

Product Guide

[TIG Welding Machines]

Model	Process					Weld Navigation	Input			Output Current (A)			Duty Cycle (%)	Pulse Frequency (Hz)	Arc Spot Time (s)	Base Metal Thickness (mm)	Page
	AC TIG	DC TIG	Pulse	AC Stick	DC Stick		Phase	Voltage (VAC)	Frequency (Hz)	AC TIG	DC TIG	DC Stick					
Full Digital (Inverter)	300BZ3	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>		3	380 or 415	50/60	—	300	250	40	0.8 to 500	0.1 to 5.0	Stainless steel: 0.3 to 6.0	2
	200BL3YNA	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>		1	200 to 240	50/60	—	200	150	20	0.5 to 500	0.1 to 5.0	Stainless steel: 0.3 to 4.5	2
	300BP4YUA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	3	380 to 415	50/60	300	300	250	40	0.1 to 500	0.1 to 5.0	Stainless steel: 0.3 to 6.0 Aluminum: 0.8 to 6.0	3
Inverter	315TX3	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>		3	380 or 415	50/60	—	315	315	60	0.5 to 500	—	Stainless steel: 0.5 to 6.0	3
	400TX3	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>		3	380 or 415	50/60	—	400	400	60	0.5 to 500	—	Stainless steel: 0.5 to 8.0	3
	200BL1HDK	<input type="radio"/>			<input type="radio"/>		1	220	50/60	—	200	160	20	—	—	Stainless steel: 0.5 to 4.5	4
	300WX4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		3	380 or 415	50/60	300	300	250	40	0.5 to 500	—	Stainless steel: 0.5 to 6.0 Aluminum: 0.8 to 6.0	4
	500WX4Y0E	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		3	380	50/60	500	500	400	60	0.5 to 500	—	Stainless steel: 0.8 to 8.0 Aluminum: 1.5 to 8.0	4
	300WY4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		3	380 or 415	50/60	300	300	250	40	0.5 to 500	—	Stainless steel: 0.5 to 6.0 Aluminum: 0.8 to 6.0	5
	200BR1YAA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			1	200	50/60	200	200	—	25	0 to 500	—	Stainless steel: 0.5 to 4.5 Aluminum: 0.8 to 4.5	5
Thyristor	300TSP	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>		3	380 or 415	50/60	—	300	300	40	0.5 to 15	0.5 to 5.0	Stainless steel: 0.5 to 6.0	6
	500TSP	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>		3	380 or 415	50/60	—	500	500	60	0.5 to 15	0.5 to 5.0	Stainless steel: 0.8 to 8.0	6
	150TM(Mini)	<input type="radio"/>			<input type="radio"/>		1	220 or 380	50/60	—	150	150	20	—	—	Stainless steel: 0.5 to 4.5	6
	300WP5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		1	220 or 380 or 415	50/60	315	315	315	40	0.5 to 10	0.5 to 5.0	Stainless steel: 0.8 to 6.0 Aluminum: 1.5 to 6.0	7

[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.

[AC/DC Stick Welding Machines, Plasma Cutting Machines]

Model	Process					Input			Output Current (A)	Duty Cycle (%)	Page
	AC Stick	DC Stick	Arc Gouging	DC Simple TIG	Cutting	Phase	Voltage (VAC)	Frequency (Hz)			
400AT3		<input type="radio"/>		<input type="radio"/>		3	380 or 415	50/60	400	60	16
630AT3		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		3	380 or 415	50/60	630	60	16
400SS3		<input type="radio"/>				3	380 or 415	50	400	60	16
630SS3		<input type="radio"/>	<input type="radio"/>			3	380 or 415	50	630	60	16
405FL4	<input type="radio"/>					1	220 or 380 or 415	50	400	60	17
505FL4	<input type="radio"/>					1	220 or 380 or 415	50	500	60	17
305AA3	<input type="radio"/>					1	380	50	300	60	17
060PS2					<input type="radio"/>	3	380 or 415	50/60	63	60	18
100PS2					<input type="radio"/>	3	380 or 415	50/60	100	60	18

Full Digital 300BP4

Full Digital AC/DC TIG Welding Machine

Makes Aluminum Welding Easy and High-Quality.

30 to 400 Hz AC output changes aluminum welding.



300BP4

AC TIG DC TIG DC Stick

Weld Navigation

High Welding Performance

AC output adjustable from 30 to 400 Hz.

- Allows you to weld like an expert.
- Makes difficult fillet welding and filler wire feeding easy.
- Improves arc concentration to prevent burn through or make to tack welding easy.

120 Hz

Multi-pass, butt



Material: Aluminum (A5052)
Plate thickness: 8.0 mm
Current: 180 A to 200 A
Speed: 10 cm to 20 cm/min.

400 Hz

Fillet (tack weld of thin plates)
70 Hz (conventional analog machine)
Easily weldable. Burn-through often occurs.



Material: Aluminum (A5052)
Plate thickness: 1.0 mm
Current: 110 A
Welding time: 0.5 sec.

Circumferential, fillet



Material: Aluminum (A5052)
Plate thickness: 3.0 mm
Base current: 140 A
Peak current: 260 A
Speed: 38 cm/min.

Expert mode for welding experts.

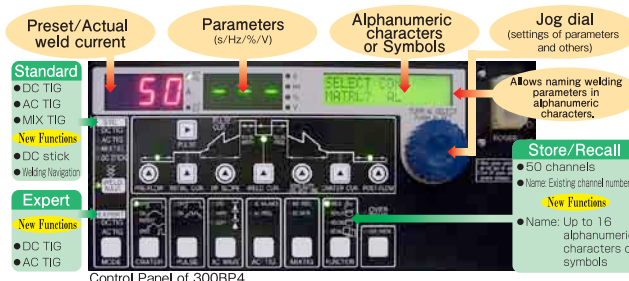
Drooping characteristic changes the weld current according to the torch height.

Easy Operation

Welding Navigation determines the optimal welding parameters.

Rich and customizable database

- More than 100 sets of welding parameters are contained.
- You can change and store the parameters to fit your needs.



Control Panel of 300BP4

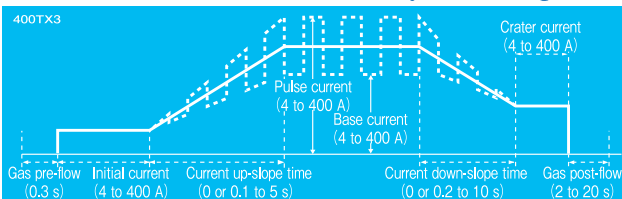
TX3

Inverter Control DC TIG Welding Machines

Suitable for a Wide Range of Industries, Including Petrochemical or Power Plant Construction, Pressure Vessels and Stainless Steel Products.

High Welding Performance

Waveform control to meet a variety of welding needs.



- 1. Middle frequency pulse control (10 to 500 Hz)**
Crisp and concentrated arc is ideal for welding of heat-sensitive metals, such as titanium, stainless steel and ultra-thin plates.
- 2. Low to middle frequency pulse control (0.5 to 30 Hz)**
Suitable for all position welding of pipes and medium to thick plates.
- 3. Initial current and crater current control**
Initial current and crater current control improve the bead quality of weld start and end points.

DC TIG DC Stick



315TX3



400TX3

Stable welding at 4 A output current.

High-power IGBT components in main circuit achieve smooth current waveforms and stable arc at 4 A.

Arc spot welding function.

Argon spot welding is available with pre-set spot current and time.

Convenient Structure

Stackable case design.

Equipped with quick connectors.

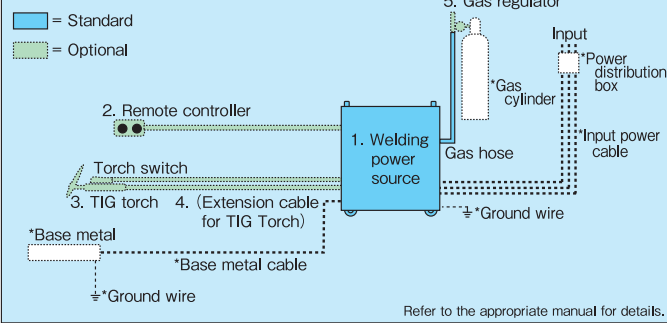
Torch cable and base metal cable can be connected or disconnected easily.



Welding System Configuration

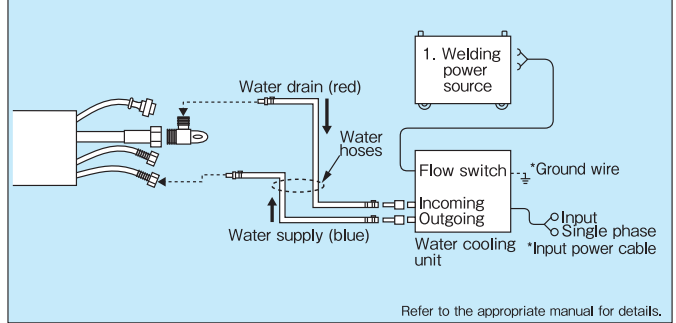
TIG

Configuration Example (3-Phase)



*Customer supplied items

Water Cooled Torch Additional Configuration



*Customer supplied items

1. Welding Power Source	2. Remote Controller (optional)	3. Welding Torch (optional) *Common model names are described below.	4. Extension Cable (optional)	5. Gas Regulator (optional)	Other Items
YC-300BZ3 • 3m gas hose included. • Terminal adaptor for 0.3 m base metal cable included.	YC-30BPR1 (5 m)	<ul style="list-style-type: none"> ● YT-30TS2TAG (4 m, air-cooled) ● Selectable between No.9-10, 14, 15, 18, 19 of page 10 	Selectable between 5, 10, 15 m	YX-251A	Optional water cooling unit YX-09KGC1 required to use water-cooled torches. (3 m water hose included.)
YC-200BL3YNA • 2.5 m input power cable included.	—	<ul style="list-style-type: none"> ● YT-15TS2TAD (4 m, air-cooled) 	—	YX-16AG1	—
YC-300BP4YUA • 3 m gas hose included. • Terminal adaptor for 0.3 m base metal cable included.	YC-30BPR1 (5 m) YC-30BPR4 (5 m, parameter recall)	<ul style="list-style-type: none"> ● YT-30TS2TAG (4 m, air-cooled) ● Selectable between No.9-10, 14, 15, 18, 19 of page 10 	Selectable between 5, 10, 15 m	YX-251A	Optional water cooling unit YX-09KGC1 required to use water-cooled torches. (3 m water hose included.)
YC-315TX3 • 3m gas hose included.	—	—	—	—	—
YC-400TX3 • 3m gas hose included.	—	—	—	—	—
YC-200BL1HDK • 3m gas hose included. • Attached cable/ Torch switch adaptor included.	—	<ul style="list-style-type: none"> ● YT-158T ● YT-208T 	—	—	—
YC-300WX4 • 3 m gas hose included.	YC-301URTRK1 (5 m)	<ul style="list-style-type: none"> ● YT-30TS2 (4 m, air-cooled) ● Selectable between No.1-4, 6, 7, 11-13, 16, 17, 20, 21 of page 10 	Selectable between 5, 10, 15 m	YX-251A	Optional water cooling unit YX-09KGC1 required to use water-cooled torches. (3 m water hose included.)
YC-500WX4Y0E • 3 m gas hose included.	YC-301URTRK1 (5 m)	<ul style="list-style-type: none"> ● YT-50TSW2 (4 m, water-cooled) ● Selectable between No.1-4, 6, 7, 11-13, 16, 17, 20, 21 of page 10 	Selectable between 5, 10, 15 m	YX-251A	Optional water cooling unit YX-09KGC1 required to use water-cooled torches. (3 m water hose included.)
YC-300WY4 • 3 m gas hose included.	—	—	—	—	—
YC-200BR1YAA • 3 m gas hose included. • 3 m base metal cable included.	—	<ul style="list-style-type: none"> ● YT-20TS2TAD (8m, air-cooled) 	—	YX-16AG1	—
YC-300TSP	—	—	—	—	—
YC-500TSP • 3 m gas hose included.	YC-301URTRK1 (5 m)	<ul style="list-style-type: none"> ● YT-50TSW2 (4 m, water-cooled) ● YT-50TSW2 C1 (8 m, water-cooled) 	Selectable between 5, 10, 15 m	YX-251A	Optional water cooling unit YX-09KGC1 required to use water-cooled torches. (3 m water hose included.)
YC-150TM(Mini)	—	—	—	—	—
YC-300WP5	YC-304URW (4 m)	—	—	—	—

Specifications

TIG

1. Welding Power Sources

Model	Rated Input Voltage Phase Rated Frequency	Rated Input (kVA) (kW)	Output Current Adjustable Range (A)						Rated Duty Cycle (%)	Arc Spot Time (s)	AC Frequency (Hz)	MIX Frequency (Hz)	Pulse Frequency (Hz)	Dimensions (W×D×H) (mm)	Weight (kg)
			AC TIG			MIX TIG	DC TIG	DC Stick							
			Standard	Hard	Soft										
YC-300BZ3	380 V or 415 V 3-phase 50/60 Hz	10.5 9.5	—	—	—	—	4 to 300	4 to 250	40	0.1 to 5	—	—	0.8 to 500	380×510×410	35
YC-200BL3YNA	200 to 240 V 1-phase 50/60 Hz	7.8 5.1	—	—	—	—	5 to 200	5 to 150	20	0.1 to 5	—	—	0.5 to 500	95×420×295	9
YC-300BP4YUA	380 to 415 V 3-phase 50/60 Hz	11.6 9.7	10 to 300	20 to 300	10 to 200	10 to 300	4 to 300	4 to 250	40	0.1 to 5	30 to 400	0.1 to 20	0.1 to 500	375×523×634	64
YC-315TX3	380 V or 415 V 3-phase 50/60 Hz	8.8 8.3	—	—	—	—	4 to 315	4 to 315	60	—	—	—	0.5 to 500	327×555×602	42
YC-400TX3	380 V or 415 V 3-phase 50/60 Hz	14.5 12.4	—	—	—	—	4 to 400	4 to 400	60	—	—	—	0.5 to 500	327×555×602	43
YC-200BL1HDK	220 V 1-phase 50/60 Hz	7.5 4.5	—	—	—	—	5 to 200	5 to 160	20	—	—	—	—	150×345×252	10
YC-300WX4	380 V or 415 V 3-phase 50/60 Hz	12.0 10.5	10 to 300	20 to 300	10 to 200	10 to 300	4 to 300	4 to 250	40	—	—	0.5 to 10	0.5 to 500	380×530×730	74
YC-500WX4Y0E	380 V 3-phase 50/60 Hz	24.0 19.5	20 to 500	40 to 500	20 to 330	20 to 500	5 to 500	50 to 400	60	—	—	0.5 to 10	0.5 to 500	440×585×945	118
YC-300WY4	380 V or 415 V 3-phase 50/60 Hz	10.5 9.0	10 to 300	20 to 300	10 to 200	10 to 300	4 to 300	4 to 250	40	—	—	0.5 to 10	0.5 to 500	380×530×730	74
YC-200BR1YAA	200 V 1-phase 50/60 Hz	7.3 5.4	10 to 200	—	—	—	4 to 200	—	25	—	—	—	0 to 500	212×448×333	15
YC-300TSP	380 V or 415 V 3-phase 50/60 Hz	16.1 13.5	—	—	—	—	5 to 300	5 to 300	40	0.5 to 5	—	—	0.5 to 15	470×560×845	136
YC-500TSP	380 V or 415 V 3-phase 50/60 Hz	33.2 30.7	—	—	—	—	5 to 500	5 to 500	60	0.5 to 5	—	—	0.5 to 15	500×650×1 020	225
YC-150TM(Mini)	220 V or 380 V 1-phase 50/60 Hz	11.4 6.3	—	—	—	—	8 to 150	8 to 150	20	—	—	—	—	300×460×520	62
YC-300WP5	220 V or 380 V or 415 V 1-phase 50/60 Hz	26.0 17.0	20 to 315	—	—	—	5 to 315	5 to 315	40	0.5 to 5	—	—	0.5 to 10	465×617×846	193

2. Remote Controllers

Eliminate the need to return to the power source to adjust welding current or voltage.

■YC-301URTRK1

- For use with WX4
- 5 m 6 core cable



■YC-30BPR1

- For use with BZ3 and BP4
- 5 m 12 core cable
- Pulse current adjustment



■YC-30BPR4

- For use with BP4
- Recall of welding parameters
- 5 m 12 core cable
- Pulse current adjustment



5. Argon Gas Regulator

●YX-251A

Provides accurate regulation of shielding gas for quality welding.



4. Extension Cables for Welding Torches (Build-to-Order)

Torch	Cable Length (m)	Cooling Method	Connector	Power Source
YT-20TS2TAG	4	Air-cooled	Dinse	300BP4/300BZ3
YT-20TS2TAH	8	Air-cooled	Dinse	300BP4/300BZ3
YT-30TS2TAG	4	Air-cooled	Dinse	300BP4/300BZ3
YT-30TS2TAH	8	Air-cooled	Dinse	300BP4/300BZ3
YT-30TS2	4	Air-cooled	Ring	
YT-30TS2C1	8	Air-cooled	Ring	
YT-30TSW2TAG	4	Water-cooled	Dinse	300BP4/300BZ3
YT-30TSW2THA	8	Water-cooled	Dinse	300BP4/300BZ3
YT-30TSW2	4	Water-cooled	Ring	
YT-30TSW2C1	8	Water-cooled	Ring	
YT-50TSW2	4	Water-cooled	Ring	
YT-50TSW2C1	8	Water-cooled	Ring	

For Air-Cooled Torches

Model	Section Area(mm²)	Length(m)
TWU20131	38	5
TWU20132		10
TWU20133		15

For Water-Cooled Torches

TWU30132	38	5
TWU30133		10
TWU30134		15

For 500 A Water-Cooled Torches

TWU50137	60	5
TWU50138		10
TWU50139		15

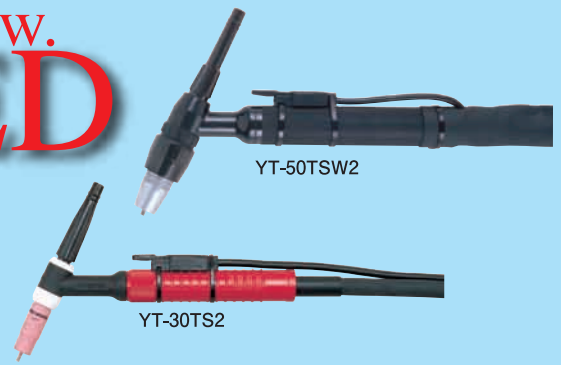
Note: A terminal block adapter (CWC00180) and a control cable assembly (TWX00018) are required to connect an extension cable to 300BP4 or 300BZ3.

3. RED TIG TORCH 2

TIG Welding Torches

All New. RED

Higher Welding Performance, Operability and Safety.



No.	Model	Rated Current (A)		Duty Cycle (%)	Cable Length (m)	Electrode Diameter (mm) Sizes in () Optional	Nozzle Inner Diameter (mm) Sizes in () Optional	Water Flow (L/min)	Water Pressure (MPa)	Water Cooling Unit Capacity (kW)	Weight (kg)	Cooling Method
		DC	AC									
1	YT-08TS2	80	55	35	4	(0.5), (1.0), 1.6	8	—	—	—	0.9	Air-cooled
2	YT-12TS2	120	85	35	4	(0.5), (1.0), 1.6, (2.0)	6.4, (8), (10), (11), (12.7), (16)	—	—	—	0.9	Air-cooled
3	YT-15TS2	150	105	35	4	(0.5), (1.0), 1.6, (2.0), (2.4)	(6.5), 8, (9.5), (11), (12.7), (16), (19)	—	—	—	1.2	Air-cooled
4	YT-15TS2C1	150	105	35	8	(0.5), (1.0), 1.6, (2.0), (2.4)	(6.5), 8, (9.5), (11), (12.7), (16), (19)	—	—	—	2.0	Air-cooled
5	YT-15TS2TAD	150	105	35	8	(0.5), (1.0), 1.6, (2.0), (2.4)	(6.5), 8, (9.5), (11), (12.7), (16), (19)	—	—	—	2.0	Air-cooled
6	YT-20TS2	200	140	35	4	(0.5), (1.0), (1.6), (2.0), 2.4, (3.2)	(6.5), (8), 9.5, (11), (12.7), (16), (19)	—	—	—	1.8	Air-cooled
7	YT-20TS2C1	200	140	35	8	(0.5), (1.0), (1.6), (2.0), 2.4, (3.2)	(6.5), (8), 9.5, (11), (12.7), (16), (19)	—	—	—	3.0	Air-cooled
8	YT-20TS2TAD	200	140	35	8	(0.5), (1.0), (1.6), (2.0), 2.4, (3.2)	(6.5), (8), 9.5, (11), (12.7), (16), (19)	—	—	—	3.0	Air-cooled
9	YT-20TS2TAG	200	140	35	4	(0.5), (1.0), (1.6), (2.0), 2.4, (3.2)	(6.5), (8), 9.5, (11), (12.7), (16), (19)	—	—	—	1.9	Air-cooled
10	YT-20TS2TAH	200	140	35	8	(0.5), (1.0), (1.6), (2.0), 2.4, (3.2)	(6.5), (8), 9.5, (11), (12.7), (16), (19)	—	—	—	3.1	Air-cooled
11	YT-20TSW2	200	140	100	4	(0.5), (1.0), (1.6), (2.0), 2.4, (3.2)	(6.4), (8), 10, (11), (12.7), (16)	0.7 or more	0.1 to 0.35	0.75 or more	1.4	Water-cooled
12	YT-30TS2	300	210	20	4	(0.5), (1.0), (1.6), (2.0), (2.4), 3.2, (4.0)	(6.5), (8), (9.5), 11, (12.7), (16), (19)	—	—	—	2.2	Air-cooled
13	YT-30TS2C1	300	210	20	8	(0.5), (1.0), (1.6), (2.0), (2.4), 3.2, (4.0)	(6.5), (8), (9.5), 11, (12.7), (16), (19)	—	—	—	3.7	Air-cooled
14	YT-30TS2TAG	300	210	20	4	(0.5), (1.0), (1.6), (2.0), (2.4), 3.2, (4.0)	(6.5), (8), (9.5), 11, (12.7), (16), (19)	—	—	—	2.3	Air-cooled
15	YT-30TS2TAH	300	210	20	8	(0.5), (1.0), (1.6), (2.0), (2.4), 3.2, (4.0)	(6.5), (8), (9.5), 11, (12.7), (16), (19)	—	—	—	3.8	Air-cooled
16	YT-30TSW2	300	210	100	4	(0.5), (1.0), (1.6), (2.0), (2.4), 3.2, (4.0)	(6.5), (8), (9.5), 11, (12.7), (16), (19)	0.7 or more	0.1 to 0.35	0.8 or more	1.8	Water-cooled
17	YT-30TSW2C1	300	210	100	8	(0.5), (1.0), (1.6), (2.0), (2.4), 3.2, (4.0)	(6.5), (8), (9.5), 11, (12.7), (16), (19)	0.7 or more	0.1 to 0.35	1.6 or more	3.0	Water-cooled
18	YT-30TSW2TAG	300	210	100	4	(0.5), (1.0), (1.6), (2.0), (2.4), 3.2, (4.0)	(6.5), (8), (9.5), 11, (12.7), (16), (19)	0.7 or more	0.1 to 0.35	0.8 or more	1.9	Water-cooled
19	YT-30TSW2TAH	300	210	100	8	(0.5), (1.0), (1.6), (2.0), (2.4), 3.2, (4.0)	(6.5), (8), (9.5), 11, (12.7), (16), (19)	0.7 or more	0.1 to 0.35	1.6 or more	3.1	Water-cooled
20	YT-50TSW2	500	350	100	4	(1.0), (1.6), (2.0), (2.4), (3.2), 4.0, (4.8), (6.4)	(9.5), (12.7), 16, (19)	1.0 or more	0.15 to 0.35	1.9 or more	2.6	Water-cooled
21	YT-50TSW2C1	500	350	100	8	(1.0), (1.6), (2.0), (2.4), (3.2), 4.0, (4.8), (6.4)	(9.5), (12.7), 16, (19)	1.5 or more	0.2 to 0.35	3.3 or more	4.4	Water-cooled

Note: Torch switch included. *Flexible type and pencil type also available. **Optional collet and collet body required to use optional electrode.