

# Dimension™ Series

Issued April 2008 • Index No. DC/19.2

**Multiprocess Welding Power Source** 

## Quick Specs



### Heavy Industrial Applications

Fabrication and Construction  
Heavy Manufacturing  
MRO — Maintenance/Repair  
Pressure Tank/Vessel Fabrication  
Pipe Welding  
Shipbuilding  
Refineries and Foundries  
Railcar Manufacturing  
Earth-Moving Equipment Manufacturing

### Processes

MIG (GMAW)  
Stick (SMAW)  
TIG (GTAW)  
Flux Cored (FCAW)  
Air Carbon Arc (CAC-A)  
Cutting and Gouging  
Submerged Arc (SAW)

**Input Power** 3-Phase Power on all models

**Rated Output** **302:** 300 A at 32 VDC, 100% Duty Cycle  
**452/562:** 450 A at 38 VDC, 100% Duty Cycle  
**652/812:** 650 A at 44 VDC, 100% Duty Cycle

**Weight** **302:** 361 lb (164 kg)  
**452/562:** 424 lb (192 kg)  
**652/812:** 545 lb (247 kg)

## The Power of Blue.®

**DC multiprocess capability** provides versatility and outstanding arc performance in CV (MIG) and CC (Stick, TIG).

**Internal digital voltage control (DVC)** enables operator to preset weld voltage in the CV mode before striking an arc.

**Built-in arc control** lets you get in tight without sticking the electrode. An electrode compensation circuit ensures consistent arc control performance regardless of the electrode size.

**Hot Start™** makes it easier to start difficult-to-start Stick electrodes such as E-6010 and E-7018.

**Line voltage compensation** ensures consistent weld performance by keeping output power constant even if primary input power varies by  $\pm 10\%$ .

**Simple control panel** features single range amperage/voltage adjustment. Provides easy, efficient operation.

**Digital voltmeter and ammeter** are easy to read, even at 30 ft (9.2 m).

**Thermal overload protection** light indicates power shutdown. Helps prevent machine damage if the duty cycle is exceeded or airflow is blocked.



See option and package descriptions on page 5.



Dimension™ 452  
MIGRunner® Package  
shown

**14-pin receptacle** provides quick, direct connection to Miller 14-pin wire feeders and accessories.

**115 V duplex receptacle** provides 15 amps of auxiliary power.

**Remote on/off capabilities** allow operator to turn power source on/off from a distance.

**Remote voltage control** allows operator to change voltage from feeder.

**Power efficient** for exceptional value and return on your investment.

**Fan-On-Demand™** operates only when needed reducing noise, power consumption, and the amount of airborne contaminants pulled through the machine.

**Enclosed circuit boards** provide additional protection from contaminants resulting in longer service life.

**PC board protection** prevents the wire feeder power or other stray voltages (less than 115 VAC) from harming the power source PC board.

**Power cord strain relief** provided for your convenience at installation.



Power source is warranted for 3 years, parts and labor.  
Original main power rectified parts are warranted for 5 years.

MADE IN **USA**  
APPLETON, WI **USA**



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# Dimension 302 Specifications (Subject to change without notice.)



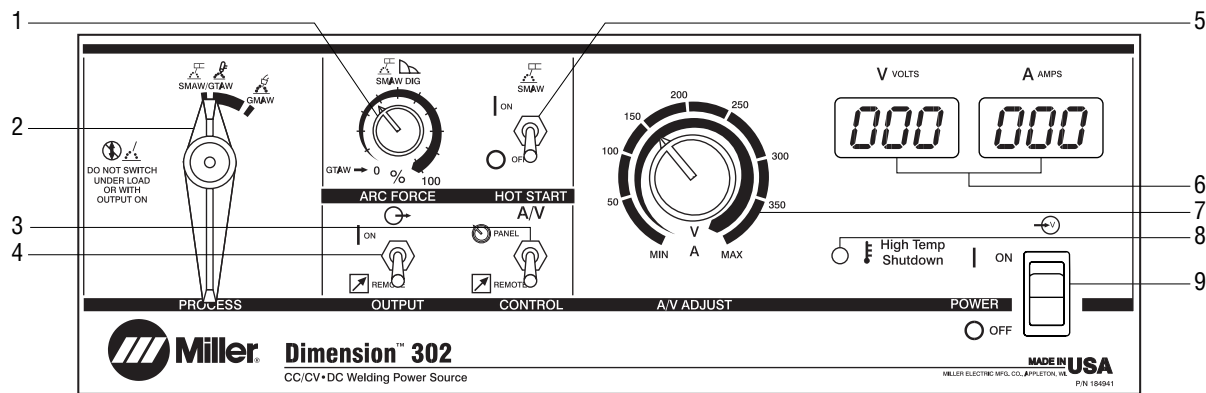
Rated Output	Amperage/Voltage Range	Max. Open Circuit Voltage*	Amps Input at Rated Output, 50/60 Hz					Dimensions	Net Weight
			200 V	230 V	460 V	575 V	KVA		
300 A at 32 VDC 100% Duty Cycle	10 375 A in CC mode	66 VDC	57.5	50	25	20	20	12.9	H: 30 in (762 mm) including lift eye W: 23 in (585 mm) D: 30-1/2 in (775 mm) including strain relief
	10 32 V in CV mode	66 VDC	69	60	30	24	23.7	13.4	

\*Open-circuit voltages in CV mode are factory set at values less than indicated for CC.

Certified to both the Canadian and U.S. Standards for welding equipment.

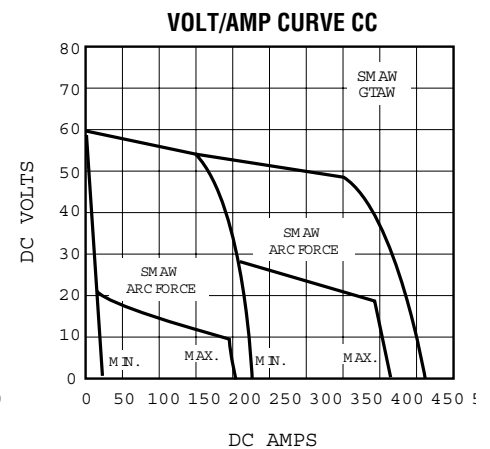
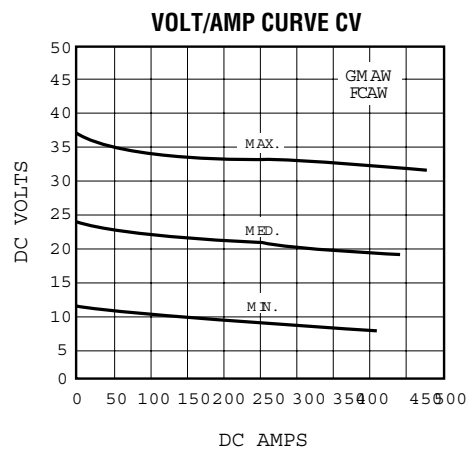
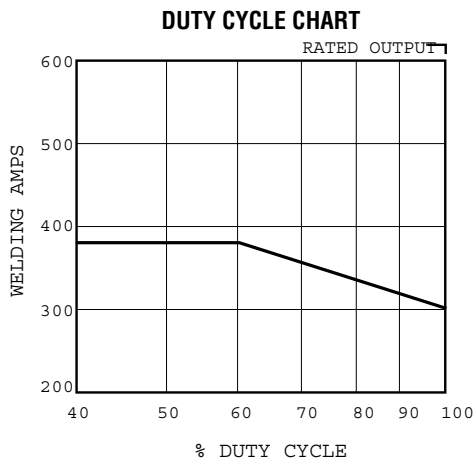
50 Hz models with CE Specifications are manufactured according to the Standards IEC-974-1 and EN-60974-1.

## Control Panel



1. Arc Force (DIG) Control
2. Process Selector Switch
3. Remote Amperage/Voltage Control Switch
4. Output Switch (Contactor)
5. Hot Start Switch
6. Digital Meters
7. Amperage/Voltage Adjustment Control
8. High Temperature Shutdown Light
9. Power Switch with Indicator Light

## Performance Data



# Dimension™ 452/562 Specifications (Subject to change without notice.)



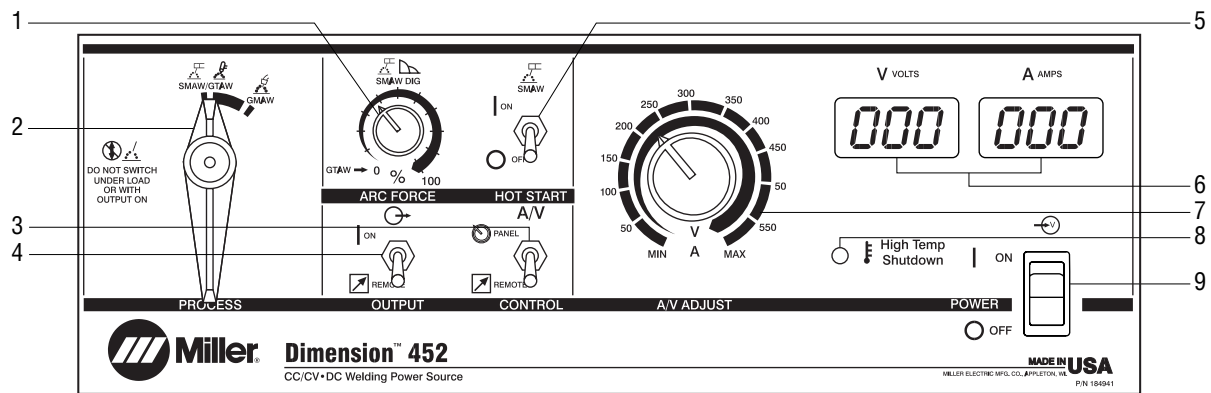
Rated Output	Amperage/Voltage Range	Max. Open-Circuit Voltage*	Amps Input at Rated Output, 50/60 Hz										Dimensions	Net Weight
			200 V	230 V	380 V	400 V	440 V	460 V	520 V	575 V	KVA	KW		
450 A at 38 VDC, (36.5 VDC for CE Model) 100% Duty Cycle	20–565 A in CC mode	65 VDC	91	79	48	46	41	39	34	31	31.4	22	H: 30 in (762 mm) including lift eye W: 23 in (585 mm) D: 38 in (966 mm) including strain relief	424 lb (192 kg)
	10–38 V in CV mode	43 VDC	104	90	52.5	51	46	45	38	36	35.3	22.3		

\*Open-circuit voltages in CV mode are factory set at values less than indicated for CC.

Certified to both the Canadian and U.S. Standards for welding equipment.

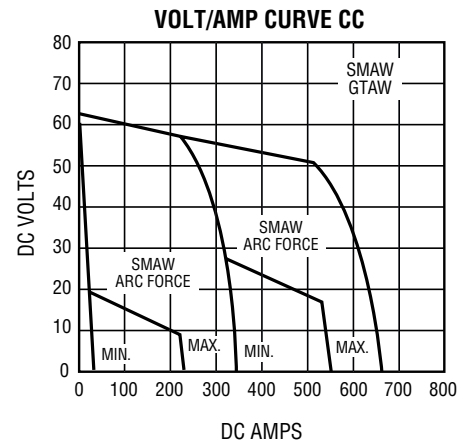
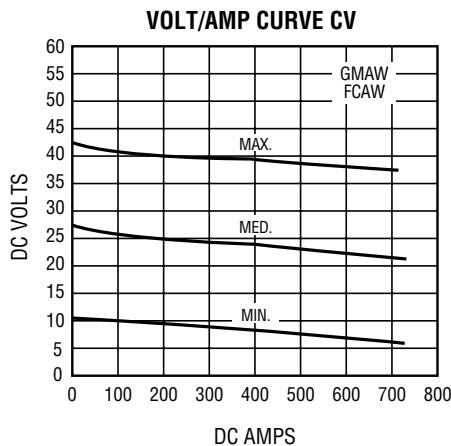
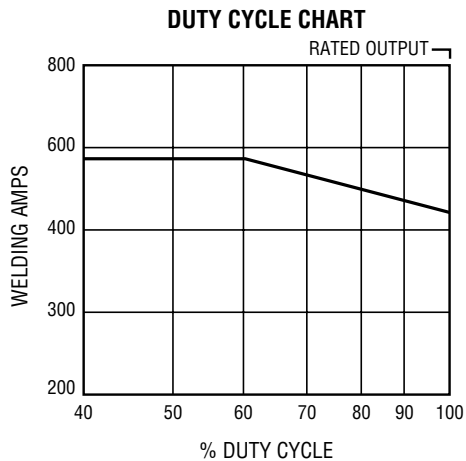
50 Hz models with CE Specifications are manufactured according to the Standards IEC-974-1 and EN-60974-1.

## Control Panel



- |   |  |
|---|--|
| 1. Arc Force (DIG) Control                | 6. Digital Meters                      |
| 2. Process Selector Switch                | 7. Amperage/Voltage Adjustment Control |
| 3. Remote Amperage/Voltage Control Switch | 8. High Temperature Shutdown Light     |
| 4. Output Switch (Contactor)              | 9. Power Switch with Indicator Light   |
| 5. Hot Start Switch                       |  |

## Performance Data



# Dimension 652/812 Specifications (Subject to change without notice.)



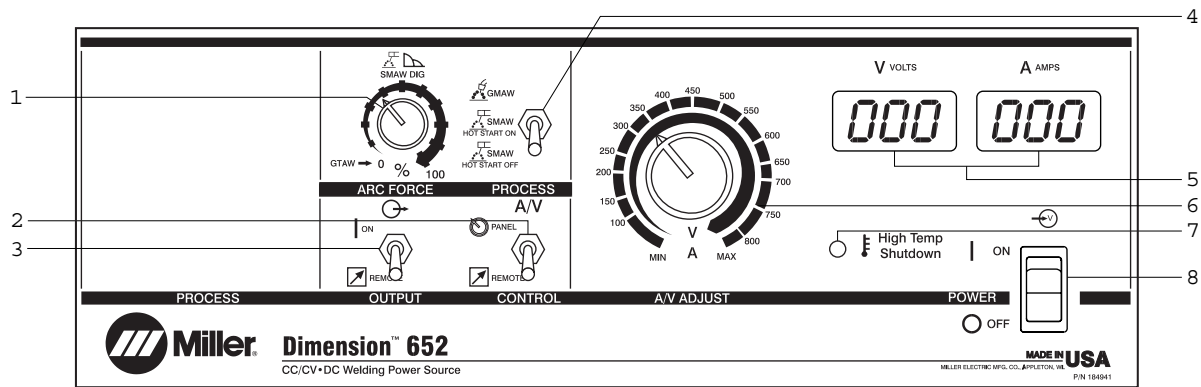
Rated Output	Amperage/Voltage Range	Max. Open-Circuit Voltage*	Amps Input at Rated Output, 50/60 Hz								Dimensions	Net Weight	
			230 V	380 V	400 V	440 V	460 V	520 V	575 V	KVA			KW
650 A at 44 VDC 100% Duty Cycle	60 815 A in CC mode	72 VDC	126	77	73	66	63	54	50.4	50	34.1	H: 30 in (762 mm) including lift eye W: 23 in (585 mm) D: 38 in (966 mm) including strain relief	45 lb (20.4 kg)
	10 65 V in CV mode	67 VDC											

\*Open-circuit voltages in CV mode are factory set at values less than indicated for CC.

Certified to both the Canadian and U.S. Standards for welding equipment.

50 Hz models with CE Specifications are manufactured according to the Standards IEC-974-1 and EN-60974-1.

## Control Panel



- 1. Arc Force (DG) Control
- 2. Remote Amperage/Voltage Control Switch
- 3. Output Switch (Contactor)
- 4. Process Selector Switch
- 5. Digital Meters
- 6. Amperage/Voltage Adjustment Control
- 7. High Temperature Shutdown Light
- 8. Power Switch with Indicator Light

## Performance Data

