Panasonic TIG Welding Power Source

FULL DIGITAL

300BP4

Full Digital AC/DC TIG Welding Machines

AC TIG | DC TIG | DC Manual

300BP4

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

30 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)

Material: Aluminum (A5052)
Plate thickness: 1.0 mm
Current: 110A
Welding time: 0.5 sec.

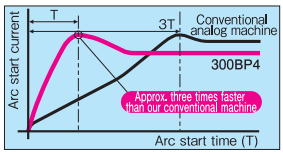
Easy to weld. Burn-through is apt to happen

Circular, fillet

Material: Aluminum (A5052)
Plate thickness: 3.0 mm
Current: Peak 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.



Simple and direct condition setting.

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

Welding Navigation assists to find optimum welding condition.

STEP 1 Start welding Navigation ▶ STEP 2 Select welding condition on LCD ▶ STEP 3 Optimum condition is set automatically

Rich database
Selectable from 5 kinds of material (aluminum, stainless steel, brass, titanium and copper)

Customizable
Selected welding condition can be changed and stored.

Expert mode enhances the proficient skills.

AC/DC TIG drooping characteristic and AC/DC TIG constant current characteristic are selectable.

Advanced crater iterative function.

- Iterative arc-end function
- Variable current iterative function

DC manual mode available

■Rated specifications

Model No.				YC-300BP4
Rated input voltage, rated frequency			–	3-phase, 200/220V(common),50/60Hz(common)
Rated input			–	11.4kVA 9.7kW
Rated output current			A	DC300(DC TIG) / AC300(AC TIG)
				DC250(DC manual)
Rated output voltage			V	DC20(DC TIG) / AC22(AC TIG)
				DC30(DC manual)
Rated duty cycle			%	40
Welding current ※1	DC TIG		A	4~300
	AC TIG	Standard		10~300
		Hard		20~300
		Soft		10~300
	Mix TIG			10~300
	DC manual			4~250
	Expert mode DC TIG			4~300
	Expert mode AC TIG			10~300
Welding voltage ※1	DC TIG		V	16~20
	AC TIG	Standard		16~22
		Hard		16~22
		Soft		16~20
	Mix TIG			16~21
	DC manual			20~30
	Expert mode DC TIG			16~20
	Expert mode AC TIG			16~22
Up slope time			s	0.0~10.0
Down slope time			s	0.0~10.0
Gas pre-flow time			s	0.0~30.0
Gas post-flow time			s	0.0~30.0
Arc spot time			s	0.1~5.0
AC frequency (AC TIG)			Hz	30~400 (standard : 70)
MIX frequency (MIX TIG)			Hz	0.1~10 (standard : 1.0)
DC ratio (MIX TIG)			%	10~90 (standard : 30)
Pulse frequency			Hz	0.1~500
Pulse width			%	5~95
Applicable welding method			–	AC/DC TIG, DC manual
AC balance			–	EP※2 10~50(standard : 30) [AC TIG, MIX TIG]
Control method			–	IGBT inverter
Crater control method			–	Switching of "YES","NO" and "Iterative"
High-frequency-wave generator			–	Spark oscillation type
Cooling method			–	Forced air cooling
Applicable shielding gas			–	100% Ar※3
Memory function			–	50ch storage and reproduction
Input terminal			–	Terminal block (3-phase, M5 bolt)
Output terminal			–	Euro connector
External dimensions (W×D×H)			mm	375×538×534※4
Mass			kg	51

※1 In the case of AC TIG or MIX TIG, when AC frequency is increased, the rated output current may not be available due to the voltage drop caused by the impedance (AC resistance) of the output-side cable. However, this is not the error of this product.
※2 EP : electrode positive
※3 Please use high purity Argon gas for welding (degree of purity : 99.9% or more).
※4 The depth excludes the input terminal cover.

●Power supply system capacity and required cable thickness

Item \ Welding PS		YC-300BP4
Power voltage	–	200/220V common use 50/60 Hz common use
Phase number	–	3-phase
Device capacity (commercial)	kVA	11.4 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-20TS2TAG (with cable 4 m)
- YT-20TS2TAH (with cable 8 m)

●Water cooling type (300A) , Euro connector
- YT-30TSW2TAG (with cable 4 m)
- YT-30TSW2TAH (with cable 8 m)

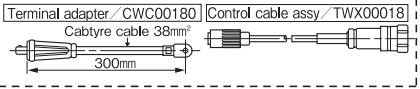
※See the page of options for adapter for red torch model 1, 8, 7

■Extension cable (available on request) and applicable torch

Applicable torch / Cable length	Air cooling YT-20TS2 YT-20TS2C1	Water cooling YT-30TSW2 YT-30TSW2C1
5m	TWU20131	TWU30132
10m	TWU20132	TWU30133
15m	TWU20133	TWU30134

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

Terminal adapter／CWC00180 | Control cable assy／TWX00018



■Cooling water unit
●YX-09KGC1

■Remote controller for BP4
●YC-30BPR4
(with 12-core cable 5 m)
(can be connected to 300BP4)

■Tungsten electrode
(JIS:Z3233) (dia.0.5~4.8mm)

■Argon gas regulator
●YX-251A