

# ArcMaster® 300 S



1/3  
PHASE

50  
60  
Hz



208  
V

230  
V

460  
V

DC

CC

300  
AMP

**FULLY  
UPGRADED**



**Tough, Compact . . . and Portable**

## ArcMaster® 300 S power source comes with:

- Power cord
- 2 x dinse 50mm plugs
- Operating manual



### Quick Specifications

#### Processes

STICK (SMAW)  
TIG (GTAW) Lift  
MIG (GMAW)\*\*  
Flux Cored (FCAW)\*\*  
Air Carbon Arc Gouging (CAG)

#### Industrial Applications

Maintenance & repair  
Industrial manufacturing  
Construction

#### Input Voltage

208-230/460 VAC 1/3 Phase

#### Input Frequency

50/60 Hz

#### Rated Output @ Duty Cycle

300A/32V@40% (208-230/460V, 3 phase)  
250A/30V@60% (208-230/460V, 3 phase)  
180A/28V@100% (208-230/460V, 3 phase)  
250A/30V@40% (208-230V, 1 phase)  
200A/28V@60% (208-230V, 1 phase)  
160A/27V@100% (208-230V, 1 phase)

#### Output Range

5-300A

#### Weight

44 lb (20 kg)

#### Order Information

**Part No:** 10-3093

Description: ArcMaster 300 S

### Exceptional Performance!

Embedded microprocessor with digital controls, delivering perfectly smooth, stable arc characteristics for E6010 Cellulose and low hydrogen electrodes.

### Smart Logic® & Easy Link!

Prevents damage to the internal components if installed to improper voltage. Multi voltage 208-230/460 1 or 3 phase providing maximum flexibility.

### Thermal Overload Protection!

Indicator alerts the operator if duty cycle is exceeded or airflow is blocked.

**Easy to use!** Simple, user friendly set-up and operation.

### Twist Lock Output Terminals!

Allows for easy polarity changing and cable connection.

### Intelligent Heat Sensing Fan!

Operates as needed to cool components and reduce airborne contaminants pulled through the power source.

**Arc Force Control!** Operator controlled parameter for optimum Dig setting for STICK electrode.

### Remote Receptacle Fitted!

Allows remote devices to be connected for controlling amperage and output contactor.

### Smart Warning Diagnostics!

Alerts operator to power supply abnormalities.

### Standards Compliant Integrated VRD!

Voltage Reduction Device reduces the OCV when the power supply is not in use. This all but eliminates the risk of electric shock to the operator from the secondary welding circuit.

**Lift Start TIG!** Provides TIG arc starting without use of high frequency.

**Hot Start!** Adjustable Hot Start for optimized starting performance.

**Rack Systems!** Available in 4, 6 or 8 pack packages with electrical.

\* Limited warranty. Refer to warranty schedule. \*\* Requires VS 212 set to CC mode.

**THERMAL ARC**  
By THERMADYNE®

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www.thermalarc.com

ArcMaster 300S

Form No.: 84-2645 A

# ArcMaster<sup>®</sup> 300 S



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## Features#



Inbuilt 'Smart Logic' prevents damage from connection to incorrect voltage.



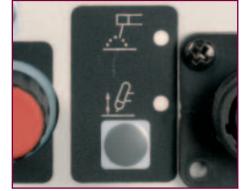
Integrated VRD.



Simple to use operator interface.



Digital volt/amp meter and warning indicator for thermal overload protection and power supply faults.



Process switch: STICK & Lift-Start TIG function



14 pin remote control receptacle.



Twist lock 50mm dinse output terminal.

# Subject to change without notification.

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1/3 PHASE

50/60 Hz



208 V

230 V

460 V

DC

CC

300 AMP

## Specifications<sup>#</sup>

### ArcMaster 300 S

Input voltage	208-230/460 VAC 1/3 phase
Rated output @ duty cycle	300A/32V @ 40%, (208-230/460V, 3 phase) 250A/30V @ 60%, (208-230V/460V, 3 phase) 180A/28V @ 100%, (208-230V/460V, 3 phase) 250A/30V @ 40%, (208-230V, 1 phase) 200A/28V @ 60%, (208-230V, 1 phase) 160A/27V @ 100%, (208-230V, 1 phase)
Input frequency	50/60 Hz
OCV	65
Output range	5-300A
Approvals	CSA (pending); IP23S IEC 60974-1 (CE)
Primary cable length	10ft

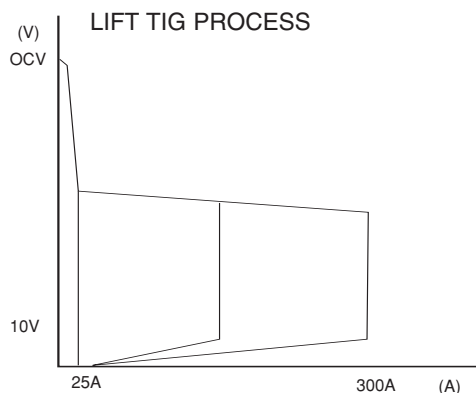
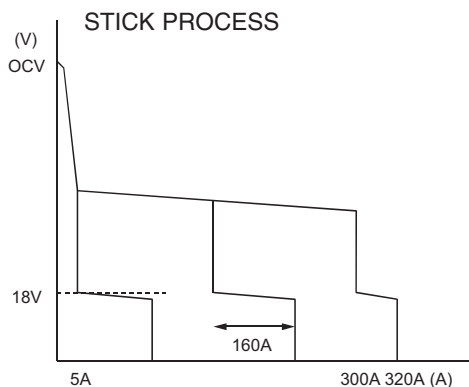


### Dimensions & Weight

Dimensions HxWxD	16.5 x 8.3 x 17.7 in (420 x 210 x 450 mm)
Weight	44 lb (20 kg)

	Duty Cycle	Output Amps	OCV	Output Voltage	No. phase	Input Voltage (VAC)			kVA	kw
						208 Input Amps	230 Input Amps	460 Input Amps		
Output	40%	300	65	32	3	45	41	21	16.0	12.0
	60%	250	65	30	3	35	32	16	12.6	9.4
	100%	180	65	28	3	24	22	11	8.4	6.3
No Load	–	–	–	–	3	1.4	1.3	0.7	0.5	0.3
Output	40%	250	65	30	1	76	68	–	15.7	9.4
	60%	200	65	28	1	57	51	–	11.7	7.0
	100%	160	65	27	1	44	40	–	9.0	5.4
No Load	–	–	–	–	1	2.5	2.2	–	0.5	0.3

## Output Characteristics<sup>#</sup>



<sup>#</sup> Subject to change without notification.



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60

INVERTER

208  
V

230  
V

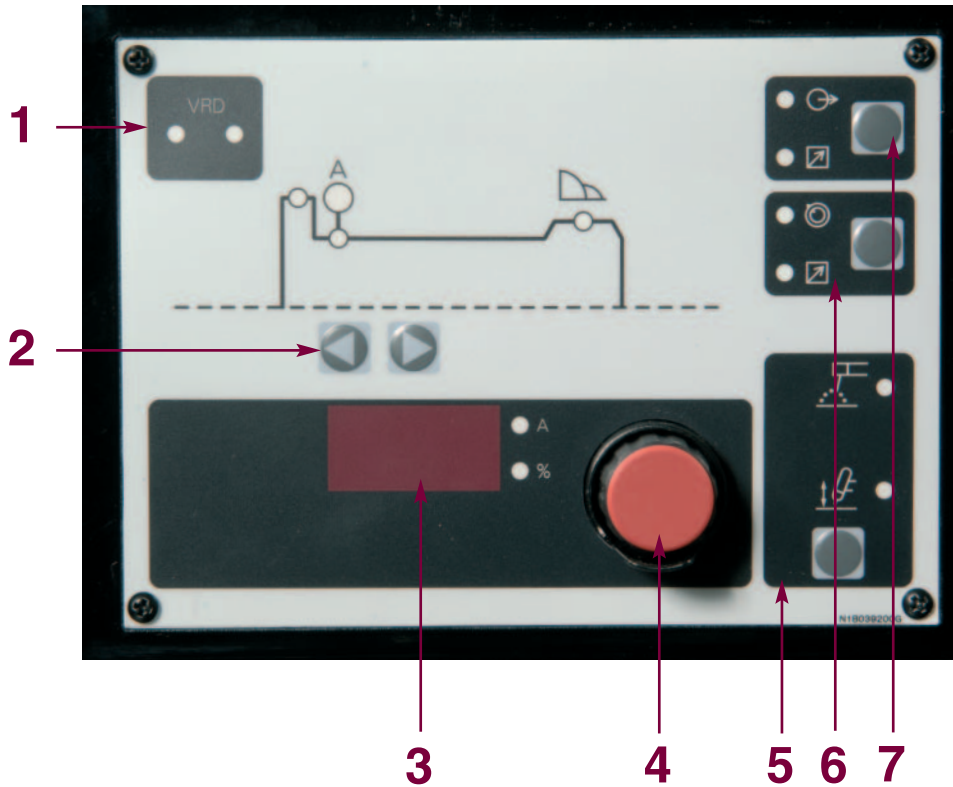
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## Control Panel#



1. VRD - (Voltage Reduction Device) lights indicate on or off
2. Scroll buttons – used to select the parameter to be set. The LED's show which function is being adjusted on the weld sequence graph.
3. Digital LED display – welding amperage and parameter values are displayed in this window. Internal warnings such as over temperature, low or high input voltage applied are signaled to the operator by a warning sound and error message on the screen.
4. Control knob – allows the operator to adjust the output amperage within the entire range of the power source, also used to set each parameter value.
5. Process functions – pressing this button scrolls through the output process modes (STICK, Lift Start TIG).
6. Remote current function - pressing this button enables remote current..
7. Remote contactor function - pressing this button enables remote contactor on or off.

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## Options & Accessories#



### Stick Kit

Part No. 10-4082A

Work clamp with 25' cable and stick electrode holder with 25' 1 AWG cable.



### TIG Kit

Part No. 10-4080

Includes regulator/flowgauge, 12.5ft 200 Amp TIG torch with valve. Accessory kit including 1 ea of 0.040"x7", 1/16"x7" & 3/32"x7" 2% Tungsten with collet & collet bodies, 1 ea 1/4", 5/16", 3/8" alumina cup.



### Dinse Connector

Part No. 10-2020

T-50mm dinse style male plug.



### Hand Held Pendant

Part No. 10-2005

Includes contactor On/Off switch & current control with 25ft cable and 14-pin male plug.



### Foot Control

Part No. 10-2008 15ft

Part No. 10-2007 25ft

Contactor On/Off & current control with cable & 14-pin.



### Extension Cable

Part No. 10-2030 3ft

Part No. 10-2031 15ft

Part No. 10-2032 25ft

Part No. 10-2033 50ft

Part No. 10-2034 75ft

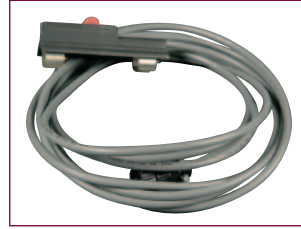
With 14-pin male plug and 14-pin female cable receptacle.



### Torch Switch On/Off

Part No. 10-2001 25ft

Torch mounted with 14-pin male plug.



### Torch Switch On/Off w/current control

Part No. 10-2002 25ft for CK9 Handle

Part No. 10-2003 25ft for CK17 Handle

Part No. 10-2004 25ft for CK26 Handle

Torch mounted with 14-pin male plug.



### Running Gear/Cylinder Cart

Part No. 205199

For welding power source and/or gas cylinders.

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**ArcMaster® Racks are the ideal solution for onsite applications including construction and shipbuilding.**

## Quick Specifications#

### Processes

MIG (GMAW)\*  
Stick (SMAW)  
TIG and Lift-Arc TIG (GTAW)  
Flux Cored (FCAW)\*  
Air Carbon Arc Gouging (CAG)

### Industrial Applications

Construction  
Fabrication  
Shipbuilding  
Rental Fleets

### Input Voltage

208-230/460 VAC 3 Phase^^

### Rack Capacity

Accommodates ArcMaster 300A & 400A inverter power sources

### Weight & Dimensions^

4 pack w/electrical  
250lb H55.5" x W26" x D41"  
6 pack w/electrical  
400lb H55.5" x W26" x D51"  
8 pack w/electrical  
470lb H55.5" x W26" x D61"

### Order Information

**Part No: 10-4029**  
Description: ArcMaster 4 pack\*\*  
**Part No: 10-4031**  
Description: ArcMaster 6 pack\*\*  
**Part No: 10-4033**  
Description: ArcMaster 8 pack\*\*



### Easily Moved & Transported!

All 4, 6 and 8 pack racks are available with two lifting eyes, Lift truck fork pockets in base and rugged skid for ease of transportation and moving.

**Quick Connect!** Electrical disconnect allows for easy connection with one primary power input cord.

**Circuit Breaker Fitted!** All racks factory equipped with environmentally protected circuit breaker panel to provide primary power line protection for each inverter power supply.

**Rack Packages!** Available in 400S and 400MST packages with power supplies installed and commonly used with the Thermal Arc Portafeed VS212 suitcase feeder to provide a reliable and durable solution to construction MIG (GMAW) and Flux Cored (FCAW) welding.

**Approvals Compliant!** Meets IP23S and NEC requirements when properly installed.

**Compact size!** Small foot print makes it ideal for easy transportation in pickup trucks or through doorways.

# Subject to change without notification.

\*Requires Portafeed VS 212 set to CC mode.

^Weight does not include power supplies.

^^ArcMaster racks electricals are rated for 3 phase power only.

\*\*Power supplies not included.

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# ArcMaster<sup>®</sup> 300 S



## EasyFind Guide - build your own package#

### Ordering Information

• ArcMaster 300 S Power Source 10-3093



### ArcMaster 300 S is capable of

- GMAW (Gas Metal Arc Welding)\*
- FCAW (Flux Cored Arc Welding)\*
- GTAW (Gas Tungsten Arc Welding)
- SMAW (Shielded Metal Arc Welding)
- CAG (Carbon Arc Gouging)

### \*Gas Metal Arc Welding \*Flux Cored Arc Welding



#### Wirefeeder



Description: Portafeed VS212  
Part No.: W3512002

#### MIG Gun



Description: Tweco<sup>®</sup> Spraymaster 12ft MS312-3545  
Tweco<sup>®</sup> Spraymaster 15ft MS315-3545  
Tweco<sup>®</sup> Spraymaster 12ft MS312-116  
Tweco<sup>®</sup> Spraymaster 15ft MS315-116

#### Gas Regulator



Description: Victor Reg/flowmeter (mixed) 0781-3873  
Victor Reg/flowmeter (CO<sub>2</sub>) 0781-0353

#### Work Lead



Description: Work Lead, 1 AWG cable, 10ft  
Part No.: P001912810

### Gas Tungsten Arc Welding



#### 26V TIG Torch Kit - Air Cooled



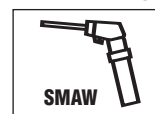
Description: TIG Kit  
Part No.: 10-4080

#### Remote Control Device



Description: On/Off Switch 25ft 10-2001  
Slider Control CK9 Handle 10-2002  
Slider Control CK17 Handle 10-2003  
Slider Control CK26 Handle 10-2004  
Foot Control 15ft 10-2008  
Foot Control 25ft 10-2007

### Shielded Metal Arc Welding



#### Electrode Work Lead Kit



Description: Stick Kit 25ft  
Part No.: 10-4082A

#### Remote Control Device



Description: Hand Pendant 25ft  
Part No.: 10-2005

### Carbon Arc Gouging - Air



#### Gouging Torch



Description: Arcair K3000 Torch Assy 7ft  
Part No.: 61065006

#### Work Lead



Description: Work Lead, 1 AWG cable, 10ft  
Part No.: P001912810

For detailed accessory descriptions see ordering information

#### 4, 6 & 8 Rack Systems



Description: ArcMaster 4 Rack\*\* 10-4029  
ArcMaster 6 Rack\*\* 10-4031  
ArcMaster 8 Rack\*\* 10-4033

#### Running Gear



Part No.: 205199

# Subject to change without notification.  
\*Requires Portafeed VS 212 in CC mode.  
\*\*Power supplies not included.

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## Ordering Information#

PRODUCT	PART NO.	DESCRIPTION	QTY	PRICE
<b>ArcMaster® 300S</b>	<b>10-3093</b>	Power supply only: includes 300S with power cord and 2 each dinse 50mm plugs		
<b>ACCESSORIES</b>				
Stick Kit	10-4082A	Work clamp with 25' cable, and stick electrode with 25' 1 AWG cable		
TIG Kit	10-4080	Includes regulator/flowgauge, 12.5ft 200 Amp TIG torch with valve, accessory kit includes 1 ea of .040"x7", 1/16"x7", 3/32"x7" 2% Tungsten with collet & collet bodies, 1 ea 1/4", 5/16", 3/8" alumina cup		
Dinse Connector	10-2020	T50mm Dinse style male plug		
Hand Held Pendant	10-2005	Includes contactor On/Off switch and current control with 25ft cable and 14-pin male plug		
Foot Control	10-2008	Contactor On/Off and current control with 15ft cable and 14-pin male plug		
	10-2007	Contactor On/Off and current control with 25ft cable and 14-pin male plug		
Extension Cable	10-2030	3ft with 14-pin male plug and 14-pin female cable receptacle		
	10-2031	15ft with 14-pin male plug and 14-pin female cable receptacle		
	10-2032	25ft with 14-pin male plug and 14-pin female cable receptacle		
	10-2033	50ft with 14-pin male plug and 14-pin female cable receptacle		
	10-2034	75ft with 14-pin male plug and 14-pin female cable receptacle		
Torch Switch On/Off	10-2001	25ft torch mounted with 14-pin male plug		
Torch Switch On/Off w/current control	10-2002	25ft torch mounted with 14-pin male plug - adapts to CK9 torch handle		
	10-2003	25ft torch mounted with 14-pin male plug - adapts to CK17 torch handle		
	10-2004	25ft torch mounted with 14-pin male plug - adapts to CK26 torch handle		
Rack Systems**	10-4029	4 pack w/electrical		
	10-4031	6 pack w/electrical		
	10-4033	8 pack w/electrical		
Running Gear/Cylinder Cart	205199	For welding power source and/or gas cylinders		
Portafeed VS 212*	W3512002	15-100V DC, heavy duty, CC/CV operation, 2 roll wirefeeder		
Tweco® Spraymaster 12ft	MS312-3545	Gun assembly with 12ft cable, 350 Amp @ 80%, suits .035" - .045" wire		
Tweco® Spraymaster 15ft	MS315-3545	Gun assembly with 15ft cable, 350 Amp @ 80%, suits .035" - .045" wire		
Tweco® Spraymaster 12ft	MS312-116	Gun assembly with 12ft cable, 350 Amp @ 80%, suits 1/16" wire		
Tweco® Spraymaster 15ft	MS315-116	Gun assembly with 15ft cable, 350 Amp @ 80%, suits 1/16" wire		
Victor® Regulator/Flowmeter mixed gases	0781-3873	HSR regulator/flowmeter, Argon-Argon/CO <sub>2</sub> mixed gases		
Victor® Regulator/Flowmeter CO <sub>2</sub>	0781-0353	SR 311 Regulator/flowmeter, CO <sub>2</sub> gas		
Arcair® K3000 Gouging Torch	61065006	K3000 torch and 7ft cable, 600 Amp @ 100%		

**TOTAL QUOTE PRICE**

# Subject to change without notification.

\*Used in CC mode for GMAW & FCAW welding.

\*\*Power supplies not included. See Rack Systems brochure for details.



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