

# Panasonic

# RX1 Series

Panasonic

"On Demand"  
Arc Length  
Control Software for  
Spatter Free Optimum  
Weld Bead.

The World's Most Preferred and Reliable  
Digital + Inverter IGBT- Controlled  
MIG/MAG Welding Machine



## Remote Management System for Setting and Locking Welding Parameters

### World-Class Welding Quality at Your Doorstep



- Panasonic Welding Systems 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.
- All-India Sales and Service network.

### Key Features of RX1 Series

- Inverter-based digital wave control GMAW and FCAW welding outfit.
- Higher efficiency and higher power factor results in greater power saving.
- Designed to work even under high ambient temperatures up to 50°C.
- Lightweight and compact MIG/MAG/FCAW welding outfit.
- Unique design of three layer and four room dust-free structure.
- RX1 Series is manufactured as per Std. IEC 60974-1:2000/GB 15579.1:2004.
- Fresh tip treatment and burn-back time control are adjustable.
- Works on 50/60 Hz frequency in power supply.
- Equipped with Synergic Mode (Unitary Function) in which welding voltage is set based on the welding current value automatically. The voltage can be adjusted finely to fit the best current values.
- Digitally controlled waveform enables superior arc characteristics.

### Important Safety Features

- Over-voltage and under-voltage protection.
- Overheating protection.
- Single-phasing protection.
- Protective 8 Amps fuse for protection of wire feed motor.

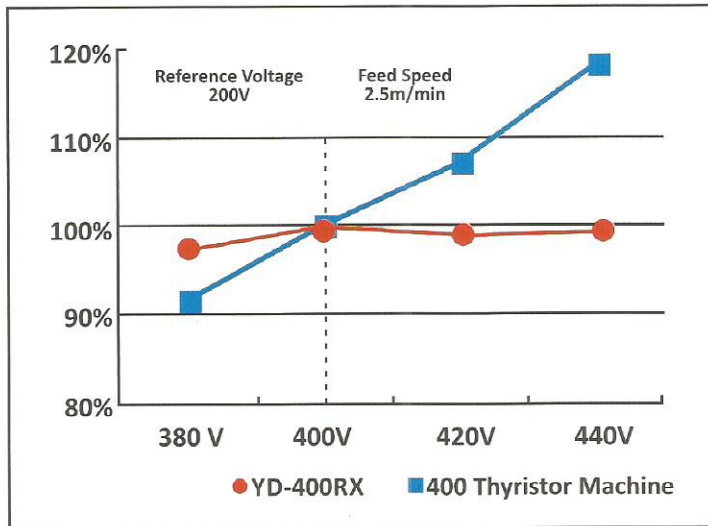
RoHS

[www.panasonic.com/in/welding](http://www.panasonic.com/in/welding)



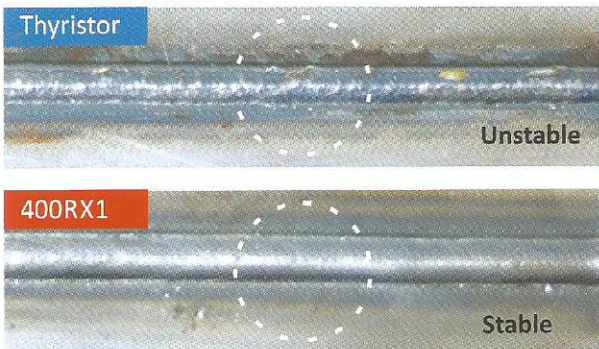
## The Digital Inverter Advantage

### High Quality Welding

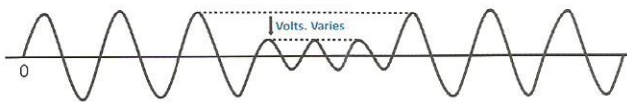


Input voltage and wire consumption

The wire feed remains constant over a wide range of input voltage variations resulting in higher quality of welding.



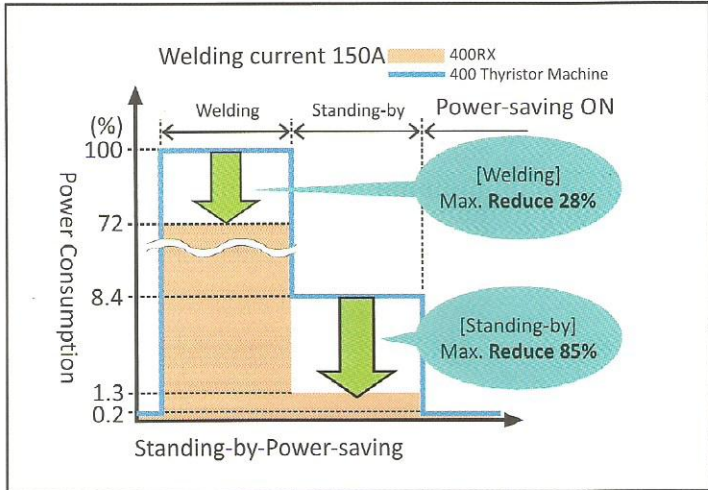
Welding seam comparison as input voltage varies



Input voltage waveform

The welding seam is more uniform as compared to thyristor-controlled welding even during variation of input voltage.

### Higher Energy Savings



#### During Welding

- More energy saving than conventional machines.
- High-speed CPU ensure more stable wire feed & intensive arc, thus improves the capability of energy saving.

#### At No-load

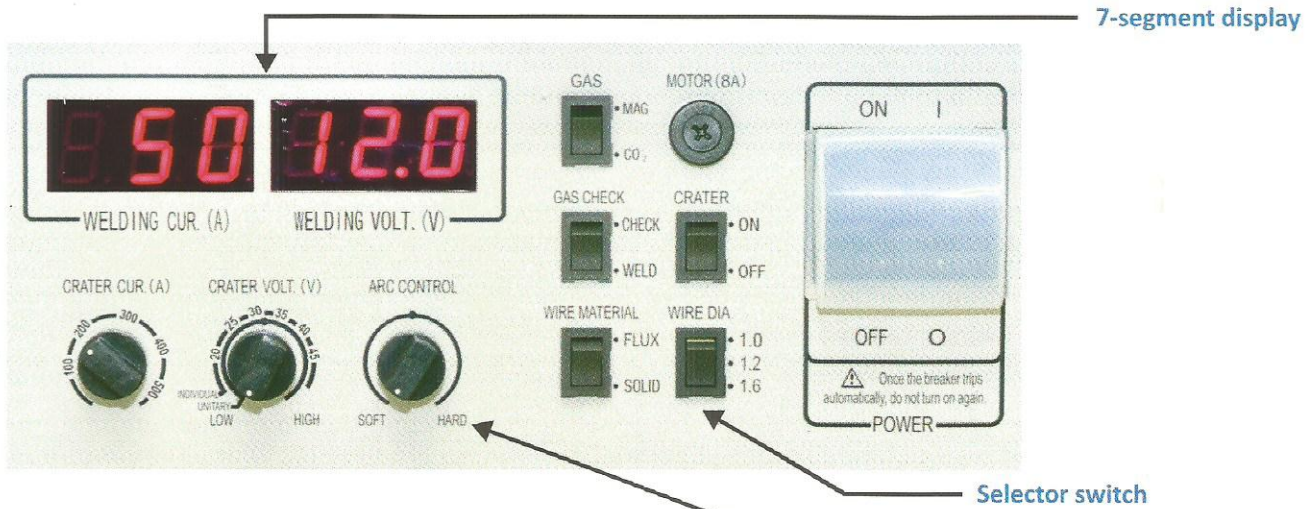
- When welding stops, the power supplied to the transformer is cut, so it costs no energy at no load state.
- Energy-saving circuit is activated 7 minutes after the end of welding.

### Ideal for Diverse Industries

- Automotive
- Shipbuilding & Offshore
- Heavy Construction Equipment
- Railways
- Repair & Maintenance
- General Fabrication
- Civil/Project Construction
- Process Industry



## High Reliability and Easy Operation



- Designed for high temperature and humidity resistance.
- Can work even under high ambient temperature of 50°C.
- Extremely easy operation.

Indicative panel is of 400RX1 Model

Arc control offers soft setting to reduce spatter and hard setting to ensure more stable arc in high speed welding.

### Other Significant Features

- Digital display of current and voltage control.
- Equipped with Synergic mode (Unitary function) in which welding voltage is set based on the welding current value automatically. The voltage can be adjusted finely to fit the best current values.
- Low power consumption than conventional machines.
- Power factor > 0.9
- Crater voltage and crater current adjustment through front panel.
- Arc force adjustment for better arc characteristics.
- Digitally controlled waveform enables superior arc characteristics.
- Gas check, wire diameter selection and gas selection switch on the front panel.

### Remote Management Controller (Optional)

With this device these parameters can be set :

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



### Wire Feeder and 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.
- Maximum wire feed speed up to 20.1 m/min.
- Standard 2-Roll Drive and optional 4-Roll Drive available.
- Ergonomically designed MIG torches reduces fatigue.
- Lightweight, durable and long lasting.



### Euro Connector MIG Torch Available

- High Performance Euro Connector MIG Torch also available on demand.



### Wire Feeder Available in Various Lengths

- Wire feeder available in standard lengths of 1.8 mtrs, 5 mtrs, 10 mtrs, 15 mtrs and 20 mtrs.



| Technical Specifications   | Unit            | YD-250RX1   | YD-400RX1   | YD-500RX1   |
|--|-----------------|---|---|---|
| <b>INPUT</b>   |                 |   |   |   |
| Input Supply   |                 |   |   |   |
| Voltage  | Volts.          | 415,+15%, -20%  | 415, +10%, -20%   | 415, +10%, -20%   |
| Phase/Freq.  | No./Hz          | 3ph/50-60   | 3ph/50-60   | 3ph/50-60   |
| Max. Input KVA@415Vac  |                 |   |   |   |
| @60% Duty Cycle  | KVA/KW          | 8/7.7   | 16.2/15.6   |   |
| @100% Duty Cycle   | KVA/KW          |   |   | 23.1/22.2   |
| <b>OUTPUT</b>  |                 |   |   |   |
| Rated Current Range  | Amps            | 50-250  | 50-400  | 60-550  |
| Rated Output Range   | Volts           | 12-26.5   | 16.5-35.5   | 17-41.5   |
| Welding Current (40 °C)  |                 |   |   |   |
| @60% Duty Cycle  | Amps            | 250   | 400   |   |
| @100% Duty Cycle   | Amps            | 193   | 310   | 500   |
| <b>GENERAL</b>   |                 |   |   |   |
| Power Control Method   |                 | IGBT Inverter Controlled  | IGBT Inverter Controlled  | IGBT Inverter Controlled  |
| Digital Display  |                 | 4 Digit-7 segment LED Display   | 4 Digit-7 Segment LED Display   | 4 Digit-7 Segment LED Display   |
| Wave from Control  |                 | Digitally Controlled Waveform   | Digitally Controlled Waveform   | Digitally Controlled Waveform   |
| Welding Sequence   |                 | a. Main welding<br>b. Main welding-crater<br>(Crater repeat is available)<br>c. Main welding-crater<br>(Crater repeat is available) | a. Main welding<br>b. Main welding-crater<br>(Crater repeat is available)<br>c. Main welding-crater<br>(Crater repeat is available) | a. Main Welding<br>b. Main welding-crater<br>(Crater repeat is available)<br>c. Main welding-crater<br>(Crater repeat is available) |
| Ingress Protection   | Class           | IP 21S  | IP 23   | IP 23   |
| Insulation   | Type            | H   | H   | H   |
| Cooling  |                 | Forced air cooling  | Forced air cooling  | Forced air Cooling  |
| Power Factor   | Degree C        | > 0.9   | > 0.9   | > 0.9   |
| Operating Temperature  |                 | -10 to 50   | -10 to 50   | -10 to 50   |
| Dimensions (LxBxH)   | mm              | 545x380x570   | 545x380x570   | 545x380x635   |
| Weight   | Kg              | 44  | 52  | 60  |
| <b>WIRE FEEDER</b>   |                 |   |   |   |
| Rated Welding Current  | Amps            | 250   | 400   | 500   |
| Applicable wire diameter   | mm              | 0.8, 1.0  | 0.8, 1.0, 1.2   | 1.2, 1.6  |
| Cable Length   | Meter           | 1.8 m (gas hose 4.8m)   | 1.8 m (gas hose 4.8m)   | 1.8 m (gas hose 4.8m)   |
| Weight   | Kg              | 10  | 10.5  | 10.5  |
| Wire Feed Speed  | Meter/ Minute   | 5-20.1  | 5.3-20.1  | 5.3-20.1  |
| Duty Cycle   | %               | 60  | 60  | 60  |
| Wire feeder available in standard lengths of 1.8 mtrs, 5 mtrs, 10 mtrs, 15 mtrs and 20 mtrs. |                 |   |   |   |
| <b>WELDING TORCH</b>   |                 |   |   |   |
| Rated welding current  | Amps            | 350   | 400   | 500   |
| Duty Cycle   |                 | 350 Amps, 60% (CO <sub>2</sub> )  | 400 Amps, 60% (CO <sub>2</sub> )  | 500 Amps, 60% (CO <sub>2</sub> )  |
|  | 10 Min. Cycle   | 315 Amps, 60% (CO <sub>2</sub> + Ar)  | 360 Amps, 60% (CO <sub>2</sub> + Ar)  | 450 Amps, 60% (CO <sub>2</sub> + Ar)  |
|  | Continuous      | 270 Amps, 100% (CO <sub>2</sub> )   | 310 Amps, 100% (CO <sub>2</sub> )   | 385 Amps, 100% (CO <sub>2</sub> )   |
|  |                 | 240 Amps, 100% (CO <sub>2</sub> + Ar)   | 280 Amps, 100% (CO <sub>2</sub> + Ar)   | 345 Amps, 100% (CO <sub>2</sub> + Ar)   |
| Applicable Wire Diameter   | mm              | 0.8, 1.0, 1.2   | 0.8, 1.0, 1.2   | 1.2, 1.6  |
| Cable Length   | Meter           | 3   | 3   | 3   |
| Weight (Incl. Cable)   | Kg              | 2.8   | 2.8   | 3.6   |
| <b>Ordering Information</b>  |                 |   |   |   |
|  | <b>Mode No.</b> |   |   |   |
| Power Source   | -               | YD-250RX1DJJE   | YD-400RX1DJJE   | YD-500RX1HJF  |
| Wire Feeder  | -               | YW-25KB3DTE   | YW-40KB3DAE   | YW-50KB3HRO   |
| Welding Torch  | -               | YT-35CS4DAF   | YT-35CS4DAF   | YT-50CS4HAF   |
| Remote Management Controller   | -               |   | TSMYU290  |   |

Panasonic reserves the right to alter the specifications without notice.

# Panasonic

Range of Welding Equipment: MMAW | MIG/MAG | TIG | Plasma Cutting | Welding Accessories | Welding Robots  
 Panasonic has set-up its own state-of-the-art welding equipment manufacturing facility at Jhajjar near Gurgaon, Haryana, India.

For more information please write to [welding.info@in.panasonic.com](mailto:welding.info@in.panasonic.com)  
 For service related queries, write to [welding.service@in.panasonic.com](mailto:welding.service@in.panasonic.com)  
 Service Helpline Number +91-9729900200  
**Panasonic India Pvt. Ltd.**  
 (Division Company: Panasonic Welding Systems India)  
**Factory, Head Office and Northern Regional Office**  
 Village Bid Dadri, Tehsil and District: Jhajjar - 124103, Haryana, India  
 Email: [welding.north@in.panasonic.com](mailto:welding.north@in.panasonic.com)

Authorised Sales & Service Provider

**WELDFLOW ENGINEERS**  
 212/213, Sahajanand Arcade,  
 Plot No.: 363/364, GIDC,  
 Makarpura, Vadodara - 390 010.

**Eastern Regional Office:** No 1, Vikash Towers, Dr. UN Brahmachari Street, 3rd Floor, Opp. ITC Fortune Hotel, Kolkata - 700 016, West Bengal  
 Phone: +91-33-40269696, Email: [welding.east@in.panasonic.com](mailto:welding.east@in.panasonic.com)  
**Western Regional Office:** Technical Centre, Panasonic Welding Systems India, MCCA-Navalmal Firodia Excellence Centre, J-462, M.I.D.C., Telco Road, Bhosari, Pune - 411026, Maharashtra  
 Phone: +91-7738319807, Email: [welding.west@in.panasonic.com](mailto:welding.west@in.panasonic.com)  
**Southern Regional Office:** 6th Floor, SPIC Building Annexe, No. 88, Mount Road, Guindy, Chennai - 600032, Tamilnadu  
 Phone: +91-44-61089300, Fax: +91-44-61089399, Email: [welding.south@in.panasonic.com](mailto:welding.south@in.panasonic.com)  
**Central Regional Office:** Ayodhya, 119, 2nd Floor, Bajaj Nagar, Nagpur - 440010, Maharashtra. Phone: +91-9763993605, Email: [welding.central@in.panasonic.com](mailto:welding.central@in.panasonic.com)  
**Japan Factory:** 1-1, 3-chome, Inazu-cho, Toyonaka, Osaka 561 0854, Japan  
**China Factory:** No. 9 Qingnan Rd, Tangshan New & Hi-tech Industrial Park, Hebei, China  
**Sales Offices at Ahmedabad, Bengaluru, Bhubaneswar, Mumbai and Hyderabad**