

# Diversion™ 165 and 180

Issued Feb. 2010 • Index No. AD/1.5

**TIG Welding  
Power Source** 

## Quick Specs

### Personal User Applications

Chassis/Frame Fabrication  
Aluminum Oil Pans  
Stainless Exhaust  
Weld Repair on Home Equipment  
Metal Art  
Vocational Training

### Processes

TIG (GTAW)

### Input Power

**165:** 230 V, 1-Phase Power  
**180:** 115 and 230 V, 1-Phase Power

**Rated Output** 150 A at 16 V, 20% Duty Cycle

**Amperage Range** **165:** 10–165 A  
**180:** 10–125 A (115 V)  
**180:** 10–180 A (230 V)

**Max. Open-Circuit Voltage** 80

**Weight** 50 lb (23 kg)

## The Power of Blue.®

### The Personal User's TIG Machine

**DIVERSION™**

### Easy-to-understand operator interface.

1. Power-up
2. Select material type
3. Set material thickness range—then weld! It's as easy as 1, 2, 3.

**Inverter-based, AC/DC power source** provides a more consistent welding arc while using less power.

**HF start** for non-contact arc starting that eliminates tungsten and material contamination.

**Fan-On-Demand™** reduces noise and maintenance by lessening the amount of airborne contaminants pulled through the machine, while sufficiently cooling thermally protected internal components.

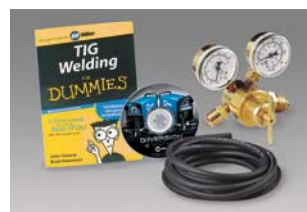
**Portable.** Whether it's in the shop, garage or at the race track, at 50 lb they can be taken anywhere.

**Auto-Postflow** protects the weld end zone and electrode by optimizing postflow time based on welding amperage.

**Advanced Squarewave AC** provides a fast freezing weld puddle and deeper penetration.



**Diversion 165**



*TIG Welding for Dummies* book, set-up and operation DVD, Smith Argon regulator/flow gauge with hose, and welding project blueprint (not shown) included with each Diversion model.  
**Just supply Argon gas, filler rod, gloves and helmet and you're ready to weld!**



**Diversion 180** includes RFCS-RJ45 remote foot control and Miller's exclusive **multi-voltage plug (MVP™)** which allows connection to 115 or 230 V receptacles without tools. Choose the plug that fits the receptacle and connect it to the power cord.

**New!**  
**Diversion 180**

### Comes complete with:

- Power source with primary cord (50 A, 230 V plug on 165 model) **OR** (MVP™ plugs on 180 model)
- 12.5 ft (3.8 m) Weldcraft® LS17 TIG torch with backcap, ceramic gas cup, 3/32 in. (2.4 mm) collet and collet body, and 2% ceriated tungsten
- RFCS-RJ45 remote foot control (180 model only)
- 12 ft (3.7 m) work lead with clamp
- Smith® Argon regulator/flow gauge with hose
- *TIG Welding for Dummies* book with content written by Miller
- Set-up and operation DVD
- Welding project blueprint for a machine cart/cylinder rack

**TRUE BLUE®**  
3YR. WARRANTY

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



### Miller Electric Mfg. Co.

An Illinois Tool Works Company  
1635 West Spencer Street  
Appleton, WI 54914 USA

### Equipment Sales US and Canada

Phone: 866-931-9730  
FAX: 800-637-2315  
International Phone: 920-735-4554  
International FAX: 920-735-4125

### Web Site

www.MillerWelds.com



# Specifications (Subject to change without notice.)

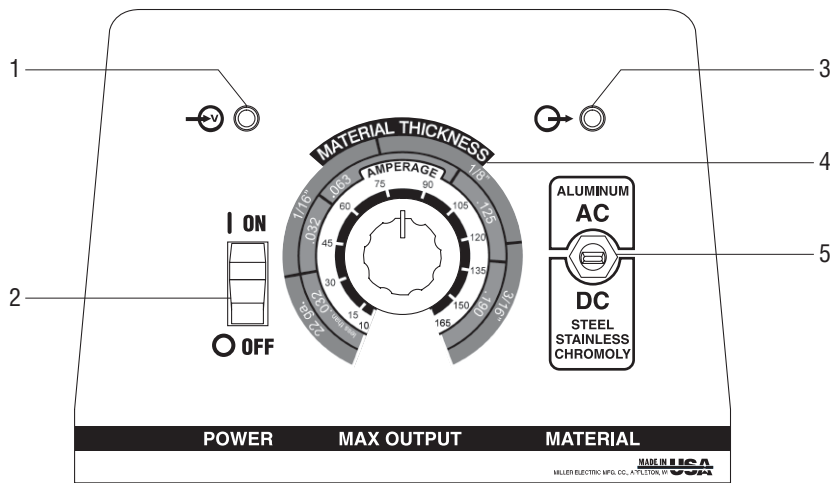


Model	Input Power	Welding Amperage Range	Rated Output	Amps Input at Rated Output	KVA	KW	Max. Open-Circuit Voltage	Dimensions	Net Weight
Diversion 165	230 VAC	10–165 A	60 A at 12.4 V, 100% Duty Cycle	8 A (.20)*	1.8 (.04)*	1.2 (.02)*	80	H: 17 in (433 mm) W: 9-7/8 in (251 mm) D: 23-7/8 in (608 mm)	50 lb (23 kg)
			150 A at 16 V, 20% Duty Cycle	23 A (.20)*	5.3 (.04)*	3.7 (.02)*			
			165 A at 16.6 V, 15% Duty Cycle	25.5 A (.20)*	5.9 (.04)*	4.2 (.02)*			
Diversion 180	115 VAC	10–125 A	60 A at 12.4 V, 100% Duty Cycle	11.3 (.88)*	1.3 (.1)*	1.2 (.03)*			
			125 A at 15 V, 35% Duty Cycle	26.5 (.88)*	3.1 (.1)*	3.0 (.03)*			
	230 VAC	10–180 A	60 A at 12.4 V, 100% Duty Cycle	5.6 (.44)*	1.3 (.1)*	1.2 (.03)*			
			150 A at 16 V, 20% Duty Cycle	16 (.44)*	3.7 (.1)*	3.6 (.03)*			
180 A at 17.2 V, 10% Duty Cycle	20.5 (.44)*	4.7 (.1)*	4.6 (.03)*						

Certified by Canadian Standards Association to both the Canadian and U.S. Standards.

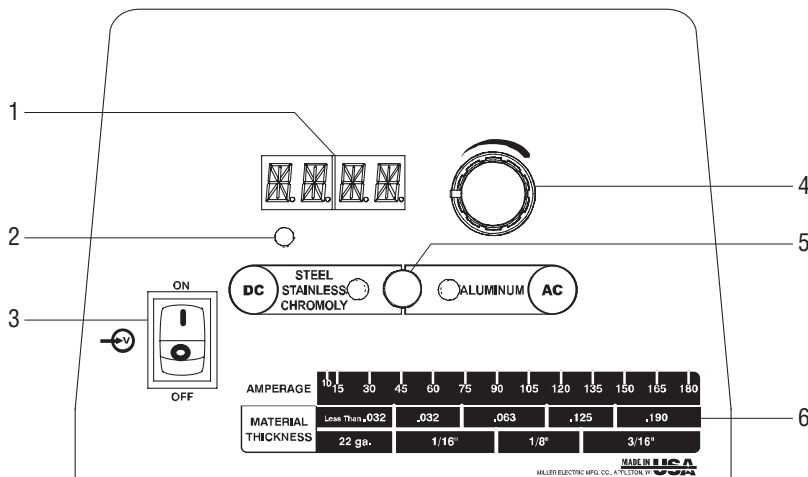
\*While idling.

## Diversion™ 165 Control Panel



1. Power On LED
2. Power Switch
3. Output Indicator LED
4. Material Thickness/Amperage Control
5. Material Switch

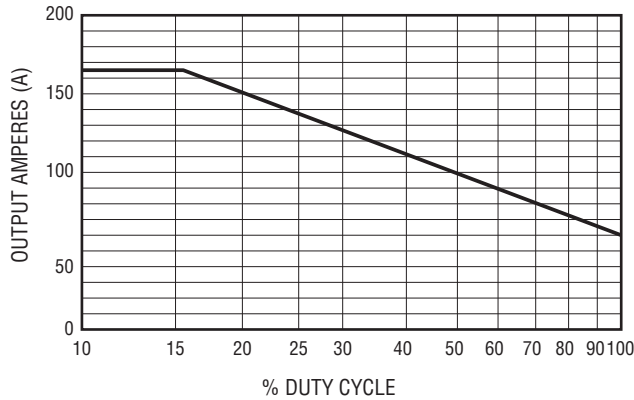
## Diversion™ 180 Control Panel



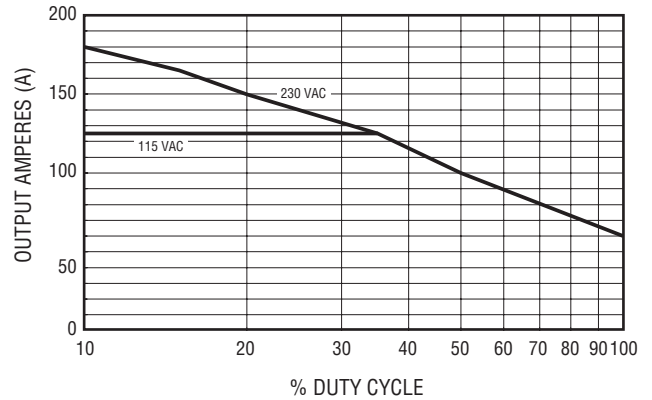
1. Digital Display
2. Output Indicator LED
3. Power Switch
4. Amperage Control
5. Material Selection Button
6. Material Thickness/Amperage Chart

# Performance Data

**DIVERSION 165 DUTY CYCLE CHART**



**DIVERSION 180 DUTY CYCLE CHART**



# Miller Accessories

## MVP™ Adapter Plugs for Diversion 180

Order from Miller Service Parts.



**#219 259**  
For Power Cable 5-20P (115 V/20 A). Optional, not included with machine.



**#219 261**  
For Power Cable 5-15P (115 V/15 A). Included with machine.



**#219 258**  
For Power Cable 6-50P (230 V/50 A). Included with machine.



**RFCS-RJ45 #300 432**  
Remote foot control. Comes standard with Diversion 180 model. Must be ordered separately for Diversion 165 model.

**Adapter Cord for RJ45 to 14-Pin #300 688**  
12-inch long adapter cord to allow the Miller 14-pin industrial foot controls to be used with the Diversion 165 and 180.



**Protective Cover #300 579**



**Running Gear/Cylinder Rack #770 187**  
Heavy-duty construction. For gas cylinders no larger than 7 in (178 mm) diameter, maximum weight 100 lb (45 kg).



**Small Running Gear/Cylinder Rack #300 425**  
Durable construction. For gas cylinders no larger than 7 in (178 mm) diameter, maximum weight 75 lb (34 kg).



**TIG Welding Gloves**  
#227 813 Small  
#227 814 Medium  
#227 815 Large  
#227 816 X-Large  
Designed to meet the specific requirements high-quality TIG welding demands. Made from soft grain goatskin. Sewn with Kevlar® thread.