

CHAMPTIG 400 AD

INVERTER BASED AC/DC
MIXED PULSED TIG WELDING SYSTEM





Key Attributes

- High-frequency inverter technology offers consistent output for both TIG (AC & DC) and MMA welding.
- MMA mode: Choose between positive (DC+) and negative (DC-) polarity.
- TIG mode: Options for HF ON and HF OFF, suitable for scratch start.
- Easy arc striking with built-in HF ignition.
- Digital front panel with keypad and multifunction encoder for welding process, mode selection, and parameter adjustment.
- Dual 7-segment LED displays for current and voltage, plus an LCD for other settings.
- Anti-stick function to prevent short circuits in MMA mode.
- TIG modes: CRATER OFF (2T), CRATER ON (4T), SPOT, and CYCLE.
- Cleaning width control, AC offset adjustment, and AC frequency setting for AC TIG welding.
- Adjustable pulse current, frequency, width, AC current, frequency, cleaning control, and AC offset to meet seam requirements and extend tungsten electrode life.
- Optional remote control and foot switch for setting current in MMA and TIG modes.
- Comes with a water cooling unit and a 500 Amp capacity water-cooled TIG torch for heavy-duty welding.

Protection

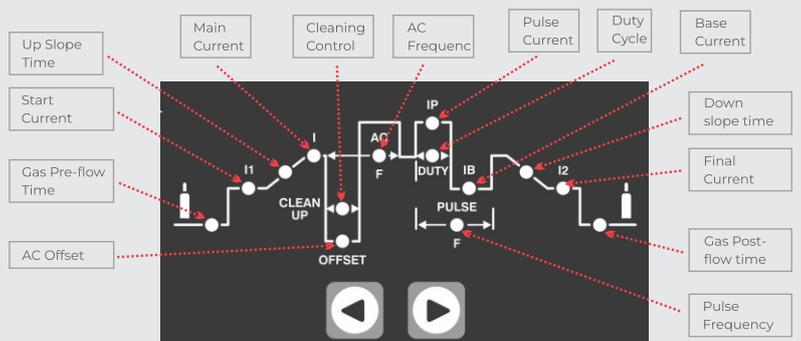
The equipment has the following protections:

- Under Voltage: The TRIP LED (Red) lights up if the supply voltage drops below 340 VAC.
- Over Voltage: The TRIP LED (Red) lights up if the supply voltage exceeds 470 VAC.
- Over Temperature: The TRIP LED (Red) lights up if the main power components get too hot.
- Single Phasing Protection: If any one of the three phases (R, Y, B) is missing, welding will stop, and the TRIP LED (Red) will light up. No welding current is available when the TRIP LED (Red) is on.

CONTROL PANEL



PARAMETER SETTINGS AND ADJUSTMENTS





Technical Specifications

Parameter	Value Champ TIG 400 AD	Unit
Supply Voltage, Phase, Frequency	415 V + 15%, - 10%; 3, 50 / 60	Volts, AC, NO, HZ
Input Power @ 415 VAC	100% Duty Cycle: MMA Mode = 19, TIG Mode = 15; 60% Duty Cycle: MMA Mode = 26, TIG Mode = 20	- KVA
Input Current @ 415VAC	100% Duty Cycle: MMA Mode = 26, TIG Mode = 21; 60% Duty Cycle: MMA Mode = 36, TIG Mode = 28;	Amps, AC
Efficiency	Upto 82	%
Power Factor	0.8 Max.	y
Open Circuit Voltage @ 415V Input Supply	84 V DC (+/- 5 V) - DC MMA, TIG; 84 V AC (+/- 5 V) - AC TIG	Volts
Welding Current Range	MMA Mode 50 - 400, AC / DC TIG Mode 20 - 400	Amps
Welding Current @ 40°C, 10 Minute Cycle	310 @ 100% Duty Cycle, 400 @ 60% Duty Cycle,	Amps
Hand / Foot Remote	Provided As Optional	10 Meter
Front Panel Functions	1) Selector Switches For Selection Of: MMA / TIG, 2T / 4T / Spot Cycle, DC+/DC-/AC Welding Method, Pulse / Normal Mode, HF On Off, Normal / Foot Switch Control, Water / Gas Cooled Torch Selection. 2) Gas Check Switch 3) Menu Switch For Selecting All Functions Via. Gas Pre-flow, Start Current, Upslope Time, Base Current, Pulse Current, Down Slope Time, Crater Current, Gas Post Flow Time, Cleaning For AC, AC Frequency, AC Offset, Pulse Width/ Spot Time, Pulse Frequency As Per Selected Mode Of Operation. 4) Connectors For Torch Switch, Foot Switch, Remote, Gas Out, Camlock Power Output 5) Mains On 'green' Color And Trip 'red" Indication 6) Encoder For Selected Parameter Value Increment / Decrement.	
Cooling	Forced Air	Type
Class of Insulation	H	-
Degree Of Protection	IP 23 (S)	-
Dimensions L x W x H	780 X 355 X 620	MM
Weight (approx.)	66	KG.



TIG Welding Parameter Specifications

Parameter	Value	Unit
Gas Pre-flow / Post Flow Time	0 – 5 / 0.1 - 20	Sec.
Initial Welding Current - TIG	20 – 400	Amps
Current Upslope / Downslope Time	0 – 10 / 0 - 10	Sec.
Base Current / Pulse Current / Crater Current (TIG)	20 – 400 / 20 – 400 / 20 - 400	AMPS
Pulse Width	10 - 90% Of Pulse Time	%
Pulse Frequency	1 – 500	Hz
Spot Time	1 – 10	Sec.
Cleaning Control	- 40 to + 40	%
AC Frequency Control	20 – 50	Hz
AC Offset Control	- 50 to + 30	%

Technical Specifications – Water Cooling Unit WCU 302

Parameter	Value	Unit
Input Supply Voltage, Phase, Frequency	230 V; Single; 50	V AC; NO., HZ
Cooling Capacity	750-1000	W
Max Motor Power	220	W
Max Pump Pressure	2.5	BAR
Max Pump Flow Rate	10	L/MIN
Tank Capacity	12	L
Connector Size	1/4" BSP, 19TPI	IN/OUT
Dimensions (L X W X H)	695x310x285	MM
Weight	18	KG

Ordering Code

FG Code	Description
F10.38.003.0215	AC/DC Pulse TIG OUTFIT, MODEL: CHAMPTIG 400AD, 5M Supply Cable, Gas Cooled Torch: Hipro TIG 303-8, 5M Gas Hose Assly, 5M Earthing Cable Assly, without Trolley & without WCU
F10.38.003.0216	AC/DC Pulse TIG Outfit, Model: CHAMPTIG 400AD, 5M Supply Cable, Water Cooled Torch: HIPRO TIG 405-8, 5M Gas Hose Assly, 5M Earthing Cable Assly, with Trolley & with WCU-302

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