# OPTIMARC® CV 500P

### Best choice for pulse welding of stainless & carbon steel

The digitally controlled OPTIMARC® CV 500P provides constant voltage (CV) output for heavy duty welding applications and delivers superior welding performance and faster response to changes at the arc. It is an ideally suited for MIG/MAG and Flux Cored arc welding processes. Pulse welding of carbon and stainless steel could attain high-quality welding performance.

OPTIMARC® CV 500P could achieve high input power factor ratings for real savings on your electric bills and decrease your welding costs. The welding system including LWF™ wire feeder could provide output control with optimum spot to meet the need of arc performance and welding quality from customers.

OPTIMARC® CV 500P is ideal power source for industrial manufacturing such as steel structure, engineering machinery, ship manufacturing, petrochemical.



Pulse MIG / MAG, MIG / MAG, FCAW-GS / SS

#### **Description**

Output











## **Suitable Wire Feeders**

LWF™-22, LWF™-24 Plus, LWF™-4GS

#### **Required Accessories**

- Interconnection Cable Assembly (Includes control cable, welding cable and gas hose)
- Work cable Assembly (with earth clamp)
- MIG torch
- Gas regulator/flow meter



## Lincoln Advantage

- ★ Synergic function, preset current is matched with voltage automatically
- ★ Unique low power consumption design with 85% efficiency and 0.94 power factor
- ★ Adjustable arc control, welder can choose soft arc or hard arc based on each mode
- ★ Fast arc response, even output control, uniform appearance, superior arc performance and weld penetration control.
- ★ Digital Meters-accurate weld parameter readings-weld parameter readings retained till welding ends-auto fault diagnostic display
- ★ Both voltage and current are pre-settable
- ★ Precise control, comparing with conventional SCR power source, precise control over arc stability could help realize less spatters and better bead.
- ★ "Made To Last" PC Boards-"Trayed & Potted" PCB's filled with epoxy, double locked wiring harness Connectors, and environmentally protected connectors. Sensibly located to provide maximum protection from the environment
- ★ IP 23 Ratings-designed for harsh environment



## **TECHNICAL SPECIFICATIONS**

Product name	Product No.	Input power	Rated output current / Duty cycle	Power input at rated output (KVA)	Output range	Dimensions H* W*D(mm)	Net Weight (KG)
OPTIMARC® CV 500P	K60102-1	380V-415V (±10%) 3/50 or 60 Hz	500A/39V/60% 390A/33.5V/100%	23.5/22@60%	16-39V 50-500A	500 x 350 x 850	45

## **Feature**





#### Front Panel:

- 1. CO<sub>2</sub> / Ar or CO<sub>2</sub> option
- 2. Wire diameter option
- 3. Welding process mode
  FCAW-SS
  FCAW-GS
  GMAW
  PULSE (STEEL)
  PULSE (STAINLESS STEEL)
- 4. Power ON/OFF
- 5. Thermal indicator
- 6. 2T/4T output control
- 7. Digital voltage display
- 8. Synergic indicator
- 9. Crater voltage
- 10. Digital current display
- 11. Crater current
- 12. Arc control
- 13. Negative output terminal
- 14. Positive output terminal
- 15. 6-pin feeder connector

## Rear Panel

- 16. Input power cable bracket
- 17. Input power protection box
- 18. Ground cable connection
- 19. 220V/2A voltage receptacle
- 20. Heating fuse



## **Feature**

No.	Position	Function
1	ON	Pre-flow
2	ON Long cable welding mo	
3	ON	Crater repeat mode
4	ON	Test mode
5	ON	Synergic
6	ON	Fast run-in
7	ON	24V feeder application
8	ON	Feeder speed calibration



NOTE: DIP switch default setting shown as above

DIP switch located on the internal PCB allow you to program the machine to perform as you want

## **Recommended Package**

Air Cooled Recommended Package				
- K60102-2	OPTIMARC® CV 500P Power source			
- K60086-2	LWF-24 Plus Wire feeder			
- K60110-3	LG501 MIG Gun, Asia adapter, 3M			
- K60027-70-3M	Ground cable with earth clamp, 70mm x 3M			
- K60010-70-5M	Interconnection cable(air cooled), 70mm x 5M			
- K60012-4-220	CO₂ Gas regulator(heating) - 220V			
- 7FKP61240-12	Drive roll Kits, solid wire 1.0/1.2mm			

Water Cooled Recommended Package				
- K60102-2	OPTIMARC® CV 500P Power source			
- K60120-1	LWF-4GS Wire feeder			
- K60124-3	TBI 511 Water cooled MIG Gun, Euro adapter, 3M			
- K60027-70-3M	Ground cable with earth clamp, 70mm x 3M			
- K69047-70-5M	Interconnection cable(water cooled), 70mm x 5M			
- K60012-4-220	CO₂ Gas regulator(heating) - 220V			
- 7FKP61240-12	Drive roll Kits, solid wire 1.0/1.2mm			
- K60115-1	Welding Trolley			
- K60116-1	Water Cooler			
- 7FL15710-1	Wire feeder swivel			

## **LWF™ Wire Feeder**

	Order No.	Specificaiton		
	K60084-2	LWF™-22	Two feed rolls, insulated hub Asia Connector	
LWF™ Wire Feeder	K60086-2	LWF™-24 Plus	Four feed rolls, insulated hub Asia Connector	
	K60120-1	LWF™-4GS	Four feed rolls, insulated hub Euro Connector	
Euro gun adaptor	KP61108-2		Connection with Euro plug and Asia feeder	





Euro gun adaptor

LWF™-4GS

## **INTERCONNECTION CABLES** (includes welding cable, control cable and gas hose/water hose)

Product No.	Description	Product No.	Description	Product No.	Description
K60010-50-2M K60010-50-5M K60010-50-10M K60010-50-15M K60010-50-20M K60010-50-30M K60010-50-40M	Air cooled,2M,50mm <sup>2</sup> Air cooled,5M,50mm <sup>2</sup> Air cooled,10M,50mm <sup>2</sup> Air cooled,15M,50mm <sup>2</sup> Air cooled,20M,50mm <sup>2</sup> Air cooled,30M,50mm <sup>2</sup> Air cooled,40M,50mm <sup>2</sup>	K60010-70-2M K60010-70-5M K60010-70-10M K60010-70-15M K60010-70-20M K60010-70-30M K60010-70-40M	Air cooled,2M,70mm <sup>2</sup> Air cooled,5M,70mm <sup>2</sup> Air cooled,10M, 70mm <sup>2</sup> Air cooled,15M, 70mm <sup>2</sup> Air cooled,20M, 70mm <sup>2</sup> Air cooled,30M, 70mm <sup>2</sup> Air cooled,40M, 70mm <sup>2</sup>	K69047-70-2M K69047-70-5M K69047-70-10M K69047-70-15M K69047-70-20M K69047-70-30M K69047-70-40M	Water cooled,2M,70mm <sup>2</sup> Water cooled,5M,70mm <sup>2</sup> Water cooled,10M, 70mm <sup>2</sup> Water cooled,15M, 70mm <sup>2</sup> Water cooled,20M, 70mm <sup>2</sup> Water cooled,30M, 70mm <sup>2</sup> Water cooled,40M, 70mm <sup>2</sup>
KP61156	Control Cable Socket	ı		<u> </u>	



## MIG WELDING TORCH

	Product No.		Specification		Adaptor
	K60111-3	350A @ 65%,CO2	350A @ 55%,Ar+CO2	3m	Asia
	K60111-4	350A @ 65%,CO2	350A @ 55%,Ar+CO₂	4m	Asia
LG351C air cooled	K60111-45	350A @ 65%,CO2	350A @ 55%,Ar+CO2	4.5m	Asia
MIG Welding Torch	K60111-5	350A @ 65%,CO2	350A @ 55%,Ar+CO₂	5m	Asia
	K60111-3E	500A @ 60%,CO2	500A @ 50%,Ar+CO2	3m	Euro
	K60110-4E	500A @ 60%,CO2	500A @ 50%,Ar+CO2	4m	Euro
	K60110-45E	500A @ 60%,CO2	500A @ 50%,Ar+CO2	4.5m	Euro
	K60110-5E	500A @ 60%,CO2	500A @ 50%,Ar+CO2	5m	Euro
LG360G air cooled MIG Welding Torch	K10413-36-4M	335A @ 60%,CO2	335A @ 50%,Ar+CO2	4m	Euro
	K60110-3	500A @ 60%,CO2	500A @ 50%,Ar+CO2	3m	Asia
	K60110-4	500A @ 60%,CO2	500A @ 50%,Ar+CO2	4m	Asia
LG501C air cooled	K60110-45	500A @ 60%,CO2	500A @ 50%,Ar+CO2	4.5m	Asia
MIG Welding Torch	K60110-5	500A @ 60%,CO2	500A @ 50%,Ar+CO2	5m	Asia
	K60110-3E	500A @ 60%,CO2	500A @ 50%,Ar+CO2	3m	Euro
	K60110-4E	500A @ 60%,CO2	500A @ 50%,Ar+CO2	4m	Euro
	K60110-45E	500A @ 60%,CO2	500A @ 50%,Ar+CO2	4.5m	Euro
	K60110-5E	500A @ 60%,CO2	500A @ 50%,Ar+CO2	5m	Euro
TBI511 Water cooled	K60124-3	500A @ 100%,CO2	450A @ 100%,Ar+CO2	3m	Euro
MIG Welding Torch	K60124-4	500A @ 100%,CO2	450A @ 100%,Ar+CO2	4m	Euro
	K60124-5	500A @ 100%,CO₂	450A @ 100%,Ar+CO2	5m	Euro







LG air cooled MIG Welding Torch



TBI Water cooled MIG Welding Torch



#### **OPTIONAL ACCESSORIES**



Work cable with Clamp Used to connect work piece Order No.: K60027-50-4M Work cable with clamp, 50mm², 4M K60027-70-4M Work cable with clamp, 70mm², 4M



CO2, Gas Regulator/Flow Meter Includes CO2 flow meter and CO2 heater Order No.: K60012-4-220



Argon regulator/Gas flowmeter Includes cylinder pressure gauge, argon flow meter Order No.: K60012-5



Water Cooler & Cart
Water Cooler (Coming soon)
Order Number: K60116-1



Tools Box Order Number: K60117-1



Cart

Order Number: K60115-1

Swivel

Order Number: 7FL15710-1

#### 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 advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customers particular purposes, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has not been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

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OPTIMARC® CV 500P 2016/12

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