

Welding Innovation by Full Digital control



300BZ3

Accurate control only possible with Full Digital control
Receiving good reputation that melting edges are sharp.

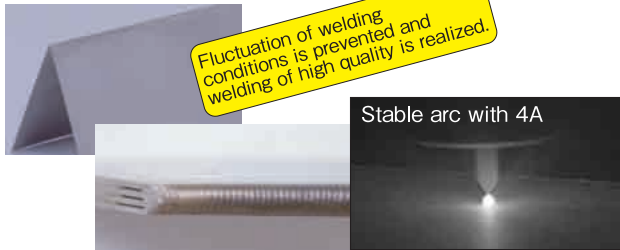
- Condition setting can be made with unit of 1A and a high quality welding without variation.
- Welding conditions suitable for a work can be reproduced correctly.



↑ Stainless steel (0.5 mm), Overlap fillet welding (same material)
(Pulse current: 50A, Base current: 5A, Speed: 30cm/min.)

Revolution in arc start

- Almost 100% instant arc start even with 4A
Arc start with little burn-through became possible in butt welding of stainless steel of 0.3 mm (hot current set at "Low")
- Good concentration of arc and stable arc with little fluctuation are realized.
- Welding of a thin plate and a thick plate can be made with a thick electrode rod (2.4 mmφ).
- When the nozzle with gas lens (option) is used, appearance of bead is much improved.



Fluctuation of welding conditions is prevented and welding of high quality is realized.

Stable arc with 4A

Electrode: 2.4 mm Angle: 30° Base metal - electrode: 0.5mm

Small sized, light weight and full-fledged

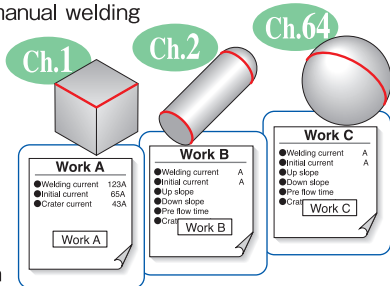
- 19.5 kg with 300A (usage rate 40%). Both volume and weight are 1/2 of our conventional model.
- Three welding methods are selectable.
- DC TIG welding (● DC pulse TIG welding is also available).
- DC arc spot welding ● DC manual welding

Simple operation

Condition setting can be done easily with a jog dial and a touch panel.

Versatile functions

- 64-channel welding condition memory is built-in.
64 types of welding condition can be memorized and reproduced.



Connection with auxiliary equipment is easy.

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

Rated specifications

| | | |
|--------------------------------------|--------|---|
| Model No. | — | YC-300BZ3 |
| Rated input voltage, rated frequency | — | 3-phase, 200/220V (common), 50/60 Hz (common) |
| Rated input | — | 11.5kVA (10.2kW) |
| Maximum no-load voltage | V | DC 69 |
| Rated output current** | T I G | DC 300 |
| | Manual | DC 250 |
| Rated output voltage | T I G | DC 20 |
| | Manual | DC 30 |
| Rated duty cycle (10 minute cycle) | % | 40 |
| Range of output adjustment | T I G | DC 4A/16V~300A/20V |
| | Manual | DC 4A/20V~250A/30V |
| Up slope time | s | 0 to 10 (with unit of 0.1 sec.) |
| Down slope time | s | 0 to 10 (with unit of 0.1 sec.) |
| Gas pre-flow time | s | 0 to 10 (with unit of 0.1 sec.) |
| Gas after-flow time | s | 0 to 30 (with unit of 0.1 sec.) |
| Pulse frequency | Hz | (for range of 0.8Hz to 9.9Hz: unit of 0.1Hz) 0.8~500 (for range of 10 Hz to 99 Hz: unit of 1 Hz) (for range of 100 Hz to 500 Hz: unit of 10 Hz) |
| | | |
| Pulse width | % | 5~95 |
| Arc spot time | s | 0.1 to 5 (with unit of 0.1 sec.) |
| Control method | — | IGBT inverter method |
| Crater control method | — | Switching of "Yes", "No", and "Iterative" crater |
| High frequency generator | — | Spark oscillation type |
| Communication function | — | RS-232C, RS-422 |
| Memory function | — | 64ch memory, reproduction |
| Robot interface function | — | Communication is possible with following our robot controller "TA series GII controller" |
| Cooling method | — | Forced air cooling |
| Type of insulation | — | H type |
| External dimensions (W × D × H) | mm | 380×380×260 |
| Mass | kg | 19.5 |

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

Power supply system capacity and required cable thickness

| Item | Welding PS | YC-300BZ3 |
|--|-----------------|--|
| Power voltage | — | 200/220V common use, 50/60 Hz common use |
| Phase number | — | 3-phase |
| Device capacity (commercial) | kVA | 11.5 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 |

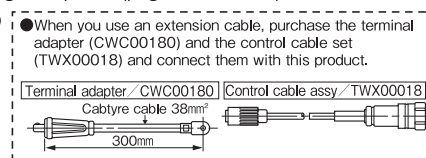
* Terminal adapter/CWC00180 included in accessory

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)

- Extension cable (available on request) and applicable torch

| Applicable torch | Air cooling | Water cooling |
|------------------|------------------------|--------------------------|
| Cable length | YT-20TS2 YT-20TS2C1 | YT-30TSW2 YT-30TSW2C1 |
| 5m | TWU20131 | TWU30132 |
| 10m | TWU20132 | TWU30133 |
| 15m | TWU20133 | TWU30134 |
- Sequencer interface/external device connecting unit
 - YX-CB009



- Cooling water unit
 - YX-09KGC1
- Remote controller for BZ3
 - YC-30BPR1 (with 12-core cable 5 m) (can be connected to 300BP2)
- Tungsten electrode (JIS-Z3233) (dia.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