



SA-400 I

ENGINE-DRIVEN WELDER/GENERATOR

LINCOLN[®]
ELECTRIC



K4088-1
SA-400 I

Excellent for Pipelines, Construction and Maintenance

The **SA-400 I** features proven, simple and rugged construction, along with Lincoln Electric's well-known pure DC generator design for excellent performance on pipe, construction and maintenance welding.



Pure DC Generator Welding Output

Produces the welding arc preferred by pipeline operators and contractors for precise control of the arc in demanding code applications.

All Copper Windings

Enhances arc stability for a very smooth, high performance arc.

Five Current Ranges with Overlap

For stick welding and other processes where slope control is desired. Fine-tuning within each range.

400 Amps Output @ 35% Duty Cycle

Welds up to 1/4 in. (6.4 mm) Fleetweld® 5P+ cellulosic and Excalibur® low hydrogen electrode.

Reliable Industrial Diesel Engines

- » 4-cylinder, water-cooled, 1800 RPM Perkins® engine runs smooth and quiet
- » Engine gauges allow you to monitor performance at a glance

Desert Duty™ Rated

Rated welding outputs for extreme temperature operation up to 55° C.

Processes »

Stick, TIG, MIG, Flux-Cored, Gouging
With K3964-1 Wire Feed Module

Applications »

Pipeline, Maintenance and Repair,
Construction

Output »

40-425A DC Welding 3000 Watts
AC Generator

Rated Output -

Current/Voltage/Duty Cycle

400A DC/25V/35%
300A DC/32V/60%
250A DC/30V/100%

Number of Cylinders

4

HP @ Speed (RPM)

Perkins® 32.7 Hp @ 1800 RPM

Product Number »

K4088-1 SA-400I (Perkins®)
K4088-3 SA-400I
[CCC Approved for sale in China]

Output »



Input »







CONTROLS »

1. CURRENT RANGE SELECTOR
2. **FUEL GAUGE/ ENGINE PROTECTION LIGHT AND BATTERY CHARGING LIGHT**
3. OIL PRESSURE HOUR METER/GAUGE
BATTERY CHARGING LIGHT
4. ENGINE TEMPERATURE GAUGE
5. IDLE CONTROL SWITCH
6. RUN/STOP SWITCH
7. START BUTTON
8. GLOW PLUG BUTTON
9. SEALED GFCI
10. **RCD READY PORT**
11. LOCAL/REMOTE SWITCH
12. LOCAL/REMOTE RECEPTACLE
13. 120V NEMA RECEPTACLE
14. 120V CIRCUIT BREAKER @ 20 AMPS
15. 240V EUROPEAN RECEPTACLE
16. 240V CIRCUIT BREAKER @ 15 AMPS
17. FINE CURRENT AND O.C.V. [RHEOSTAT]
18. **AMMETER & VOLTMETER**

MACHINE SPECIFICATIONS

Product Name	Product Number	Description	Rated DC	DC Current	Auxiliary Power	Dimensions H x W x D in (mm)	Net Weight lb (kg)
SA-400 I	K4088-1 K4088-3 (CCC Approved for sale in China)	400A DC Arc Welder All Copper Windings Pure DC Power Generator	40-425A DC DC Welding	40-425A 240 - Max 170 - 260 120 - 190 80 - 130 Min - 90	3000W 60 Hz, AC 20A @ 120V with sealed GFCI Module 13A @ 240V	37.1 x 24.0 x 65.0 (943 x 610 x 1651) To top of exhaust tube: 45.5 (1156)	1450 (658)

ENGINE SPECIFICATIONS

Product Name	Engine Model	Description	Horsepower & Displacement	Starting Systems	Dry Capacities	Operation Speeds	Fuel Consumption
SA-400 I	Perkins® 404D-22 Diesel EPA Tier 4i	4 Cylinder 4 Cycle Water-Cooled Diesel Engine Cast Iron Cylinders Block/Crank Case Mechanical Governor	32.7 hp @ 1800 rpm 135.4 cu in (2.2 L)	Compression Ignited	FUEL: 16 gals (60.6 L) OIL: 11.2 Qts (10.6 L) COOLANT: 9.5 qts (9.0 L)	FULL LOAD 300A (1725 rpm) HIGH IDLE 1,800 rpm LOW IDLE 1,400 rpm	1.21 gals/hr 4.60 L/hr 0.45 gals/hr 1.70 L/hr 0.31 gals/hr 1.17 L/hr



Additional Accessories	Product Number	SA-400I K4088-1	SA-400I K4088-3
GENERAL			
Power Plug Kit - Provides two 115V plugs rated at 20 amps each, and two 230V plugs rated at 15 amps each. 115V plugs may not be compatible with common household receptacles.	K802D	•	•
Spark Arrestor Kit - Attaches to muffler exhaust tube. Virtually eliminates spark emissions.	K903-1	•	•
Medium Welder Trailer - For heavy-duty road, off-road, plant and yard use. Includes pivoting jack stand, safety chains, and 13 in. (330 mm.) wheels. Overall width 60 in. (1524 mm.) Stiff .120 in. (3.0 mm.) welded rectangular steel tube frame construction is phosphate-etched and powder coat painted for superior rust and corrosion resistance. Features a Duo-Hitch 2 in. (51 mm.) Ball/Lunette Eye combination hitch.	K2636-1 Trailer	•	•
Fender & Light Kit - Allows use of trailer at night and as required by local regulations. Includes fenders, lights with guards, mounting brackets, wiring and hardware.	K2639-1	•	•
Cable Rack - For storage of approximately 100 ft. (30.5 m.) of 2/0 (70 mm ²) welding cable per side.	K2640-1	•	•
STICK			
Accessory Kit – For stick welding. Includes 35 ft. (10.7m) 2/0 electrode cable with lug, 30 ft. (9.1m) 2/0 work cable with lugs, headshield, filter plate, work clamp and electrode holder.	K704	•	•
Remote Control - Remote Output Control for Stick operation. Contains switch, receptacle, remote control rheostat, and 100 ft (30.5m) of cable. Easy field installation.	K924-4	•	•
TIG OPTIONS			
Pro-Torch™ PTA-26V TIG Torch – “V” model torches have a convenient gas control valve on the torch to quickly and easily control the shielding gas flow when a gas solenoid valve is not “built-in” to the power source.	K1783-9	•	•
Magnum® Parts Kit for PTA-26V TIG Torch - Magnum Parts Kits provide all the torch accessories you need to start welding. Parts Kits provide collets, collet bodies, a back cap, alumina nozzles and tungstens in a variety of sizes, all packaged in an easy to carry reclosable box.	KP509	•	•
TIG Module (K938-1 Contactor Kit Required) - Supplies high frequency for superior starting, contactor control, remote control capability and a gas valve for AC or DC TIG welding (polarity selection dependent on output characteristics of power source). Rated at 300 amps/60% duty cycle. Requires 115V, single phase input power.	K930-2	•	•
Control Cable - Control Cable for the TIG Module. Connects 9-pin socket on TIG Module to 115V plug.	K936-4	•	•
Control Cable Extension - Allows the TIG Module to be operated at distances up to 200 ft. from the power source.	K937-45	•	•
Arc Start Switch - Needed if an Amptrol® is not used when TIG welding. Comes with a 25 ft. (7.6m) cable. Attaches to the TIG torch for convenient finger control	K814	•	•
Contactor Kit - Installs in the K930-2 TIG Module for use with welders without a contactor. Makes the TIG torch electrode electrically ‘cold’ until the Amptrol® is activated.	K938-1	•	•
WIRE FEEDER			
Wire Feed Module - Provides constant voltage (CV) output with excellent arc stability for Innershield® welding and MIG welding. Easy installation. Recommended wire feeder is the LN-25 Ironworker™.	K3964-1	•	•
Remote Control (Stick & Wire) - For Classic® and Pipeliner® machines that have the wire feed module. Contains a rheostat for stick output, a potentiometer for wire output and 100 ft. (30 m) of control cable.	K2464-1	•	•
LN-25 Ironworker® Wire Feeder - Portable CV unit for flux-cored and MIG welding with MAXTRAC® wire drive system. Includes digital meters for wire feed speed/amperage and voltage, gas solenoid, internal contactor and 5/64 in. (2.0 mm) drive roll kit for cored wire. Has 83% reduced wire feed speed capability for 6 o'clock pipe welding with Innershield® wire.	K2614-9	•	•
K126 Pro Innershield® Gun - For self-shielded wire with 15 ft. (4.5 m) cable. For .062-5/64 in. (1.6-2.0 mm) wire. Includes K466-10 Connector Kit.	K126-12	•	•

CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company® is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

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