

CHAMP MULTI 400 (FCAW) CHAMP MULTI 400

The new world class inverter based
Multi-process welding outfit



- Inverter based digitally controlled synergic GMAW, self shielded FCAW and MMA welding outfit.
- High efficiency and high power factor – resulting energy saving upto 30%.
- Enhanced Reliability due to SMD technology.
- Auto “Weld Stop” when welding torch is taken away from weld job.
- Compatible for automation.



WELDERS TO THE NATION
ADOR WELDING LIMITED

(Formerly known as Advani Oerlikon Ltd.)
www.adorwelding.com



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INTRODUCTION

CHAMP MULTI 400 (FCAW) is IGBT inverter based welding power source with Synergic operation, suitable for self shielded FCAW and MMA welding 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. It is most suitable for manual and semi automatic self shielded flux cored arc welding for Pipe welding application.

The complete system consists of power source, wire feeder, torch and interconnecting cables. By selecting the MMA or MIG mode through Digital panel, SMAW or semi automatic self shielded FCAW process can be selected.

DETAILS OF COMPLETE SYSTEM

Sr. No.	Description	CHAMP MULTI 400 A	CHAMP MULTI 400 B	CHAMP MULTI 400 (FCAW)
1	Power Source	ICCCVR 400	ICCCVR 400	ICCCVR 400 (FCAW)
2	Wire feeder	Litefeed: 200 : 2 Roll	Litefeed: 400 : 4 Roll	WF MULTI 40 (I): 4 Roll, Suitable for Self Shielded FCAW 2 mm wire
3	Torch	HIPRO 400 (E)	HIPRO 400 (E)	SUPER FCAW-350: Self shielded FCAW Torch (Lincoln End Connection), 350 A

SALIENT FEATURES

- Digital Panel for adjusting the welding parameters and selection of Process either SMAW, Lift Arc TIG, MIG or Semi automatic self shielded FCAW.
- Synergic mode of operation for single point control in short circuit arc in FCAW welding.
- 30% more Energy efficient than conventional machines.
- Maximum Power factor is 0.92
- Excellent dynamic response enables superior arc characteristics.
- 2T, 4T and SPOT and Multi Spot operating modes



- Electronic choke adjustment and Arcforce 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.
- Gas preflow, post flow and Burn back time presetable
- "Fan On demand " feature enables the Fan to operate only when it is required by power semiconductors.
- 10 Nos. of Job can be stored in semi automatic FCAW process.
- Automatic "Weld Stop" facility.
- Suitable for TIG operation by interfacing separate HF unit in TIG mode.



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PROTECTION

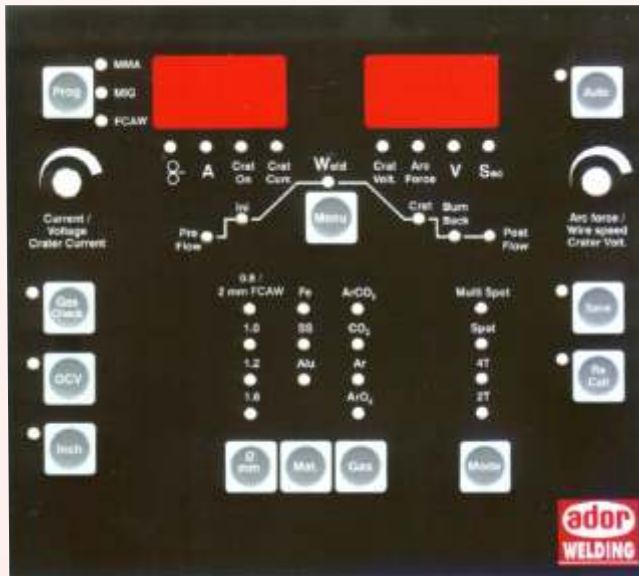
The equipment is provided with following protections.

- 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.

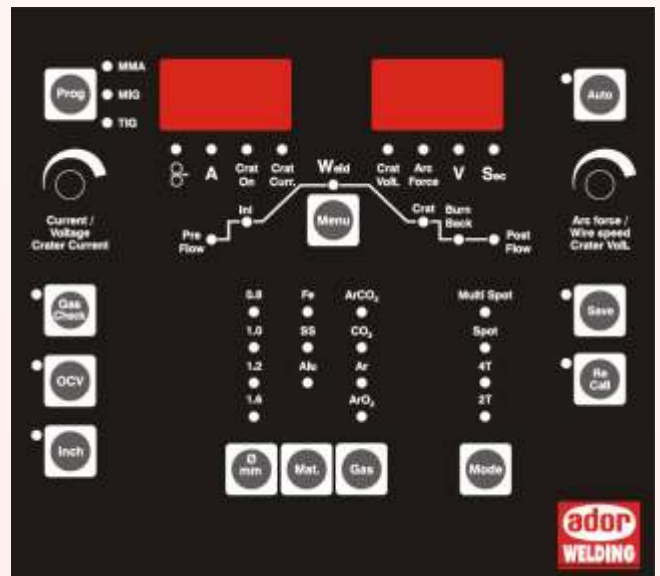
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CHAMP MULTI 400 (FCAW)



CHAMP MULTI 400



WIRE FEEDER SPECIFICATIONS:

TECHNICAL SPECIFICATIONS	LITEFEED 200	LITEFEED 400	WF-40 MULTI (I)
Suitable for wire sizes	0.8,1,1.2,1.6 mm	0.8,1,1.2,1.6 mm	2.0 mm Flux cored wire
Wirefeed speed	1.5 to 18 mtr/min	1.5 to 18 mtr/min	15 to 50 rpm / 1.0 to 6.0mtr/min
Wire roll drive	Two	Four	Four
Wire feeder Motor voltage	Permanent Magnet DC type.	Permanent Magnet DC type.	Permanent Magnet DC type.
Wire feeder fitted with rollers	42 V	42 V	42 V
Suitable for Wire Spool capacity	15kg	15kg	15kg
Dimensions:			
Length	500 mm	500 mm	520 mm
Width	230 mm	230 mm	240 mm
Height	380 mm	380 mm	360 mm
Weight (without spool)	8 kg (Approx)	8 kg (Approx)	20 kg (Approx)

TORCH SPECIFICATIONS:

TECHNICAL SPECIFICATIONS	UNIT	HIPRO 400 (E)	SUPER FCAW-350
Rating	A	400A @ 60% Duty cycle 310 A @ 100% Duty cycle	350A @ 60% Duty Cycle
End Connection to Torch	Type	Euro	Lincoln End Connection
Suitable for Wire Ø	mm	0.8, 1.0, 1.2, 1.6	1.2 to 2.4 mm Self Shielded Flux cored wires
Torch Length	meter	3	3



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SPECIFICATIONS

TECHNICAL SPECIFICATIONS	UNIT	ICCCVR 400
INPUT		
Input Supply:		415 V +10 %, -10 %
Voltage		3 Ø
Phase		50 / 60
Frequency		
Max. Input		13 (FCAW/ MIG Mode)
@ 100% duty cycle		14 (MMA Mode)
@ 60% Duty cycle		18 (FCAW/MIG Mode)
		20 (MMA Mode)
INPUT		
Open Circuit Voltage		67 V for FCAW (MIG) Mode
		75 V for MMA Mode
Welding Current Range		40-400 FCAW (MIG) Mode
		10-400 for MMA Mode
@ 60% duty cycle		400
@ 100% duty cycle		310
Welding Voltage Range		14-41 For FCAW (MIG) Mode
Crater Current Range		
Crater Voltage Range		
Mode of operation		40-400 For Semi Auto FCAW/MIG Mode
		14-41 For Semi Auto FCAW/MIG Mode
		2 track, 4 track, spot timer (1-5 Sec.), Multi Spot , Gas check, OCV check facility
Remote Control		With Digital display for setting voltage & current
Power Factor	Cos (Ø)	Max 0.9
Efficiency	%	>82
GENERAL		
Compatibility to International standard		As per Std. EN60974-10 (EMI-EMC standard for Welding Equipment)
Wire feed speed	m/min	1-6 in case with WF MULTI 40 (I) wirefeeder
Suitable welding wire dia	mm	1.5-18 in case with Litefeed 200/400 wirefeeder
		Aluminum 1.2 – 1.6 Steel 0.8,1.0,1.2 & 1.6
		2.0 , 2.4 for Self shielded Flux core wire
Synergic Mode		Single point control in short circuit arc in FCAW/MIG Mode
Program Storage Facility		10 jobs along with parameter locking facility in FCAW/MIG Mode
Interfacing		Through RS232 for stored Parameters/ jobs
Ingress Protection	Class	IP23
Cooling	Type	Forced Air
Mounting		CHAMP MULTI 400: on Wheels
Dimensions (approx.)		Champ Multi 400 (FACW): On Skid
Length	mm	680
Width	mm	340
Height	mm	675
Weight	Kg	59
Audio Noise Emission	dB	70

ORDERING INFORMATION:

PRODUCT	MODEL	PRODUCT CODE
WELDING OUTFIT	CHAMP MULTI 400 (A)	F10.37.401.0042
WELDING OUTFIT	CHAMP MULTI 400 (B)	F10.37.401.0052
WELDING OUTFIT	CHAMP MULTI 400 (FCAW)	F10.37.401.0044
Power source	ICCCVR400	F10.34.401.0041
Power Source	ICCCVR 400 (FCAW)	F10.34.401.0047
Wire feeder	Litefeed 200	015.01.001.0327
Wire feeder	Litefeed 400	015.01.001.0331
Wire eeder	WF-40 MULTI (I)	015.01.001.0808
Torch	HIPRO 400E)	015.01.002.0286
Torch	SUPER FCAW 350	015.01.002.1007



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