

CHAMP MIG 400

**The new world class inverter based
GMAW welding outfit**



- Inverter based digitally controlled synergic GMAW outfit
- High efficiency and high power factor – resulting energy saving
- Enhanced Reliability due to SMD technology
- Auto “Weld Stop” when welding torch is taken away from weld job



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INTRODUCTION

CHAMP MIG 400 is IGBT inverter based welding power source with Synergic operation, suitable for GMAW applications. The IGBT Power module, ferrite core and fast recovery diode are used as key device for power conversion and transmission to assure better efficiency and performance.

The complete system consists of power source, wire feeder, MIG torch and interconnecting cables.

DETAILS OF COMPLETE SYSTEM

Sr. No.	Description	CHAMP MIG 400	CHAMP MIG 400 Synergic
01	Power Source	ICVR 400	ICVR 400S- Synergic MIG
02	Wire feeder	FEEDLITE 40 (NER)	FEEDLITE 40FE
03	Torch	ADOR TW 400 (E)	ADOR TW 400 (E)

SALIENT FEATURES

- Digital Panel for adjusting the welding
- Synergic mode of operation for single point control in GMAW welding.
- 30% more Energy efficient than conventional machines.
- Maximum Power factor is 0.94
- Excellent dynamic response enables superior arc characteristics.
- 2T, 4T operating modes
- Electronic choke adjustment for better arc control
- Crater voltage and Crater current adjustment through digital panel.
- Unique feature of Fresh Tip transfer (FTT) to avoid globule formation.
- Automatic "Weld Stop" facility.

PROTECTION

The equipment is provided with following protections.

a) Under Voltage and Over Voltage: If supply voltage goes lower or higher than set limit, error message is displayed on Display.

b) Over Temperature: If the temperature of the main power elements is more than safety limits, error message is displayed.

c) 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.

d) Low Water Pressure protection : If the water pressure is lower than the limit, then welding will stop to protect the motor from dry run.



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POWER SOURCE SPECIFICATIONS

TECHNICAL SPECIFICATIONS	UNIT	ICVR 400 / ICVR 400S
INPUT		
Input Supply:		
Voltage	Volt	415 V +15 %, -10 %
Phase	No	3 Ø
Frequency	Hz	50 / 60
Max. Input		
@ 100% duty cycle	KVA	12
@ 60% Duty cycle	KVA	17
@ No load	KVA	0.24
OUTPUT		
Open Circuit Voltage	Volts+/-5%	65
Welding Current Range	Amp	50-400
@ 60% duty cycle	Amp	400
@ 100% duty cycle	Amp	310
Welding Voltage Range	Volt	16-39
Crater Current Range	Amp	5-400
Crater Voltage Range	Volt	16-39
Mode of operation		2 track, 4 track, Gas check, OCV check facility
Remote Control		For setting voltage & current
Power Factor	Cos (Ø)	Max 0.94
Efficiency	%	87% @ 100% duty cycle

GENERAL		
Compatibility to International standard		As per Std. EN60974-1
Wire feed speed	m/min	1.5-18
Suitable welding wire dia	mm	Aluminum 1.2 – 1.6 Steel 0.8, 1.0, 1.2 & 1.6
Synergic Mode		Single point control in short circuit arc in FCAW/MIG Mode
Ingress Protection	Class	IP23
Cooling	Type	Forced Air
Dimensions (approx.)		
Length	mm	680
Width	mm	435
Height	mm	575
Weight	Kg	44
Audio Noise Emission	dB	70



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WIRE FEEDER SPECIFICATIONS :

TECHNICAL SPECIFICATIONS	Feedlite 40 E	Feedlite 40 (NER)
Suitable for wire sizes	0.8,1,1.2,1.6 mm	0.8,1,1.2,1.6 mm
Wirefeed speed	1.5 to 18 mtr/min	1.5 to 18 mtr/min
Wire roll drive	Four	Four
Wire drive motor	Permanent Magnet DC type.	Permanent Magnet DC type.
Wire feeder Motor voltage	42 V	24 V
Wire feeder fitted with rollers	1.2/1.6 for sold wire 2 no	1.2/1.6 for sold wire 2 no
Suitable for Wire Spool capacity	15kg	15kg
Dimensions :		
Length	500 mm	500 mm
Width	230 mm	230 mm
Height	380 mm	380 mm
Weight (without spool)	8 kg (Approx)	8 kg (Approx)

TORCH SPECIFICATIONS :

TECHNICAL SPECIFICATIONS	UNIT	ADOR TW 400 (E)
Rating	A	400A @ 60% Duty cycle for CO2
End Connection to Torch	Type	Euro
Suitable for Wire Ø	mm	0.8,1.0, 1.2, 1.6 mm
Torch Length	meter	3

