



# CHAMP PULSE 500

500 Amp capacity MIG / FCAW / PULSED MIG / MMA / TIG Welder



## Key Attributes

- Fine arc length control in Pulse MIG and MIG welding modes for different types of welding applications.
- Excellent arc force and hot start control in MMA mode for low current applications.
- Digital pulse feedback from the feeding motor for accurate control of wire speed.
- Graphical-LCD for displaying machine settings, along with dual 7-segment LED displays for actual current and voltage display.
- Wire feeder with a digital console for remote parameter setting.
- Facility to store 100 welding programs (weld parameters) for easy save and recall operations.
- Addition of synergic programs externally for specific wire and gas applications using USB facility.



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## SALIENT FEATURES:

- Advanced digital control algorithms enable superior arc characteristics.
- Digital control of the inverter for spatter less MIG welding applications.
- Fine arc length control in Pulse MIG and MIG welding modes for different types of welding applications.
- Excellent arc force and hot start control in MMA mode for low current applications.
- Twin pulse mode in Pulse MIG for low heat input.
- Digital pulse feedback from the feeding motor for accurate control of wire speed.
- Graphical-LCD for displaying the machine's settings, along with dual 7-segment LED displays for actual current and voltage.
- Wire Feeder with a digital console for remote parameter setting.
- Facility to store 100 welding programs (weld parameters) for easy save and recall operations.
- Addition of synergic programs externally for specific wires using USB facility.

## TECHNICAL SPECIFICATIONS

| POWER SOURCE                              | CHAMP PULSE 500                                                                                                                             | MODEL             |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| PARAMETER                                 | VALUE                                                                                                                                       | UNIT              |
| SUPPLY VOLTAGE, PHASE, FREQUENCY          | 415 V +15%, -10%, 3, 50 /                                                                                                                   | VOLTS AC, NO., HZ |
| MAX. INPUT KVA @ 415 V SUPPLY             | @ 100% DUTY CYCLE: MMA / TIG / PULSED MIG MODES - 20, MIG MODE - 17.5; @ 60% DUTY CYCLE: MMA / TIG / PULSED MIG MODES - 30, MIG MODE - 25.5 | KVA               |
| INPUT CURRENT @ 415 V SUPPLY              | @ 100% DUTY CYCLE: MMA / TIG / PULSED MIG MODES - 28, MIG MODE - 24; @ 60% DUTY CYCLE: MMA / TIG / PULSED MIG MODES - 41, MIG MODE - 35     | AMPS, AC          |
| POWER FACTOR                              | 0.9 MAXIMUM                                                                                                                                 | $\lambda$         |
| EFFICIENCY                                | UPTO 85                                                                                                                                     | %                 |
| OPEN CIRCUIT VOLTAGE @ 415V INPUT SUPPLY  | MMA / TIG / PULSED MIG / MIG MODES - 84 V $\pm$ 5 V                                                                                         | VOLT, DC          |
| WELDING CURRENT RANGE                     | MMA / TIG: 15 - 500, MIG / PULSED MIG: 30 - 500                                                                                             | AMP, DC           |
| WELDING CURRENT AT 40 °C, 10 MINUTE CYCLE | 387 AMPS @ 100% DUTY CYCLE, 500 AMPS @ 60% DUTY CYCLE                                                                                       | AMPS, DC          |
| PROTECTIONS                               | OVER VOLTAGE, UNDER VOLTAGE, SINGLE-PHASING, OVER TEMPERATURE, OVER CURRENT                                                                 | -                 |
| PROGRAM STORAGE FACILITY                  | 100 JOBS ALONG WITH PARAMETER LOCKING FACILITY                                                                                              | -                 |
| AUXILIARY POWER SUPPLY FOR WCU            | 240 V, 300 VA                                                                                                                               | VAC, VA           |
| COOLING                                   | FORCED AIR                                                                                                                                  | TYPE              |



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| POWER SOURCE                             | CHAMP PULSE 500   | MODEL |
|------------------------------------------|-------------------|-------|
| PARAMETER                                | VALUE             | UNIT  |
| AMBIENT TEMPERATURE RATING               | 40                | °C    |
| CLASS OF INSULATION                      | H                 | -     |
| DEGREE OF PROTECTION                     | IP23S             | -     |
| COMPATIBILITY TO INTERNATIONAL STANDARDS | AS PER EN 60974-1 | -     |
| DIMENSIONS (L X W X H))                  | 1151 X 525 X 1176 | MM    |
| WEIGHT                                   | 47                | KG    |

| POWER SOURCE                 | VALUE       |             |             |                                 | UNIT     |
|------------------------------|-------------|-------------|-------------|---------------------------------|----------|
| MODE                         | MMA WELDING | TIG WELDING | MIG WELDING | PULSED MIG WELDING - ADDITIONAL |          |
| WELDING CURRENT              | 15 - 500    | 15 - 500    | (I)         | (I)                             | AMP, DC  |
| ARC FORCE                    | 0 - 100     | NA          | NA          | NA                              | %        |
| HOT START                    | 0 - 100     | NA          | NA          | NA                              | %        |
| GAS PRE FLOW TIME            | NA          | NA          | 0 - 10      | 0 - 10                          | SEC.     |
| INDUCTANCE                   | NA          | NA          | 0 - 40      | 0 - 40                          | %        |
| WELDING / CRATER CURRENT (I) | NA          | NA          | 30 - 500    | 30 - 500                        | AMP, DC  |
| WELDING / CRATER VOLTAGE     | NA          | NA          | 10.0 - 44.0 | 10.0 - 44.0                     | VOLT, DC |
| BURN - BACK TIME             | NA          | NA          | 0.01 - 5.0  | 0.01 - 5.0                      | SEC.     |
| GAS POST FLOW TIME           | NA          | NA          | 0 - 10      | 0 - 10                          | SEC.     |
| ARC LENGTH                   | NA          | NA          | NA          | - 40 TO + 40                    | %        |
| TWIN PULSE FREQUENCY         | NA          | NA          | NA          | 1.0 - 10.0                      | HZ       |
| TWIN PULSE DUTY CYCLE        | NA          | NA          | NA          | Oct-90                          | %        |
| TWIN PULSE CURRENT RATIO     | NA          | NA          | NA          | 0 - 200                         | %        |