

# Manual Metal Arc Welding Machine

**ZX7-series** products are DC manual arc-welding power source with IGBT inverter technology. They are widely applied to weld all metal structures in container ( e.g.boiler ) manufacturing, power plant, matallugury, chemical, aviation / aerospace and vehicle making industries. Suitable for all kinds of acid, basic and heat-resistant steel electrodes.

## Main Functions

- Portable, high efficiency, energy saving and noiseless
- High duty cycle and continuous welding
- Arc is stable and molten pool is easy to be controlled
- High no-load voltage and easy to arc-striking
- Weldable thickness: 1~55 mm



PE20-160R



PE60-160

## Technical Specifications

Model	ZX7-160 ( PE20-160R )	ZX7-160 ( PE60-160 )
Rated input voltage	220V $\pm$ 15 % 50-60Hz	
Rated input current ( A )	24	24
No-load voltage ( V )	60	60
Current adjusting range ( A )	30 - 160	10 - 60
Duty cycle	60%	60%
Efficiency ( $\eta$ )	90%	90%
Power factor ( $\cos \Phi$ )	0.93	0.93
Insulation grade	B	B
Case protection grade	IP21	IP23S
Dimensions ( mm )	375 x 155 x 290	408 x 181 x 323
Net weight ( Kg )	8	7.5
Description	MOSFET technology, invert frequency is 100 Hz. <i>Plastic case.</i>	MOSFET technology, invert frequency is 100 Hz. <i>Plastic case.</i>

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## Main Functions

- Adjustable: arc force and welding current, etc.
- Welding current can be preset precisely and displayed digitally.
- With suitable carbon electrode, air carbon arc gouging can be undertaken.
- High efficiency arc-striking.
- Protective functions: overheat, over-current, under-voltage and power phase absence, etc.
- Remote function is optional.



## Technical Specifications

Model	ZX7-400 ( PE23-400 )	ZX7-400 ( PE50-400 )
Rated input voltage	3-380V ± ( 15-20 ) % 50-60Hz	
Rated input current ( A )	28	-
Rated input power ( KW )	17	14.4
No-load voltage ( V )	65 - 75	< 80
Current adjusting range ( A )	15 - 400	-
Arc force adjusting range ( A )	0 - 200	26 -410
Surge current adjusting range	-	-
Duty cycle	60%	60%
Efficiency ( $\eta$ )	90%	90%
Power factor ( $\cos \Phi$ )	0.93	0.93
Insulation grade	F	F
Case protection grade	IP23S	IP21S
Dimensions ( mm )	560 x 300 x 530	700 x 340 x 610
Net weight ( Kg )	36	36.5
Description	Wireless/wire remote control is optional. <i>Plastic case.</i>	Wireless/wire remote control is optional. Two power characteristic: dropping characteristic and slanting characteristic.

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## Main Functions

- Adjustable: arc force and welding current, etc.
- Welding current can be preset precisely and displayed digitally.
- With suitable carbon electrode, air carbon arc gouging can be undertaken.
- High efficiency arc-striking.
- Protective functions: overheat, over-current, under-voltage and power phase absence, etc.



PE12-3 X 400

## Technical Specifications

Model	ZX7-400 ( PE12-3 X 400 )	ZX7-500 ( PE10-500 )	ZX7-630 ( PE52-630 )
Rated input voltage	3-380V $\pm$ (15-20) % 50-60Hz		
Rated input current ( A )	3 x 28	34	50
Rated input power ( KW )	43	23	33
No-load voltage ( V )	< 80	65 - 75	83
Current adjusting range ( A )	15 - 400	25 - 520	50 - 630
Arc force adjusting range ( A )	-	0 - 200	-
Surge current adjusting range	-	$I_1 - 2I_2$	-
Duty cycle	60%	60%	100%
Efficiency ( $\eta$ )	90%	90%	90%
Power factor ( $\cos \phi$ )	0.93	0.95	0.93
Insulation grade	H	F	F
Case protection grade	IP21S	IP21	IP23
Dimensions ( mm )	788 x 327 x 1056	698 x 360 x 780	700 x 360 x 783
Net weight ( Kg )	120	58	75
Description	It can be used as three welder independence and widely used in the field of shipbuilding.	The cable can be lengthened. Be suitable for air carbon arc gouging ( lower than 520A/45V ).	High efficiency of air carbon arc gouging. Switch for MMA/Gouging on front panel. 100% duty cycle.

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## Main Functions

- 6 sets or 4 sets of welding machine (MMA) ZX7-400 can be installed in the container.
- Excellent shape, cable are tidy.
- Easy to arc striking. Arc is stable. Good welding steam.
- Container with lock, it is manageable
- The containers ventilation is good due to the persian blinds structure on its sides expect the door.
- The top cover and the left side cover and the back cover can be opened with angle adjustable.
- Welding cable leads from the power base so that the power structure is simple and easy connection.
- The remote control socket is placed in one side of the container. It does not affect the regulation of the single power source.
- Be suitable to use in outdoor environments such as shipyards.



6/4 x ZX7-400

## Technical Specifications

### Single unit

Model	ZX7-400	Duty cycle	60%
	PE50-400	Efficiency ( $\eta$ )	85%
Rated input voltage (V)	3 phase 380V $\pm$ (15-20) % 50/60 Hz	Power factor ( $\cos \Phi$ )	0.93
Rated input current ( A )	28	Insulation grade	F
Rated input power (KW)	17	Case protection grade	IP21S
No-load voltage (V)	60 - 70	Cooling	Wind
Current adjusting range ( A )	15 - 400	Dimension ( mm )	700 x 340 x 610
Arc force adjusting range (A)	0 - 200	Weight ( kg )	39
Surge current range	0 - 400		

### Whole sets

Item	Container with 4 sets ZX7-400	Container with 6 sets ZX7-400
Rated input voltage (V)	3 phase 380V $\pm$ 15% 50-60 Hz	3 phase 380V $\pm$ 15% 50-60 Hz
Rated input power (KW)	56	87
Dimension ( L x W x H ) ( mm )	1070 x 750 x 1640	1430 x 750 x 1640
Container net weight ( kg )	125	195
Total weight ( kg )	281	429