

IDEALARC DC-600 MULTI PROCESS POWER SOURCE



IDEALARC DC-600

A Multiprocess DC Arc Welding Power Source recommended for:

- Submerged arc welding (SAW)
- Innershield® self-shielded flux-cored arc welding (FCAW)
- Outershield® gas-shielded flux-cored arc welding (FCAW)
- MIG (Gas metal arc) welding (GMAW)
- Stick welding (MMAW)
- Air carbon arc gouging (10mm dia. carbon max.)

The Idealarc DC-600 is an SCR controlled three phase DC power source, which provides both constant voltage and constant current output. It operates in three modes: CV Innershield®, CV submerged arc and CC.

The precise output of the DC-600 enhances productivity and quality control when using Lincoln wire feeders. Lincoln LN-7 (& LN-7GMA), LN-9, LN-10, DH-10, LN-21, and LN-25 semiautomatic wire feeders are recommended. NA-3 and NA-5 automatic welding heads, and LT-7 and LT-56 tractors are also recommended within the output capacity of the machine.

ADVANTAGE LINCOLN

- **Versatility** - Multiprocess CV and CC capability.
- **Simple Easy Adjustments** - Single full range control rheostat adjusts the output while welding or at idle.
- **Quality Welding** - Built in line voltage compensation holds the output settings constant even when input voltage fluctuates $\pm 10\%$.
- **3 Year Warranty** - Reliable performance and solid state controls provide dependable service and long life.
- **Conserve Floor Space** - Low profile design facilitates stacking to a maximum height of three machines.

FEATURES AND BENEFITS

- **Designed to AS 1966.1** and NEMA Class 1 Specifications.
- **Meters** - Factory installed voltmeter and ammeter are standard.
- **Provides "Cold" Electrode** when gun trigger is released and used with wire feeders having control cables such as LN-21, LN-7, LN-9, LN-10 and DH-10. This feature is very important for use when welding in electrically hazardous conditions such as wet areas or confined spaces.
- **AC auxiliary power** - 42 and 115 volts, 8 amperes (total), with fuse protection for wire feeder controls.
- **115 volt on-off pushbutton** operates the input line contactor. Pilot light indicates when the machine is on.
- **Terminal strip for simple connection** of wire feeder control leads or to turn output on continuously for stick or air carbon arc gouging.
- **Function lights** - built into the printed circuit boards speed trouble shooting.
- **Removable side panels** - (even when machines are stacked three high) for easy access to internal parts.

FEATURES AND BENEFITS (cont'd)

Mode Switch - Used to select the desired output characteristics for the process being used.

CV (Innershield) Mode - Provides optimum arc characteristics for Innershield (FCAW-SS), Outershield (FCAW-GS), Lincolnweld "MIG" (GMAW), most submerged arc welding and air carbon arc metal removal.

CV (Sub Arc) Mode - For optimum sub arc welding with higher deposition procedures.

CC (Stick) Mode - For excellence in stick welding. NOTE: If stick/air carbon arc is to be used with a semiautomatic/automatic process, the optional multiprocess switch is suggested to avoid reconnecting cables and control leads between process changes. (See optional features).

•**Recessed front panel** - protects operating controls. Hinged control panel allows easy access to control circuit components, P.C. boards, etc. Recessed output studs reduce the chance of accidental shorting.

•**Thermostats** prevent transformer and SCR's overheating from overload currents and high ambient temperatures.

•**Protective circuits** and ample safety margins prevent damage to the SCR's from transient voltages and high currents.

•**Cooling system** draws air through the front louvres over the SCR's, choke and transformer and blows it out the rear panel louvres. The totally enclosed fan motor has sealed bearings which require no lubrication.

•**High temperature class F insulation** is used throughout the transformer and choke assembly.

•**Submerged dipping** of the assembled transformer, choke, SCR assembly and base unit in a special epoxy based sealing/insulating material provides added protection against moisture or corrosive atmospheres.

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OPTIONAL FEATURES

Mutli-Process Switch - A three position switch which permits rapid changing of polarity on semiautomatic/automatic processes or switching to stick/air carbon arc welding without reconnecting cables and control leads. (Polarity changes in the stick electrode position do require cable reconnections). With this option, the semiautomatic and stick output terminals are electrically isolated. When one is on "hot", the other is off "cold". Available as a kit for field installation (Order K804-1). The switch is not functional when used with paralleled DC-600's.

Remote Output Control (K775) provides the same continuous control of the output as the control on the DC-600. Complete with an 8.5m cord. Not needed on feeders with Remote Voltage Control.

Paralleling Kit for DC-600 (Kit KA1010) - field installation only, permits paralleling of two DC-600's for welding currents of up to 1200 amps, 100% duty cycle.

Undercarriages

Undercarriage KA1236 - consists of mounting rails, two fixed castors and two swivel castors.

Undercarriage KA1237 - consists of a platform for single gas cylinder, mounting rails, two fixed castors and two swivel castors.

DC-600 SPECIFICATIONS

Model	DC-600	
Type ⁽¹⁾	KA1342-1	KA1342-3
Input Power ⁽¹⁾	415/3/50/60	220/380/440/3/50/60
Rated I/P Amps	62 (50 Hz)	117/68/58 (50Hz)
NEMA Output Rating (Class 1)		
Amperes	600	
Volts	44	
Duty Cycle at rated load	100%	
Output Range (continuous)		
Volts:	13-42 (CV), 24-42 (CC)	
Amps:	70-850 (CV), 90-850 (CC)	
Dimensions (Height x Width x Depth)	781 x 565 x 965mm	
Net Weight	237kg	

(1) Several standard input voltages and option packages are available. They are specified by type number. See your local distributor.

*In line with company policy of continuing improvement, specifications are subject to change without notice.



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In Australia, Lincoln Technical Sales Representatives are located in Mackay, Brisbane, Newcastle, Sydney, Wollongong, Melbourne, Adelaide and Perth. To contact your local Lincoln Technical Sales representative, call **1300 728 720** (for the cost of a local call). Lincoln products are sold primarily through its distributors.

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THE LINCOLN ELECTRIC COMPANY

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