

# Dynasty® 210 Series

TIG/Stick Welding Power Source  

## Quick Specs



### Industrial Applications

Precision Fabrication  
Heavy Fabrication  
Pipe and Tube Fabrication  
Aerospace  
Aluminum Ship Repair  
Anodized Aluminum Fabrication

### Processes

AC/DC TIG (GTAW)  
Pulsed TIG (GTAW-P)  
Stick (SMAW)

**Input Power** 120–480 V, 1-Phase or 3-Phase Power

**Amperage Range** 1–210 A (DC)  
2–210 A (AC)

**Rated Output** 210 A at 18 V, 60% Duty Cycle

**Net Weight** 47 lb. (21.3 kg)

**Update and expand.** Front panel memory card data port provides the ability to easily update software and expand product features. See memory cards on page 7.

Visit [MillerWelds.com/TIGSoftware](http://MillerWelds.com/TIGSoftware) for the latest software updates and expansions.

**Pro-Set™** eliminates the guesswork when setting weld parameters. Use Pro-Set when you want the speed, convenience and confidence of preset controls. Simply select the feature and adjust until Pro-Set appears on the display.

**Sleep timer** conserves electricity. This programmable feature will power down the machine if it sits idle for a specified time.



Allows for any input voltage hookup (120–480 V) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power.

**Cooler Power Supply (CPS)** is an integrated 120-volt dedicated-use receptacle for the Coolmate™ 1.3. Available on select models, see page 6.

**Cooler-On-Demand™** feature operates the auxiliary cooling system only when needed, reducing noise, energy use, and airborne contaminants pulled through the cooler.

*Note: Cooler-On-Demand is only available on CPS models.*

**Blue Lightning™** high-frequency (HF) arc starter for non-contact arc initiation. Provides more consistent arc starts and greater reliability compared to traditional HF arc starters.







## AC TIG Features

**Balance control** provides adjustable oxide removal which is essential for creating the highest quality aluminum welds. DX models provide extended ranges.

**Frequency controls** the width of the arc cone and can improve directional control of the arc.

## AC Waveforms

-  **Advanced squarewave**, fast freezing puddle, deep penetration and fast travel speeds.
-  **Soft squarewave** for a soft buttery arc with maximum puddle control and good wetting action.
-  **Sine wave** for customers that like a traditional arc. Quiet with good wetting.
-  **Triangular wave** reduces the heat input and is good on thin aluminum. Fast travel speeds.

## DC TIG Features

**Exceptionally smooth** and precise arc for welding exotic materials.

## AC/DC Stick Features

**DIG control** allows the arc characteristics to be changed for specific applications and electrodes. Lower the DIG setting for smooth running electrodes like E7018 and increase the DIG setting for stiffer, more penetrating electrodes like E6010.

**Hot Start™** adaptive control provides positive arc starts without sticking.

**AC frequency control** adds stability for smoother welds when AC Stick welding.

**Stick-Stuck** detects if the electrode is stuck to the part and turns the welding output off to safely and easily remove the electrode. Menu selectable.

Dynasty 210

Dynasty 210 DX

**Meter calibration** allows digital meters to be calibrated for certification.

**Wind Tunnel Technology™** protects internal electrical components from airborne contaminants, extending the product life.

**Fan-On-Demand™** power source cooling system operates only when needed, reducing noise, energy use and the amount of contaminants pulled through the machine.



Power source is warranted for 3 years, parts and labor.



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## Specifications (Subject to change without notice.)



Welding Mode	Input Power	Welding Amperage Range	Rated Output	Phase	Amps Input at Rated Load Output, 50/60 Hz						Max. Open-Circuit Voltage	Dimensions	Net Weight	
					120 V	208 V	240 V	400 V	480 V	KVA				KW
TIG (GTAW)	208–480 V	2–210 A (AC) 1–210 A (DC)	210 A at 18.4 V, 60% duty cycle	3-phase	—	16	14	9	7	6.0	5.8	80 VDC (11 VDC*)	H: 13.6 in. (346 mm) W: 8.6 in. (219 mm) D: 22.5 in. (569 mm)	47 lb. (21.3 kg) 50 lb. (22.7 kg) with CPS
				1-phase	—	28	24	14	12	5.8	5.8			
Stick (SMAW)	120 V	2–210 A (AC) 1–210 A (DC)	125 A at 15 V, 60% duty cycle	1-phase	26	—	—	—	—	3.2	3.1			
				3-phase	—	17	15	9	7	6.1	5.8			
	208–480 V	5–210 A	160 A at 26.4 V, 60% duty cycle	1-phase	—	29	25	15	12	6.0	6.0			
				1-phase	28	—	—	—	—	3.3	3.3			

\* Low OCV sense voltage for Stick and Lift-Arc™ TIG.

IP23 rating — This equipment is designed for outdoor use. It may be stored, but is not intended to be used outside during precipitation unless sheltered.

Operating temperature range is 14 to 104°F (-10 to 40°C). Storage temperature range is -22 to 149°F (-30 to 65°C). Portions of the preceding text are contained in EN 60974-1: "Welding power sources for arc welding equipment."

Certified by Canadian Standards Association to both the Canadian and U.S. Standards. All CE models conform to the applicable parts of the IEC 60974 series of standards.

## Performance Data

Input Power	TIG (GTAW) Duty Cycle	Stick (SMAW) Duty Cycle	AC TIG Material Thickness Range	DC TIG Material Thickness Range	Stick Electrode Maximum Diameter	Generator Requirement
208–480 V	210 A, 60% 175 A, 100%	210 A, 30% 160 A, 60% 125 A, 100%	0.012–1/4 in. (0.3–6.4 mm)	0.002–1/4 in. (0.05–6.4 mm)	6010: 3/16 in. (4.8 mm) 7018: 5/32 in. (4.0 mm) 7024: 5/32 in. (4.0 mm)	9 kW
120 V	150 A, 40% 125 A, 60% 100 A, 100%	100 A, 40% 90 A, 60% 75 A, 100%				

## Coolmate™ 1.3 Cooler



- Dynasty® models with CPS turn Coolmate 1.3 on and off
- Power indicator light
- Fluid level sight window
- Rustproof polyethylene-molded coolant tank and filler spout
- 1/4-HP motor is thermally protected to guard against overheating
- Efficient fin and tube heat exchanger
- Factory-set pressure relief valve (55 PSI) maintains consistent pressure during operation
- Filter and coolant filling spout are conveniently located
- Brass-body, positive displacement rotary vane pump provides consistent coolant flow and pressure rating with long pump-life expectancy

Input Power	Maximum Current Draw	Maximum Cooling Capacity	Rated Cooling Capacity	Tank Capacity	Dimensions	Net Weight
115 VAC, 60 Hz	4.7 A (60 Hz)	3400 W (11,600 BTU/hr.) 3.8 qt./min. (1.7 L/min.)	1330 W (4540 BTU/hr.) 1.1 qt./min. (1 L/min.)	1.3 gal. (4.9 L)	H: 11.25 in. (286 mm) W: 10.375 in. (264 mm) D: 24 in. (610 mm)	43 lb. (20 kg)

## Dynasty 210 Models/Packages

### Build an Air-Cooled Package

Select desired stock number for each step.



#907 685  
Dynasty shown.



#301 311  
kit shown.

#### Step #1 • Select Dynasty

Dynasty 210	#907 685	<i>Note: For models without the Cooler Power Supply (CPS), the Coolmate 1.3 must be powered through an external 120-volt facility power.</i>
Dynasty 210 (CPS)	#907 685 002	
Dynasty 210 DX	#907 686	
Dynasty 210 DX (CPS)	#907 686 002	

Dynasty comes with adjustable shoulder strap, 8-ft. power cord (no plug), quick reference guide and two 50-mm Dinse-style connectors.

#### Step #2 • Select Contractor Kit

Foot Control Contractor Kit	#301 309
Fingertip Control Contractor Kit	#301 311

See page 7 for kit contents.

### Build a Water-Cooled Package

Select desired stock number for each step.



#907 685 001  
Dynasty 210  
TIGRunner® shown  
with four bottles  
of #043 810  
Low-Conductivity  
Coolant.



#300 429 remote shown.



#300 185 kit shown.

#### Step #1 • Select Dynasty TIGRunner® and Coolant

Dynasty 210 (CPS) TIGRunner	#907 685 001
Dynasty 210 DX (CPS) TIGRunner	#907 686 001
&	
Low-Conductivity Coolant (Must be ordered in quantities of four.)	#043 810

Dynasty TIGRunner comes with 8-ft. power cord (no plug), quick reference guide, Coolmate™ 1.3 and Small Runner™ cart.

#### Step #2 • Select Remote Control

Wireless Foot (recommended)	#300 429
RFC5-14 HD Foot	#194 744
RCC-14 E/W Fingertip	#151 086
RCCS-14 N/S Fingertip	#043 688
RMS-14 Pushbutton	#187 208
RMLS-14 Momentary/Maintained	#129 337
RHC-14 Hand	#242 211 020
Wireless Hand	#300 430

See page 7 for remote descriptions.

#### Step #3 • Select Torch Kit

W-250 (WP-20) Kit (recommended)	#300 185
W-280 (WP-280) Kit	#300 990

See page 7 for kit contents.

### Preconfigured Water-Cooled Packages

Use a single stock number to order a complete preconfigured system.



#951 669  
package shown.

#### Select Water-Cooled Complete Package

Dynasty 210 (CPS) Complete with Foot Control	#951 666
Dynasty 210 (CPS) Complete with Wireless Foot Control	#951 667
Dynasty 210 DX (CPS) Complete with Foot Control	#951 668
Dynasty 210 DX (CPS) Complete with Wireless Foot Control	#951 669

Comes with:

- 8-ft. power cord (no plug)
- Quick reference guide
- Coolmate™ 1.3 #300 972
- Coolant (4 one-gallon bottles of #043 810)
- Small Runner™ cart #301 318
- Remote control #194 744 (foot) or remote control #300 429 (wireless foot)
- W-250 (WP-20) torch kit #300 185 (see page 7 for contents)