

Panasonic



Digital indicator



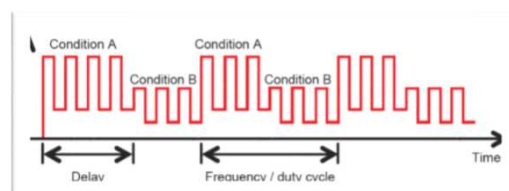
Cable length choice :
1.8 m (standard),
5m,10m,15m (optional)

YD-350GL5

Full Digital Controlled Pulse MIG/MAG
Welding Machine

HL-Pulse pulse
control technology

Namely dual pulse, alternate
energy output, reduced heat
input, improved appearance



**World-Class Welding Quality at
Your Doorstep**



- Panasonic Smart Factory Solutions India has set up its state-of-the-art manufacturing facility in Jhajjar, Haryana, India. So our globally proven range of welding equipment including MMAW, MIG/MAG, TIG, Plasma cutting, Welding Accessories, and Welding Robots are now available at your doorstep.
- Assured commitment to long-term product support in terms of Sales, Service and Spares.

Specifications table		
Power Source		
Item	Unit	YD-350GL5
Control method	-	Digital IGBT control
Rated input/No. of phases	-	3-phase AC 415 V , -27% , +10% (304 V - 456 V)
Input power frequency	Hz	50/60
Rated input capacity	KVA/KW	17.6/13.5
Output characteristics	-	CV (Constant voltage characteristics)
Rated output current	A	Pulse OFF :DC 350 Pulse ON :DC 350
Rated output voltage	V	31.5
Rated duty cycle	%	60
Rated output no-load voltage	V	DC 80
Output current range	A	Pulse OFF: DC 40-430 Pulse ON : DC 40-350
Output voltage range	V	Pulse OFF: 16-35.5 Pulse ON: 16-31.5
Welding method	-	Individual/Unitary
Enclosure protection class	-	IP23S
Insulation class	-	Main transformer 155 deg C (Inductor 200 deg C)
EMC classification	-	A Grade
Cooling method	-	Forced air cooling
Application welding wire type	-	Solid/Flux cored
Applicable welding wire diameter	mm	Solid core 0.8/1.0/1.2/1.4/1.6
	mm	Flux cored mild steel 1.2/1.4/1.6
	mm	Flux cored stainless steel 1.2
Welding wire material	-	Mild steel, Mild steel flux cored, Stainless steel, Stainless steel flux cored
Memory	-	100 channels can be called , welding parameters recordable
Sequence	;-	Welding/welding-crater/initial-welding-crater/spot welding
Shielding gas	-	CO2 welding CO2:100% MAG welding Ar:80%, CO2:20% MIG welding Ar:98%, O2:2%
Gas check time	-	60 sec (longest gas check time)
Pre-flow time	-	0 sec- 5 sec continuous adjustment (0.1 sec incremental)
After-flow time		0 sec- 5 sec continuous adjustment (0.1 sec incremental)
Overall dimensions	mm	682x380x612 (LWH)
Mass	Kg	68
Ordering code	-	YD-350GL5DJE

Wire feeder		
Item	Unit	YW-50DG
Rated welding current	A	500
Welding wire type	-	Mild steel solid core and flux cored wire ; stainless steel solid and flux cored welding wire
Wire feed speed range	-	2.5 to 20.1 metre/min
Cable length	metre	1.8 metre(Standard); 5 metre, 10 metre ,15 metre (Optional)
Drive method	-	4 Roll 2 drive
Ordering code	-	YW-50DG1DNG
Welding torch		
Item	Unit	YT-40CS4
Rated welding current	A	400 A@45% duty cycle (CO2) 400 A@25% duty cycle (Ar-CO2)
Applicable wire diameter	mm	0.8,1.0,1.2
Cable length	metre	3
Cooling	-	Air cooled
Mass (including cable)	Kg	2.8
Ordering code	-	YT-40CS4DAF



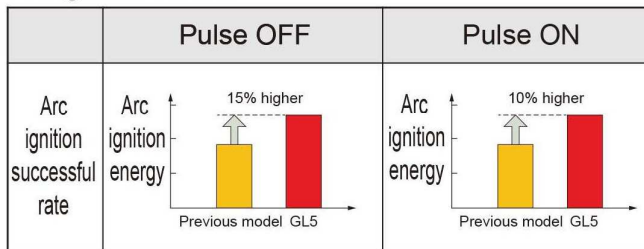
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|---|------------------------------|----------------------|
| ① Temp. abnormal indicator | ⑥ Jog-dial | ⑪ Lock button |
| ② Current display, 7-segment LED | ⑦ Jog-dial | ⑫ Mode select button |
| ③ Setting : "Current", Wire feed speed", "Plate thickness", "Spot welding time" function select | ⑧ Manual wire feeding button | ⑬ Welding control |
| ④ Setting : "Voltage", "Arc length", "Arc characteristics", "Penetration control" function select | ⑨ Switching button | ⑭ Welding method |
| ⑤ Voltage display, 7-segment LED | ⑩ Gas check button | ⑮ Material |
| | | ⑯ Wire diameter |
| | | ⑰ Shielding gas |

Welding Method and Process Software

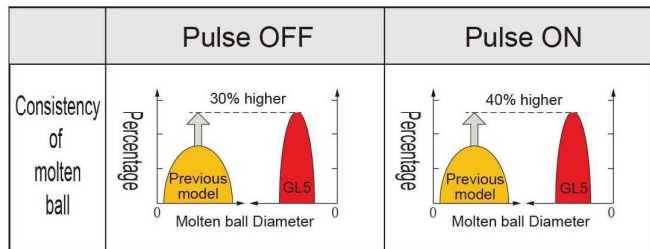
IBC(IniArc and BBK Control ,the arc ignition and burn-back control)

The arc ignition adopts asynchronous curved surface acceleration control. The arc start energy is dynamically adjusted, which can quickly establish and stabilize the molten pool and improve the successful rate of arc ignition. Burn-back control utilizes controllable braking ball cancelling technology to improve the consistency of molten ball size. At the same time, the arc ignition and burn-back time are shortened, speeding up the welding cycle and improving production efficiency.

Arc ignition control

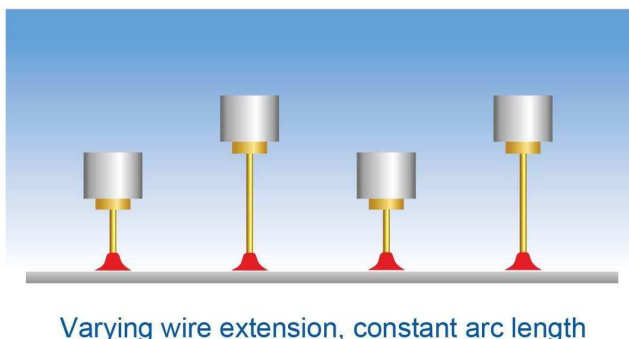


Burn-back control

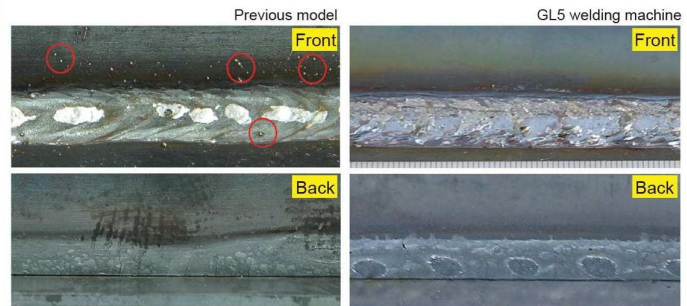


Pulse constant arc length control **ALC** (Arc Length Consistency)

During the welding process, the pulse parameters are dynamically adjusted to keep constant arc length even when external disturbances occur (such as a changing wire extension length). As a result, the dynamic characteristics and arc stability are enhanced significantly. The uniform pulse frequency makes the welding sound softer, which greatly reduces the noise generated by welding. The strictly control on the one pulse one droplet transfer improves the welding quality and reduces the welding defects.



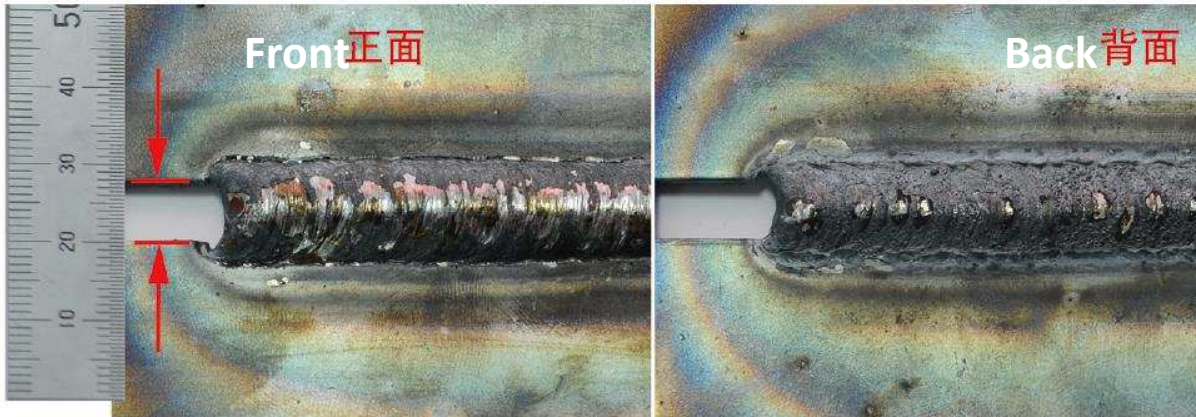
The wire extension length changes between 10 and 30mm



Material: Fe; thickness: 4mm; Pulse MAG, Wire diameter 1.2mm, 180A / 23.2V

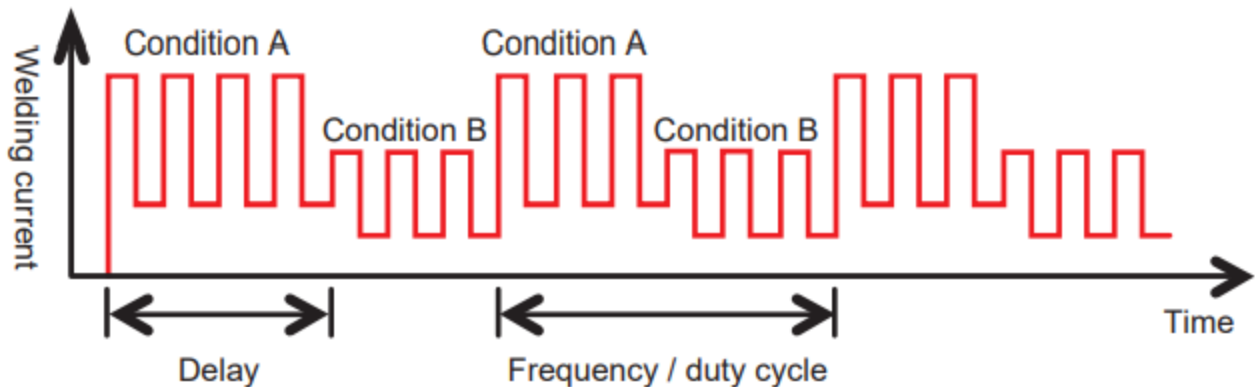
Root (Root welding)

Root is a short circuit transfer method with low heat input. The precise waveform control makes the arc more stable, heat input lower and droplet transfer more uniform, thereby the arc bridging ability is greatly improved. This function is especially suitable for large gap welding, the root pass of the beveled work piece and vertical upward welding. For backing welding, the amount of root cleanliness can be greatly reduced; even clean-up process can be totally omitted. The appearance of penetrated back weld is smooth and even. The weaving movement can be reduced or even unnecessary for vertical upward welding.



HL-Pulse (Dual pulse)

HL-Pulse is also called dual pulse, overlying low frequency pulse on high frequency pulse. The fast welding is enabled during high pulse cycle and heat input is reduced during low pulse. The adjustable alternating heat input makes the fish scale-like welds happen without weaving movements. This function is commonly used for welding of thin stainless steel plates.



S-Pulse(SUS pulse)

S-Pulse function takes full use of various stainless steel welding data. According to the difference in welding characteristics of three and four series stainless steel materials, the special welding data can be automatically retrieved, realizing smooth droplet transfer followed by stable welding with light spatter, as a result the beautiful appearance achieves.

4-series stainless steel welding effect

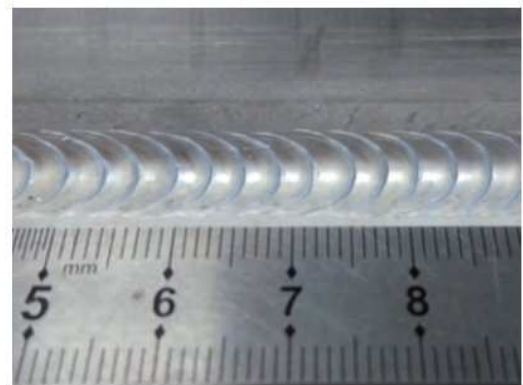
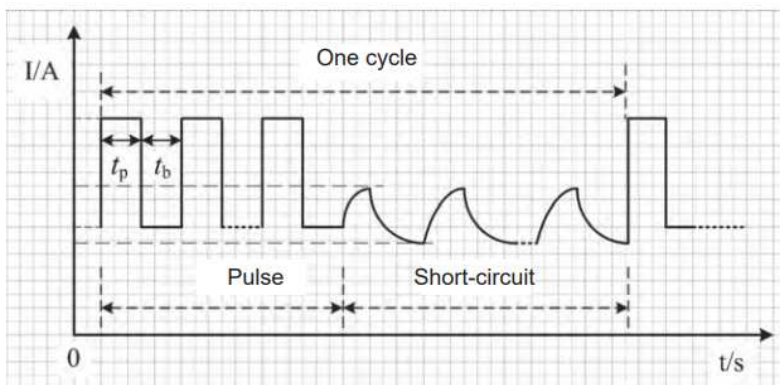


3 series stainless steel welding effect



MUP (Mix Up Pulse)

MUP is a hybrid pulse welding method combining consumable electrode pulse and short-circuit transfer. It adopts the smooth switching technology of short-circuit and pulse. By alternately outputting pulse and short-circuit current, the molten pool is heated and cooled periodically, forming fish scale pattern. By adjusting the frequency and duty cycle of the pulse and short circuit, the shape of the fish scale can be adjusted as you wish.



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