

300BP2

Full Digital AC/DC TIG Welding Machines

New wave for aluminum welding More gentle, faster, more beautiful!

50 to 400 Hz AC output control changes aluminum welding.

An arc control at will improves aluminum welding technique.

- Difficult fillet welding can be made easily. Insertion of filler wire is easy too.
- Convergence of arc increases, burn through can be avoided and tack welding is made easy.
- Welding modes for artisans who seek sophisticated skill are available, such as mix mode, exchange soft mode, etc.

120Hz Multi-layered pile, butt

Material: Aluminum (A5052)
Plate thickness: 8.0 mm
Current: 180A to 200A
Speed: 10 cm to 20 cm/min.

200Hz Circular, fillet

Material: Aluminum (A5052)
Plate thickness: 3.0 mm
Current: Peak current 225A
Base current 165A
Speed: 20 cm/min.

250Hz Butt

Material: Aluminum (A5052)
Plate thickness: 3.0 mm
Current: 135A
Speed: 25 cm/min.

300Hz Fillet

Material: Aluminum (A5052)
Plate thickness: 6.0 mm
Current: 280A
Speed: 18 cm/min.

400Hz Fillet (tack welding of thin plate)

In case of 70 Hz (conventional analog machine)

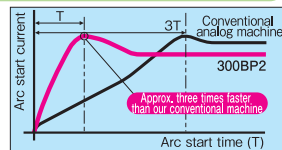
Easy to weld. Burn-through is apt to happen

Circular, fillet

Material: Aluminum (A5052)
Plate thickness: 3.0 mm
Current: 260A
Base current 140A
Speed: 38 cm/min.

Soft and fast arc start

Both in AC and DC welding, start is three times faster than conventional machines. Full digital high speed CPU control makes it possible.



Performance of DC welding is excellent.

Stable arc of same level with the full digital direct current TIG welder "300BZ3" is realized. Repeat arc finishing function is installed as a standard and responds to avoidance of start and finish arc damage. Multiple functions but operation is simple and easy to understand.

Simple and direct condition setting

Easy to understand condition setting. Reproduction of welding conditions with high precision.

Downsizing and weight saving are realized.

(69% of our conventional machine)

Connection with auxiliary devices is easy.

Connection with Panasonic robot TA series GII controller can be made easily.

Extension of cable up to 40 m (both way) is available.

(when set with 70 Hz standard frequency)



300BP2

Rated specifications

Model No.	YC-300BP2			
Rated input voltage, rated frequency	3-phase, 200/220V (common), 50/60 Hz (common)			
Rated input	10.5kVA 10.0kW			
Rated output current	DC/AC 300			
Rated output voltage	V DC 20 / AC 22			
Rated duty cycle (10 minute cycle)	%			
	40			
Welding current※	DC TIG	A	4~300	
		A	10~300	
	AC TIG	Standard	A	10~300
		Hard	A	20~300
Mix TIG	Soft	A	10~200	
	A	A	10~300	
Initial current	DC TIG	A	4~300	
		A	10~300	
	AC TIG	Standard	A	10~300
		Hard	A	20~300
Mix TIG	Soft	A	10~200	
	A	A	10~300	
Crater current	DC TIG	A	4~300	
		A	10~300	
	AC TIG	Standard	A	10~300
		Hard	A	20~300
Mix TIG	Soft	A	10~200	
	A	A	10~300	
Pulse current	DC TIG	A	4~300	
		A	10~300	
	AC TIG	Standard	A	10~300
		Hard	A	20~300
Mix TIG	Soft	A	10~200	
	A	A	10~300	
Up slope time	Sec.	0 to 10 (with unit of 0.1 sec)		
Down slope time	Sec.	0 to 10 (with unit of 0.1 sec)		
Gas pre-flow time	Sec.	0 to 10 (with unit of 0.1 sec)		
Gas after-flow time	Sec.	0 to 30 (with unit of 0.1 sec)		
(AC TIG) AC frequency	Hz	50 to 400 (standard: 70) (for range of 50Hz to 200Hz: unit of 1Hz) (for range of 200Hz to 400Hz: unit of 10Hz)		
(Mix TIG) Mix frequency	Hz	0.5 to 10 (standard: 1.0) (with unit of 0.1Hz)		
(Mix TIG) DC ratio	%	10 to 90 (standard: 30) (with unit of 5%)		
Pulse frequency	Hz	0.8 to 500 (for range of 0.8 to 9.9Hz: unit of 0.1Hz) (for range of 10 to 99Hz: unit of 1Hz) (for range of 100 to 500Hz: unit of 10Hz)		
Pulse width	%	5~95		
Welding method in which cleaning range can be adjusted	—	AC TIG, Mix TIG		
Cleaning range	%	EP 10 to 50 (standard: 30) (unit 1%)		
Arc spot time	Sec.	0.1~5 (0.1秒単位)		
Crater control method	—	Switching of "Yes", "No", and "Iterative"		
Communication function	—	RS-232C, RS-422		
Memory function	—	50ch memory, reproduction		
Robot interface function	—	Communication is possible with following our robot controller "TA series GII controller"		
External dimensions (W × D × H)	mm	380×528×526		
Mass	kg	51		

※In low current range, select adequate application conditions to stabilize arc.

Power supply system capacity and required cable thickness

Item	Welding PS	YC-300BP2
Power voltage	—	200/220V common use 50/60 Hz common use
Phase number	—	3-phase
Device capacity (commercial)	kVA	10.5 or more
Fuse capacity (B type) (no-fuse breaker)	A	30 (40)
Input side cable (Terminal hole)	mm ²	5.5 or more (for M5)
Output side cable	mm ²	38 or more*
Ground cable	mm ²	Equivalent to input side cable or above

*One-touch joint (Euro connector) included in accessory

Options (equipment required for each application) ※Also see the page of options (pages 10 and 11).

TIG welding torch

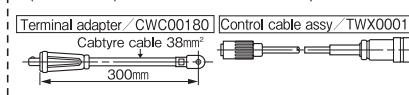
- Air cooling type (200A), Euro connector
 - YT-20TS1TAG (with cable 4 m)
 - YT-20TS1TAH (with cable 8 m)
- Water cooling type (300A), Euro connector
 - YT-30TSW1TAG (with cable 4 m)
 - YT-30TSW1TAH (with cable 8 m)

Extension cable (available on request) and applicable torch

Applicable torch	Air cooling		Water cooling
	YT-20TS1	YT-20TS1C1	YT-30TSW1 YT-30TSW1C1
Cable length			
5m	TWU20131	TWU30132	TWU30133
10m	TWU20132	TWU30133	TWU30134
15m	TWU20133	TWU30134	

- Sequencer interface/external device connecting unit
 - YX-CB009

● When you use an extension cable, purchase the terminal adapter (CWC00180) and the control cable set (TWX00018) and connect them with this product.



Cooling water unit

- YX-09KGC1
- Remote controller for BZ3
 - YC-30BMR1 (with 12-core cable 5 m) (can be connected to 300BP2)
- Tungsten electrode (JIS-Z3233) (直径0.5~4.8mm)
- Argon gas regulator
 - YX-251A

[Please prepare the following on your side]

- Argon gas (for welding)
- Input and output side cables
- Ground cable

※ See the page of options for adapter for red torch model 1, 8, 7