

Panasonic CO₂/MAG/MIG Welding Machine Guide

Model	Process								Output		Input			Applicable Wire Diameter (mm)	Guide for Applicable Thickness (mm)	Page
	CO ₂ /MAG	Pulse MAG	MIG		Pulse MIG		DC Arc Gouging	DC Stick	Current Range (A)	Duty Cycle (%)	Voltage (V)	Phase	Frequency (Hz)			
			Stainless Steel	Aluminum	Stainless Steel	Aluminum										
Full Digital (Inverter)	350GZ4 YUA	○		○					30 to 350	60	380 to 415	3	50/60	0.8/0.9/1.0/1.2	0.8 to 12.0	2
	350VR1 YU1	○		○					30 to 350	60	380 to 415	3	50/60	0.8/0.9/1.0/1.2	0.8 to 12.0	2
	350GR3 YGA	○		○					30 to 350	60	380	3	50/60	0.8/0.9/1.0/1.2	0.8 to 12.0	3
	500GR3 YGA	○		○					60 to 500	100	380 to 415	3	50/60	1.2/1.4/1.6	1.2 to 25.0	3
	350GY3	○		○					30 to 350	60	380 to 415	3	50/60	0.8/0.9/1.0/1.2	0.8 to 12.0	3
	500GY3	○		○					60 to 500	100	380 to 415	3	50/60	1.2/1.4/1.6	1.2 to 25.0	3
	400GT3 YUA	○	○	○		○			30 to 400	60	380 to 415	3	50/60	0.9/1.0/1.2/1.4	0.8 to 16.0	4
	400GT3 YUD For aluminum	(○)	(○)	(○)	○	(○)	○		30 to 400	60	380 to 415	3	50/60	1.2/1.6	1.2 to 16.0	4
	350GL3	○	○	○		○			30 to 430	60	380 or 415	3	50/60	0.8/0.9/1.0/1.2	0.8 to 12.0	5
	500GL3	○	○	○		○			60 to 550	100	380 or 415	3	50/60	1.2/1.4/1.6	1.2 to 25.0	5
Inverter	350FR1	○							40 to 350	60	380 to 415	3	50/60	0.8/1.0/1.2	1.2 to 12.0	6
	500FR1	○							60 to 500	100	380 to 415	3	50/60	1.0/1.2/1.6	1.2 to 25.0	6
	350RX1	○							50 to 430	60	380 or 415	3	50/60	0.8 or 0.9/1.0/1.2	1.2 to 12.0	6
	400RX1	○							50 to 430	60	380 or 415	3	50/60	0.8 or 0.9/1.0/1.2	1.2 to 16.0	6
	500RX1	○							60 to 550	100	380 or 415	3	50/60	(1.0)/1.2/1.4/1.6	1.2 to 25.0	6
	600RF2 YGA	○							60 to 600	100	380	3	50/60	1.2/1.4/1.6	1.2 to 40.0	7
Thyristor	200KR2	○							50 to 200	60	380	3	50/60	0.8/0.9/1.0/1.2	0.8 to 6.0	8
	350KR2	○							60 to 350	50	380	3	50/60	0.8/0.9/1.0/1.2	1.2 to 12.0	8
	500KR2	○							60 to 500	60	380	3	50/60	1.2/1.4/1.6	1.2 to 25.0	8
	600KH2	○					○	○	60 to 600	100	380	3	50/60	1.2/1.4/1.6	1.2 to 40.0	8
	500CL5	○					(●) (optional)	(●) (optional)	60 to 500	60	380	3	50/60	1.2/1.4/1.6	1.2 to 25.0	9
Slide Transformer	180SL7	○						60 to 180	40	380	3	50/60	0.8/1.2	0.8 to 6.0	9	

(○): If Steel or Stainless Steel is desired for these standard Aluminum packages, please select the appropriate wire feeder and torch for these alternate materials.

Full Digital (Inverter): Digital display, control and communication for easier operation, increased energy savings, reduced size and weight and superior welding performance compared to non-digital or thyristor welding machines.

Inverter: Inverter control achieves improved welding performance compared to thyristor models while providing increased energy savings in a smaller and lighter design.

Thyristor: Standard welding models.

Full Digital
GR3 series

Full Digital CO₂/MAG Welding Machines

Makes High-Quality Welding Easier.



CO₂/
MAG

Stainless
MIG

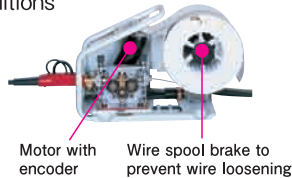
500GR3
Duty cycle
100 %
@ 500 A

Made in Japan

High Welding Performance

High-precision Full Digital control allows soft and stable arc.

- High-precision wire feeding system using encoder feedback.
- Stable wire feeding - feeding not affected by external factors such as supply voltage or ambient temperature.
- Consistent results - welding conditions can easily be reproduced from site to site.



2 drive 4 roll wire feeder

Easy Operation

- Simple control panel allows easy setting.

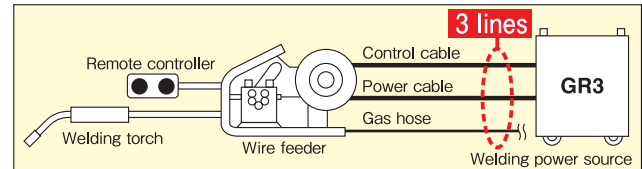


Simple control panel

Simple Structure

Fewer connection cables

- Remote controller connects to the wire feeder directly.



Reduced connections for improved flexibility

Full Digital
GY3 series

Full Digital CO₂/MAG Welding Machines

Makes High-Quality Welding Easier.



CO₂/
MAG

Stainless
MIG

500GY3
Duty cycle
100 %
@ 500 A

Made in China

High Welding Performance

Stable welding performance across current range.

- Full Digital control achieves high-precision current control across current range, achieving consistent and high weld quality.

● Excellent welding quality (Low current range 50 to 120 A)



- Lap welding of 1.0 mm mild steel
 - Weld current: 80 A
 - Weld voltage: 18 V
 - Wire diameter: 1.2 mm
 - Shielding gas: CO₂

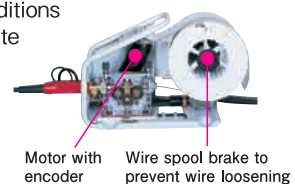
● Stainless steel MIG welding mode



- LAP welding of 9 mm stainless steel
 - Weld current: 250 A
 - Weld voltage: 24.2 V
 - Wire diameter: 1.2 mm
 - Shielding gas: 98 % Ar / 2 % O₂

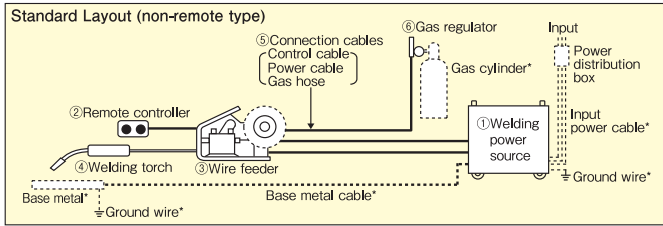
High-precision Full Digital control allows soft and stable arc.

- High-precision wire feeding system using encoder feedback.
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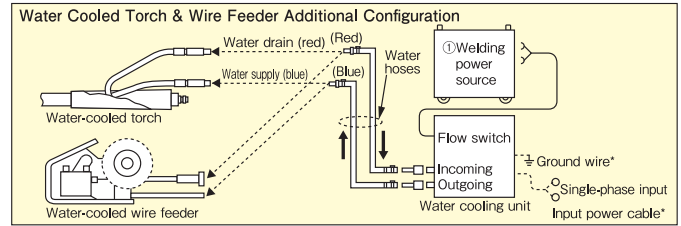


2 drive 4 roll wire feeder

Welding System Configuration



*Customer supplied items



*Customer supplied items

①Welding Power Source	②Remote Controller	③Wire Feeder	④Welding Torch*	⑤Connection Cables	⑥Gas Regulator	Other Items
YD-350GZ4YUA	YD-00DHR1YAA (2 m)	YW-35DH1	•YT-35CS4TAB (Special) •No.34 to 38 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m) •Extension cables optional	YX-25AD1	•Voltage detection wire (5 m) supplied with welding power source •Extension cable (DWC00**) optional
YD-350VR1YU1	YD-35GRR1 (2 m)	•YW-35DG2 (2.1 m control cable) •YW-35DG2CA0 (10 m control cable)	•YT-35CV4 •No.1 to 10 selectable	•Supplied with wire feeder •Extension cables optional	•YX-25AD1 for CO ₂ /MAG/MIG •YX-25CC1 (YX-01GB1) for CO ₂	
YD-350GR3YGA	YD-35GRR1 (2 m)	•YW-35DG1 (1.8 m control cable) •YW-35DG1CA0 (10 m control cable)	•YT-35CV4 •No.1 to 10 selectable	•Supplied with wire feeder •Extension cables optional	•YX-25AD1 for CO ₂ /MAG/MIG •YX-25CC1 (YX-01GB1) for CO ₂	
YD-500GR3YGA	YD-50GGR1 (2 m)	YW-50DG1	•YT-50CS4 •No.12 to 17 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m) •Extension cables optional	•YX-25AD1 for CO ₂ /MAG/MIG •YX-25CC1 (YX-01GB1) for CO ₂	
YD-350GY3		YW-35DG1HA1	YT-35CS4HAE	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-500GY3		YW-50DG1HA1	YT-50CS4HAE	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-400GT3YUA (for mild steel/stainless steel)	YD-40GTR1 (2 m)	YW-40DG1	•YT-35CSG4 •No.11 to 18 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m) •Extension cables optional	YX-25AD1	
YD-400GT3YUD (for aluminum)	YD-40GTR1 (2 m)	YW-40DG1TAK	•YT-30MD2 •No.26 to 29 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m) •Extension cables optional	YX-25AD1	
YD-350GL3		YW-35DG1HA3	YT-35CS3VTA	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-500GL3		YW-50DG1HA1	YT-50CS3VTA	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-350FR1	Supplied with wire feeder	YW-35KB3HME	•YT-35CS3CTA •No.1 to 10 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-500FR1	Supplied with wire feeder	YW-50KB3HME	•YT-50CS3CTA •No.3 to 10, 12 to 17 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-350RX1		YW-35KB3HAJ	YT-35CS3	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-400RX1		YW-40KB3HAF	YT-40CS4	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-500RX1		YW-50KB3HRO	YT-50CS4	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1HAK	
YD-600RF2YGA	YD-60RFR1	•YW-50AF1 (air-cooled) •YW-60AFW2 (water-cooled)	•YT-50CS4 (air-cooled) •YT601CCW (water-cooled)	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	•YX-25AD1 for CO ₂ /MAG/MIG •YX-25CC1 for CO ₂	Water cooling unit YX-09KGC1 optional
YD-200KR2	Supplied with wire feeder	YW-20KB3HAE	•YT-20CS3CTA •No.1 to 2 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-350KR2	Supplied with wire feeder	YW-35KB3HAE	•YT-35CS3CTA •No.1 to 10 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-500KR2	Supplied with wire feeder	YW-50KB3HAE	•YT-50CS3CTA •No.12 to 17 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-600KH2	Supplied with wire feeder	YW-60KCW2HAE	YT-601CCWHAE	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	Water cooling unit YX-09KGC1HGE optional
YD-500CL5	Supplied with wire feeder	YW-50CA2HAJ	•YT-35CSM3CTA •No.3 to 10, 12 to 17 selectable		YX-25CD1	
YD-180SL7		YW-181FK2HAE	•YT-20CS3CTA •No.1 to 2 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	

*Refer to page 15 for torch numbers

Specifications

① Welding Power Sources

	Rated Input Voltage Phase Rated Frequency	Rated Input Capacity	Output Current Adjustable Range (A)	Output Voltage Adjustable Range (V)	Rated Duty Cycle (%)	Applicable Wire Diameter (mm)	Applicable Welding Wire	Dimensions (W×D×H) (mm)	Weight (kg)
YD-350GZ4YUA	•380/415 V •3-phase •50/60 Hz	17.7 kVA / 16 kW	30 to 350	12 to 36	60	0.8/0.9/ 1.0/1.2	•Mild steel •Stainless steel	380×550×640	61
YD-350VR1YU1	•380/415 V •3-phase •50/60 Hz	16.4 kVA / 15 kW	30 to 350	12 to 36	60	0.8/0.9/ 1.0/1.2	•Mild steel •Stainless steel	380×540×660	59
YD-350GR3YGA	•380 V •3-phase •50/60 Hz	17 kVA / 16 kW	30 to 350	12 to 36	60	0.8/0.9/ 1.0/1.2	•Mild steel •Stainless steel	380×540×640	52
YD-500GR3YUA	•380/415 V •3-phase •50/60 Hz	28.5 kVA / 26.5 kW	60 to 500	14 to 45	100	1.2/1.4/1.6	•Mild steel •Stainless steel	380×540×810	65.5
YD-350GY3	•380 or 415 V •3-phase •50/60 Hz	14.5 kVA / 14 kW	30 to 350	12 to 36	60	0.8/0.9/ 1.0/1.2	•Mild steel •Stainless steel	380×550×645	50
YD-500GY3	•380 or 415 V •3-phase •50/60 Hz	23.3 kVA / 22.4 kW	60 to 500	17 to 45	100	1.2/1.4/1.6	•Mild steel •Stainless steel	380×550×815	60
YD-400GT3YUA (Mild steel/ stainless steel)	•380/415 V •3-phase •50/60 Hz	20.5 kVA / 19 kW	30 to 400	12 to 38	60	0.9/1.0/ 1.2/1.4	•Mild steel •Stainless steel	380×540×675	61
YD-400GT3YUD (Mild steel/stainless steel/aluminum)	•380/415 V •3-phase •50/60 Hz	20.5 kVA / 19 kW	30 to 400	12 to 38	60	0.9/1.0/1.2/1.4/1.6 (1.6 is for hard aluminum only.)	•Mild steel •Stainless steel •Hard aluminum	380×540×675	61
YD-350GL3	•380 or 415 V •3-phase •50/60 Hz	14.5 kVA / 14 kW	30 to 430	16 to 35.5	60	0.8/0.9/ 1.0/1.2	•Mild steel •Stainless steel	380×550×645	50
YD-500GL3	•380 or 415 V •3-phase •50/60 Hz	23.3 kVA / 22.4 kW	60 to 500	17 to 45	100	1.2/1.4/1.6	•Mild steel •Stainless steel	380×550×815	60
YD-350FR1	•415 V •3-phase •50/60 Hz	13.5 kVA / 13 kW	40 to 350	16 to 31.5	60	0.8/1.0/1.2	Mild steel	372×545×669	56
YD-500FR1	•415 V •3-phase •50/60 Hz	23.3 kVA / 22.4 kW	60 to 500	17 to 39	100	1.0/1.2/ 1.4/1.6	Mild steel	372×545×669	62
YD-350RX1	•380 or 415 V •3-phase •50/60 Hz	13.1 kVA / 12.6 kW	50 to 430	16.5 to 35.5	60	0.8 or 0.9 1.0/1.2	Mild steel	380×545×570	52
YD-400RX1	•380 or 415 V •3-phase •50/60 Hz	16.2 kVA / 15.6 kW	50 to 430	16.5 to 35.5	60	0.8 or 0.9 1.0/1.2	Mild steel	380×545×570	52
YD-500RX1	•380 or 415 V •3-phase •50/60 Hz	23.1 kVA / 22.2 kW	60 to 550	17 to 41.5	100	(1.0)/1.2/1.4/1.6 (1.0 is type of HGF/HJE.)	Mild steel	380×545×635	60
YD-600RF2YGA	•380 V •3-phase •50/60 Hz	37 kVA / 35 kW	60 to 600	14 to 50	100	1.2/1.4/1.6	Mild steel	440×585×1005	120
YD-200KR2	•380 V •3-phase •50/60 Hz	7.6 kVA / 6.5 kW	50 to 200	15 to 25	60	0.8/1.0/1.2	Mild steel	376×675×747	89
YD-350KR2	•380 V •3-phase •50/60 Hz	18.1 kVA / 16.1 kW	60 to 350	16 to 31.5	50	0.8/1.0/1.2	Mild steel	376×675×747	117
YD-500KR2	•380 V •3-phase •50/60 Hz	31.9 kVA / 28.1 kW	60 to 500	17 to 39	60	1.2/1.4/1.6	Mild steel	436×675×762	158
YD-600KH2	•380 V •3-phase •50/60 Hz	45 kVA / 40 kW	60 to 600	17 to 44	100	1.2/1.4/1.6	Mild steel	500×690×920	232
YD-500CL5	•380 V •3-phase •50/60 Hz	30.4 kVA / 28.1 kW	60 to 500	17 to 39	60	1.2/1.4/1.6	Mild steel	436×675×762	148
YD-180SL7	•380 V •3-phase •50/60 Hz	6.8 kVA / 6.4 kW	60 to 180	17 to 23	40	0.8/1.2	Mild steel	310×430×509	49

Specifications

③ Wire Feeders

	For Welding Power Source	Applicable Welding Wire	Applicable Wire Diameter (mm)	Connector Type for Welding Torch	Drive Method	Weight (kg)	Accessories
YW-35DH1	YD-350GZ4YUA	·Mild steel ·Stainless steel	(0.8)/0.9/(1.0)/1.2	CC fitting	2 drive 4 roll	15	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35DG2	YD-350VR1YU1	·Mild steel ·Stainless steel	(0.8)/0.9/(1.0)/1.2	CC fitting	2 drive 4 roll	12	·Control cables: 2.1 m ·Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35DG2CA0	YD-350VR1YU1	·Mild steel ·Stainless steel	(0.8)/0.9/(1.0)/1.2	CC fitting	2 drive 4 roll	19	·Control cables: 10.3 m ·Power cables: 10 m ·Gas hose: 13.2 m
YW-35DG1	YD-350GR3YGA	·Mild steel ·Stainless steel	(0.8)/0.9/(1.0)/1.2	CC fitting	2 drive 4 roll	12	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35DG1CA0	YD-350GR3YGA	·Mild steel ·Stainless steel	(0.8)/0.9/(1.0)/1.2	CC fitting	2 drive 4 roll	19	·Control/Power cables: 10 m ·Gas hose: 13 m
YW-40DG1	YD-400GT3YUA	Stainless steel	0.9/(1.0)/1.2/(1.4)	CC fitting	2 drive 4 roll	12.5	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-50DG1	YD-500GR3YUA	·Mild steel ·Stainless steel	1.2/1.4/(1.6)	CC fitting	2 drive 4 roll	13	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35DG1HA1	YD-350GY3	·Mild steel ·Stainless steel	(0.8)/(0.9)/1.0/1.2	CC fitting	2 drive 4 roll	12	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35DG1HA3	YD-350GL3	·Mild steel ·Stainless steel	(0.8)/(0.9)/1.0/1.2	CC fitting	2 drive 4 roll	12	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-40DG1TAK	YD-400GT3YUD	Aluminum	1.2/1.6	CC fitting	4 drive roll	15	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-50DG1HA1	·YD-500GY3 ·YD-500GL3	·Mild steel ·Stainless steel	1.2/(1.4)/1.6	CC fitting	2 drive 4 roll	13.5	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35KB3HME	YD-350FR1	Mild steel	1.0/1.2	CC fitting	1 drive 2 roll	10	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-50KB3HME	YD-500FR1	Mild steel	1.2/1.6	CC fitting	1 drive 2 roll	10.5	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35KB3HAJ	YD-350RX1	Mild steel	0.8/(0.9)/(1.0)/1.2	CC fitting	1 drive 2 roll	10	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-40KB3HAF	YD-400RX1	Mild steel	(0.8)/0.9/(1.0)/1.2	CC fitting	1 drive 2 roll	10.5	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-50KB3HR0	YD-500RX1	Mild steel	1.2/(1.4)/1.6	CC fitting	1 drive 2 roll	10.5	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-50AF2 (Air cooled)	YD-600RF2YGA	Mild steel	1.2/1.6	CC fitting	1 drive 2 roll	10.5	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-60AFW2 (Water cooled)	YD-600RF2YGA	Mild steel	1.2/(1.4)/1.6	CC fitting	1 drive 2 roll	12	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-20KB3HAE	YD-200KR2	Mild steel	0.8/1.0	CC fitting	1 drive 2 roll	10	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35KB3HAE	YD-350KR2	Mild steel	1.0/1.2	CC fitting	1 drive 2 roll	10	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-50KB3HAE	YD-500KR2	Mild steel	1.2/1.6	CC fitting	1 drive 2 roll	10.5	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-60KCW2HAE	YD-600KH2	Mild steel	1.2/1.6	CC fitting	1 drive 2 roll	12	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-50CA2HAJ	YD-500CL5	Mild steel	1.0/1.2	CC fitting	1 drive 2 roll	12	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-181FK2HAE	YD-180SL7	Mild steel	0.8/1.2	CC fitting	1 drive 2 roll	9	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m