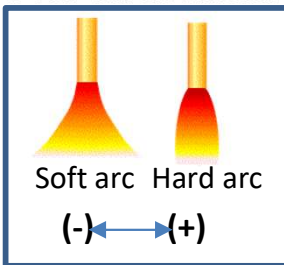


Panasonic

**YD-400RY1****Inverter IGBT-Controlled  
CO<sub>2</sub>/MAG Welding Machine****Upgraded  
model**

- The Successor to the RX1 series
- MS+SS welding software
- Dynamic Arc Characteristics – Soft arc for thin metal and Hard arc for thick metal

**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.

**Processes**

- Mild steel (MS) MIG/MAG
- Fluxcored Mild steel (MS-FCAW)
- Stainless steel (SS) MIG/MAG
- Flux cored Stainless steel (SuS-FCAW).

**Important Safety Features**

- Over-voltage and under-voltage protection
- Overheating protection
- Single-phasing protection
- Protective 8 Amp fuse for protection of Wire feed motor

Specifications table			
Power Source			
Item	Unit	YD-400RY1DJK	YD-400RY1DJF
Control method	-	Inverter IGBT-Controlled CO <sub>2</sub> /MAG Welding	
Rated input/No. of phases	-	3-phase AC 415 V , -20% , +10%	
Input power frequency	Hz	50/60	
Rated input capacity	KVA/KW	18.7/16.2	16.2/15.6
Output characteristics	-	CV (Constant voltage characteristics)	
Maximum no-load voltage	Volt	DC 69	
Rated output current	Amp	DC 400	
Rated output voltage	Volt	DC 34	
Output current adjustable	Amp	DC 50-430	
Output voltage adjustable	Volt	DC 16.5-35.5	
Rated duty cycle	%	60	
Applicable welding method		CO <sub>2</sub> ,MAG,MIG	
Waveform control method	-	Digital control	
Applicable shielding gas	-	CO <sub>2</sub> welding CO <sub>2</sub> :100% MAG welding Ar-CO <sub>2</sub> mixture MIG welding Ar-O <sub>2</sub> mixture	
Applicable wire size (dia)	mm	0.8,1.0,1.2	
Applicable wire material	-	Mild steel(MS) Flux cored mild steel(MS-FCAW) Stainless steel(SS) Flux cored stainless steel(SUS-FCAW)	
Pre-flow time	sec	0.1	
Post-flow time	sec	0.4	
Input power terminal	-	Terminal block (for 3-phase ,M5 bolting	
Output terminal	-	Copper terminal with M10 bolting	
Dimension(LxWxH)	mm	570x385x555	
Ingress Protection	-	IP23	
Additional IGBT Protection	-	Yes	No
Weight	Kg	56.5	53.5

Wire feeder		
Item	Unit	YW-40KB3DAL
Rated welding current	Amp	400
Applicable wire dia	mm	0.8,1.0,1.2
Cable length	metre	1.8 metre(Standard); 5 metre, 10 metre ,15 metre (Optional)
Weight	Kg	10
Wire feed speed range	metre/min	5-20.1
Duty cycle	%	60
Welding wire type	-	Mild steel solid core and flux cored wire ; stainless steel solid and flux cored welding wire
Drive method	-	2-Roll drive
Welding torch		
Item	Unit	YT-40CS4DAF
Rated welding current	Amp	350 A@60% duty cycle (CO <sub>2</sub> )
		350 A@35% duty cycle (Ar-CO <sub>2</sub> )
Applicable wire diameter	mm	0.8,1.0,1.2
Cable length	metre	3
Cooling	-	Air cooled
Mass (including cable)	Kg	2.8

### Truly 310 Amp@100% duty cycle

Other 400 amps machine is usually of lower duty cycle and hence 0.80 mm wire runs smoothly but 1.20 mm wire is an issue

Wire Dia(mm)	Min. Current (Amp)	Max. Current (Amp)
0.80	50	180
1.00	80	230
1.20	120	280
1.60	200	400
2.40	400	600

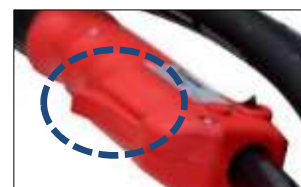
**Truly 310 amp@100% machine Rating :**  
**400A@60% Duty Cycle**  
**1.20 mm wire can be used easily**

### No Torch Switch error in frequent On/Off

In case of frequent switch on/off ,following is a significant error in other torches

1. No voltage and still wire coming out
2. Feeding ok with 0.80 mm but not ok with 1.20 mm

This is due to software issue



No issue with Torch Switch even in frequent On/Off

Recommended parameters Amp vs wire dia

## Parameter locking with Remote Management Controller (RMC)



RMC



One RMC for many machines

### Remote Management Controller

With RMC these parameters can be set:

- Limit welding current
- Recalibrate Current & voltage meter
- Set users' password
- Lock welding parameters
- Display wire feed speed
- Set gas pre-flow & post-flow
- Set burn-back time
- Penetration depth control

### Advantages –

Lock welding parameters so that welding quality should not be compromised, often operators increase current beyond recommended level to earn more incentives and affecting welding quality.

## Other significant features

- Digital display of Current and Voltage control
- Synergic mode (Unitary function) available
- Power factor >0.9
- Crater voltage and crater current adjustment through front panel
- Digitally controlled waveform enables superior arc characteristics
- Gas check, Wire diameter selection and Gas selection switch on the front panel
- Arc force adjustment for better arc characteristics

## Field Tip Treatment(FTT)

Suppresses the growth of the ball produced at tip of the wire upon completion of welding  
Advantages –



1. Enhances weld quality
2. Enhances productive time of operator

## Wire Feeder & Torch Features



- Printed circuit wire feeder motor for better resolution and accuracy
- Cable-less remote controller mounted on wire feeder as well as lightweight cables enable better mobility
- Standard 2-Roll Drive and optional 4-Roll Drive available
- Wire Feeder available in standard lengths of 1.8 metre. On demand available in 5 metres, 10 metres, 15 metres and 20 metres.
- Ergonomically designed MIG torches reduce fatigue
- Lightweight, durable and long lasting torch
- High performance Euro connector MIG Torches also available on demand

## Panasonic

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