

# CHAMPMULTI 500

Inverter based Multipurpose MIG / FCAW / MMA / TIG Welder



## **CHAMP MULTI 500 is a multiprocess welding outfit with Inverter based welding power source.**

- The IGBT power module, High frequency transformer and fast recovery diode are used as key device for power conversion and transmission to assure better Efficiency and performance.
- The welding power source has both constant current (CC) and constant voltage characteristics (CV), which are suitable for MMA and MIG/MAG and FCAW applications.
- Set output parameters are constant against input supply variations.
- Power source is protected against single phasing, undervoltage, over voltage, short circuit and temperature rise.
- MMA process with this outfit is most suitable for all kinds of electrodes for fabrication work, site construction etc.
- GMAW process is suitable for welding in semiautomatic/automatic mechanism for welding MS, SS and Al materials with Solid and Flux core wires (FCAW Mode).
- It can operate with single point Synergic control in MIG/MAG mode.
- The complete system consists of Power Source, wirefeeder, torch and interconnecting cables and control cables between wire feeder and power source

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**ADOR INTERNATIONAL** Ador International Jebel Ali Free Zone Authority (JAFZA) at Dubai, UAE

Tel.: +971528997880, Email: [awloverseas@adorians.com](mailto:awloverseas@adorians.com)

### SALIENT FEATURES:

- ❖ The salient features of the Equipment are:
- ❖ Latest Inverter based technology.
- ❖ High efficiency (>85%).
- ❖ Single point Synergic control in GMAW.
- ❖ Protections against over and under input supply voltage and Single-phasing and overheating of power components.
- ❖ User friendly Digital front panel and Digital remote controller with display.
- ❖ Auto "Weld Stop" when welding torch is taken away from work piece.
- ❖ 2T, 4T and SPOT and Multi Spot operating modes in MIG Mode as well as FCAW mode.
- ❖ Dynamic Inductance adjustment in GMAW process and Arc force adjustment in MMA process for better arc control
- ❖ Crater voltage and Crater current adjustment through digital panel.
- ❖ Unique feature of Pinch-off pulse to avoid globule formation.
- ❖ Built in VRD (Voltage Reducing Device) unit (Optional) in SMAW mode only.
- ❖ ERROR CODE DIGITAL DISPLAY ON FRONT PANEL – for easy fault diagnostics

### PROTECTIONS WITH AUTO RESET:

The Equipment is provided with following protections:

#### Under / Over Input supply Voltage:

Red LED glows if input supply voltage goes below 330V AC.

Red LED glows if input supply voltage goes above 480V AC

No Output Voltage will be available in both conditions.

#### Over Temperature Trip:

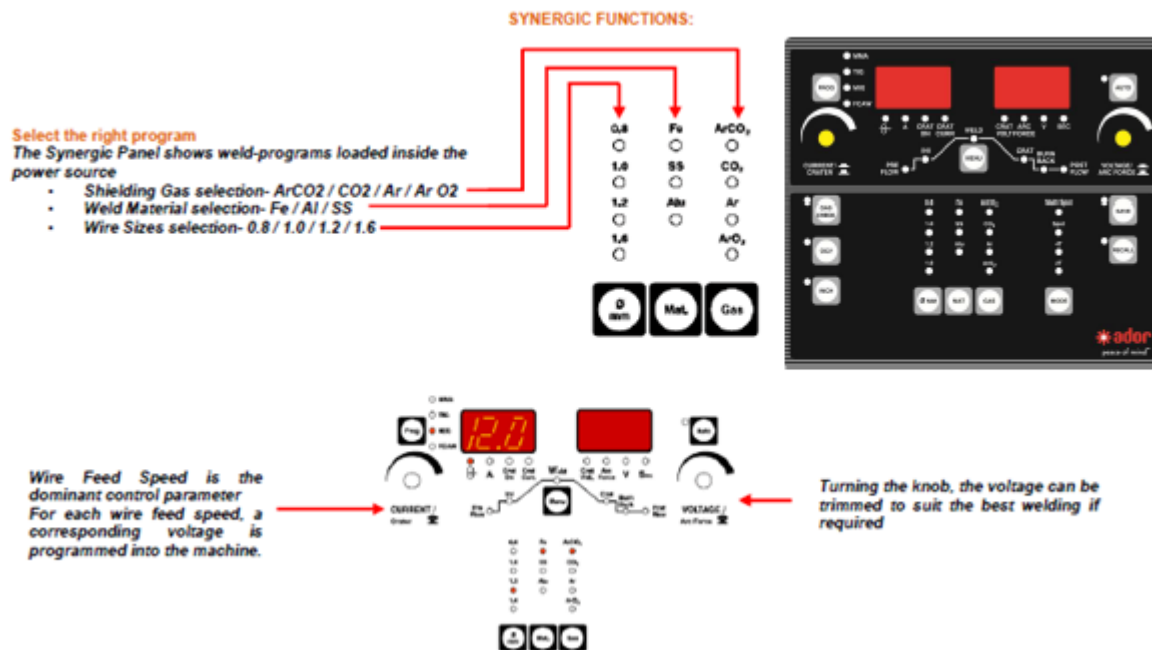
If the temperature of the Semiconductor Component is increased above safety limits, then machine goes in safety mode (Trip Mode). In this condition welding voltage will not be available and welding will stop.

#### Single phasing protection:

If any one of three phases of input supply (R, Y, B) is absent, then Machine will Trip, and Red LED will glow. In this condition welding voltage will not be available and welding will stop.

#### Output Short Circuit Protection:

Welding Output is protected against any Short circuit.



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## TECHNICAL SPECIFICATIONS – POWER SOURCE MODEL ICCCVR 500

PARAMETER	VALUE	UNIT
SUPPLY VOLTAGE, PHASE, FREQUENCY	415 (+15% - 10%)	V AC
INPUT POWER IN MMA MODE	26.5 KVA @ 60% DUTY CYCLE, 18.5 KVA @ 100% DUTY CYCLE	KVA
EFFICIENCY	> 87	%
POWER FACTOR	0.93 MAX	λ
OPEN CIRCUIT VOLTAGE @ 415V INPUT SUPPLY	MMA / TIG MODES: 70; MIG / FCAW MODES: 65	V DC
WELDING AND CRATER CURRENT RANGE - MIG / FCAW	65 - 500	A DC
WELDING CURRENT RANGE - MMA AND TIG	MMA MODE: 50-500; TIG MODE: 10-500	A DC
DUTY CYCLE RATING (10 MINUTE CYCLE)	387 @ 100%; 500 @ 60%	A DC
WELDING AND CRATER VOLTAGE RANGE - MIG / FCAW	14-44 V	V DC
ARC FORCE CONTROL IN MMA MODE	BY PRESSING ARC FORCE ENCODER SWITCH, % OF ARC FORCE CAN BE ADJUSTED. ARC FORCE IS ACTIVE IN 50-200A RANGE ONLY	A DC
SUITABLE WELDING ELECTRODE SIZE DIA.	2.5, 3.2, 4, 5, 6 MM DIAMETER	MM
SUITABLE WIRE SIZE DIA.	0.8, 1.0, 1.2, 1.6 MM DIAMETER	MM
FRONT PANEL FUNCTIONS	MMA /TIG/ MIG /FCAW PROCESS SELECTION	
	WELDING / CRATER CURRENT SELECTION AND ADJUSTMENT ENCODER	
	MAINS ON 'GREEN' AND TRIP 'RED' LED INDICATION	
	WIRE DIAMETER, MATERIAL, GAS SELECTION SWITCHES	
	O.C.V / GAS CHECK / INCH SWITCH IN MIG / FCAW MODE	
	ARC FORCE ON / OFF AND CRATER ON / OFF BY PRESSING ENCODER SWITCH	
	AUTO/ MANUAL MODE / SAVE / RECALL PROGRAM SELECTION SWITCH	
	2T / 4T / SPOT TIMER / MULTI SPOT SELECTION SWITCH	
PROTECTIONS AUTO RESETTABLE	OVER VOLTAGE, UNDERVOLTAGE, SINGLE – PHASING, OVER TEMPERATURE	
COOLING	FORCED AIR	TYPE
CLASS OF INSULATION	H	CLASS
DEGREE OF PROTECTION	IP23 (S)	-
DIMENSIONS L X W X H	700 X 460 X 650	MM
WEIGHT (APPROX.)	57	KG

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#### TECHNICAL SPECIFICATIONS – WIRE FEEDER MODEL FEEDLITE 40 NEH (C)

WIRE FEEDER	VALUE	UNIT
WEIGHT (WITHOUT SPOOL)	10 KG (APPROX)	KG
DIMENSIONS (L X W X H)	749 X 274 X 467	MM
SUITABLE FOR WIRE SPOOL CAPACITY	15 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

#### ERROR CODES

ERROR CODE	ERROR
ERR 001	UNDER VOLTAGE ERROR
ERR 002	OVER VOLTAGE ERROR
ERR 003	THERMAL TRIP ERROR
ERR 004	NO CURRENT FLOW ERROR
ERR 005	FEEDER MOTOR OVERLOADING ERROR
ERR 006	WIRE FEEDER ERROR
ERR 007	WATER PRESSURE ERROR (IN CASE OF WATER-COOLED SYSTEMS)
ERR 008	COMMUNICATION ERROR

#### ORDERING INFORMATION

F10.37.401.0452	MIG/MAG WELDING O/F,MODEL:CHAMPMULTI 500,5M I/P CABLE,W/F:FEEDLITE-40(NEH-C)DETACH WITH SPOOLCOVER,WHEEL,5M INTERCON ASSLY,TORCH: HIPRO 502C (E)-4M,2M GASHOSE,5M EARTH CABLE WITH CLAMP,GAS PREHEATER,CO2 REG,1.2-1.6MM KNURLED ROLLER,TROLLEY
F10.37.401.0439	MIG/MAG WELDING O/F,MODEL:CHAMPMULTI 500,5M I/P CABLE,W/F:FEEDLITE-40(NEH-C)DETACH WITH SPOOLCOVER,WHEEL,10M INTERCON ASSLY,TORCH: HIPRO 502C (E)-4M,2M GASHOSE,5M EARTH CABLE WITH CLAMP,GAS PREHEATER,CO2 REG,1.2-1.6MM KNURLED ROLLER,TROLLEY
F10.37.401.0453	MIG/MAG WELDING O/F,MODEL:CHAMPMULTI 500,5M I/P CABLE,W/F:FEEDLITE-40(NEH-C)DETACH WITH SPOOLCOVER,WHEEL,15M INTERCON ASSLY,TORCH: HIPRO 502C (E)-4M,2M GASHOSE,5M EARTH CABLE WITH CLAMP,GAS PREHEATER,CO2 REG,1.2-1.6MM KNURLED ROLLER,TROLLEY

- Warranty:** Three years 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.
- All engines and engine accessories are warranted by the engine or engine accessory manufacturer and are not covered by this warranty
- ADOR is not responsible for cable wear and consequential damage resulting from cable wear due to flexing and abrasion. End user is responsible for routine inspection of cables for possible wear and to remedy the issue prior to cable failure
- 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.

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