

PROTIG 200Di/250Di/315Di/400CT/500CT

Powerful, Excellent DC Pulse TIG



Quick Specs



Processes:

DC TIG
MMA(Stick)

Applications:

Metal Fabrication
Maintenance and Repair
Auto Body
Light Industrial

Input Power:

200Di/250Di: 230V, 1-Phase
315Di: 380V, 3-Phase
400CT/500CT: 400V, 3-Phase

Amperage Range:

200Di: 3-200A/250AC: 3-250A
315Di: 3-315A/400CT: 3-400A/ 500CT: 3-500A

Rated Output at 40 °C (104°F):

200Di: 200A at 18V @60% Duty Cycle
250Di: 250A at 20V @60% Duty Cycle
315Di: 315A at 22.6V @60% Duty Cycle
400CT: 400A at 26V @60% Duty Cycle
500CT: 500A at 30V @60% Duty Cycle

Weight:

200Di/250Di: 15KG
315Di: 23KG
400CT/500CT: 70KG

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 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 soft arc in particular.

• **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.

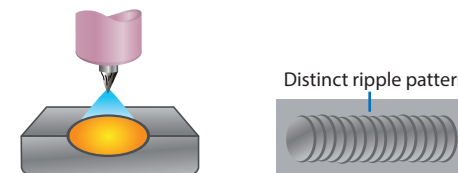
• **Fast, precise, clean arc ignition and arc ending.**

• **10 channels memory capacity**

PULSED TIG CONTROLS

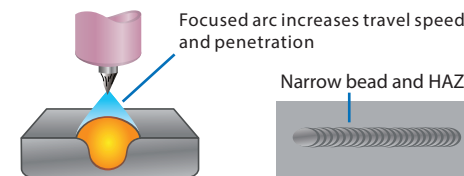
The Pulsed TIG function switches the amperage from a high(peak) to a low(background) at a set rate(PPS). Pulsing can reduce heat input by lowering the average amperage, increasing control of the weld puddle, penetration and distortion. The following parameters can be adjusted for desired results:

Low-Speed Pulse



1 to 10 pulses per second(PPS) will produce a distinct ripple pattern in the weld bead. Can be used to time filler addition, reduce distortion and improve control.

High-Speed Pulse

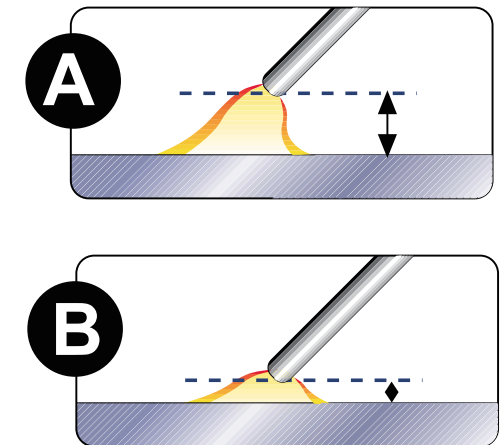
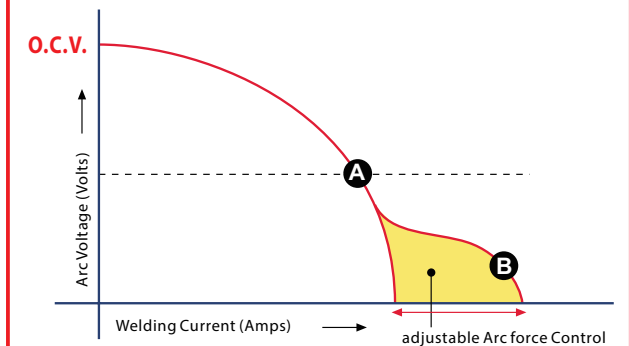


100 pulses per second(PPS) and higher helps to focus the arc for increased stability, penetration and travel speed. Increased puddle agitation improves weld microstructure. (see Pulse TIG.pdf)

Arcforce correction (welding characteristics)

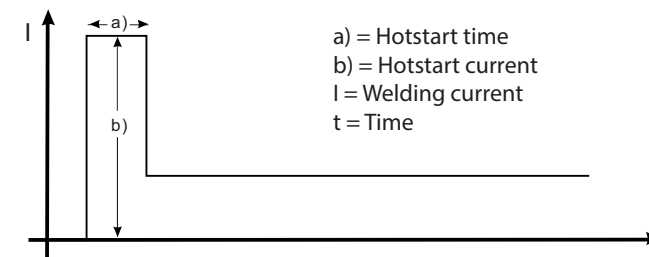
Arcforce is a setting that allows you to adjust the arc to soft smooth arc to a more aggressive digging arc. Setting high is to bump up amperage when you have a really tight arc so that you keep welding(see Arcforce correction.pdf).

ARC FORCE CONTROL



HOT START

Hot Start adaptive control provides positive arc start without sticking(see Hot start.pdf).



PROTIG-200Di/250Di

Technical specifications

Item No		PROTIG-200Di	PROTIG-250Di
Rated Input Voltage		1PH ~ 230V ±15%	1PH ~ 230V ±15%
Max. Load Power Capacity		TIG: 5.62 KVA MMA:6.60 KVA	TIG: 7.81 KVA MMA: 5.63KVA
Rated Duty Cycle(40°C)	60%	TIG: 200A/18V MMA: 160A/26.4V	TIG: 250A/20V MMA: 200A/28V
	100%	TIG: 160A/16.4V MMA: 130A/25.2V	TIG: 200A/18V MMA: 160A/26.4V
Welding Current/Voltage Range		TIG: 3A/10.1V~200A/18V MMA: 20A/20.8V~160A/26.4V	TIG: 3A/10.1V~250A/20V MMA: 20A/20.8V~200A/28V
Open Circuit Voltage		70V~80V	70V~80V
Power Factor		0.8	0.8
Efficiency		80%	80%
TIG	Pulse Frequency	0.2Hz~200Hz	0.2Hz~200Hz
	Pulse Width (Ratio)	1~100%	1~100%
	Arc-starting Current	5A~200A	5A~250A
	Crater-filling Current	5A~200A	5A~250A
	Current Up-slope Time	0.1S~15S	0.1S~15S
	Current Down-slop Time	0.1S~15S	0.1S~15S
	Pre-Gas Time	0.1S~15S	0.1S~15S
	Flow-Gas Time	0.1S~15S	0.1S~15S
	Spot Arc Time	0.1S~10S	0.1S~10S
MMA	Arc Force	10A~160A	10A~200A
	Hot Start Time	0.1~3S	0.1~3S
	Hot Start Current	10A~160A	10A~200A
Dimension (LxWxH)		410x190x305mm	410x190x305mm
Weight (KG)		15KG	15KG

Water-cooling Unit: WC-100 (optional)

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

PROTIG-315Di

Technical specifications

Item No		MASTER TIG-315Di
Rated Input Voltage		3PH ~ 380V ±15%
Max. Load Power Capacity		TIG: 11.63KVA MMA: 10.38 KVA
Rated Duty Cycle(40°C)	60%	TIG: 350A/24V MMA: 250A/30V
	100%	TIG: 315A/22.6V MMA: 200A/28V
Welding Current/Voltage Range		TIG:3A/10.1V~350A/24V MMA: 20A/20.8V~250A/30V
Open Circuit Voltage		70V~80V
Power Factor		0.85
Efficiency		85%
TIG	Pulse Frequency	0.2Hz~200Hz
	Pulse Width (Ratio)	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)		540x240x480mm
Weight (KG)		23KG

Water-cooling Unit: WC-100 (optional)

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

PROTIG-400CT/500CT

Technical specifications

Item No		PROTIG-400CT	PROTIG-500CT
Rated Input Voltage		3PH ~ 400V ±15%	3PH ~ 400V ±15%
Max. Load Power Capacity		TIG: 14.39 KVA	TIG: 20.76 KVA
		MMA: 14.21 KVA	MMA: 19.93 KVA
Rated Duty Cycle(40°C)		TIG: 400A/26V	TIG: 500A/30V
		MMA: 315A/32.6V	MMA: 400A/36V
		TIG: 315A/22.6V	TIG: 400A/26V
100%		MMA: 250A/30V	MMA: 315A/32.6V
		TIG: 3A/10.1V~400A/26V	TIG: 3A/10.1V~500A/30V
Welding Current/Voltage Range		MMA: 20A/20.8V~315A/32.6V	MMA: 20A/20.8V~400A/36V
		70V~80V	70V~80V
Open Circuit Voltage		0.85	0.85
Power Factor		85%	85%
Efficiency		0.2Hz~200Hz	0.2Hz~200Hz
TIG	Pulse Frequency	1~100%	1~100%
	Pulse Width (Ratio)	5A~400A	5A~500A
	Arc-starting Current	5A~400A	5A~500A
	Crater-filling Current	0.1S~15S	0.1S~15S
	Current Up-slope Time	0.1S~15S	0.1S~15S
	Current Down-slop Time	0.1S~15S	0.1S~15S
	Pre-Gas Time	0.1S~15S	0.1S~15S
	Flow-Gas Time	0.1S~10S	0.1S~10S
	Spot Arc Time	10A~315A	10A~400A
	Arc Force	0.1~3S	0.1~3S
MMA	Hot Start Time	10A~315A	10A~400A
	Hot Start Current	960x420x900mm	960x420x900mm
	Dimension (LxWxH)	70KG	70KG
Weight (KG)			

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

PROTIG-200Di/250Di

For Standard accessories



TIG torch: TIG-26



Electrode holder and Earth clamp

For Optional accessories



Water-cooling unit: WC-100



Argon gas regular



Foot Pedal



TIG torch: TIG-26



Trolley: WT-100



Hand-hold Remote Controller for TIG torch

Accessories

PROTIG-315Di

For Standard accessories



TIG torch: TIG-18

For Optional accessories



Electrode holder and Earth clamp



Water-cooling unit: WC-100



Argon gas regular



Foot Pedal



TIG torch: TIG-26



Trolley: WT-100



Hand-hold Remote Controller for TIG torch

Accessories

PROTIG-400CT/500CT

For Standard accessories



TIG torch: TIG-18

For Optional accessories



Argon gas regular



Electrode holder and Earth clamp



Trolley: WT-150



Water-cooling unit: WC-150



Hand-hold Remote Controller for TIG torch



Foot Pedal