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Trgovina FraMa[®]

WTL[®]

Welding Technology Leader

Product Catalog

www.trgovina-frama.si





In

roduction

WTL is a professional manufacturer of welding equipment, which mainly produces inverter welders and the special-purpose welders. Our company locates in Pudong new area of Shanghai, and covers an area of 15000 square meters. There are about 460 employees in our company. Our products capacity is about 100000 units per year.

Our main products include: STICK, TIG, MIG/MAG, PLASMA CUTTER and SUBMERGED ARC WELDER are widely used in nuclear, shipbuilding, press container, petrochemical industry, architecture, pipe erection and so on. We got the certification of ISO9001 quality management system as well as the China Compulsory product Certification and CE approval. Our products can meet ROHS standard if it is required.

Quality is the basic element for an enterprise's survival and development. We promise to provide you the best quality and satisfied service.

Expecting for your great support and cooperation!

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Welding process



MMA Welding



TIG Welding



MIG/MAG Welding



Plasma Cutting



Submerged Arc Welding



Inverter Technology



High Frequency



Lift TIG



Pulsed



Direct Current



Alternating Or Direct Current



Alternating Current



Global



Hot Start



Arc Force



Wire Feeder



Up Slope



Down Slope



Thermostat



Measurement Instruments



Voltage Step Adjustment



Forced Air Cooling



Portable Power Source



Spot Welding



Protected & Compatible Power Generator



DC MMA/STICK Welder

INVERTER DC MMA/LIFT TIG Welding Machine



Model: TM-1000(MMA)

- Anti-sticking, arc force, hot start
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat
- Protected & compatible POWER GENERATOR



Model	TM-1000(MMA)
Power Supply Voltage(V)	1~220/230/240 ±10%
Frequency(HZ)	50/60
Rated Input Power(KW)	3.0
Rated Input Current(A)	17.5
Duty Cycle(40°C 10min)	15% 100A 100% 40A
No Load Voltage(V)	65
Welding Current Range(A)	10~100
Efficiency(%)	≥80
Power Factor	0.8
Net Weight(kg)	3.4
Dimensions(mm)	280X120X220
Protection Class	IP23S
Insulation Class	F
Electrode diameter	2.5, 3.2
Electrode type	6013,7018,etc.

DC MMA WELDER

ECONOMIC-SERIES**Model: TM-1300(MMA)**

- Anti-sticking, arc force, hot start
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat
- Protected & compatible POWER GENERATOR



Model	TM-1300(MMA)
Power Supply Voltage(V)	1~220/230/240 ±10%
Frequency(HZ)	50/60
Rated Input Power(KW)	3.7
Rated Input Current(A)	27
Duty Cycle(40°C 10min)	15% 130A
	100% 45A
No Load Voltage(V)	65
Welding Current Range(A)	10~130
Efficiency(%)	≥80
Net Weight(kg)	3.5
Dimensions(mm)	280X120X220
Protection Class	IP23S
Insulation Class	F
Cooling	AF
Electrode diameter	2.5, 3.2
Electrode Type	6013,7018,etc.

DC MMA WELDER

TOP-SERIES**Model: TM-1000**

- Adopt IGBT technology, MMA/Lift TIG
- Compact, light weight, portable
- Anti-sticking, arc force, hot start
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat
- Protected & compatible POWER GENERATOR

Model: TM-1300

Model	TM-1000	TM-1300
Power Supply Voltage(V)	1~220/230/240 ±10%	1~220/230/240 ±10%
Frequency(HZ)	50/60	50/60
Rated Input Power(KW)	3.0	4.3
Rated Input Current(A)	19.6	28
Duty Cycle(40°C 10min)	25% 100A	20% 130A
	100% 50A	100% 50A
No Load Voltage(V)	64	64
Welding Current Range(A)	5~100	5~130
Efficiency(%)	≥80	≥80
Net Weight(kg)	4	4
Dimensions(mm)	280X120X220	280X120X220
Protection Class	IP23S	IP23S
Insulation Class	F	F
Cooling	AF	AF
Electrode diameter	2.5, 3.2	2.5, 3.2
Electrode Type	6013,7018,etc.	6013,7018,etc.

DC MMA WELDER

TOP-SERIES**Model: TM-1600**

- Adopt IGBT technology, MMA/Lift TIG
- Anti-sticking, arc force, hot start
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat Protected & compatible POWER GENERATOR

**Model: TM-1600CEL**

Model	TM-1600	TM-1600CEL
Power Supply Voltage(V)	1~220/230/240 ±10%	1~220/230/240 ±10%
Frequency(HZ)	50/60	50/60
Rated Input Power(KW)	5.6	5.7
Rated Input Current(A)	32	34
Duty Cycle(40°C 10min)	25% 160A 100% 80A	25% 160A 100% 80A
No Load Voltage(V)	62	92(VRD)
Welding Current Range(A)	5~160	5~160
Efficiency(%)	≥80	≥80
Net Weight(kg)	6	7
Dimensions(mm)	310X140X230	350X140X230
Protection Class	IP23S	IP23S
Insulation Class	F	F
Cooling	AF	AF
Electrode diameter	2.5, 3.2, 4.0	2.5, 3.2, 4.0
Electrode Type	6011,6013,7018,etc.	E6010,etc.

DC MMA WELDER

TOP-SERIES**Model: TM-2000**

- Adopt IGBT technology, MMA/Lift TIG
- Anti-sticking, arc force, hot start
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat
- Protected & compatible POWER GENERATOR



Model	TM-2000
Power Supply Voltage(V)	1~220/230/240 ±10%
Frequency(HZ)	50/60
Rated Input Power(KW)	7.5
Rated Input Current(A)	44
Duty Cycle(40°C 10min)	25% 200A 100% 100A
No Load Voltage(V)	64(VRD)
Welding Current Range(A)	5~200
Efficiency(%)	≥80
Net Weight(kg)	7.5
Dimensions(mm)	360X140X230
Protection Class	IP23S
Insulation Class	F
Cooling	AF
Electrode diameter	2.5, 3.2, 4.0, 5.0
Electrode Type	6011,6013,7018,etc.

DC MMA WELDER

GLOBAL-SERIES**Model: TM-1600(DV)**

- Adopt IGBT technology,MMA/Lift TIG
- Anti-sticking, arc force, hot start
- Intelligent protection:Over-voltage, Low-voltage, Over-current, Over-heat
- Protected & compatible POWER GENERATOR



Model	TM-1600(DV)	
Power Supply Voltage(V)	1~110/115 ±10%	1~220/230/240 ±10%
Frequency(HZ)	50/60	
Rated Input Power(KW)	4.8	
Rated Input Current(A)	55	32
Duty Cycle(40°C 10min)	25% 160A 100% 80A	
No Load Voltage(V)	58	
Welding Current Range(A)	5~160	
Efficiency(%)	≥80	
Power Factor	0.82	0.67
Net Weight(kg)	7	
Dimensions(mm)	330X140X230	
Protection Class	IP23S	
Insulation Class	F	
Cooling	AF	
Electrode diameter	2.5, 3.2, 4.0	
Electrode Type	6011,6013,7018,etc.	

Model: GM-1600

- PFC technology, power factor more than 0.98
- Input voltage:95VAC~270VAC,Low input current
- Anti-sticking, arc force, hot start, VRD and circuit protection,MMA/Lift TIG
- Intelligent protection:Over-voltage, Low-voltage, Over-current, Over-heat
- Protected & compatible POWER GENERATOR



Model	GM-1600			
Power Supply Voltage(V)	1~110/115 ±10%~220/230/240 ±10%			
Frequency(HZ)	50/60			
Rated Input Power(KW)	3.75		5.02	
Rated Input Current(A)	33		23.5	
Duty Cycle(40°C 10min)	30% 125A	100% 60A	40% 160A	100% 80A
No Load Voltage(V)	52		52	
Welding Current Range(A)	5~125		5~160	
Efficiency(%)	≥75		≥80	
Power Factor	0.99			
Net Weight(kg)	7.9			
Dimensions(mm)	400X140X230			
Protection Class	IP23S			
Insulation Class	F			
Cooling	AF			
Electrode diameter	2.5, 3.2, 4.0			
Electrode Type	6011,6013,7018,etc.			

DC MMA WELDER

GLOBAL-SERIES

Model: GM-2000

- PFC technology, power factor more than 0.98
- Input voltage:95VAC~270VAC, Low input current
- Anti-sticking, arc force, hot start, VRD and circuit protection,MMA/Lift TIG
- Intelligent protection:Over-voltage, Low-voltage, Over-current, Over-heat
- Protected & compatible POWER GENERATOR



Model	GM-2000	
Power Supply Voltage(V)	1~110/115 ±10%~220/230/240 ±10%	
Frequency(HZ)	50/60	
Rated Input Power(KW)	3.75	6.72
Rated Input Current(A)	33	32
Duty Cycle(40°C 10min)	30% 125A	25% 200A
	100% 60A	100% 80A
No Load Voltage(V)	52	
Welding Current Range(A)	5~125	5~200
Efficiency(%)	≥75	≥80
Power Factor	0.99	
Net Weight(kg)	8	
Dimensions(mm)	400X140X230	
Protection Class	IP23S	
Insulation Class	F	
Cooling	AF	
Electrode diameter	2.5, 3.2, 4.0, 5.0	
Electrode Type	6011,6013,7018,etc.	

DC MMA WELDER
TOP-SERIES
Model: ZX7-250CEL

- Arc force, hot start, MMA/Lift TIG
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat
- Suitable for various kinds of Cellulosic electrode, such as E6010, E7018



Model	ZX7-250CEL		
Power Supply Voltage(V)	3~380 ±10%		
Frequency(HZ)	50/60		
Rated Input Power(KW)	8.5		
Rated Input Current(A)	16.5		
Duty Cycle(40°C 10min)	35% 250A	60% 175A	100% 140A
No Load Voltage(V)	88(VRD)		
Welding Current Range(A)	10~250		
Efficiency(%)	≥84		
Power Factor	0.9		
Net Weight(kg)	20		
Dimensions(mm)	490X250X400		
Protection Class	IP23S		
Insulation Class	F		
Cooling	AF		
Electrode diameter	2.5, 3.2, 4.0, 5.0		
Electrode Type	6010,6011,6013,7018,etc.		

DC MMA WELDER

TOP-SERIES**Model:ZX7-250****Model:ZX7-315**

- Arc force, hot start, Anti-sticking, MMA/Lift TIG
- Suitable for various kinds of electrodes
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat



Model	ZX7-250	ZX7-315
Power Supply Voltage(V)	3~380 ±10%	3~380 ±10%
Frequency(HZ)	50/60	50/60
Rated Input Power(KW)	8.5	12
Rated Input Current(A)	16.5	22
Duty Cycle(40°C 10min)	40% 250A	35% 315A
	100% 160A 60% 200A	60% 250A 100% 200A
No Load Voltage(V)	66	66
Welding Current Range(A)	10~250	10~250
Efficiency(%)	≥84	≥84
Power Factor	0.9	0.9
Net Weight(kg)	18.5	19.5
Dimensions(mm)	490X250X400	490X250X400
Protection Class	IP23S	IP23S
Insulation Class	F	F
Cooling	AF	AF
Electrode diameter	2.5, 3.2, 4.0, 5.0	2.5, 3.2, 4.0, 5.0
Electrode Type	6011,6013,7018,etc.	6011,6013,7018,etc.



**Model: ZX7-315
ZX7-400**

- Adopt IGBT module and advanced PWM technology
- Arc force, hot start, adjustable arc length(ZX7-400)
- Suitable for various kinds of electrodes
- Precise stepless current adjustment and preset process
- Short circuit protection, MMA/Lift TIG
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat



Model	ZX7-315	ZX7-400
Power Supply Voltage(V)	3~380 ±10%	3~380 ±10%
Frequency(HZ)	50/60	50/60
Rated Input Power(KW)	11	16
Rated Input Current(A)	20	28
Duty Cycle(40℃ 10min)	60% 315A	40% 400A
	100% 270A	100% 300A
No Load Voltage(V)	66	70
Welding Current Range(A)	15~315	20~400
Efficiency(%)	≥81	≥84
Power Factor	0.9	0.9
Net Weight(kg)	25	34
Dimensions(mm)	560X260X500	560X260X500
Protection Class	IP23S	IP23S
Insulation Class	F	F
Cooling	AF	AF
Electrode diameter	2.5, 3.2, 4.0, 5.0	2.5, 3.2, 4.0, 5.0
Electrode Type	6011,6013,7018,etc.	6011,6013,7018,etc.



DC TIG Welder

INVERTER DC HF TIG Welding Machine



**Model: TT-1600**

- Adopt IGBT and advanced PWM technology
- Compact, light weight, portable, high efficiency
- Preset current, HF/Lift TIG, 2T/4T, current down slope, gas post-flow
- Arc force in MMA mode
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat

Protected & Compatible POWER GENERATOR



Model	TT-1600		TT-1800	
Power Supply Voltage(V)	1~220/230/240 ±10%		1~220/230/240 ±10%	
Frequency(HZ)	50/60		50/60	
	TIG	MMA	TIG	MMA
Rated Input Power(KW)	3.3	5.3	4.0	5.3
Rated Input Current(A)	23	32	26	32
Duty Cycle(40°C 10min)	25% 160A	25% 160A	25% 180A	30% 160A
	60% 100A	60% 100A	60% 125A	60% 125A
	100% 90A	100% 80A	100% 100A	100% 100A
No Load Voltage(V)	58		62	
Welding Current Range(A)	5~160		5~180	5~160
Down Slope Time(S)	0~10		0~10	
Efficiency(%)	≥80		≥80	
Power Factor	0.75		0.75	
Net Weight(kg)	7.5		8	
Dimensions(mm)	400X140X230		400X140X230	
Protection Class	IP23S		IP23S	
Insulation Class	F		F	
Cooling	AF		AF	

D C T I G W E L D E R

TOP-SERIES**Model: TT-2000**

- Adopt IGBT and advanced PWM technology
- Compact, light weight, portable, high efficiency
- Preset current, digital control, high performance MCU
- HF/Lift TIG, 2T/4T, current down slope, gas post-flow
- Arc force in MMA mode
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat



Model	TT-2000	
Power Supply Voltage(V)	1~220/230/240 ±10%	
Frequency(HZ)	50/60	
	TIG	MMA
Rated Input Power(KW)	4.6	5.4
Rated Input Current(A)	29	35
Duty Cycle(40°C 10min)	25% 200A	30% 170A
	60% 125A	60% 125A
	100% 100A	100% 100A
No Load Voltage(V)	62	
Welding Current Range(A)	5~200	5~170
Down Slope Time(S)	0~10	
Efficiency(%)	≥80	
Power Factor	0.8	
Net Weight(kg)	8	
Dimensions(mm)	400X140X230	
Protection Class	IP23S	
Insulation Class	F	
Cooling	AF	

DCTIGWELDER

GLOBAL-SERIES

Model: GT-1600

- PFC technology, Power factor more than 0.98
- Compact, light weight, portable, high efficiency, Low input current
- Input voltage from 95VAC~270VAC
- HF/Lift TIG, current down slope, gas post-flow
- Arc force in MMA mode
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat



Model	GT-1600			
Power Supply Voltage(V)	1~110/115 ±10%~220/230/240 ±10%			
Frequency(HZ)	50/60		50/60	
	TIG	MMA	TIG	MMA
Rated Input Power(KW)	3.5	4.2	3.5	5.6
Rated Input Current(A)	30	38	15	25
Duty Cycle(40°C 10min)	40% 160A	30% 125A	40% 160A	40% 160A
No Load Voltage(V)	54			
Welding Current Range(A)	5~160	5~125	5~160	5~160
Down Slope Time(S)	0~10			
Efficiency(%)	≥75			
Power Factor	0.98			
Net Weight(kg)	9.5			
Dimensions(mm)	440X140X230			
Protection Class	IP23S			
Insulation Class	F			
Cooling	AF			

D C T I G W E L D E R

GLOBAL-SERIES**Model: GT-2000**

- PFC technology, Power factor more than 0.98
- Compact, light weight, portable, high efficiency, Low input current
- Input voltage from 95VAC~270VAC
- HF/Lift TIG, current down slope, gas post-flow
- Arc force in MMA mode
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat



Model	GT-2000			
Power Supply Voltage(V)	1~110/115 ±10%~220/230/240 ±10%			
Frequency(HZ)	50/60			
	TIG	MMA	TIG	MMA
Rated Input Power(KW)	3.5	4.2	4.5	7.2
Rated Input Current(A)	30	38	20.7	33
Duty Cycle(40°C 10min)	40% 160A	30% 125A	25% 200A	25% 200A
No Load Voltage(V)	54			
Welding Current Range(A)	5~160	5~125	5~200	5~200
Down Slope Time(S)	0~10			
Efficiency(%)	≥75		≥80	
Power Factor	0.98		0.99	
Net Weight(kg)	9.5			
Dimensions(mm)	440X140X230			
Protection Class	IP23S			
Insulation Class	F			
Cooling	AF			

Model: WS-200

- Adopt IGBT module and advanced PWM technology
- Compact, light weight, portable, high efficiency
- Preset current
- HF/Lift TIG, current down slope, gas post-flow
- Arc force in MMA mode
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat



Model	WS-200	
Power Supply Voltage(V)	1~220/230/240 ±10%	
Frequency(HZ)	50/60	
	TIG	MMA
Rated Input Power(KW)	6.4	9.9
Rated Input Current(A)	27	42
Duty Cycle(40°C 10min)	40% 200A	40% 200A
	100% 150A	100% 150A
No Load Voltage(V)	62	
Welding Current Range(A)	5~200	
Down Slope Time(S)	0~10	
Pre Flow(S)	0.1	
Post Flow(S)	5~10	
Efficiency(%)	≥80	
Net Weight(kg)	18	
Dimensions(mm)	480X190X330	
Protection Class	IP23S	
Cooling	AF	

D C T I G W E L D E R

TOP-SERIES**Model: WS-250****Model: WS-315**

- Adopt IGBT and advanced PWM technology
- Compact, light weight, portable, high efficiency
- Preset current, HF/Lift TIG, current down slope, gas post-flow
- Arc force, Hot start in MMA mode
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat



Model	WS-250	WS-315
Power Supply Voltage(V)	3~380 ±10%	3~380 ±10%
Frequency(HZ)	50/60	50/60
Rated Input Power(KW)	6	8.3
Rated Input Current(A)	12	16.5
Duty Cycle(40°C 10min)	55% 250A	40% 315A
	60% 230A	60% 250A
	100% 190A	100% 200A
No Load Voltage(V)	67	76
Welding Current Range(A)	5~250	5~315
Down Slope Time(S)	0~10	0~10
Pre Flow(S)	0~5	0~5
Post Flow(S)	3~10	3~10
Efficiency(%)	≥84	≥84
Power Factor	0.9	0.9
Net Weight(kg)	23.5	24.5
Dimensions(mm)	570X250X400	570X250X400
Protection Class	IP23S	IP23S
Insulation Class	F	F
Cooling	AF	AF



- Adopt IGBT and advanced PWM technology
- Simplify panel operation, easy to use
- HF/Lift TIG, current down slope, gas post-flow
- Arc force in MMA mode, short circuit protection
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat

Model: WS-400E

Model	WS-400E	
Power Supply Voltage(V)	3~380 ±10%	
Frequency(HZ)	50	
	TIG	MMA
Rated Input Power(KW)	12.8	16.6
Rated Input Current(A)	21.9	27.6
	-	40% 400A
Duty Cycle(40℃ 10min)	60% 400A	60% 325A
	100% 310A	100% 250A
No Load Voltage(V)	70	
Welding Current Range(A)	10~400	
Down Slope Time(S)	0~10	
Pre Flow(S)	0~5	
Post Flow(S)	3~10	
Efficiency(%)	≥84	
Power Factor	0.9	
Net Weight(kg)	29	
Dimensions(mm)	605X310X650	
Protection Class	IP23S	
Insulation Class	F	
Cooling	AF	



DC TIG PULSED Welder

INVERTER DC HF PULSED Welding Machine



**Model: TP-1600**

- DC pulsed TIG/MMA, adopt IGBT and advanced PWM technology
- High performance Mcu, digital control, digital display
- Preset all parameters with hold process
- HF/Lift TIG, current down slope/up slope, gas post-flow, Pulse Frequency
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat



Model	TP-1600	
Power Supply Voltage(V)	1~220/230/240 ±10%	
Frequency(Hz)	50/60	
	TIG	MMA
Rated Input Power(KW)	3.3	5.3
Rated Input Current(A)	23	32
Duty Cycle(40°C 10min)	25% 160A	
	100% 80A	
No Load Voltage(V)	58	
Welding Current Range(A)	5~160	
Pulse Frequency(Hz)	0.5~100	
Pulse Width Range(%)	5~100	
Up Slope Time(S)	0~5	
Down Slope Time(S)	0~5	
Pre Flow(S)	0~1	
Post Flow(S)	3~10	
Efficiency(%)	≥80	
Net Weight(kg)	7.5	
Dimensions(mm)	400X140X230	
Protection Class	IP23S	
Insulation Class	F	
Cooling	AF	

DCTIG PULSED WELDER

TOP-SERIES

- DC pulsed TIG/MMA, adopt IGBT and advanced PWM technology
- High performance Mcu, digital control, digital display
- Preset all parameters with hold process
- HF/Lift TIG, current down slope/up slope, gas post-flow, Pulse Frequency
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat

**Model: TP-2000**

Model	TP-2000	
Power Supply Voltage(V)	1~220/230/240 ±10%	
Frequency(Hz)	50/60	
	TIG	MMA
Rated Input Power(KW)	4.7	5.5
Rated Input Current(A)	31	34.5
Duty Cycle(40°C 10min)	25% 200A	
	100% 100A	
No Load Voltage(V)	63	
Welding Current Range(A)	5~200	5~170
Pulse Frequency(Hz)	0.5~100	
Pulse Width Range(%)	5~100	
Up Slope Time(S)	0~5	
Down Slope Time(S)	0~5	
Pre Flow(S)	0~1	
Post Flow(S)	3~10	
Efficiency(%)	≥80	
Net Weight(kg)	8	
Dimensions(mm)	400X140X230	
Protection Class	IP23S	
Insulation Class	F	
Cooling	AF	

**Model: WSM-250
WSM-315**

- Pulsed TIG, adopt IGBT and advanced PWM technology
- Compact, light weight, portable, low power dissipation
- Preset current
- HF/Lift TIG, current down slope, gas post-flow
- Arc force in MMA mode
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat



Model	WSM-250	WSM-315
Power Supply Voltage(V)	3~380 ±10%	3~380 ±10%
Frequency(Hz)	50/60	50/60
Rated Input Power(KW)	6	9.1
Rated Input Current(A)	12	16
Duty Cycle(40°C 10min)	40% 250A 100% 180A	30% 315A 100% 170A
No Load Voltage(V)	66	66
Welding Current Range(A)	5~250	5~315
Pulse Frequency(Hz)	0.5~300	0.5~300
Up Slope Time(S)	0~10	0~10
Down Slope Time(S)	0~10	0~10
Pre Flow(S)	0.3	0.3
Post Flow(S)	3~10	3~10
Efficiency(%)	≥84	≥84
Net Weight(kg)	19	21
Dimensions(mm)	550X240X370	550X240X370
Protection Class	IP23S	IP23S
Insulation Class	F	F
Cooling	AF	AF



AC/DC TIG Welder

INVERTER AC/DC HF TIG Welding Machine



**Model: WSE-160**

- IGBT technology, MCU control system, High success for HF ignition
- Avoid AC arc-broken by special means, Suit for cable extension(50M)
- Pedal control, double process: AC inverter TIG/MMA, DC inverter TIG/MMA
- Excellent performance on Al-alloy, carbon steel, stainless steel, titanium
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat



Model	WSE-160	
Power Supply Voltage(v)	1~220/230/240 ±10%	
Frequency(Hz)	50/60	
	TIG	MMA
Rated Input Powre(KW)	3.8	5.7
Rated Input Current(A)	27	38
Duty Cycle(40°C 10min)	35% 160A	
	60% 122A	
	100% 95A	
No Load Voltage(V)	66	
Start/Welding Current Range(A)	AC 10~160	DC 5~160
Pre/Post Flow(S)	0.4/3~10	
Efficiency(%)	≥70	
Power Factor	0.68	0.71
Clearance Effect(AC TIG)	-5~±5	
Net Weight(kg)	20	
Dimensions(mm)	470X240X380	
Protection Class	IP23S	
Insulation Class	F	
Cooling	AF	

AC / DC TIG WELDER

TOP-SERIES

- IGBT technology, MCU control system, High success for HF ignition
- Avoid AC arc-broken by special means, Suit for cable extension(50M)
- Pedal control, double process: AC inverter TIG/MMA, DC inverter TIG/MMA
- Excellent performance on Al-alloy, carbon steel, stainless steel, titanium
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat

**Model: WSE-200**

Model	WSE-200	
Power Supply Voltage(v)	1~220/230/240 ±10%	
Frequency(Hz)	50/60	
	TIG	MMA
Rated Input Powre(KW)	TBD	
Rated Input Current(A)	TBD	
Duty Cycle(40°C 10min)	TBD	
No Load Voltage(V)	66	
Start/Welding Current Range(A)	DC 5~200	AC 10~200
Pre/Post Flow(S)	0.4/3~10	
Efficiency(%)	TBD	
Power Factor	0.68	0.71
Clearance Effect(AC TIG)	-5~±5	
Net Weight(kg)	20	
Dimensions(mm)	470X240X380	
Protection Class	IP23S	
Insulation Class	F	
Cooling	AF	

AC / DC TIG WELDER

TOP-SERIES

- IGBT technology, MCU control system, High success for HF ignition
- Avoid AC arc-broken by special means,
- Suitable for cable extension(50M)
- Pedal control, double process: AC inverter TIG/MMA, DC inverter TIG/MMA
- Excellent performance on Al-alloy, carbon steel, stainless steel, titanium
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat

**Model: WSE-315**

Model	WSE-315	
Power Supply Voltage(V)	380 ±10%	
Frequency(Hz)	50/60	
Rated Input Power(KW)	9.5	
Rated Input Current(A)	19.5	
	AC	DC
Duty Cycle(40°C 10min)	25% 315A	35% 315A
	60% 205A	60% 240A
	100% 160A	100% 190A
No Load Voltage(V)	77	
Start/Welding Current Range(A)	10~315	5~315
Down slope Time(S)	0~10	
Pre Flow(S)	0.4	
Pre Flow(S)	3~10	
Efficiency(%)	≥70	
Power Factor	0.98	
Clearance Effect(AC TIG)	-5~±5	
Net Weight(kg)	42	
Dimensions(mm)	620X270X570	
Protection Class	IP23S	
Insulation Class	F	
Cooling	AF	



DIGITAL CONTROL Welder

INVERTER DC Digital control TIG Welding Machine





- Adopt IGBT module and advanced PWM technology
- Digital control, high performance MCU
- Man-machine interaction, easy to read and operate
- Remote control technology strengthens anti-disturbance
- Short circuit protection
- Full TIG process: repeat, spot welding, 2/4 steps
- Superb MMA process: arc force, hot start, arc length
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat, water-break

Model: WS-315D

Model	WS-315D(No Pulse)		WSM-400D(Pulse)
Power Supply Voltage(V)	3~380 ±10%		3~380 ±10%
Frequency(Hz)	50/60		50/60
	TIG	MMA	
Rated Input Power(KW)	9.1	12.2	12.5
Rated Input Current(A)	15.2	21	20
Duty Cycle(40°C 10min)	-	40% 315	60% 400A
	60% 315A	60% 260A	100% 350A
No Load Voltage(V)	66		71
Welding Current Range(A)	5~315		5~400
Pulse Frequency(Hz)	-		0.5~500
Pulse Width Range(%)	-		15~100
Up/Down Slope Time(S)	0~5		0~5
Pre Flow(S)	0~2		0~2
Post Flow(S)	0.3~10		0.3~10
Efficiency(%)	≥84		≥84
Power Factor	0.9		0.9
Net Weight(kg)	26		29
Dimensions(mm)	560X260X500		560X260X500
Protection Class	IP23S		IP23S
Insulation Class	F		F
Cooling	AF		AF



MIG/MAG Welder

Inverter/Step control DC MIG/MAG Welding Machine



Model: MIG-160 MIG-200

- Digital control system, Preset/real-time display welding parameter
- High performance multiprocess power source (MMA/MIG/MAG/Lift TIG)
- Waveform control, stable welding arc
- IGBT technology, high efficiency



Model	MIG-160			MIG-200		
Power Supply Voltage(V)	1~220/230/240 ±10%			1~220/230/240 ±10%		
Frequency(HZ)	50/60			50/60		
	MIG	TIG	MMA	MIG	TIG	MMA
Rated Input Power(KW)	4.2	3.4	5.1	5.9	4.5	5.5
Rated Input Current(A)	27	22	31.6	37	29	33
Duty Cycle(40°C 10min)	30% 160A			25% 200A	25% 200A	30% 170A
	60% 115A					60% 115A
	100% 90A					100% 90A
No Load Voltage(V)	58(MMA)			58(MMA,VRD)		
Welding Current Range(A)	25~160	10~160	10~160	25~200	10~200	10~170
Welding Voltage Range(V)	10~25			10~25		
Efficiency(%)	83			81		
Power Factor	0.72			0.70		
Wire Diameter(mm)	Fe:0.6/0.8/0.9/1.0 Ss:0.8/0.9/1.0 Al:1.0					
Net Weight(kg)	11.5			13.5		
Dimensions(mm)	470X210X380			470X210X380		
Protection Class	IP23S			IP23S		
Insulation Class	F			F		
Cooling	AF			AF		

INVERTER MIG/MAG WELDER

TOP-SERIES**Model: MIG-160P
MIG-200P**

- Digital control system, real-time display welding parameter
- Synergic control welding current/voltage(MIG)
- High performance multiprocess power source (MMA/MIG/MAG/Lift TIG)
- Waveform control, stable welding arc
- IGBT technology, high efficiency



Model	MIG-160P			MIG-200P		
Power Supply Voltage(V)	1~220/230/240 ±10%					
Frequency(HZ)	50/60			50/60		
	MIG	TIG	MMA	MIG	TIG	MMA
Rated Input Power(KW)	4.2	3.4	5.1	5.9	4.5	5.5
Rated Input Current(A)	27	22	31.6	37	29	33
Duty Cycle(40°C 10min)	30% 160A			25% 200A 25% 200A 30% 170A		
	60% 115A			60% 115A		
	100% 90A			100% 90A		
No Load Voltage(V)	58(MMA)			58(MMA,VRD)		
Welding Current Range(A)	25~160	10~160	10~160	25~200	10~200	10~170
Welding Voltage Range(V)	10~25			10~25		
Efficiency(%)	83			81		
Power Factor	0.72			0.70		
Wire Diameter(mm)	Fe:0.6/0.8/0.9/1.0 Ss:0.8/0.9/1.0 Al:1.0					
Net Weight(kg)	11.5			13.5		
Dimensions(mm)	470X210X380			470X210X380		
Protection Class	IP23S			IP23S		
Insulation Class	F			F		
Cooling	AF			AF		

**Model: NBC-250
NBC-315F**

- Voltage selectors with multiple steps for precise adjustment
- Superb arc behavior with Argon mix and 100% CO₂
- Different electric inductance output
- Burn back and spot welding
- Intelligent protection: Over-voltage, Low-voltage, Over-current, Over-heat



Model	NBC-250	NBC-315F
Power Supply Voltage(V)	3~380 ±10%	3~380 ±10%
Frequency(HZ)	50	50
Rated Input Power(KW)	9.4	12
Rated Input Current(A)	12	18.7
Duty Cycle(40°C 10min)	40% 250A	40% 315A
	60% 200A	60% 260A
	100% 150A	100% 200A
Max No Load Voltage(V)	34	41
Min Working Voltage(V)	16	16
Output Voltage Step	10	16
Wire Diameter(mm)	0.8~1.0	0.8~1.2
Net Weight(kg)	74.5	78(Power source)
Dimensions(mm)	830X360X820	830X360X760
Protection Class	IP21S	IP21S
Insulation Class	F	F
Cooling	AF	AF



Plasma Cutter

INVERTER DC Plasma cutting Machine



**Model: CUT-40P**

- IGBT inverter and digital control technology
- Wider input voltage flexibility, Input voltage from 95VAC~270VAC
- Excellent cutting capability, Max cutting thickness: 25mm(carbon steel), quality cutting 20mm
- Contact arc start, Pilot arc controller, can cut grid workpiece
- Various protective and alarm functions



Model	CUT-40P	
Power Supply Voltage(V)	1~110/115 ±10%~220/230/240 ±10%	
Frequency(HZ)	50/60	
Rated Input Power(KW)	3.44	4.63
Rated Input Current(A)	33.7	23.4
Rated duty Cycle(40℃ 10min)	35% 30A	40% 40A
No Load Voltage(V)	380	380
Cutting Current Range(A)	20~30	20~40
Max cutting thickness(mm,carbon steel)	≤15	≤20
Quality cutting thickness (mm)	Carbon Steel	≤12
	Stainless Steel	≤12
	Aluminum	≤8
	Copper	≤6
Net Weight(kg)	12.6	
Dimensions(mm)	430X170X270	
Protection Class	IP23S	
Insulation Class	F	
Cooling	AF	

PLASMACUTTER

TOP-SERIES



Model: CUT-40, CUT-41

- IGBT inverter and digital control technology
- Wider input voltage flexibility
- Excellent cutting capability, Max cutting thickness: 25mm(carbon steel), quality cutting 20mm
- Contact arc start, Various protective and alarm functions



Model	CUT-40		CUT-41	
Power Supply Voltage(V)	1~220/230/240 ±10%			
Frequency(HZ)	50/60		50/60	
Rated Input Power(KW)	4.2		4.2	
Rated Input Current(A)	30.5		30.5	
Rated duty Cycle(40°C 10min)	25% 40A		30% 40A	60% 20A
No Load Voltage(V)	480		480	
Cutting Current Range(A)	20~40		20~40	
Max cutting thickness(mm, carbon steel)	≤25		≤25	
Quality cutting thickness (mm)	Carbon Steel	≤20	≤20	
	Stainless Steel	≤20	≤20	
	Aluminum	≤14	≤14	
	Copper	≤12	≤12	
Net Weight(kg)	10.3		10.3	
Dimensions(mm)	500X130X300		500X130X300	
Protection Class	IP23S		IP23S	
Insulation Class	F		F	
Cooling	AF		AF	

PLASMACUTTER TOP-SERIES



Model: LG-60

- IGBT inverter and digital control technology
- Wider input voltage flexibility
- Excellent cutting capability, Max cutting thickness:35mm(carbon steel), quality cutting 25mm
- Contact arc start, Pilot arc controller, can cut grid workpiece
- Various protective and alarm functions



Model	LG-60	
Power Supply Voltage(V)	3~380 ± 10%	
Frequency(HZ)	50/60	
Rated Input Power(KW)	6.75	
Rated Input Current(A)	15	
No Load Voltage(V)	315	
Cutting Current Range(A)	20~60	
Pilot Current(A)	20	
Rated duty Cycle(40℃ 10min)	60% 60A	100% 46A
Max cutting thickness(mm,carbon steel)	≤35	≤28
Quality cutting thickness (mm)	Carbon Steel	≤25
	Stainless Steel	≤25
	Aluminum	≤20
	Copper	≤14
Net Weight(kg)	24	
Dimensions(mm)	520X240X400	
Protection Class	IP23S	
Insulation Class	F	
Cooling	AF	



SUBMERGED ARC Welder

INVERTER DC Submerged Arc Welding Machine



Model: MZ-1000**Power source:**

- Thermostatic protection with fan cooling
- Simple control with clean appearance for easy operation

Tractor:

- Solid state allow for precise control of welding procedures
- Start, stop, flux fill and travel indication, easy to set
- Multiple axis rotation



Model	MZ-1000
Power Supply Voltage(V)	3~380 ±10%
Frequency(HZ)	50/60
Rated Input Power(KW)	53
Rated Input Current(A)	85
Duty Cycle(40°C 10min)	100%
No Load Voltage(V)	85
Welding Current Range(A)	15~1000
Rated Output(A/V)	1000A/44V
Net Weight(kg)	93
Dimensions(mm)	770X390X860
Protection Class	IP23S
Insulation Class	F
Cooling	AF
Electrode diameter	2.5, 3.2, 4.0, 5.0
Electrode Type	6011,6013,7018,etc.
Carbon Arc Air Gouging	6.0, 8.0, 10



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