

# CHAMPMIG 500

HEAVY DUTY INVERTER BASED GMAW WELDING OUTFIT



## INTRODUCTION

CHAMPMIG 500 is an IGBT inverter-based welding power source, suitable for GMAW applications. The IGBT Power module, high frequency transformer and fast recovery diode are used as key devices for power conversion and transmission to assure better efficiency and performance.

The complete system consists of power source, wire feeder, water cooled or gas cooled torch, water cooling unit (for water cooled systems) and interconnecting cables.

## Salient features

- Digital Panel for adjusting the welding.
- 25% more Energy efficient than conventional machines.
- Maximum Power factor is 0.94.
- Excellent dynamic response enables superior arc characteristics.
- 2T, 4T operating modes.
- Dynamic Inductance adjustment for better arc control.
- Crater voltage and Crater current adjustment through digital panel.
- Unique feature of Pinch-off pulse to avoid globule formation.
- Automatic "Weld Stop" facility.
- Normal/ Creep feeding selection available on front panel.

## Protection

The equipment is provided with following protections.

- **Under Voltage and Over Voltage:** If supply voltage goes lower or higher than set limit, error message is displayed on Display.
- **Over Temperature:** If the temperature of the main power elements is more than safety limits, error message is displayed.
- **Single Phasing Protection:** If any one of the three phases (R, Y, and B) is absent, welding will stop. Welding current would not be available in this condition.

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TECHNICAL SPECIFICATIONS	VALUE	UNIT
SUPPLY VOLTAGE, PHASE, FREQUENCY	415 , +15%, -10%; 3; 50 / 60	VOLTS, AC; NO.; HZ
INPUT KVA @ 415 V AC	17.5 @ 100% DUTY CYCLE, 25.5 @ 60% DUTY CYCLE, 0.31 @ NO LOAD	KVA
INPUT SUPPLY CURRENT @ 415 V AC	24.0 @ 100% DUTY CYCLE, 35.0 @ 60% DUTY CYCLE, 0.43 @ NO LOAD	AMPS, AC
POWER FACTOR	0.94 MAX.	λ
EFFICIENCY	≥ 85	%
OPEN CIRCUIT VOLTAGE	65 ± 5%	VOLTS, DC
WELDING VOLTAGE AND CRATER VOLTAGE RANGE	17 - 44	VOLTS, DC
WELDING CURRENT RATING	500 @ 60% DUTY CYCLE, 387 @ 100% DUTY CYCLE	AMPS, DC
WELDING CURRENT AND CRATER CURRENT RANGE	65 - 500	AMPS, DC
FRONT PANEL CONTROLS	7-SEGMENT LED DISPLAY FOR DISPLAYING SET VOLTAGE AND WIRE FEED SPEED AT NO LOAD & WHILE WELDING FOR DISPLAYING ACTUAL CURRENT & VOLTAGE; CREEP / NORMAL FEED; GAS SELECTION; 2 TRACK, 4 TRACK; GAS CHECK; OCV CHECK FACILITY; POTENTIOMETERS FOR SETTING CRATER VOLTAGE AND CURRENT (WIRE FEED SPEED)	
REMOTE CONTROL	POTENTIOMETERS FOR SETTING MAIN VOLTAGE AND CURRENT (WIRE FEED SPEED)	
COOLING	FORCED AIR	TYPE
INSULATION	H	CLASS
COMPATIBILITY TO INTERNATIONAL STANDARDS	IEC EN 60974-1	GENERAL COMPATIBILITY
DIMENSIONS (L X W X H)	700 X 465 X 630	MM
WEIGHT (APPROX.)	57.6	KG
WIRE FEEDER	FEEDLITE 40 NEHR - C (4 ROLL)	MODEL
WEIGHT (WITHOUT SPOOL)	16 KG (APPROX)	KG
DIMENSIONS (L X W X H)	563 X 230 X 410	MM
SUITABLE FOR WIRE SPOOL CAPACITY	16 KG	KG
WIRE FEEDER FITTED WITH ROLLERS	1.2/1.6 FOR SOLID WIRE 2 NO	MM
WIRE FEEDER MOTOR VOLTAGE	42 V DC	VOLTS DC
WIRE DRIVE MOTOR.	PERMANENT MAGNET DC TYPE.	TYPE
WIRE ROLL DRIVE	FOUR	NO
WIRE FEED SPEED	1.5 TO 18	METERS / MINUTE
SUITABLE FOR WIRE SIZES	0.8,1,1.2,1.6	MM
TORCH (3 METER)	HIPRO 502 (E)	MODEL

**Warranty:** One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorized Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.

**In view of continuous development,** ADOR WELDING LIMITED reserves the right to modify/change the design and /or the specifications without any prior notice.

**Backed by** dedicated customer care package.