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MEGMEET's strong technical strength, extensive industry application experience, relentless attention to customer needs, and the spirit of continuous innovation enable us to bring tailor-made products and solutions to help customers achieve greater success.

*MEGMEET Welding Technology Co., Ltd is continuously striving to develop and innovate for new product. We reserves the right of changing the technical specifications and designs without notices in advance.
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Megwave AC Series

Variable Polarity Full Digital IGBT
Inverter AC-MIG Welding Machine



Megwave 400AC

Variable Polarity Full Digital IGBT
Inverter AC-MIG Welding Machine

AC/DC

380
3PH

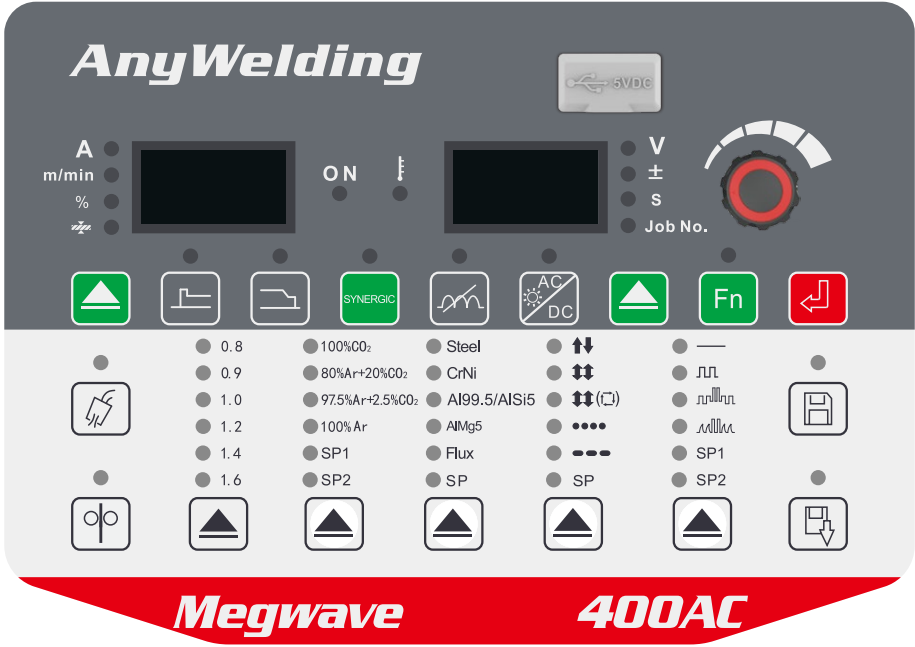
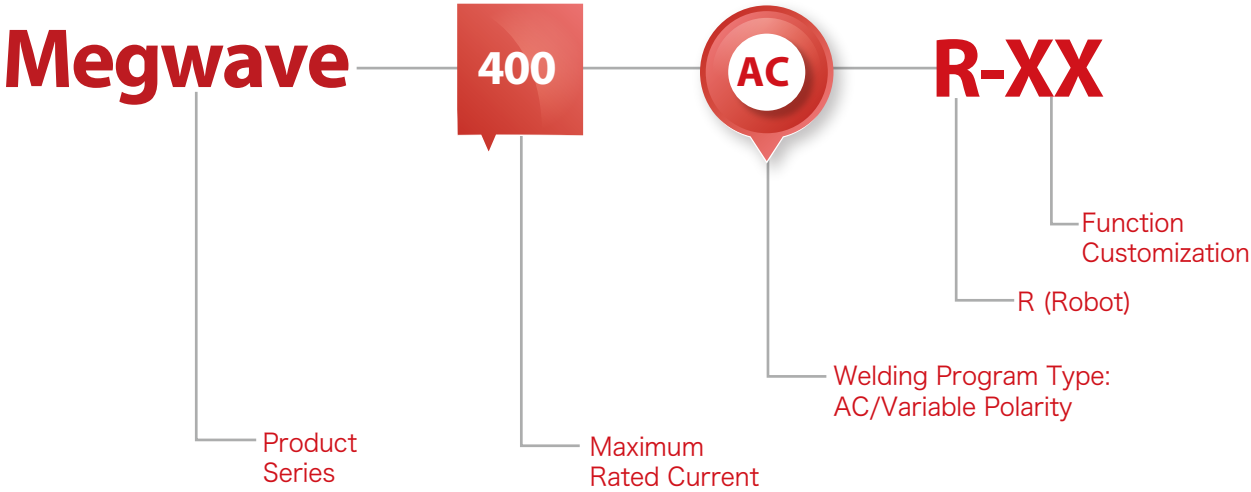
40~70
Hz

CV

110
kHz

Features

- Superior welding programs in AC-Pulse MIG, AC short-circuit transition, quick pulse and others, to easily realize high-performance welding of carbon steel, stainless steel, aluminum alloy and other materials;
- Wire feeding speed is faster and deposition rate is increased by more than 20%, under the same current;
- Patented software algorithm enables high-frequency switching of polarity, low heat input, less spatter, and 0.5mm aluminum alloy welding;
- By adjusting positive and negative polarity ratio of EN/EP, heat input is optimized, and optimal welding of large-gap bridge can be easily achieved;
- Arc energy is controllable and effectively suppresses the generation of welding fumes. Glossiness of Al-Mg welding is as good as Al-Si welding with more beautiful weld shape;
- Inverter frequency up to 110KHz enables higher control precision and more stable arc;
- Comprehensive communication interfaces are able to communicate with different brands of robots and automation devices;
- Touch sensing function with 80-400 voltage is easier to break down the rust on the surface of workpiece;
- IOT interface is reserved to connect with Megmeet SMARC cloud system;
- U-disk upgrade function ensures customers to easily obtain Megmeet's most cutting-edge welding technology;
- Application industries: precision welding in automobiles and parts, two/ tricycles, aerospace, military industry, rail vehicles, new energy, etc.



- | | | |
|--|--|---|
| <input checked="" type="checkbox"/> Low spatter arc (LSA) CO ₂ /MAG | <input checked="" type="checkbox"/> Pulse MAG/MIG | <input checked="" type="checkbox"/> Quick Pulse MAG/MIG |
| <input checked="" type="checkbox"/> Flux Core Carbon Steel/DC | <input checked="" type="checkbox"/> AC short circuit transition CO ₂ /MAG/MIG | |
| <input checked="" type="checkbox"/> AC Pulse MAG/MIG | <input checked="" type="checkbox"/> AC double pulse MAG/MIG | <input checked="" type="checkbox"/> Carbon steel |
| <input checked="" type="checkbox"/> Stainless steel | <input checked="" type="checkbox"/> Aluminum alloy | <input checked="" type="checkbox"/> U-disk interface |
| <input checked="" type="checkbox"/> Other customization | | <input type="checkbox"/> SMARC IOT |

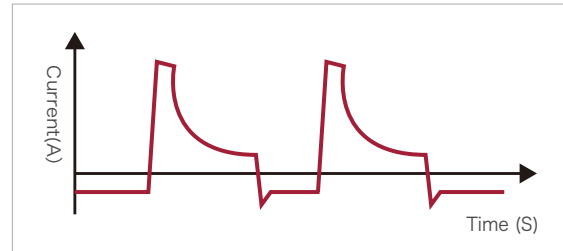
☒ Standard ☐ Customized

AC Pulse

Accurate and fast switching of pulse polarity is achieved by Megmeet patented algorithm, which integrates high speed&high efficiency of MIG welding with high quality of TIG welding, greatly optimizes welding production efficiency and welding quality.

Welding Features:

- High inverter frequency, more stable arc, higher precision;
- With unique negative stability algorithm, AC MIG is as stable as DC welding;
- Full-process heat input management, precise control of penetration depth, to be easily competent in high-quality welding of 0.5mm ultra-thin plates;
- By adjusting EN/EP ratio, wire melting speed can be dynamically regulated to realize higher deposition rate and higher welding efficiency;
- Gap tolerance is high and bridging ability is good, suitable for welding of large-gap lap joints and uneven gaps;
- Welding fume is greatly reduced without black smoke deposition on welding seam, and welding surface is more beautiful.

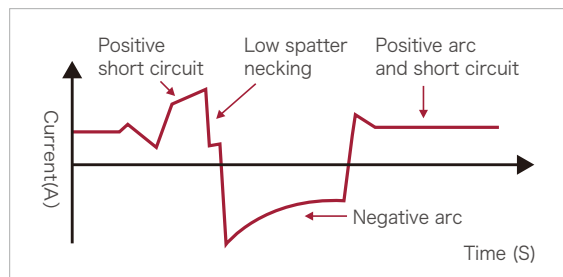


AC Short Circuit Transition

High-frequency hardware system working with Megmeet patented algorithm could accurately pre-judge droplet necking. Droplet transition instant polarity is switched to negative arc, and droplet flows freely into fusion pool, which fundamentally eliminates the generation of large-particle spatter and smoke, and ensures high-speed and high-quality welding.

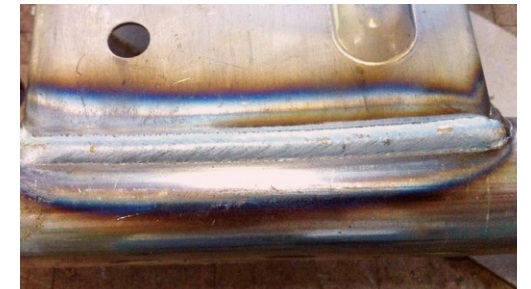
Welding Features:

- High-speed and stable alternation of polarity, softer arc, 90% less spatter than traditional DC welding;
- Smooth droplet transition, small fluctuation in fusion pool, and weld shape is more delicate and beautiful;
- Gap tolerance is high and bridging ability is good, suitable for welding of large gaps and uneven gaps;
- Ultra-low heat input, to be easily competent in high-quality welding of 0.5mm ultra-thin plates
- Higher deposition efficiency and faster welding speed, and wire feeding speed is increased by 20% under the same current;
- Arc energy is low and dust amount during welding is small.



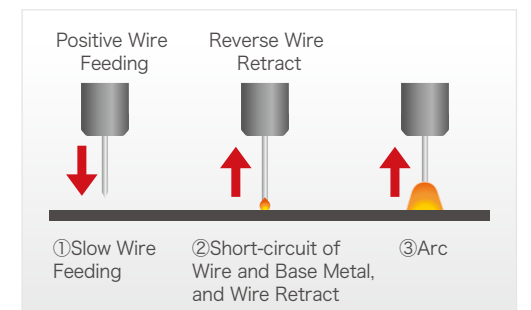
High Speed DC Welding

- With wider adaptive range of voltage, the same current is able to match lower voltage (10% lower than other welding machines);
- Lower heat input, higher deposition efficiency, thin-plate welding performance be comparable with tap-type machine.



Wire Retraction Function in Arc Starting

- When welding machine detects arc starting signal, wire will retract in high speed, which greatly improves the quality and success rate of arc starting, and greatly reduces various arc staring issues.



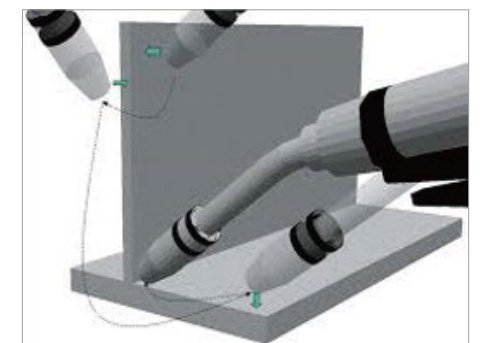
Up-down Torch (optional)

- Up-down torch is optional to conveniently adjust welding parameters on the torch(current, voltage, etc).



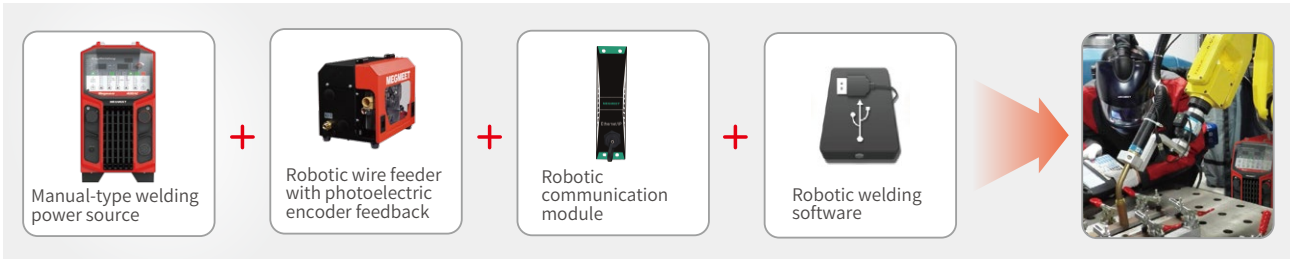
400V High-voltage Touch Sensing Function

- Built-in high-voltage touch sensing function with adjustable range 80~400V, no need to separately buy high-voltage touch sense device;
- High reliability and effective penetration of oil stains, rust, water stains, etc., fast touch-sense with high precision, and strong adaptability to robots;
- Current-limiting design ensures welding within safe current range, effectively protecting the safety of welders and welding machines;



Intelligent Upgrade

- With additional robotic accessories package, manual-type welding power source can be expanded to robotic welding power source to help users save money.



High Reliability



Strong environmental adaptability, suitable for working under tough environment;



Stable and reliable: stability is the base of intelligent welding machines!



Consistency: consistent performance by any machine, our quality is consistent anytime and anywhere!

Water Cooler (Optional)

| Circulating Water Cooler AnyCool-66 | |
|-------------------------------------|----------------------------|
| Water cooler power supply | Powered by welding machine |
| Rated power | 370W |
| Rated voltage | 380V AC |
| Cooling water capacity | 6.8L |
| Cooling water flow | 3.5L/min |
| Cooling water maximum lift | 20m |
| Flow alarm | ✓ |



Multiple Welding Programs

AC Pulse

It is mainly used for welding thin plates of aluminum alloy with lower heat input. It can easily realize superior welding of 0.5mm ultra-thin plates and higher deposition efficiency. Welding speed is increased by 20% compared with DC pulse, less dust without black oxides around welding seam.

AC Short Circuit Transition

It is mainly used to weld thin plates of carbon steel and alloy steel with lower heat input, be competent in welding of 0.5mm ultra-thin plates. Higher deposition efficiency and stronger gap tolerance is ensured.

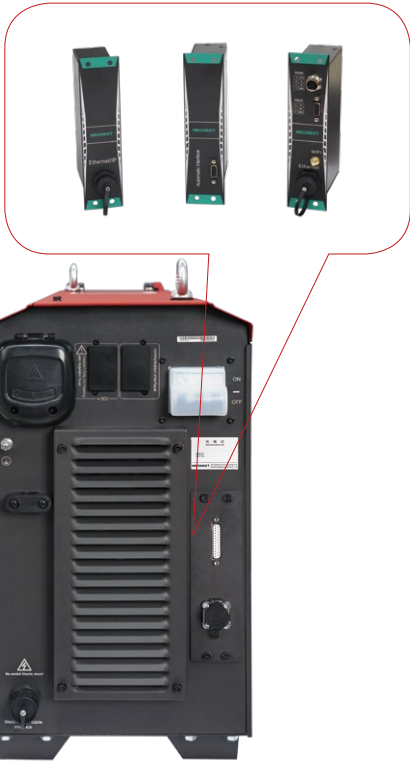
QPT(Quick Pulse Technology)

It is mainly suitable for welding of medium&thick plates of carbon steel and stainless steel. It combines advantages of DC and pulse to achieve faster welding speed and less spatter.

Product Specification

● Standard ○ Optional

| | | |
|-----------------------------------|---|-----------------------|
| Manual type | Megwave 400AC | |
| Robotic type | Megwave 400ACR | |
| Welding Programs | DC | AC |
| LSA (Low Spatter Arc by Software) | ● | - |
| Pulse | ● | - |
| Quick pulse | ● | - |
| Flux core carbon steel/DC | ● | ● |
| AC short circuit transition | - | ● |
| AC pulse | - | ● |
| AC double pulse | - | ● |
| Carbon steel | ● | ● |
| Stainless steel | ● | ● |
| Aluminum alloy | ● | ● |
| Function | | |
| U-disk interface | ● | ● |
| SMARC IOT | ○ | ○ |
| Technical Parameters | | |
| Control Method | Digital IGBT Control | |
| Input voltage | 3-phase AC 380 V (±25%) | |
| Input frequency | 40~70Hz | |
| Inverter switching frequency | 110kHz | |
| Rated input capacity | 16.8KVA/15.5KW | |
| No-load voltage | 77V | |
| Rated output current | DC 380A/350A | AC 350A/315A |
| Rated output voltage | DC 33V/31.5V | AC 31.5V/29.7V |
| Duty cycle | 60%@380A 100%@350A | 60%@350A 100%@315A |
| Power factor | 0.92 | |
| Efficiency | 88%@400A | |
| Output characteristics | CV | |
| Wire feeding speed | 0.5~28m/min | |
| Parameter JOB | 50 | |
| Operating temperature | -10°C~40°C (welding power source can be started at -39°C) | |
| Dimension(L×W×H) | 647×291×572mm | |
| Weight | 40kg | |
| Enclosure rating | IP23 S | |
| Insulation class | H | |
| Cooling method | Forced air cooling | |



Embedded-Type communication module supports multiple types of communication protocols




Megwave Series Communication Protocols with Robots


| Function | TAST(Thru-arc Seam Tracking) | Touch Sensing | Communication Protocols with Robots | | | | | | |
|----------|------------------------------|---------------|-------------------------------------|-----------|---------|-------------|-------------|----------|----------|
| | | 80-400V | Analog | DeviceNet | CANopen | MEGMEET CAN | EtherNet/IP | EtherCAT | Profinet |
| | ● | ● | ○ | ○ | ○ | ○ | ✳ | ✳ | ✳ |

● Standard ○ Optional ✳ Customized

Robotic Wire Feeder Selection

| | Model Name | Wire feeding drive control mode | Dimensions (L×W×H) | Welding Torch Interface | Weight | |
|-----------------------|-------------|---------------------------------|--------------------|-------------------------|--------|---|
| Push-pull Application | WF1-50PW-T7 | Worm Gear | 277×191×223mm | European type | 8kg |  |

Manual Wire Feeder Selection

| | Enclosed wire feeder(Push-pull Application) |
|---------------------------------|---|
| |  |
| Model Name | WF22-50PW-T7 |
| V/A LED display | Yes |
| Wire feeding drive control mode | Code disc control Back electromotive force |
| Wire feeder rated voltage | 24V |
| Wire feeding speed | 0.5~28m/min |
| Wire feeding roller diameter | φ0.8~1.6 mm |
| Wire spool type | Standard wire spool |
| Drive unit | Double drive four rollers |
| Wire feeder torch interface | European interface |
| Dimension (L×W×H) | 680×300×400mm |
| Weight | 19kg |