

MX350

**Multioperator Multiprocess
Converter Welding System**

System Description

Instead of operating with high voltage AC current like a conventional electric welder, the MX350 uses low DC arc voltage from a constant current electric or engine-driven welding machine, to produce up to 350 amps, DC positive, welding current at 100% duty cycle for stick welding or up to 40 volts of constant voltage power for MIG and flux-cored welding. The number of MX350 converters that can be run simultaneously from a single power source depends on the power source's output (kilowatts available), the welding processes used (kilowatts required), and the operating factor (how many MX350 converters are actually welding at any given time). Use of this system results in drastically reduced fuel consumption since one power source used in conjunction with MX350 converters replaces several individual conventional power sources.

Processes

- DC Positive Stick, MIG and Flux-Cored welding
- Arc Gouging using up to 5/16" carbons
- When operating several MX350s from a single power source, any combination of DC positive welding processes can be used

Output

350 amp, CC/CV, DC+ polarity at 100% duty cycle

Input Voltage Requirements

60 Volts DC, Constant Current



Operational Advantages

- Multiple operator welding from a single power source results in reduced fuel consumption, emissions and noise
- Adjustable controls for Hot Start and Arc Force as well as large, bright digital meters that indicate preset values before welding and actual values while welding assure better weld quality
- Chopper Technology for high performance, smooth quality welds and instant control of the arc
- No need to run remote control cables since all controls are located close to the operator for quick and easy access
- Less welding cable is required because a single welding cable is run from the power source to the MX350, either using a distribution box to connect the MX350s into or, running the MX350s in series, one plugged into the other
- A safer work area since a single low voltage cable, 60 volts DC, is brought from the power source to one or more distribution boxes which supply power to several MX350 converters
- CC and CV process mode switch for DC positive welding processes
- Units are small and portable, each weighing only 59 lb
- CC Stick Soft and CC Stick Crisp mode switch for better control with E6010 and E7018 electrodes
- Pre-set inductance in CV Mode results in optimized CV welding characteristics

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Specifications

Rated CC DC Output/Volts/Duty Cycle	Output Range	Input DC Volts	Input Amps at Rated Output
350 amps, 34 volts @ 100% duty cycle	30 - 350 amps 15 - 40 volts	80 volts DC 50 - 113 volts peak range	165 amps DC

System Selection

To determine how many MX350 converters you can run from a particular power source, you first need to calculate the total kilowatt draw of the process or processes being used. This is easily done once you know what volt and amp settings you want to use.

For example, a 1/8" E7018 stick welding process at 130 amps and 27 volts has a kilowatt draw as follows:

Kilowatts used = Amps x Volts divided by .91 Operating Efficiency divided by 1000
or 130 x 27 / .91 / 1000 = 3.9 kilowatts

Since you know that each MX350 requires **3.9 kilowatts** for this process, you just need to know the kilowatt output of a particular power source in order to calculate how many MX350 converters you can run. From the chart below you can see that a D300K 3+3 has an available output of 13 kilowatts. By dividing **13** by **3.9** you can calculate that you could run up to **3** MX350 converters with the process and power source used in this example.

Power Source	Kilowatts Available @60V Output
D300K 3+3	13
D500K 5+3	20
D503K 5+3HO	21
D502K 5+4	30
DC1000	30

Additionally, the total kilowatts calculated can often be reduced for several units operated off the same power source since, for some welding processes, not all the MX350 converters are being used simultaneously. This reduction in total power requirement is referred to as the Operating Factor and is expressed as a percentage of the total power requirement. For example, if you know that only half the MX350 welders are being used at any given time, you can reduce the total kilowatt requirement by half and you can therefore double the number of MX350 converters that can be run from the power source.



Weights and Dimensions

MX350

Weight: 59 lb (27 kg)

H: 11.6" (295 mm) W: 10.0" (254 mm) D: 21.5" (546 mm)

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