

FR1 Series

Digital CO₂/MAG Welding Machine

Digital control technology provides superior performance

Equipped with unitary function

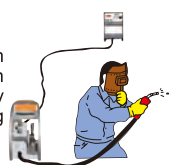
Relying on the built-in specialist data, welding voltage and arc parameter automatically match the adjustment of welding current, obtaining optimal welding parameters. One knob can finish full unitary function.

High-performance wire feeding system

- Thanks to IVF, a patented technology, wire feeding system is able to provide powerful and stable feeding force. Even connecting 40m extension cable, wire feeder can supply the normal feeding force, fitting to the industries requiring long distance operation



Stable wire feed is reachable even when the welding gun cable is overbent (150mm in diameter)



The powerful feeder is capable of long distance welding

- IVF (Induction Voltage Feedback) control, a unique Panasonic patented technology, enables wire feeding system with ordinary printed circuit motor to provide high capability

Three sets of welding currents and voltages are able to be preset by the welding parameter selector on the remote controller located on the wire feeder according to three kinds of welding beads requirements. (The factory setting is "OFF". This function can be activated by DIP switch on the PC Board.)

Turn clockwise to make the arc harder	 Concentrated arc	The narrower arc, stronger arc force and higher transfer frequency are suitable for all-position welding at low current.	 ARC CONTROL STANDARD SOFT HARD
Turn anticlockwise to make the arc softer	 Diffused arc	The softer arc and smoother welding bead are suitable for horizontal welding at high current.	

The knob generally set to the standard position.

Management unit (optional accessory) can expand the functions

With this device these parameters can be set:

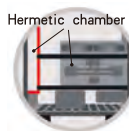


- 1.Limit welding current
- 2.Set users' password
- 3.Lock welding parameters
- 4.Display wire feed speed
- 5.Set gas pre-flow and post-flow time
- 6.Set burnback time
- 7.Penetration depth control
- 8.Recalibrate current and voltage metre

Various kinds of protection functions

- Under-voltage and over voltage protections
- Phase failure
- Over current protection
- Overheat protection for wire feeder

Excellent 3-layer and 4-chamber design



The main power components, PC Board, switch, potentiometer and so on are built in two hermetic chambers, which effectively prevents from ingress of dust. The intake port is positioned at the top layer, which highly improve the efficiency of heat emission.

Special anti-interference design

The allowable mains fluctuation range reaches -20% ~ 15%.



350FR1

500FR1

Specifications

Model		YD-350FR	YD-500FR
Rated frequency	Hz	50/60Hz(Common)	
Number of Phases	-	3-phase	
Rated input	KVA	13.5	
	KW	13	22
Maximum non-load voltage	V	70DC	
Rated output current	A	350DC	
Rated output voltage	V	31.5DC	39DC
Output current adjustable range	A	30-430	
Output voltage adjustable range	V	12-35.5	
Rated duty cycle	%	60	1
Power control method	-	IGBT inverter type	
Memory	-	3ch, non-volatile storages	
Applicable welding method	-	CO ₂ , MAG	
Waveform control method	-	Digital control:-7(small)to+7(large)(Standard:0)	
Sequence	-	Main welding, Main welding-Crater("Crater repeat" is available), Arc spot	
Applicable shielding gas	-	CO ₂ (100%), MAG(80% argon and 20% CO ₂)	
Applicable wire size (diameter)	mm	Mild steel (MS) 0.8, 1.0, 1.2	M
	mm	Flux cored mild steel 1.2	Flux cored mild steel 1.2, 1.4, 1.6
Gas purge time	-	1 second-1 minute/continuous	
Pre-flow time	s	0.2s	
Post-flow time	s	0.2s	
Arc spot time	s	0.3-10.0 (Increment of 0.1) continuous	
Input power terminal	-	Terminal block (for 3-phase, M5 bolting)	
Output terminal	-	Copper terminal with M8 bolting	
Dimension (width x Depth x Height)	mm	372 x 545 x 669	
Mass	kg	56	

Welding data management



Network monitoring interface

The welding machine working status and procedure parameters can be recorded and monitored in real time by remotely logging in the client software via different approaches including Ethernet and wireless Wi-Fi etc.

The welding data can resume to transmit from break point and transfers via USB flash drive. The waveform query and abundant statistical statement functions are ready to use. Easy integration with other management system is realized. (Optional networking assembly should be purchased.)