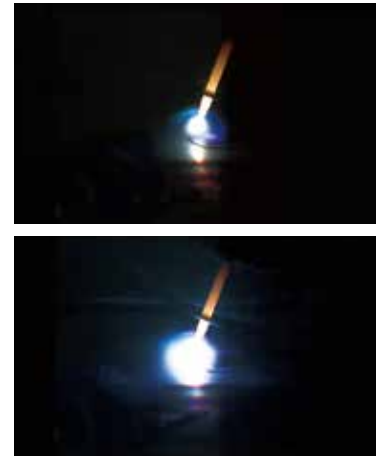
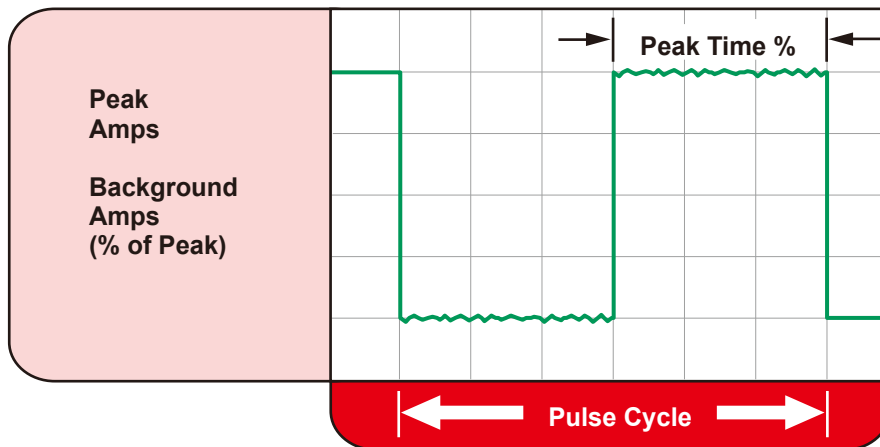
- ♦ **Processes:**
DC TIG
MMA(Stick)
- ♦ **Input Power:**
340-460V/3-PH/50-60Hz
- ♦ **Rated Output at 40°C (104°F):**
500CT: 500A at 30V @60% Duty Cycle
- ♦ **Applications:**
Metal fabrication workshops
Shipyards and offshore industry
Chemical and process industry
Steel structure workshops

TOP Features:

- ✓ **Full IGBT Modules Structure** greatly improve its reliability and productivity.
- ✓ **Refined arc ignition from 3A.**
- ✓ **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.
- ✓ **Fast Spot Arc system** simply controls the spot arc parameter and offers a stable arc.
- ✓ **Pre-gas and post-gas adjustment**
- ✓ **4T Trigger Hold** allows to hold the present current by user until press the trigger again.
- ✓ **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.
- ✓ **Fast, precise, clean arc ignition and arc ending.**
- ✓ **10 channels memory capacity**

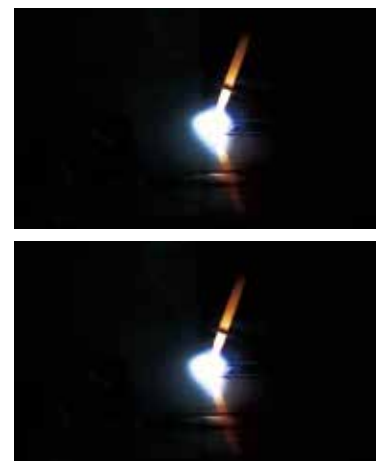
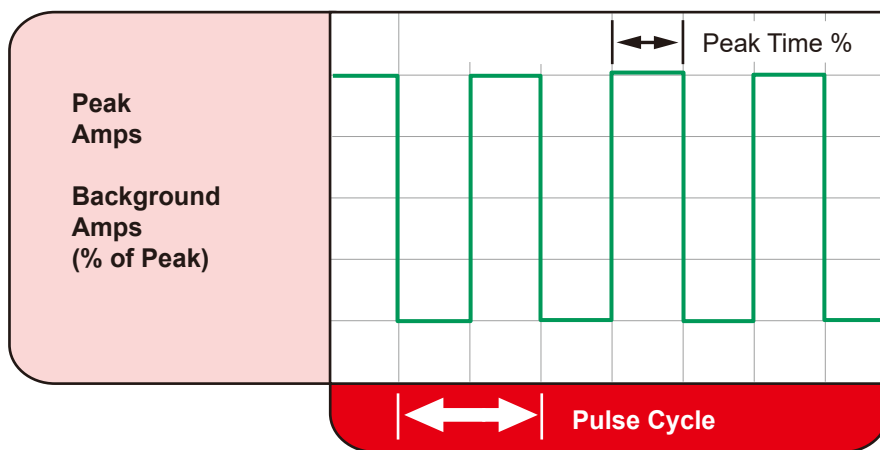
Pulse TIG

◆ 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-500CT
Rated Input Voltage		3PH ~ 400V ±15%
Max. Load Power Capacity		TIG: 20.76 KVA
		MMA: 19.93 KVA
Rated Duty Cycle(40°C) 60%		TIG: 500A/30V
		MMA: 400A/36V
100%		TIG: 400A/26V
		MMA: 315A/32.6V
Welding Current/Voltage Range		TIG: 3A/10.1V~500A/30V
		MMA: 20A/20.8V~400A/36V
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~500A
	Crater-filling Current	5A~500A
	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~400A
	Hot Start Time	0.1~3S
	Hot Start Current	10A~400A
Dimension (LxWxH)		960x420x900mm
Weight (KG)		70KG

Water-cooling Unit: WC-150

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



Water-cooling unit: WC-100

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



Foot Pedal