

Panasonic

Full Digital MIG/MAG Welding Machine

YD-350/500FT3

High cost performance and wide application!

- CO₂/MAG
- Pulse MAG
- SUS Pulse MIG
- MMAW

100% duty cycle



Panasonic pursues Only one in welding

Rated specifications for welding power source

Item	Unit	YD-350FT3HGY	YD-500FT3HGY
Control mode	-	Digital IGBT control	
Rated input power - phase	-	Three phase AC 380V (310V~450V)	
Input power frequency	Hz	50/60	
Rated input capacity	kVA/kW	13.6/12.6	23.5/22.1
Rated output no-load voltage	V	DC 70	DC 70
Rated output current	Pulse OFF	DC 350	DC 500
	Pulse ON	DC 300	DC 400
	MMAW	DC 300	DC 400
Rated output voltage	V	31.5	39
Rated duty cycle	%	60	100
Output current range (*)	Pulse OFF	DC 40 ~ 350	DC 60 ~ 500
	Pulse ON	DC 40 ~ 300	DC 60 ~ 400
	MMAW	DC 300	DC 400
Output voltage range *	V	16~31.5	17~39
Control mode	-	IGBT invertor	
Memory	-	80 channels for storage and recall	
Welding method	-	CO2/MAG/ Pulsed MAG/SUS MIG/ SUS pulsed MIG/ MMAW	
Operation sequence	-	Welding/Welding-crater/Initial-welding-crater/Spot	
Shielding gas	CO ₂	CO ₂ : 100%	
	MAG	Ar: 80 %, CO ₂ : 20%	
	Stainless steel MIG	Ar: 98%, O ₂ : 2% or Ar: 97.5%, CO ₂ : 2.5%	
Welding wire diameter	mm	0.8~1.2	1.0~1.6
Welding wire material	-	Mild steel/Mild steel flux-cored/ Stainless steel/Stainless steel flux-cored	
Pre-flow time	s	0-10 continuous adjustment (0.1 s Increment)	
After-flow time	s	0-10 continuous adjustment (0.1 s Increment)	
Spot welding time	s	0.3-10.0 Continuous (0.1 s Increment)	
Input power terminal	-	Terminal block (3-phase M5 bolted)	
Enclosure protection degree	-	IP23S	
Insulation grade	-	Main transformer 155 ° C (Reactor 200 ° C)	
Cooling mode	-	Forced air cooling	
Dimensions (L × W × H)	mm	575 × 380 × 632	
Weight	kg	57	61

Wire feeder

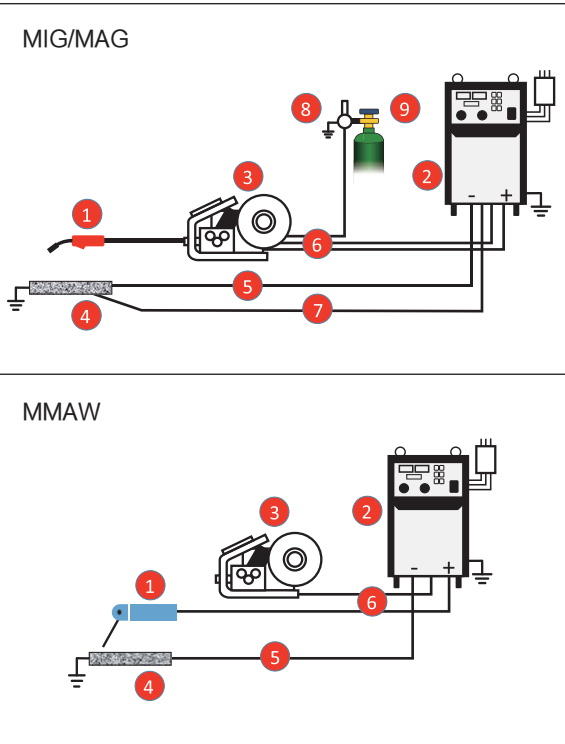
Product serial number	YW-50DG1HPJ
Rated welding current	500A
Feeding speed range	2.5~20.1 m/min
Driving mode	4-roller 2-drive
Cable connection mode	Terminal

Welding torch

Welding torch	Cooling mode
YT-35CS4HPF	Air-cooling
YT-50CS4HPF	Air-cooling

*Note: The output range of the welding power source measured under the resistive load as specified in GB/T 15579.1-2024

Wiring graph



1. Welding torch (clamp) 2. Welding power source 3. Wire feeder 4. Base metal 5. Base metal cable 6. Cable assembly (including power cable, control cable and gas hose) 7. Voltage feedback wire 8. Gas regulator 9. Cylinder



Safety precautions

Before attempting to use any welding product, always read the manual to ensure correct use.

Panasonic

Panasonic Welding Systems (Tangshan) Co., Ltd.
Tel: 400-612-5816
Website: <http://pwst.panasonic.cn>
E-mail: sales@tsmi.cn

The color is subject to be different to the real product.
The specifications are subject to change without notice.
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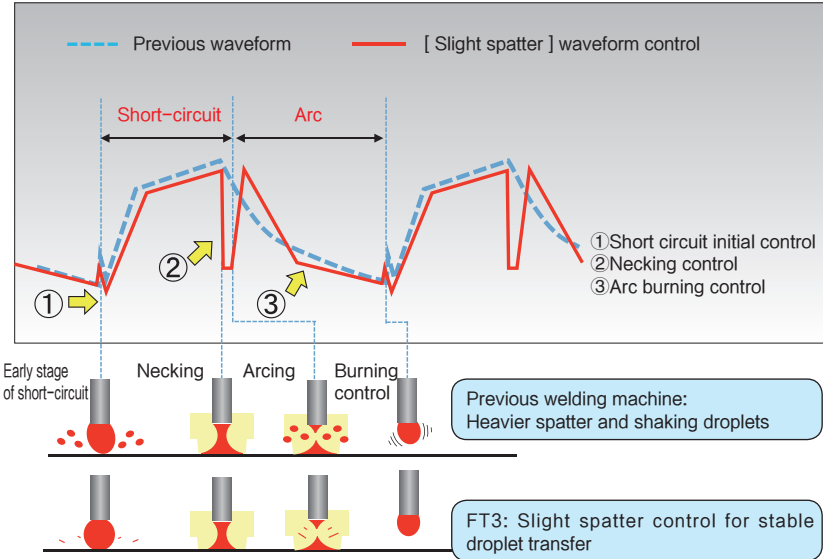
Official Website

Official WeChat

[Slight spatter] waveform control brings you a better welding experience.

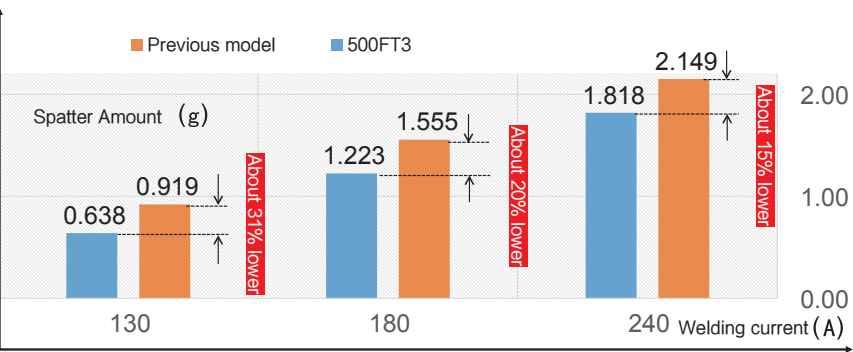
“Slight spatter” (SSC) control technology

- With software algorithms, the tendency of spatter is detected and effectively suppressed, making the short – circuit transfer smoother and significantly reducing spatter.



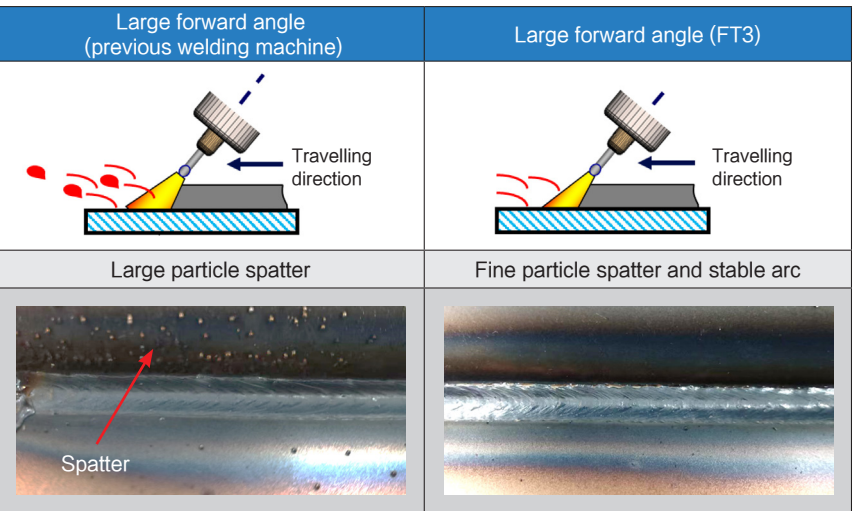
Effective spatter reduction

- For CO₂ welding, the maximum reduction reaches 30%



Test conditions: robot automatic welding, flat welding
Material: mild steel; wire diameter: 1.2 mm; gas: CO₂; duration: 1 minute

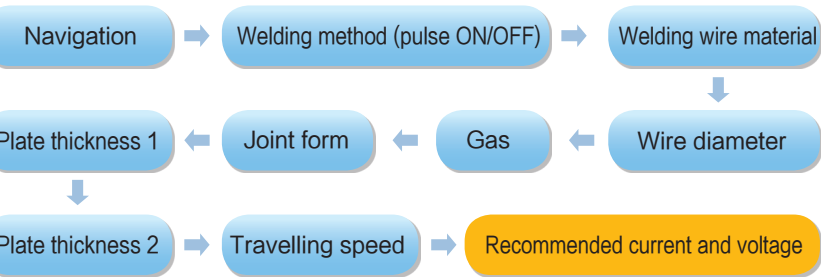
- Even if the change of torch angle it can also effectively suppress spatter and keep arc stable.



Extensive practical functions

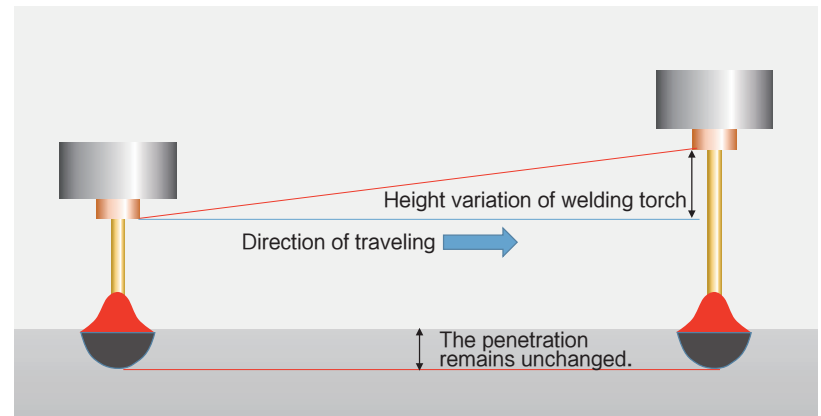
Welding navigation

After setting the conditions such as material, plate thickness and joint type, the welding machine can automatically provide recommended welding parameters, suitable for beginners and inexperienced operators.



Adaptive wire extension length control (constant penetration)

After this function is activated, the welding machine can automatically keep same welding current to maintain a consistent penetration even when the height of the welding torch changes.



Automatic adjustment when using extension cable

During the welding process, the technology of the real-time detection on circuit resistance enables the welding machine to automatically adjust peak time and pulse output energy, facilitating a smooth transfer of molten droplets. (40-meter extension cable is supported.)

At initial and crater stages, DC & pulse mode pre-settable as desired

The default settings for DC & pulse during initial and crater stages are consistent with the main welding. However, it can be freely set to DC or pulse in the menu as desired, providing the optimized treatment for both ends of the welding bead.

Excellent pulse welding performance

The optimized pulse parameters can achieve precise control of one pulse one drop, achieving high-quality welding results for both mild steel and stainless steel.

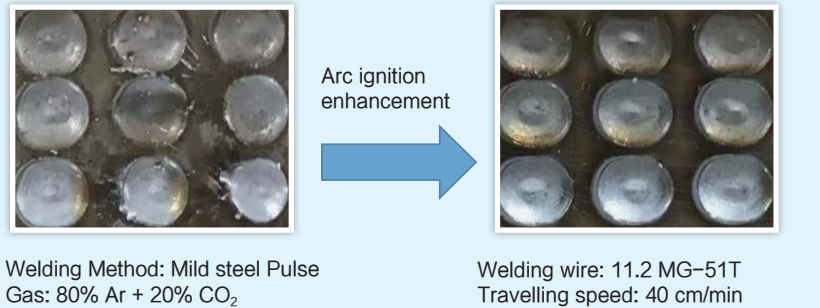
Automatic welding applications

Standard analog interface

FT3 is capable of connecting special purpose machine with the analog interface.

Standard arc ignition enhancement unit

The arc ignition enhancement unit can increase the arc start energy and ensure the stability and success rate of arc start.



Applicable welding methods

Welding wire	Welding method	Shielding gas	DC Pulse	Diameter (mm)	
				350FT3	500FT3
Mild steel	CO ₂	100%CO ₂	OFF	0.8-1.2	1.0-1.6
	MAG	80%Ar+20%CO ₂	OFF	0.8-1.2	1.0-1.6
Flux cored mild steel	CO ₂	100%CO ₂	ON	0.8-1.2	1.0-1.6
	MAG	80%Ar+20%CO ₂	OFF	1.2	1.2
Stainless steel	MIG	97.5%Ar+2.5%CO ₂	OFF	0.8-1.2	1.0-1.6
	MIG	97.5%Ar+2.5%CO ₂	ON	0.8-1.2	1.0-1.6
Flux cored stainless steel	CO ₂	100%CO ₂	OFF	0.9/1.2	1.2/1.6
	MAG	80%Ar+20%CO ₂	OFF	1.2	1.2

Other features

- Unified adjustment: the built-in expert databases for different materials, wire diameters, and gases enable the welding machine automatically adjust the welding voltage to match the preset current. The welding parameter can be set with a single knob.
- 80 storage channels: The operator can store and recall the set welding conditions, as well as remotely store and call them on the wire feeding feeder.
- Wire feeder: the digital remote control can remotely preset welding parameters. The motor equipped with encoder and 4-roller and dual drive mode realizes a stable wire feeding performance.
- User-friendly interface: the panel is equipped with an LCD display, which can prompt and explain settings and alarms.
- Lower noise of pulse welding: by optimizing pulse parameters in the built-in pulse noise reduction data, the noise of pulse welding is greatly reduced to suppress the auditory stimulation of high-frequency pulse. The standard data or noise reduction data can be selected as needed during welding.