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Welding Equipment

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Welding Equipment

SMAW (Stick Electrode Welders and Air-Arc Gouging Equipment)

RED 400 (S)

400 Amp capacity Welding Transformer

Key Attributes

- Features single-phase welding transformer (equivalent to 2 lines of 3-phase):
- Easily manoeuvrable from one job to another on the shop floor.
- Stepless, smooth, and infinitely variable current regulation for precise control.
- Forced air-cooled transformer, which maintains lower coil temperatures, leading to a longer service life.
- Current indicator located on the side panel for easy monitoring.
- ON-OFF switch control and current control handle conveniently placed on the front panel.
- Excellent dynamic characteristics ensure a smooth and optimal metal transfer.

RED 400 (S)

400 Amp capacity Welding Transformer

TECHNICAL SPECIFICATIONS

PARAMETERS	RED 401 (S)	UNIT
SUPPLY VOLTAGE, PHASE, FREQUENCY	415, 2 LINES OF 3, 50	V AC, NOS, HZ
INPUT KVA @ 100% DUTY CYCLE	19	KVA
INPUT SWITCH FUSE RATING	80	AMPS
RECOMMENDED CAPACITOR FOR P.F. IMPROVEMENT	8	KVAR
OPERATING ARC VOLTAGE	22-36	VOLTS AC
OPEN CIRCULT VOLTAGE	80	VOLTS AC
WELDING CURRENT RANGE	60-400 (2 OVERLAPPING RANGES)	AMPS AC

RED 403 / 503 / 603

Welding Transformers 400 – 600 Amps

Key Attributes

- Smooth welding current control achieved through a modern moving core magnetic shunt design.
- Stepless, smooth, and infinitely variable current regulation for precise welding control.
- Welding current adjustment is possible even while welding is in progress.
- Easy manoeuvrability with a swivel front wheel and a two-rear-wheel arrangement.
- On-Off switch control, current control, and current indicator conveniently located on the front panel.
- Excellent dynamic characteristics ensure smooth and optimal metal transfer, making it particularly suitable for low hydrogen electrodes.

RED 403 / 503 / 603

Welding Transformers 400 – 600 Amps

TECHNICAL SPECIFICATIONS

MODELS	RED 403	RED 503	RED 603	UNIT
SUPPLY VOLTAGE, PHASE, FREQUENCY	415, 2 LINES OF 3 PHASE, 50			V AC, NOS., HZ
INPUT KVA @ 100 % DUTY CYCLE	19	25	28.4	KVA
INPUT SWITCH FUSE RATING	80	100	120	A
RECOMMENDED CAPACITOR FOR P.F. IMPROVEMENT	8	10	10	KVAR
OPERATING ARC VOLTAGE	22-36	23-40	24-44	VOLTS
OPEN CIRCULT VOLTAGE	80	80	80	VOLTS
WELDING CURRENT RANGE	60-400	80-500	100-600	A
MAX. CONTINUOUS HAND WELDING CURRENT	300 @ 60%, 230 @ 100%	400 @ 60%, 300 @ 100%	450 @ 60%, 350 @ 100%	A
MAX. INTERMITTENT WELDING CURRENT	400	500	600	A
WELDING ELECTRODE SIZE	2 - 6.3	2.5 - 6.3	3.15 - 6.3	Ø MM
CLASS OF INSULATION	F	F	F	CLASS
COOLING TYPE	FORCED AIR	FORCED AIR	FORCED AIR	TYPE
PROTECTION CLASS	IP23	IP23	IP23	CLASS
DIMENSIONS (L X W X H)	720 X 460 X 750	745 X 500 X 780	820 X 560 X 850	MMS
WEIGHT (APPROX.)	110	132	160	KGS.

TPA 403

Welding Transformer, Three Phase, 400 Amps

Key Attributes

- Smooth welding current control achieved through a modern moving core magnetic shunt design.
- Stepless, smooth, and infinitely variable current regulation for precise welding control.
- Welding current adjustment is possible even while welding is in progress.
- Easy manoeuvrability with a 1 swivel front wheel and 2 rear wheel arrangement.
- On-Off switch control, current control, and current indicator are provided on the front panel.
- Excellent dynamic characteristics ensure smooth and optimal metal transfer, making it specifically recommended for low hydrogen electrodes.

TPA 403

Welding Transformer, Three Phase, 400 Amps

TECHNICAL SPECIFICATIONS

MODEL	TPA 403	UNIT
SUPPLY VOLTAGE, PHASE, FREQUENCY	415, 3 PHASE, 50	V AC, NOS., HZ
INPUT KVA @ 100 % DUTY CYCLE	19	KVA
INPUT SWITCH FUSE RATING	80	A
RECOMMENDED CAPACITOR FOR P.F. IMPROVEMENT	10	KVAR
OPERATING ARC VOLTAGE	22-36	VOLTS
OPEN CIRCULT VOLTAGE	80	VOLTS
WELDING CURRENT RANGE	60-400	A
MAX. CONTINUOUS HAND WELDING CURRENT	300 @ 60%, 230 @ 100%	A
MAX. INTERMITTENT WELDING CURRENT	400	A
WELDING ELECTRODE SIZE	2 - 6.3	Ø MM
CLASS OF INSULATION	A	CLASS
COOLING TYPE	FORCED AIR	TYPE
PROTECTION CLASS	IP23	CLASS
DIMENSIONS (L X W X H)	800 X 500 X 850	MMS
WEIGHT (APPROX.)	160	KGS.

GL 601

600 Amp capacity Welding / Gouging Rectifier Diode based, transductor controlled

Key Attributes

- Utilizes a simple, reliable, and maintenance-free diode-based technology with rugged mechanical construction.
- Welding current adjustment and regulation are achieved through an electromagnetic transductor, resulting in stepless and smooth current control.
- Convenient single-knob current control accessible from the front panel, with the option for remote-control unit integration (provided optionally).
- Suitable for DC TIG welding applications when connected to compatible TIG control units.
- Ideally suited for heavy fabrication shops and project sites with harsh environments.
- Recommended for heavy-duty welding and gouging applications in foundries, steel plants, and heavy engineering workshops, among others.

GL 601

600 Amp capacity Welding / Gouging Rectifier Diode based, transductor controlled

TECHNICAL SPECIFICATIONS

MODEL	GL 601	UNIT
INPUT SUPPLY VOLTAGE, PHASE, FREQUENCY	415, 3, 50	VOLT AC, NOS., HZ
INPUT KVA @ 100% DUTY CYCLE	38.5	KVA
INPUT CURRENT @ 100% DUTY CYCLE	70	AMPS AC
RECOMMENDED SWITCH FUSE RATING	Tp80	AMPS AC
OPEN CIRCUIT VOLTAGE	80	VOLTS DC
WELDING CURRENT RANGE	80-600	AMPS DC
CURRENT RATING	600 @ 60% DUTY CYCLE, 465 @ 100% DUTY CYCLE	AMPS DC
CLASS OF INSULATION	B	CLASS
COOLING TYPE	FORCED AIR	TYPE
PROTECTION CLASS	IP23	CLASS
DIMENSIONS (L X W X H)	907 X 750 X 1005	MM
WEIGHT (APPROX.)	430	KG

THYROLUXE 401 / 600

400 / 600 Amp capacity Welding Rectifier Thyristor controlled

3 Phase | CC | MMA | DC TIG

Key Attributes

- Provides a smooth and stable arc with minimal spatter.
- Stepless current control for precise adjustments.
- Welder-friendly remote controller allows easy and convenient current setting from the workplace/job location.
- Easy arc striking and high open circuit voltage (OCV) for easy arc start/restart.
- Equipped with protections against input supply fluctuations, including under voltage, over voltage, single-phasing, overload, and short circuit.
- Power sources come with built-in hot start, anti-stick, and self - controlled arc force dynamics for enhanced performance.

THYROLUXE 401 / 600

400 / 600 Amp capacity Welding Rectifier Thyristor controlled

TECHNICAL SPECIFICATIONS

MODELS	THYROLUXE 401	THYROLUXE 600	UNIT
INPUT SUPPLY VOLTAGE, PHASE, FREQUENCY	415 +10% / -10%, 3, 50 / 60	415 +10% / -10%, 3, 50 / 60	V AC, NO., HZ
INPUT KVA @ 100% DUTY CYCLE	19.5	31.5	KVA
INPUT CURRENT @ 100% DUTY CYCLE	26	44	A AC
RECOMMENDED SWITCH FUSE RATING	TP - 35	TP - 63	-
OPEN CIRCUIT VOLTAGE	100	100	V DC
WELDING CURRENT RANGE	10 - 400	20 - 600	A DC
WELDING CURRENT RATING	400 @ 60%, 310 @ 100% DUTY CYCLE	600 @ 60%, 465 @ 100% DUTY CYCLE	A DC
WELDING ELECTRODE SIZE	2.5, 3.15, 4.0,.5.0 AND 6.3	2.5, 3.15, 4.0,.5.0 AND 6.3	MM
INGRESS PROTECTION	IP23	IP23	GRADE
COOLING	FORCED AIR	FORCED AIR	TYPE
INSULATION	H	H	CLASS
DIMENSIONS (L X W X H)	835 X 495 X 820	980 X 550 X 960	MM
WEIGHT	147	216	KG

THYROLUXE 800 / 1000 / 1200

800 / 1000 / 1200 Amp capacity Welding / Gouging Rectifier Thyristor controlled

Key Attributes

- Heavy-duty DC welding and gouging rectifiers based on thyristor technology.
- Constant current drooping characteristics, making them perfect for welding and gouging tasks.
- Equipped with built-in hot start, anti-stick, and self-controlled arc force dynamics for enhanced performance.
- Provides protection against supply fluctuations, including under voltage, over voltage, single phasing, overload, and short circuit.
- Stepless control for easy and precise current adjustments.

THYROLUXE 800 / 1000 / 1200

800 / 1000 / 1200 Amp capacity Welding / Gouging Rectifier Thyristor controlled

TECHNICAL SPECIFICATIONS

MODELS	THYROLUXE 800	THYROLUXE 1000	THYROLUXE 1200	UNIT
INPUT SUPPLY VOLTAGE, PHASE, FREQUENCY	415 +10% / -10%, 3, 50 / 60			
INPUT KVA @ 100% duty cycle	43.2	54	72	KVA
OPEN CIRCUIT VOLTAGE	95 V ± 5 V	100	100	VOLTS, DC
WELDING CURRENT RANGE	800 - 1000	100 - 1000	100 - 1200	AMPS, DC
WELDING CURRENT DUTY CYCLE	800 @ 60%, 620 @ 100%	1000 @ 40%, 850 @ 60%, 650 @ 100%	1200 @ 60%, 930 @ 100%	AMPS, DC
GOUGING CARBON ELECTRODE SIZE	6 TO 9	6 TO 12	6 TO 15	MM
INGRESS PROTECTION	IP23			CLASS
COOLING	FORCED AIR			TYPE
INSULATION	H			CLASS
DIMENSIONS (L X W X H)	1025 X 760 X 1100	1130 X 770 X 1080	1200 X 770 X 1175	MM
WEIGHT	325	403	450	KG

SUPERGEN 320

320 Amp capacity Motor Generator Welding Rectifier

Key Attributes

- The set includes a three-phase motor as the prime mover and a specially patented design DC welding generator.
- Provides excellent high-quality welding while significantly reducing power bills.
- Offers positive protection against overload and single phasing.
- Mobile and mounted on wheels with rubber tires for easy manoeuvrability.
- Ideal for welding with cellulosic electrodes in cross-country pipelines and thermal/nuclear power plants.

SUPERGEN 320

320 Amp capacity Motor Generator Welding Rectifier

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS	VALUES	UNIT
INPUT SUPPLY VOLTAGE, PHASE, FREQUENCY	415± +10%, 3, 50	V AC, NO., HZ
INPUT POWER	15.5 / 20.78	KW / KVA
SPEED (SYNCHRONOUS)	3,000	RPM
STARTING	STAR / DELTA	TYPE
RECOMMENDED SWITCH FUSE RATING	TP 40	AMPS, AC
PROTECTION TO MACHINE	SINGLE PHASING, UV (340 V) / OV (480 V), THERMAL	-
OPEN CIRCUIT VOLTAGE	100	V DC
WELDING CURRENT RANGE	35 - 320	A DC
WELDING CURRENT DUTY CYCLE	320 @ 60%, 250 @ 100%	A DC
WELDING ELECTRODE SIZE	2.5, 3.15, 4.0,.5.0 AND 6.3	MM
ENCLOUSURE	TOTALLY ENCLOSED	TYPE
INGRESS PROTECTION	IP44 (EXCLUDING FAN SIDE)	CLASS
COOLING	FORCED AIR	TYPE
INSULATION	H	CLASS
DIMENSIONS (L X W X H)	1065 X 540 X840	MM
WEIGHT	265	KG

SC 401 / 501 / 2 X 301

WELDING RECTIFIERS – DIESEL ENGINE DRIVEN

CC | MMA | DC TIG

Key Attributes

- SC 401 and SC 501 are unique diesel engine-driven welding generators with a brushless, high-frequency design specifically for welding, featuring constant current (CC) and maintenance-free rotor construction.
- SC 2 X 301 is a dependable diesel engine welding generator using Asynchronous/Induction type with DC Dual Chopper control for precise maintenance-free current regulation.
- It offers dual outputs, allowing simultaneous use of two welders.
- Conforms to the latest CPCB norms for noise and exhaust emission levels.
- Suitable for versatile applications, including cross-country and in-plant pipe and tube welding, heavy fabrication, and site applications.
- Specially proven with Cellulosic (6010, 7010 G & 8010G types) and other special types of electrodes.
- Provides significant savings in fuel and longer operating times before the next refuelling.

SC 401 / 501 / 2 X 301

WELDING RECTIFIERS – DIESEL ENGINE DRIVEN

TECHNICAL SPECIFICATIONS

PARAMETER	SC 401	SC 501	SC 2 X 301		UNIT
CPCB COMPLIANCE	MEETS CPCB - II COMPLIANCE FOR EXHAUST EMISSION AND NOISE WITHIN 75 DBA AT 1 MTR				-
WELDING GENERATOR	BRUSHLESS TYPE, HIGH FREQUENCY GENERATOR		ASYNCHRNOUS INDUCTION TYPE WITH DUAL CHOPPER CONTROL		TYPE
WELDING CURRENT RANGE	-	-	SINGLE MODE	DOUBLE MODE	AMPS (DC)
	50 - 400 A	50 - 400 A	15-300 A	30 - 600	-
MAX. HAND WELDING CURRENT AT 40% DUTY CYCLE	-	-	2X300 A @ 29V	600 AMPS @30V	AMPS (DC)
MAX. HAND WELDING CURRENT AT 60% DUTY CYCLE	400 A @ 36 V	500 A @ 40 V	2X250 A @ 26.5V	500 AMPS @30V	AMPS (DC)
MAX. HAND WELDING CURRENT AT 100% DUTY CYCLE	310 A @ 32V	400 A @ 36V	2X200 A @ 24V	400 AMPS @36V	VOLTS (DC)
OPEN CIRCUIT VOLTAGE (MAX. / MIN.)	100 / 45 VDC	100 / 45 VDC	92 V DC		-
GENERALLY CONFORMS TO	2635				IS
INSULATION	H				CLASS
DIAMETER OF COATED ELECTRODES	2.5, 3.15, 4, 5, 6.3				MM
AUXILIARY POWER SOURCE (BUILT IN	-	-	WELD LOAD +AUX. LOAD	AUX. MODE W/O WELD LOAD	-
RATING 3 PHASE	10	10	8	10 + 8	KVA
RATING SINGLE PHASE	3	3	3	3 + 3	KVA
VOLTAGES (3 PHASE/1 PHASE)	415 / 240	415 / 240	415 / 240	415 / 240	VOLTS (AC)
MCB RATING	16 AMPS	16 AMPS	10 / 12.5	27/25	-
ENGINE MAKE, TYPE	SIMPSON, SJ 327 T CPCB-II COMPLIANT				MAKE
CYLINDER, ENGINE COOLING	3, WATER COOLED				NOS., TYPE
ENGINE RATING, SPEED, CONFORMANCE	38.5 BHP @ 1800 RPM, 1800 RPM NOMINAL, 10002/81				BHP, RPM, IS
STARTING (12 V)	ELECTRIC				TYPE
FUEL TANK CAPACITY	75				LTRS.
FUEL CONSUMPTION (@100% DUTY CYCLE)	4				LTRS. / HR
METERS / GAUGES / INDICATIONS	LUBE OIL PRESSURE, FUEL LEVEL INDICATION, BATTERY CHARGING CURRENT, CHARGING FAILURE WARNING LAMP, HOUR METER				TYPE / DETAILS
OPTIONAL ENGINE SAFETY PROTECTIONS	ENGINE AUTO SHUT OFF IN THE EVENT OF LOW LUBE OIL PRESSURE; HIGH CYLINDER HEAD TEMPERATURE; ENGINE OVER SPEED; ENGINE UNDERSPEED				TYPE

SC 401 / 501 / 2 X 301

WELDING RECTIFIERS – DIESEL ENGINE DRIVEN

TECHNICAL SPECIFICATIONS

PARAMETER	SC 401	SC 501	SC 2 X 301	UNIT
DIMENSIONS AND WEIGHT (L X W X H); KG	-	-	-	-
SKID MOUNTED	1995 X 820 X 1520; 1008	1995 X 820 X 1520; 1100	1995X 820 X 1520; 1008	MM
TWO WHEEL MOUNTED	2905 X 1455 X 2100; 1148	2900 X 1455 X 2190; 1240	2905 X 1455 X 2100; 1150	KGS
FOUR WHEEL MOUNTED	3435 X 1555 X 2100; 1248	3435 X 1555 X 1990; 1340	3435 X 1555 X 2100; 1250	KGS

CHAMP ARC 201

200 AMP CAPACITY WELDING RECTIFIER SINGLE PHASE SUPPLY, INVERTER BASED

Key Attributes

- Inverter-based technology with constant output current.
- Utilizes IGBT operating at high frequency.
- Suitable for both TIG and MMA welding operations.
- Supports scratch start TIG in 'TIG' Mode for normal operation.
- Current setting with encoder and digital display of current on the front panel.
- Equipped with over-voltage and over-temperature protection.

CHAMP ARC 201

200 AMP CAPACITY WELDING RECTIFIER SINGLE PHASE SUPPLY, INVERTER BASED

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
SUPPLY VOLTAGE, PHASE, FREQUENCY	240 V +10%, -15%, 1 PHASE, 50 / 60 HZ	V AC, NOS., HZ
EFFICIENCY	UPTO 86	%
OPEN CIRCUIT VOLTAGE	55 V DC + / - 5 V	VOLTS, DC
WELDING CURRENT RANGE	15 - 200	AMPS, DC
WELDING CURRENT AT 40 DEG C, 10 MINUTE CYCLE	120 @ 100%; 150 @ 60%; 200 @ 35% DUTY CYCLE	-
INGRESS PROTECTION	IP21	TYPE
DIMENSIONS L X W X H (WITH HANDLE)	320 X 120 X 195	MM
WEIGHT (APPROX.)	4.3	KG

CHAMP 200 X

WELDING RECTIFIER SINGLE PHASE SUPPLY, INVERTER BASED

Key Attributes

- Excellent weldability with MSGP, LH & SS electrodes.
- Inverter-based technology with constant output current.
- High-frequency operation using IGBT.
- Convenient current setting with a potentiometer on the front panel.

CHAMP 200 X

WELDING RECTIFIER SINGLE PHASE SUPPLY, INVERTER BASED

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
SUPPLY VOLTAGE, PHASE, FREQUENCY	240 V +10%, -15%, 1 PHASE, 50 / 60 HZ	V AC, NOS., HZ
EFFICIENCY	> 85	%
INPUT KVA @ 240 V SUPPLY	6.8	KVA
INPUT CURRENT @ 240 V SUPPLY	27	AMPS, AC
SUITABLE FOR WELDING ELECTRODE SIZE	2.5, 3.2, INTERMITTENT 4	mm Ø
INGRESS PROTECTION	IP21 S	TYPE
COOLING	FORCED AIR	TYPE
INSULATION	H	CLASS
FRONT PANEL FUNCTIONS	POTENTIOMETER FOR SELECTED PARAMETER VALUE INCREMENT / DECREMENT; MAINS ON 'GREEN' COLOR INDICATION TRIP 'YELLOW' COLOR LED FOR INDICATION OF MACHINE IS UNDER PROTECTION MODE	-
DIMENSIONS L X W X H	250 X 120 X 195	MM
WEIGHT (APPROX.)	3	KG

CHAMP 250 X

SINGLE PHASE INVERTER BASED DC WELDER - 250 AMPS

Key Attributes

CHAMP 250X is a most reliable and dependable SMAW welding machine with Single Phase, 240V Power Supply, proven for a wide range of applications. The Inverter based power source enables welder to obtain the desired arc current with ease. The equipment has a rugged design, with reliable performance, superior arc characteristics and minimum maintenance requirements.

SALIENT FEATURES:

- Inverter based technology.
- Suitable for MMA application
- Handle on top cover for lifting means
- Adjustable arc force, antistick function.

PROTECTION:

- Over/Under Voltage.
- Over current
- Over Temperature

CHAMP 250 X

SINGLE PHASE INVERTER BASED DC WELDER - 250 AMPS

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
SUPPLY VOLTAGE, PHASE, FREQUENCY	240 V +10%, -15%; 1; 50	V AC, NOS., HZ
MAX. INPUT KVA @ 240 V SUPPLY	9.2	KVA
EFFICIENCY	86	%
OUTPUT	-	
OPEN CIRCUIT VOLTAGE	75 V ± 5	VOLTS, DC
WELDING CURRENT RANGE	20 - 250	AMPS, AC
WELDING CURRENT (AT 40°C, 10 MINUTE DUTY CYCLE)	250 @ 40% DUTY CYCLE, 195 @ 100% DUTY CYCLE	AMPS, AC
GENERAL		
SUITABLE FOR WELDING ELECTRODE SIZE	2.5, 3.2, 4 AND 5	mm Ø
ARC FORCE SETTING	ADJUSTABLE BY POTENTIOMETER	-
CURRENT DISPLAY	3 DIGIT –7 SEGMENT DIGITAL PANEL METER	AMPS, AC
INGRESS PROTECTION	IP21S	RATING
FRONT PANEL FUNCTIONS	-	1) CURRENT AND ARC FORCE ADJUSTMENT POTENTIOMETERS 2) GREEN LED INDICATION –MAINS POWER ON 3) 3 DIGIT 7 SEGMENT CURRENT DISPLAY 4) RED LED TRIP INDICATION
COOLING	FORCED AIR	TYPE
INSULATION	H	CLASS
DIMENSIONS L X W X H	410 X 170 X 290	MM
WEIGHT (APPROX.)	6.5	KG

CHAMP 250

250 AMP CAPACITY WELDING RECTIFIER

Key Attributes

- Three-phase inverter-based, high-efficiency, and high-power factor DC Welder.
- Enhanced reliability thanks to SMD technology.
- Suitable for medium-duty welding applications.
- Arc force adjustment available on the panel.
- Light weight, compact, and portable for easy handling.
- Protections with auto-reset:
- - Input supply voltage protections for over and under voltage.
- - Over-temperature protection.
- - Protection against single phasing.

CHAMP 250

250 AMP CAPACITY WELDING RECTIFIER

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
INPUT SUPPLY VOLTAGE, PHASE, FREQUENCY	415 V +15%, -10%; 3; 50 / 60	VOLTS AC, NO., HZ
MAX. INPUT KVA @ 415V SUPPLY	7.5 @ 100% DUTY CYCLE, 0.15 @ NO LOAD	%
POWER FACTOR	UPTO 0.94	KVA
EFFICIENCY	≥ 85	AMPS, AC
OPEN CIRCUIT VOLTAGE	84 V ± 5	mm Ø
WELDING CURRENT RANGE	10-250	TYPE
WELDING CURRENT (AT 40°C, 10 MINUTE DUTY CYCLE)	250 @ 60% DUTY CYCLE, 195 @ 100% DUTY CYCLE	TYPE
SUITABLE FOR WELDING ELECTRODE SIZE	2.5, 3.2, 4, 5	CLASS
ARC FORCE SETTING	ADJUSTABLE BY POTENTIOMETER	CLASS
CURRENT DISPLAY (SET CURRENT AND ACTUAL CURRENT)	3 DIGIT –7 SEGMENT DIGITAL PANEL	TYPE
INGRESS PROTECTION	IP23	MM
INSULATION	H	KG
DIMENSIONS L X W X H	520 X 260 X 410	MM
WEIGHT (APPROX.)	26	KG

CHAMP T 400

400 AMP CAPACITY WELDING RECTIFIER

Key Attributes

- Three-phase inverter-based DC welder with high efficiency and a high-power factor.
- Suitable for long-distance welding and cellulosic electrodes, including 6010, 7010G, and 8010G types.
- Enhanced reliability with SMD technology.
- Capable of handling heavy-duty welding applications.
- Arc force adjustment available on the panel.
- Light weight, compact, and portable for easy handling.
- Capable of welding with long welding and return cables (100 meters + 100 meters).
- Protections with auto reset:
- - Input supply voltage protections for over and under voltage.
- - Over-temperature protection.
- - Protection against single phasing.

CHAMP T 400

400 AMP CAPACITY WELDING RECTIFIER

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
INPUT SUPPLY VOLTAGE, PHASE, FREQUENCY	415 V +15%, -10%; 3; 50 / 60	VOLTS AC, NO., HZ
MAX. INPUT KVA @ 415V SUPPLY	14 @ 100% DUTY CYCLE, 0.24 @ NO LOAD	KVA
POWER FACTOR	UPTO 0.93	λ
EFFICIENCY	≥ 85	%
OPEN CIRCUIT VOLTAGE	85 V ± 5	VOLTS DC
WELDING CURRENT RANGE	10-400	AMPS DC
WELDING CURRENT (AT 40°C, 10 MINUTE DUTY CYCLE)	400 @ 60% DUTY CYCLE, 310 @ 100% DUTY CYCLE	AMPS DC
SUITABLE FOR WELDING ELECTRODE SIZE	2.5, 3.2, 4, 5 AND 6.3	MM Ø
ARC FORCE SETTING	ADJUSTABLE BY POTENTIOMETER	-
CURRENT DISPLAY (SET CURRENT AND ACTUAL CURRENT)	3 DIGIT –7 SEGMENT DIGITAL PANEL METER	AMPS DC
INGRESS PROTECTION	IP23	RATING
COOLING	FORCED AIR	TYPE
INSULATION	H	CLASS
DIMENSIONS L X W X H	660 X 305 X 530	MM
WEIGHT (APPROX.)	40	KG

CHAMP 400 X

400 AMP CAPACITY WELDING RECTIFIER

Key Attributes

- Three-phase inverter-based DC Welder with high efficiency and a high-power factor.
- Enhanced reliability due to SMD technology.
- The equipment is equipped with built-in VRD to reduce the output OCV to a safe level of 6 – 9 V DC with the VRD ON/OFF switch.
- Suitable for heavy-duty welding applications.
- Hot Start and Arc Force adjustment available on the panel.
- Light weight, compact, and portable for easy handling.
- Protections with auto reset:
- - Input supply voltage protections for over and under voltage.
- - Over-temperature protection.
- - Protection against single phasing.

CHAMP 400 X

400 AMP CAPACITY WELDING RECTIFIER

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
INPUT SUPPLY VOLTAGE, PHASE, FREQUENCY	415 V +15%, -10%; 3; 50 / 60	VOLTS AC, NO., HZ
INPUT POWER @ 415V	13 @ 100% DUTY CYCLE, 19 @ 60% DUTY CYCLE, 0.2 @ NO LOAD	KVA
INPUT SUPPLY CURRENT @ 415V	18 @ 100% DUTY CYCLE, 26 @ 60% DUTY CYCLE, 0.24 @ NO LOAD	AMPS AC
EFFICIENCY	≥ 85	%
POWER FACTOR	0.93 MAX	Λ
OPEN CIRCUIT VOLTAGE @ 415V INPUT SUPPLY	70 V(+/-5V)	V DC
WELDING CURRENT RANGE	10 – 400	V DC
WELDING CURRENT (AT 40°C AND 10 MINUTE CYCLE)	310 @ 100% DUTY CYCLE, 400 @ 60% DUTY CYCLE	A DC
ARC FORCE CONTROL (MMA MODE)	0 – 100 (80A MORE CURRENT THAN SET CURRENT WHEN SET AT FULL)	-
HOT START (MMA MODE)	0 – 100 (HOT START SET % MORE THAN SET CURRENT FOR 1.5SEC INITIALLY)	-
WELDING ELECTRODE SIZES (DIAMETER)	E-6013 AND E-7018: 2.5 – 6 MM;	MM
REMOTE CONTROLLER (OPTIONAL)	PROVIDED AS OPTIONAL FOR CURRENT SETTING	10 METER
BUILT IN VRD	OCV REDUCES TO 6 V – 9 V IN MMA MODE WHEN MACHINE IS IN NO LOAD CONDITION	-
COOLING	FORCED AIR	TYPE
CLASS OF INSULATION	IP23 (S)	CLASS
DEGREE OF PROTECTION	H	DEGREE
DIMENSIONS: LENGTH X WIDTH X HEIGHT	580 X 237 X 440	MM
WEIGHT (APPROX.)	24	KG

CHAMP 600

600 AMP CAPACITY WELDING / GOUGING RECTIFIER

Key Attributes

- Three-phase inverter-based DC Welder with high efficiency and a high-power factor.
- Suitable for heavy-duty welding applications and gouging.
- Enhanced reliability due to SMD technology.
- Capable of welding with all types of cellulosic electrodes, including 6010, 7010G, and 8010G.
- Also suitable for long-distance welding with cellulosic electrodes.
- Arc force adjustment available on the panel.
- Capable of welding with long welding and return cables.
- Protections with auto reset:
- - Input supply voltage protections for over and under voltage.
- - Over-temperature protection.
- - Protection against single phasing.

CHAMP 600

600 AMP CAPACITY WELDING / GOUGING RECTIFIER

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
INPUT SUPPLY VOLTAGE, PHASE, FREQUENCY	415 V +15%, -10%; 3; 50 / 60	VOLTS AC, NO., HZ
MAX. INPUT KVA @ 415V SUPPLY	22 @ 100% DUTY CYCLE, 0.31 @ NO LOAD	KVA
POWER FACTOR	UPTO 0.93	λ
EFFICIENCY	87	%
OPEN CIRCUIT VOLTAGE	89 V ± 5	VOLTS DC
WELDING CURRENT RANGE	20-600	AMPS DC
WELDING CURRENT (AT 40°C, 10 MINUTE DUTY CYCLE)	600 @ 60% DUTY CYCLE, 465 @ 100% DUTY CYCLE	AMPS DC
SUITABLE FOR WELDING ELECTRODE SIZE	2.5, 3.2, 4, 5 AND 6.3	MM Ø
SUITABLE FOR GOUGING ELECTRODE SIZE	UP TO 9	MM Ø
ARC FORCE SETTING	ADJUSTABLE BY POTENTIOMETER	-
CURRENT DISPLAY (SET CURRENT AND ACTUAL CURRENT)	3 DIGIT –7 SEGMENT DIGITAL PANEL METER	AMPS DC
INGRESS PROTECTION	IP23	RATING
COOLING	FORCED AIR	TYPE
INSULATION	H	CLASS
DIMENSIONS L X W X H	700 X 460 X 575	MM
WEIGHT (APPROX.)	58	KG

CHAMP 800

800 AMP CAPACITY WELDING / GOUGING RECTIFIER

3 Phase | CC | MMA | GOUGING

Key Attributes

- Three-phase inverter-based, high-efficiency, and high-power factor DC Welder.
- Suitable for long-distance welding with cellulosic electrodes.
- Enhanced reliability due to SMD technology.
- Capable of welding with all types of cellulosic electrodes, including 6010, 7010G, and 8010G.
- Also suitable for heavy-duty welding applications and gouging (with up to 12 mm Gouging Electrodes).
- Arc force adjustment available on the panel.
- Capable of welding with long welding and return cables.
- Protections with auto reset:
- - Input supply voltage protections for over and under voltage.
- - Over-temperature.
- - Protection against single phasing.

CHAMP 800

800 AMP CAPACITY WELDING / GOUGING RECTIFIER

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
INPUT SUPPLY VOLTAGE, PHASE, FREQUENCY	415 V +15%, -10%; 3; 50 / 60	VOLTS AC, NO., HZ
MAX. INPUT KVA @ 415V SUPPLY	33.6 @ 100% DUTY CYCLE, 43.7 @ 60% DUTY CYCLE	KVA
POWER FACTOR	UPTO 0.9	λ
EFFICIENCY	≥ 85	%
OPEN CIRCUIT VOLTAGE	85 V ± 3	VOLTS DC
WELDING CURRENT RANGE	50-800	AMPS DC
WELDING CURRENT (AT 40°C, 10 MINUTE DUTY CYCLE)	800 @ 60% DUTY CYCLE, 600 @ 100% DUTY CYCLE	AMPS DC
SUITABLE FOR WELDING ELECTRODE SIZE	2.5, 3.2, 4, 5 AND 6.3	MM Ø
SUITABLE FOR GOUGING ELECTRODE SIZE	UP TO 12	MM Ø
ARC FORCE SETTING	ADJUSTABLE BY POTENTIOMETER	-
CURRENT DISPLAY (SET CURRENT AND ACTUAL CURRENT)	3 DIGIT –7 SEGMENT DIGITAL PANEL METER	AMPS DC
INGRESS PROTECTION	IP23	RATING
COOLING	FORCED AIR	TYPE
INSULATION	H	CLASS
DIMENSIONS L X W X H	805 X 470 X 895	MM
WEIGHT (APPROX.)	92	KG

CHAMP 1200

1200 AMP CAPACITY WELDING / GOUGING RECTIFIER

Key Attributes

- Three-phase inverter-based, high-efficiency, and high-power factor DC Welder.
- Suitable for normal electrode welding as well as gouging at high currents.
- Enhanced reliability due to SMD technology.
- The CHAMP 1200 has an optional built-in Voltage Reduction Device (VRD) for safety, limiting the machine's open circuit voltage to less than 15V as required in certain areas. An ADOR engineer can easily activate this function inside the power source if needed by the user.
- Protections with auto reset:
- - Input Supply Voltage protections for over and under voltage.
- - Over-Temperature.
- - Protection against single phasing.

CHAMP 1200

1200 AMP CAPACITY WELDING / GOUGING RECTIFIER

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
INPUT SUPPLY VOLTAGE, PHASE, FREQUENCY	415 V +15%, -10%; 3; 50 / 60	VOLTS AC, NO., HZ
MAX. INPUT KVA @ 415V SUPPLY	55 @ 100% DUTY CYCLE	KVA
INPUT SUPPLY CURRENT	76 @ 100% DUTY CYCLE, 92 @ 60% DUTY CYCLE	AMPS AC
POWER FACTOR @ 100% DUTY CYCLE	0.93	λ
EFFICIENCY 100 DUTY CYCLE	≥ 85	%
OPEN CIRCUIT VOLTAGE	90 V (15 V IF VRD IS ENABLED)	VOLTS DC
WELDING CURRENT RANGE	100-1200	AMPS DC
WELDING CURRENT (AT 40°C, 10 MINUTE DUTY CYCLE)	1200 @ 60% DUTY CYCLE, 1000 @ 100% DUTY CYCLE	AMPS DC
SUITABLE FOR WELDING ELECTRODE SIZE	2.5, 3.2, 4, 5 AND 6.3	MM Ø
SUITABLE FOR GOUGING ELECTRODE SIZE	UP TO 15	MM Ø
REMOTE CONTROL (OPTIONAL)	10 METER REMOTE CONTROL PROVIDED AS OPTIONAL FOR CURRENT SETTING	-
CURRENT DISPLAY (SET CURRENT AND ACTUAL CURRENT)	3 DIGIT –7 SEGMENT DIGITAL PANEL METER	AMPS DC
VOLTAGE DISPLAY	3 DIGIT –7 SEGMENT DIGITAL PANEL METER	VOLTS DC
INGRESS PROTECTION	IP23	RATING
COOLING	FORCED AIR	TYPE
INSULATION	H	CLASS
DIMENSIONS L X W X H	930 X 525 X 950	MM
WEIGHT (APPROX.)	92	KG

Welding Equipment

GTAW (TIG) Welders

CHAMPTIG 220 C

220 AMP CAPACITY DC TIG / DC PULSED TIG WELDER

Key Attributes

- Inverter-based technology with constant output current.
- IGBT-based power source operating at high frequency.
- Suitable for TIG and MMA welding operations.
- Supports DC Pulsed TIG and MMA with advanced PWM technology.
- Equipped with a high-performance MCU, digital control, and digital display.
- Offers 2T HF/ 4T HF/ 2T Lift TIG/ 4T Lift TIG selection.
- Intelligent protection:
- - Over-voltage.
- - Over-current.
- - Over-temperature.

CHAMPTIG 220 C

220 AMP CAPACITY DC TIG / DC PULSED TIG WELDER

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
SUPPLY VOLTAGE, PHASE, FREQUENCY	240 V +10%, -15%, 1 PHASE, 50 / 60 HZ	VOLTS AC, NO., HZ
MAX. INPUT KVA @ 240 V SUPPLY	MMA: 5.6 @ 100%, @ 9.8 @ 35%; TIG: 4.0 @ 100%, 7.8 @ 35%	KVA
EFFICIENCY	UPTO 84	%
OPEN CIRCUIT VOLTAGE	70 ± 5 (30 V VRD - MMA MODE)	VOLTS DC
WELDING CURRENT RANGE	5 - 200 (MMA) / 5 - 220 (TIG)	AMPS DC
DUTY CYCLE (MMA / TIG MODE)	120 / 130 @ 100%, 150 / 170 @ 60%, 200 / 220 @ 35%	AMPS DC
INGRESS PROTECTION	IP23	TYPE
COOLING	FORCED AIR	TYPE
INSULATION	H	CLASS
DIMENSIONS L X W X H	930 X 525 X 950	MM
WEIGHT (APPROX.)	92	KG

TIG PARAMETERS	VALUE	UNIT
WELDING CURRENT SET	5 - 220	A
GAS PRE-FLOW TIME / POST FLOW TIME	0.1 – 1.0 / 0.1 – 1.0	SEC.
START CURRENT (IS) (TIG)	5 - 220	A
CURRENT UPSLOPE TIME / DOWNSLOPE TIME	0 – 10 / 0 – 10	SEC.
PEAK CURRENT (IP) / BASE CURRENT (IB)	5 – 220 / 5 - 220	A
PULSE FREQUENCY	0.5 - 100	HZ
DUTY CYCLE (TP)	5 – 100	%
CRATER CURRENT (IC)	5 – 220	A

MMA PARAMETERS	VALUE	UNIT
HOT START	MMA MODE ONLY: 1-10 (10 SIGNIFIES 100%)	%
ARC FORCE	MMA MODE ONLY: 1-10 (10 SIGNIFIES 100%)	%
WELDING CURRENT SET	MMA 5 - 200	A

HF 2000

TIG STARTER UNIT EQUIPMENT –DC

Key Attributes

- Portable & Light Weight
- Built in high frequency unit for easy arc striking in DC TIG welding process
- HF 2000 can be used with Welding Machines having DC output only (DC Welding Rectifiers)
- HF on/off switch to prevent high frequency interference
- Auto HF cut off if arc does not strike within 10 seconds
- Built in gas pre-flow / post-flow facility

HF 2000

TIG STARTER UNIT EQUIPMENT –DC

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
SUPPLY VOLTAGE, PHASE, FREQUENCY	230 V, 1, 50	V AC,NO., HZ
WELDING CURRENT RATING (DC)	200 @ 60%, 150 @ 100%	AMPS DC
GAS PREFLOW TIME	0.1-5	SEC.
GAS POSTFLOW TIME	1 - 30	SEC.
PROTECTION CLASS	IP 23	CLASS
MODE OF OPERATION	2T / 4T	TYPE
ARC STRIKING	HF / TOUCH	TYPE
DIMENSIONS (L X W XH)	440 X 165 X 315	MM
WEIGHT	10	KG
TORCH MODEL	HI-PRO TIG 201-4/201-8	-
MAX. CURRENT CARRYING CAPACITY	200 @ 60%, 150 @ 100%	AMPS DC
LENGTH	4 OR 8	METERS
COOLING	GAS	TYPE
ELECTRODE CAPACITY	1.6, 2.4 & 3.2	MM

CHAMPTIG 300 P / 400 P

300 / 400 Amp capacity DC TIG / DC Pulsed TIG Welder

Key Attributes

- CHAMPTIG 300 P / CHAMPTIG 400 P are inverter-based, high efficiency, and high power-factor DC Pulse TIG/MMA welders.
- Suitable for a wide variety of material types and thicknesses.
- Full-featured TIG controls are possible with HF ignition.
- Equipped with intelligent protection against over/under voltage and over current/temperature.
- The machines come with the option of a water-cooled torch with a water-cooling unit or with a gas-cooled torch.

CHAMPTIG 300 P / 400 P

300 / 400 Amp capacity DC TIG / DC Pulsed TIG Welder

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE		UNIT
MODEL	CHAMP TIG 300 P	CHAMP TIG 400 P	
SUPPLY VOLTAGE, PHASE, FREQUENCY	415 V +15%, -10%, 3 PHASE, 50 / 60 HZ	415 V +15%, -10%, 3 PHASE, 50 / 60 HZ	VOLTS, AC
INPUT KVA @ 415 V SUPPLY	MMA MODE – 75, TIG MODE – 70 @ 100% DUTYCYCLE; MMA MODE – 019, TIG MODE – 019 @ NO LOAD	MMA MODE-13, TIG MODE – 10 @ 100% DUTY CYCLE; MMA MODE-19, TIG MODE – 15 @ 60% DUTY CYCLE	KVA
POWER FACTOR @ 100% DUTY CYCLE	0.93 MAX.	0.87 MAX.	λ
EFFICIENCY @ 100% DUTY CYCLE	> 82 %	> 85 %	∂º
OPEN CIRCUIT VOLTAGE @ 415V INPUT SUPPLY	70 V DC (+/- 5 V)	70 V DC (+/- 5 V)	VOLTS, DC
WELDING CURRENT RANGE	MMA MODE 50 - 250, TIG MODE 5 - 300	MMA MODE 50 - 400, TIG MODE 20 - 400	AMPS, DC
WELDING CURRENT AT 40 DEG C, 10 MINUTE CYCLE	MMA MODE 195, TIG MODE 230 @ 100% DUTY CYCLE; MMA MODE 250, TIG MODE 300 @ 60% DUTY CYCLE	310 @ 100% DUTY CYCLE 400 @ 60% DUTY CYCLE	AMPS, DC
OPTIONAL HANDHELD REMOTE CONTROLLER	PROVIDED AS OPTIONAL FOR CURRENT SETTING IN MMA / TIG MODE		10 METER
PROTECTIONS	OVER VOLTAGE, UNDER VOLTAGE, SINGLE- PHASING, OVER TEMPERATURE		-
PROTECTIONS	FORCED AIR		TYPE
CLASS OF INSULATION	H		-
DIMENSIONS L X W X H (WITHOUT HANDLE)	610 X 295 X 480	660 X 315 X 485	MM
WEIGHT (APPROX.)	38	46	KG.

TIG WELDING PARAMETER SPECIFICATIONS			
PARAMETER	VALUE		UNIT UNIT
MODEL	CHAMP TIG 300 P	CHAMP TIG 400 P	
GAS FLOW TIME	PREFLOW 0 – 5, POSTFLOW 0.1 - 20	PREFLOW 0 – 5, POSTFLOW 0.1 - 20	SEC.
START CURRENT IN TIG	5 – 300	10 – 400	AMP.
CURRENT SLOPE TIME	UP SLOPE 0 – 10, DOWN SLOPE 0 - 10	UP SLOPE 0 – 10, DOWN SLOPE 0 - 10	SEC.
BASE CURRENT TIG	10% - 90% OF PULSE CURRENT	10% - 90% OF PULSE CURRENT	AMP
PULSE / CRATER CURRENT TIG MODE	5 – 300	20 – 400	AMP

CHAMPTIG 300 P / 400 P

300 / 400 Amp capacity DC TIG / DC Pulsed TIG Welder

TECHNICAL SPECIFICATIONS

TIG WELDING PARAMETER SPECIFICATIONS			
PARAMETER	VALUE		UNIT
MODEL	CHAMP TIG 300 P	CHAMP TIG 400 P	
PULSE WIDTH	10 TO 90% OF WIDTH OF PULSE CURRENT	10 TO 90% OF WIDTH OF PULSE CURRENT	%
PULSE FREQUENCY	1.0 - 300	1.0 - 300	HZ
SPOT TIME	1 – 10	1 – 10	SEC.

CHAMPTIG 301 SP

Inverter Based DC TIG and DC Pulsed TIG Welder

Key Attributes

CHAMPTIG 301 SP is an inverter based, High efficiency and High Power-Factor DC Pulse TIG/MMA Welder. It is useful for a wide variety of material types and thickness. Full featured TIG controls is possible with HF ignition. The equipment is provided with Intelligent protection: over/under voltage, over current/temperature. It comes with option of Water-cooled Torch with water cooling unit or with Gas cooled Torch.

- Latest Inverter based technology with constant output current.
- IGBT based with ZVS soft switching technology.
- Suitable for TIG and MMA welding operation.
- Inbuilt VRD function in MMA mode.
- Preset all parameters withhold process.
- DC Pulsed TIG and MMA, adopt IGBT and advanced PWM technology.
- High performance MCU, Digital control, Digital display
- 2T HF/ 4T HF/ 2T Lift TIG/ 4T Lift TIG, current down slope and up slope, gas post-flow, Pulse Frequency
- Intelligent protection: over voltage, under voltage, over current, overheat.
- Reduce the weight of the machine; improve the mobility of the welder.

CHAMPTIG 301 SP

Inverter Based DC TIG and DC Pulsed TIG Welder

TIG WELDING PARAMETER SPECIFICATIONS

PARAMETER	VALUE	UNIT
GAS FLOW TIME	PREFLOW 0.1 –1.0; POSTFLOW 0.1 –10.0	SEC.
INITIAL WELDING CURRENT (IS)	10 – 300	AMP.
CURRENT SLOPE TIME	UP SLOPE 0 –10, DOWN SLOPE 0 -10	SEC.
BASE CURRENT (IB)	10 -300	AMP.
PEAK CURRENT (IP)	10 – 300	AMP.
PULSE WIDTH RANGE (DUTY CYCLE)	5 -100	%
PULSE FREQUENCY	0.5 - 100	HZ
FINAL CURRENT	10 – 300	AMP.

TIG WELDING PARAMETER SPECIFICATIONS

PARAMETER	VALUE	UNIT
HOT START	1 –10 (10 SIGNIFIES 100%)	%
WELDING CURRENT	10 – 300	A
ARC FORCE	1 –10 (10 SIGNIFIES 100%)	%

MMA WELDING PARAMETER SPECIFICATIONS

PARAMETER	VALUE	UNIT
HOT START	1 –10 (10 SIGNIFIES 100%)	%
WELDING CURRENT	10 – 300	A
ARC FORCE	1 –10 (10 SIGNIFIES 100%)	%

TECHNICAL SPECIFICATIONS

POWER SOURCE	MODEL	CHAMP TIG 301 SP
PARAMETER	VALUE	UNIT
SUPPLY VOLTAGE, PHASE, FREQUENCY	1 –10 (10 SIGNIFIES 100%)	VOLTS, AC
INPUT KVA @ 415 V SUPPLY	MMA MODE –9.5, TIG MODE – 6.0 @ 100%; MMA MODE –12.0, TIG MODE – 9.0 @ 60%; MMA MODE –16.0, TIG MODE – 11.5 @ 35%;	KVA
INPUT CURRENT @ 415 V SUPPLY	MMA MODE –13.0, TIG MODE –9.0 @ 100%; MMA MODE –17.0, TIG MODE –12.0 @ 60%; MMA MODE –22.0, TIG MODE –16.0 @ 35%;	AMPS, DC
POWER FACTOR @ 100% DUTY CYCLE	0.8 MAX.	λ
OPEN CIRCUIT VOLTAGE @ 415V SUPPLY	27 V (IN VRD CONDITION – MMA MODE), 68 V DC (+/- 5 V)	VOLTS, DC
WELDING CURRENT RANGE	10 –300 (MMA AND TIG MODES)	AMPS, DC
WELDING CURRENT AT 40 DEG C, 10 MINUTE CYCLE	300 A @ 35%; 240 A @ 60%; 190 A @ 100% DUTY CYCLES	AMPS, DC
PROTECTIONS	OVER VOLTAGE, UNDER VOLTAGE, OVER TEMPERATURE	-

CHAMPTIG 301 SP

Inverter Based DC TIG and DC Pulsed TIG Welder

TECHNICAL SPECIFICATIONS

POWER SOURCE	MODEL	CHAMP TIG 301 SP
PARAMETER	VALUE	UNIT
FRONT PANEL FUNCTIONS	1) MMA/ 2T LIFT/ 4T LIFT / 2T HF / 4T HF SELECTION SWITCH	-
	2) SEVEN SEGMENT DISPLAY FOR CURRENT (SET & ACTUAL) & OTHER PARAMETERS (WHILE SETTING)	
	3) SELECTION ENCODER FOR ALL TIG FUNCTIONS VIA. GAS PRE-FLOW, GAS POST FLOW, FREQUENCY, UPSLOPE TIME, DOWNSLOPE TIME, WELDINGCURRENT, BACKGROUND CURRENT, SET CURRENT TIME AS PER SELECTEDMODE OF OPERATION.	
	4) SELECTION ENCODER FOR SELECTING ALL MMA FUNCTIONS VIA. HOT START, ARC FORCE & WELDING CURRENT	
	5) MAINS ON 'GREEN LED INDICATION	
	6) TRIP 'YELLOW' COLOR LED FOR INDICATION OF MACHINE IS UNDER PROTECTION MODE	
COOLING	FORCED AIR	TYPE
CLASS OF INSULATION	F	-
DEGREE OF PROTECTION	IP23 (S)	-
DIMENSIONS: LENGTH X WIDTH X HEIGHT (WITHOUT HANDLE)	480 X 175 X 310	MM
WEIGHT (APPROX.)	12	KG

CHAMPTIG 400 AD / 500 AD

400 / 500 Amp capacity AC / DC TIG / Pulsed TIG Welder

Key Attributes

- High Frequency Inverter based technology with constant output current suitable for both TIG (AC & DC) and MMA welding operation
- Welding process, mode selection and parameter adjustment by using keypad and multi function encoder provided on digital front panel
- It can meet the requirement of seam depth, width and ripple, which can prolong the using life of tungsten electrode.
- 400 AD can be offered with suitable capacity Gas cooled TIG Torch or with Water Cooling Unit, Trolley and Water cooled TIG Torch. 500 AD is offered with Water Cooling Unit, Trolley and heavy-duty water cooled TIG Torch.
- The Equipment is provided with following protections:
  - Under Voltage (< 340VAC.), Over Voltage (>470 VAC) and Single Phasing.
  - Over Temperature

CHAMPTIG 400 AD / 500 AD

400 / 500 Amp capacity AC / DC TIG / Pulsed TIG Welder

TECHNICAL SPECIFICATIONS

PARAMETER	VALUE		UNIT
MODEL	CHAMP TIG 400 AD	CHAMP TIG 500 AD	
SUPPLY VOLTAGE, PHASE, FREQUENCY	415 V +15%, -10%; 3; 50 / 60		VOLTS, AC; NOS.; HZ
INPUT POWER @ 415VAC	@ 100% DUTY CYCLE: MMA MODE = 19, TIG MODE = 15; @ 60% DUTY CYCLE: MMA MODE = 26, TIG MODE = 20	15 @ 100%, 20 @ 60%, 27 @ 35% DUTY CYCLE - TIG MODE 19 @ 100%, 26 @ 60%, 34 @ 35% DUTY CYCLE - MMA MOD	KVA
EFFICIENCY	UP TO 82		%
POWER FACTOR	0.8 MAX.	0.8 MAX.	ʎ
OPEN CIRCUIT VOLTAGE @ 415V INPUT SUPPLY	78V DC(+/-5V)-DC MMA, TIG; 78V AC (+/-5V)-AC TIG	78V DC (±5V)-DC MMA,TIG; 78V AC (±5V)-AC TIG	VOLTS
WELDING CURRENT RANGE	MMA MODE 50 - 400, AC / DC TIG MODE 20 - 400	MMA MODE 50 - 500, AC / DC TIG MODE 20 - 500	AMPS
WELDING CURRENT AT 40 DEG C, 10 MINUTE CYCLE	310 @ 100% DUTY CYCLE, 400 @ 60% DUTY CYCLE,	310 @ 100%, 400 @ 60%, 500 @ 35% DUTY CYCLE	AMPS
REMOTE CONTROLLER / FOOT SWITCH CONTROLLER	PROVIDED AS OPTIONAL FOR CURRENT SETTING.		10 METER
COOLING	FORCED AIR		TYPE
CLASS OF INSULATION	H		-
DEGREE OF PROTECTION	IP23(S)		-
DIMENSIONS LENGTH X WIDTH X HEIGHT	780 X 355 X 620	780 X 355 X 620	MM
WEIGHT (APPROX.)	66	66	KG.

CHAMPTIG 400 AD / 500 AD

400 / 500 Amp capacity AC / DC TIG / Pulsed TIG Welder

TECHNICAL SPECIFICATIONS

TIG WELDING PARAMETER SPECIFICATIONS			
PARAMETER	VALUE		UNIT
MODEL	CHAMP TIG 400 AD	CHAMP TIG 500 AD	
GAS FLOW TIME	PREFLOW 0 – 5, POSTFLOW 0.1 - 20	PREFLOW 0 – 5, POSTFLOW 0.1 - 20	SEC.
INITIAL WELDING CURRENT, BASE CURRENT, PULSE CURRENT, CRATER CURRENT - TIG	10 – 300	20 – 500	AMPS
CURRENT SLOPE TIME	UP SLOPE 0 – 10, DOWN SLOPE 0 - 10	UP SLOPE 0 – 10, DOWN SLOPE 0 - 10	SEC.
PULSE WIDTH	10 - 90% OF PULSE TIME PERIOD	10 - 90% OF PULSE TIME PERIOD (1 SECOND - 2 MILISECOND)	%
PULSE FREQUENCY	0.5 – 500	1 – 500	HZ
SPOT TIME	1 – 10	1 – 10	SEC.
CLEANING CONTROL	- 40 TO + 40	- 40 TO + 40	-
AC FREQUENCY CONTROL	20 – 100	20 – 50	HZ
AC OFFSET CONTROL	- 50 TO + 30	- 50 TO + 30	%

Welding Equipment

GMAW (MIG / MAG) Welders

MAXIMIG 251 / 400 / 600

250 / 400 / 600 AMP CAPACITY MIG / MAG WELDER

3 Phase | CV | MIG/MAG

Key Attributes

- User-friendly selection of 2-track / 4-track operation for zero-defect GMAW welding.
- Achieves good and consistent weld quality with low hydrogen content.
- Dependable wire feeder system ensures long, uninterrupted welding.
- Quick-release wire feed roller mechanism enables the operator to change the wire spool quickly, minimizing unproductive time and increasing productivity on the shop floor.
- Recommended for all position MIG / MAG welding applications.
- Suitable for a wide range of metals, including carbon steel and stainless steel, with appropriate or recommended consumables.
- Ideally recommended for heavy-duty MIG / MAG welding applications, such as crane structure component manufacturing, 3-shift use, rough handling on the shop floor, and fabrication shops where maintenance staff is not highly qualified.

MAXIMIG 251 / 400 / 600

250 / 400 / 600 AMP CAPACITY MIG / MAG WELDER

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE			UNIT
POWER SOURCE	MAXIMIG 251	MAXIMIG 400	MAXIMIG 600	
SUPPLY VOLTAGE, PHASE, FREQUENCY	415 ± 10%, 3, 50/60			VOLTS, AC; NOS.; HZ
INPUT KVA @ 100% DUTY CYCLE	10	17.5	23	KVA
NO. OF WELDING STEPS	16	32	32	
OPEN CIRCUIT VOLTAGE	16 - 36	18 - 54	MAX. 19 - 71 / ACTUAL 18 - 61	VOLTS, DC
WELDING CURRENT RANGE	50 - 250	50 - 400	70 - 600	AMPS, DC
WELDING CURRENT @ 100% DUTY CYCLE	195 @ 23.8 V	310 @ 29.5 V	465 @ 37.0 V	AMPS, DC
WELDING CURRENT @ 60% DUTY CYCLE	250 @ 26.5 V	400 @ 34.0 V	600 @ 44.0 V	AMPS, DC
COOLING	FORCED AIR			TYPE
INSULATION	H			CLASS
DIMENSIONS (L X W X H)	770 X 400 X 740	835 X 435 X 820	950 X 540 X 950	MM
WEIGHT (APPROX.)	93	136	230	KG
WIRE FEEDER	FEEDLITE 20 NEL (2 ROLL)	FEEDLITE 40 NEH - C (4 ROLL)	FEEDLITE 40 NEH - C (4 ROLL)	MODEL
WEIGHT (WITHOUT SPOOL)	10 KG (APPROX)	16 KG (APPROX)	16 KG (APPROX)	KG
DIMENSIONS (L X W X H)	660 X 240 X 470	563 X 230 X 410	563 X 230 X 410	MM
SUITABLE FOR WIRE SPOOL CAPACITY	15 KG	15 KG	15 KG	KG
WIRE FEEDER FITTED WITH ROLLERS	0.8 / 1.2 FOR SOLID WIRE	1.2/1.6 FOR SOLID WIRE 2 NO	1.2/1.6 FOR SOLID WIRE 2 NO	MM
WIRE FEEDER MOTOR VOLTAGE	42 V DC	42 V DC	42 V DC	VOLTS DC
WIRE DRIVE MOTOR.	PERMANENT MAGNET DC TYPE.	PERMANENT MAGNET DC TYPE.	PERMANENT MAGNET DC TYPE.	TYPE
WIRE ROLL DRIVE	TWO	FOUR	FOUR	NO
WIRE FEED SPEED	1.5 TO 18	1.5 TO 18	1.5 TO 18	METERS / MINUTE
SUITABLE FOR WIRE SIZES	0.8, 1.0, 1.2	0.8, 1.0, 1.2, 1.6	0.8, 1.0, 1.2, 1.6	MM
TORCH	HIPRO 254 (E) B / MTG 250 (E)	HIPRO 404 (E) B / MTG 400 (E)	HIPRO 502 E) / MTG 600 (E)	MODEL

STRIKER 400

400 AMP CAPACITY MIG / MAG WELDER

3 Phase | CV | MIG/MAG

Key Attributes

- Striker 400 is a reliable MIG/MAG welding machine with a Thyristor-based power source, low ripple DC output, stepless voltage control, rugged design, superior arc characteristics, and minimal maintenance.
- Crater voltage and current control are possible with the On/Off switch.
- Globule Detachment Technique keeps the tip ready without globule formation for the next welding cycle.
- Protection against overheating and very high secondary short circuit current.
- Front panel includes 2T / 4T selection, gas selection (CO2 / mixed gas) selection, and gas check toggle switch.

STRIKER 400

400 AMP CAPACITY MIG / MAG WELDER

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
POWER SOURCE	TCVR 405 (STRIKER 400)	
SUPPLY VOLTAGE, PHASE, FREQUENCY	415 ± 10%; 3; 50	VOLTS AC; NO.; HZ
INPUT KVA	18.7 @ 100% DUTY CYCLE, 23 @ 60% DUTY CYCLE	KVA
RATED INPUT CURRENT	27 @ 100% DUTY CYCLE, 32 @ 60% DUTY CYCLE	AMPS, AC
EFIICIENCY	> 76%	%
POWER FACTOR	0.86	λ
OPEN CIRCUIT VOLTAGE	55 V ± 2 V	VOLTS DC
WELDING CURRENT @ 10 MINUTES DUTY CYCLE	310 @ 100%, 400 @ 60%	AMPS DC
WELDING AND CRATER CURRENT RANGE	50 - 400	AMPS DC
WELDING AND CRATER VOLTAGE RANGE	16 - 39	VOLTS DC
INGRESS PROTECTION	IP23	CLASS
COOLING	FORCED AIR	TYPE
INSULATION	H	CLASS
CO2 PRE HEATER SUPPLY	90 V AC, 90 W	-
PROTECTION	THERMAL OVERLOAD TRIP	-
DIMENSIONS (L X W X H)	780 X 450 X 915	MM
WEIGHT (APPROX.)	157	KG
WIRE FEEDER		
WIRE FEEDER DRIVE UNIT	2 ROLL PRINT MOTOR / 4 ROLL PRINT MOTOR	TYPE
MOTOR VOLTAGE	18.3	VOLTS DC
WIRE SPEED	1.5 - 18	METERS / MINUTE
WIRE SPOOL CAPACITY	15	KG
SUITABLE FOR WIRE DIAMETER	0.8, 1.0, 1.2 AND 1.6	MM
INCH SWITCH	ON WIRE FEEDER	ON WIRE FEEDER
DIMENSIONS (L X W X H)	530 X 230 X 315	MM
WEIGHT (APPROX.)	9	KG
TORCH		
HIPRO 404 (E) B / MTG 400 (E)	-	MODEL

CHAMPMIG 250 / 400 / 600

250 / 400 / 600 AMP CAPACITY MIG / MAG WELDER

3 Phase | CV | MIG/MAG

Key Attributes

- CHAMP MIG 250 / 400 / 600 utilize IGBT power modules, high-frequency transformers, and fast recovery diodes as key devices for power conversion and transmission, ensuring enhanced efficiency and performance.
- The equipment is provided with the following protections:
- - Under-voltage and over-voltage
- - Over-temperature
- - Single phasing protection

CHAMPMIG 250 / 400 / 600

250 / 400 / 600 AMP CAPACITY MIG / MAG WELDER

TECHNICAL SPECIFICATIONS

MODELS	ICVR 250 (CHAMPMIG 250)	ICVR 400 (CHAMPMIG 400)	ICVR 600 (CHAMPMIG 600)	UNIT
SUPPLY VOLTAGE, PHASE, FREQUENCY	415 +10% / -10%, 3, 50 / 60			VOLTS, AC; NO.; HZ
INPUT KVA	6.5 @ 100% DUTY CYCLE, 0.19 @ NO LOAD	12.0 @ 100% DUTY CYCLE, 0.24 @ NO LOAD	21.5 @ 100% DUTY CYCLE, 0.31 @ NO LOAD	KVA
POWER FACTOR	0.93 MAX.	0.93 MAX.	0.94 MAX.	λ
EFFICIENCY	83 @ 100% DUTY CYCLE	87 @ 100% DUTY CYCLE	89 @ 100% DUTY CYCLE	%
OPEN CIRCUIT VOLTAGE	65 ± 5%			VOLTS, DC
WELDING VOLTAGE AND CRATER VOLTAGE RANGE	16-34	16-39	16-45	VOLTS, DC
WELDING CURRENT RATING	250 @ 60% DUTY CYCLE, 195 @ 100% DUTY CYCLE	400 @ 60% DUTY CYCLE, 310 @ 100% DUTY CYCLE	600 @ 60% DUTY CYCLE, 465 @ 100% DUTY CYCLE	AMPS, DC
WELDING CURRENT AND CRATER CURRENT RANGE	50-250	50-40	65-600	AMPS, DC
COOLING	FORCED AIR			TYPE
INSULATION	H			CLASS
DIMENSIONS (L X W X H)	500 X 260 X 470	700 X 450 X 600	670 X 450 X 620	MM
WEIGHT	26	44	56	KG
WIRE FEEDER	FEEDLITE 20 NELR	FEEDLITE 40 NEMR (C)	FEEDLITE 40 NEHR (C)	
WIRE FEEDER DRIVE UNIT	2 ROLL PMDC TYPE	4 ROLL PMDC TYPE	4 ROLL PMDC TYPE	TYPE
MOTOR VOLTAGE	42 V DC			-
WIRE SPEED	1.5 TO 18			METERS / MINUTE
WIRE SPOOL CAPACITY	15 KG			KG
SUITABLE FOR WIRE DIAMETER	0.8,1.0,1.2	0.8,1.0,1.6	0.8,1,1.2,1.6	MM
DIMENSIONS (L X W X H)	430 X 180 X 310	563 X 230 X 410	563 X 230 X 410	MM
WEIGHT	8	16 KG (APPROX)	16 KG (APPROX)	KG
TORCH	HIPRO 254 B / MTG 250 E	HIPRO 404 B / MTG 400 E	HIPRO 502 E / MTG 600 E	MODEL

CHAMPMULTI 400 / 600

400 / 600 Amp capacity MIG / FCAW / MMA / TIG Welder

Key Attributes

- Multi-process welding outfits with an inverter-based welding power source.
- The welding power source has both constant current (CC) and constant voltage characteristics (CV), making it suitable for MMA and MIG/MAG and FCAW applications.
- Power source is protected against single phasing, undervoltage, overvoltage, short circuit, and temperature rise.
- MMA process with this outfit is most suitable for all kinds of electrodes, including CELWEL, for fabrication work, pipe welding, site construction, etc.
- GMAW process is suitable for welding in a semiautomatic/automatic mechanism for welding MS, SS, and Al materials with solid and flux core wires (FCAW mode).

CHAMPMULTI 400 / 600

400 / 600 Amp capacity MIG / FCAW / MMA / TIG Welder

SALIENT FEATURES:

- Single-point synergic control in GMAW.
- User-friendly digital front panel and digital remote controller with display.
- Auto "Weld Stop" when welding torch is taken away from the workpiece.
- 2T, 4T, 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 the digital panel.
- Unique feature of pinch-off pulse to avoid globule formation.
- The front panel includes a digital display for easy fault diagnostics with error codes.

TECHNICAL SPECIFICATIONS

PARAMETER	VALUE		UNIT
POWER SOURCE	ICCCVR 400 (CHAMPMULTI 400)	ICCCVR 600 (CHAMPMULTI 600)	
SUPPLY VOLTAGE, PHASE, FREQUENCY	415 (+15% - 10%), 3. 50 / 60		V AC, NOS., HZ
INPUT POWER @ 100% DUTY CYCLE	13	MMA / MIG /FCAW MODES:22; TIG MODE: 16.5	KVA
EFFICIENCY	> 85	0.93 MAX	λ
OPEN CIRCUIT VOLTAGE @ 415V INPUT SUPPLY	84 - MMA MODE; 55 - MIG MODE; 84 - TIG MODE	MMA / TIG MODES: 90; MIG / FCAW MODES: 76	V DC
WELDING AND CRATER CURRENT RANGE - MIG / FCAW	40 - 500	65 - 600	A DC
WELDING CURRENT RANGE - CC	MMA: 50-400; TIG: 10-400	MMA: 50-600; TIG: 10-600	A DC
DUTY CYCLE	310 @ 100%; 400 @ 60%	465 @ 100%; 600 @ 60%	A DC
WELDING AND CRATER VOLTAGE RANGE - MIG / FCAW	14-40 V	14-44 V	V DC
WELDING VOLTAGE RANGE - CC	MMA: 22 - 36 V; TIG: 10.4 - 26 V	MMA: 22 - 44 V; TIG: 10.4 - 34 V	V DC
SUITABLE WELDING ELECTRODE SIZE	2.5, 3.2 , 4, 5, 6 MM DIAMETER	2.5, 3.2 , 4, 5, 6 MM DIAMETER	MM
SUITABLE WIRE SIZE DIA	0.8, 1.0, 1.2, 1.6 MM DIAMETER	0.8, 1.0, 1.2, 1.6 MM DIAMETER	MM
REMOTE CONTROL	REMOTE CONTROL FOR SETTING VOLTAGE AND CURRENT		-
PROTECTIONS AUTO RESETTABLE	OVER VOLTAGE, UNDERVOLTAGE, SINGLE – PHASING, OVER TEMPERATURE		-
COOLING	FORCED AIR	FORCED AIR	TYPE
CLASS OF INSULATION	H	H	CLASS

CHAMPMULTI 400 / 600

400 / 600 Amp capacity MIG / FCAW / MMA / TIG Welder

PARAMETER	VALUE		UNIT
POWER SOURCE	ICCCVR 400 (CHAMPMULTI 400)	ICCCVR 600 (CHAMPMULTI 600)	
DEGREE OF PROTECTION	IP23 (S)	IP23 (S)	-
DIMENSIONS L X W X H	670 X 315 X 570	700 X 460 X 650	MM
WEIGHT (APPROX.)	52	57	KG
WIRE FEEDER	**FEEDLITE 40 NEM ©**	**FEEDLITE 40 NEH ©**	-
WIRE FEEDER DRIVE UNIT	4 ROLL PMDC TYPE	4 ROLL PMDC TYPE	-
MOTOR VOLTAGE	42 V DC	42 V DC	-
WIRE SPEED	1.5 TO 18	1.5 TO 18	METERS / MINUTE
WIRE SPOOL CAPACITY	15 KG	15 KG	KG
SUITABLE FOR WIRE DIAMETER	0.8,1.0,1.6	0.8,1,1.2,1.6	MM
DIMENSIONS (L X W X H)	563 X 230 X 410	563 X 230 X 410	MM
WEIGHT	16 KG (APPROX)	16 KG (APPROX)	KG
TORCH	HIPRO 404 (E) B / MTG 400 (E)	HIPRO 502 (E) / MTG 600 (E)	MODEL

CHAMPMULTI 500

500 Amp Capacity Mig / FCAW / MMA / TIG Welder

Key Attributes

- 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

CHAMPMULTI 500

500 Amp Capacity Mig / FCAW / MMA / TIG Welder

CHAMP MULTI 500 IS A MULTI PROCESS 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 including CELWEL for fabrication work, pipe welding, 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

ADOR WELD DATA LOGGER

- WELD DATA LOGGER is a tool for complete welding control and Real time welding parameters monitoring.
- WELD DATA LOGGER software allows the user to control simultaneously multiple ADOR welding machine connected to a dedicated Wi-Fi.
- Welding machine auto-discovery system allows an easy and fast connection with WI-FI (Factory network).
- REAL TIME display and management of the welding machine/s connected to the company network through Wi-Fi Connection.
- If there is a temporary absence of the Wi-Fi signal, no data will be lost, because the data will be stored in internal memory of welding machine. As soon as the Wi-Fi signal is restored, the welding machine will send the data to the server.

KEY PARAMETERS MONITORED BY THE DATA LOGGERS.

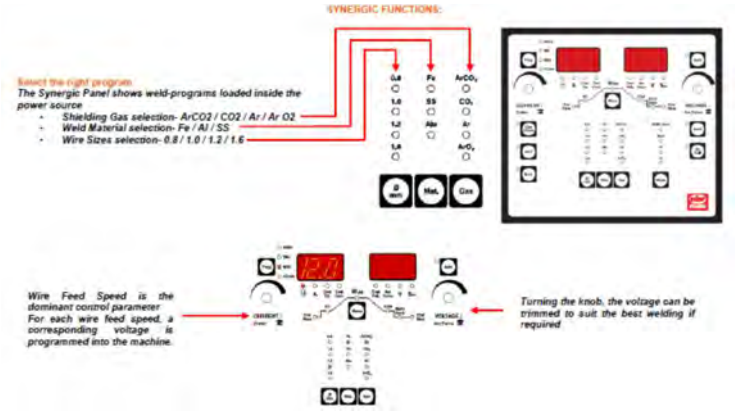
- Welding Current
- Welding Voltage
- Wire Feed Speed
- Arc Time
- Gas Consumption
- Wire Consumption
- Machine Errors
- Daily basis Date and Time of Welding ON and OFF

CHAMPMULTI 500

500 Amp Capacity Mig / FCAW / MMA / TIG Welder

PROTECTIONS WITH AUTO RESET:

- The Equipment is provided with following protections: Under / Over Input supply Voltage:
  Red LED glows if input supply voltage goes below330V 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.



CHAMPMULTI 500

500 Amp Capacity Mig / FCAW / MMA / TIG Welder

TECHNICAL SPECIFICATIONS – POWER SOURCE MODEL ICCCVR 501

PARAMETER	VALUE	UNIT
SUPPLY VOLTAGE, PHASE, FREQUENCY	415 (+15% - 10%), 3, 50 / 60	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	
	7 SEGMENT DIGITAL DISPLAY FOR VOLTAGE AND CURRENT.	
REMOTE CONTROL	REMOTE CONTROL FOR SETTING VOLTAGE AND CURRENT	
PROTECTIONS AUTO RESETTABLE	OVER VOLTAGE, UNDERVOLTAGE, SINGLE – PHASING, OVER TEMPERATURE	

Cont...

CHAMPMULTI 500

500 Amp Capacity Mig / FCAW / MMA / TIG Welder

TECHNICAL SPECIFICATIONS – POWER SOURCE MODEL ICCCVR 501

PARAMETER	VALUE	UNIT
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

TECHNICAL SPECIFICATIONS – WIRE FEEDER MODEL FEEDLITE 40 - NEHC

PARAMETER	VALUE	UNIT
WEIGHT (WITHOUT SPOOL)	16 KG (APPROX)	KG
DIMENSIONS (L X W X H)	563 X 230 X 410	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

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.

CHAMP PULSE 500

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

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	λ
EFFICIENCY	UPTO 85	%
OPEN CIRCUIT VOLTAGE @ 415V INPUT SUPPLY	MMA / TIG / PULSED MIG / MIG MODES - 84 V ± 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

CHAMP PULSE 500

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

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	(1)	(1)	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 (1)	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	%

Welding Equipment

SAW (Submerged Arc Welding Equipment)

MAESTRO 1201 (F) / 1201 T (F)

1200 AMP CAPACITY SAW WELDER

3 Phase | CV | SAW

Key Attributes

- MAESTRO 1201 (F) / 1201 T (F) outfits are Diode-based / Thyristor-based Submerged Arc Welders suitable for a wide range of automatic welding applications. The welding head is capable of supplying filler and flux metal to the joint for welding using main parts like Welding head, Flux hopper, Flux, Electrode wire feed unit, Electrode, and Flux recovery unit.
- The applications of submerged arc welding include the following:
  - Welding pressure vessels like boilers.
  - Fabricating structural outlines, pipes, earthmoving tools, shipbuilding, railroad construction, and locomotives.
  - Repairing machine parts.

MAESTRO 1201 (F) / 1201 T (F)

1200 AMP CAPACITY SAW WELDER

SALIENT FEATURES:

- The welder-friendly Tractor or boom mounted welding head with diode-based or thyristorized power sources is perfectly matched and adapted to local conditions, offering a range of models to suit every budget and need.
- The choice of boom mounted, or tractor mounted welding head models is offered with the power source.
- The boom mounted head comes with a choice of manual, semi-motorized, and fully motorized cross slides.
- The 'Dual Star Radial Rectifier' design enables smooth and stepless control of welding voltage for thyristorized systems.
- The diode-based system has provisions for adjusting the open circuit voltage over a wide range through tap changing switches on the front panel.
- Programmed sequential operations of power source, wire feed, and carriage speed control are achieved through built-in solid-state circuitry.

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE		UNIT
POWER SOURCE	PS 1201 (F)	PS 1201 T (F)	
STATIC CHARACTERISTICS	CV	CV	TYPE
SUPPLY VOLTAGE, PHASE, FREQUENCY	415 V, 3, 50	415 V, 3, 50	VOLTS AC, NO., HZ
INPUT KVA @ 100% duty cycle	54	63	KVA
RECOMMENDED SWITCH FUSE RATING	TP - 100	TP - 100	AMPS, AC
OPEN CIRCUIT VOLTAGE RANGE (MAX.)	35 - 63	62	VOLTS, DC
OPEN CIRCUIT VOLTAGE RANGE (ACTUAL)	29 - 54	NA	-
WELDING CURRENT RANGE	200 - 1200	200 - 1200	AMPS, DC
WELDING CURRENT @ 60%DUTY CYCLE	1200	1200	-
WELDING CURRENT @ 100% DUTY CYCLE	1000	1000	-
INSULATION	H	H	CLASS
COOLING	FORCED AIR	FORCED AIR	TYPE
DIMENSIONS (L X W X H)	1225 X 800 X 900	1225 X 800 X 1060	MM
WEIGHT	390	390	KG

MAESTRO 1201 (F) / 1201 T (F)

1200 AMP CAPACITY SAW WELDER

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE				UNIT
POWER SOURCE	PS 1201 (F) / PS 1201 T (F)				
SAW HEAD	WH -15 L1 (F) /L1 T (F)	WH -15-01 (F) /-01 T (F)	WH -15-02 (F) /-02 T (F)	WH -15-03 (F) /-03 T (F)	TYPE
MAX. WELDING CURRENT	1500 @ 60%, 1250 @ 100%	1501 @ 60%, 1250 @ 100%	1502 @ 60%, 1250 @ 100%	1503 @ 60%, 1250 @ 100%	AMPS, DC
RECOMMENDED POWER SOURCE	PS 1201 (F) / PS 1201 T (F)	PS 1201 (F) / PS 1201 T (F)	PS 1201 (F) / PS 1201 T (F)	PS 1201 (F) / PS 1201 T (F)	TYPE
RECOMMENDED WIRE DIAMETER SINGLE WIRE	2.0, 2.5, 3.15, 4.0 AND 5.0	2.0, 2.5, 3.15, 4.0 AND 5.1	2.0, 2.5, 3.15, 4.0 AND 5.2	2.0, 2.5, 3.15, 4.0 AND 5.3	MM
RECOMMENDED POWER SOURCE	PS 1201 (F) / PS 1201 T (F)	PS 1201 (F) / PS 1201 T (F)	PS 1201 (F) / PS 1201 T (F)	PS 1201 (F) / PS 1201 T (F)	TYPE
SPEED RANGE WIRE FEED	0.5 - 4.0	0.5 - 4.0	0.5 - 4.0	0.5 - 4.0	M / MIN.
SPEED RANGE CARRIAGE	0.1 - 1.5	N. A.	N. A.	N. A.	M / MIN.
INPUT TO CONTROL UNIT	42 V, 1 PH, 50 HZ FROM POWER SOURCE				VOLTS, AC
RANGE OF ADJUSTMENT					-
VERTICAL (Z)	140 (MANUAL)	140 (MANUAL)	100 (MOTORIZED)	100 (MOTORIZED)	MM
HORIZONTAL (X) - TRANSVERSE TO] TRAVEL DIRECTION	140 (MANUAL)	140 (MANUAL)	100 (MOTORIZED)	100 (MOTORIZED)	MM
HORIZONTAL (Y) - IN DIRECTION OF TRAVEL		140 (MANUAL)	100 (MOTORIZED)	100 (MOTORIZED)	MM
MAXIMUM SWIVEL					-
TRANSVERSE TO HEAD TRAVEL	45				DEGREE
PARALLEL TO HEAD TRAVEL	30				DEGREE
HORIZONTAL SWING	270				DEGREE
STANDARD BORE FOR SPOOL	285 - 315 (ADJUSTABLE)				MM
WEIGHT OF SPOOL (MAX.)	25				KG
FLUX HOPPER CAPACITY (MAX.)	*10 / 7				KG / LITRES
DIMENSIONS (L X W X H)	1130 X 638 X 730	1500 X 1030 X 580	1500 X 1050 X 600	1500 X 1050 X 600	MM
WEIGHT (WITHOUT FLUX AND WIRE)	68	80	110	110	KG
NOTES:	* HOPPER 80 MM ADJUSTMENT FOR WELDING HEAD				
	# RANGE OF ADJUSTMENTS: THE THREE AXES OF WELDING HEAD ARE DEFINED AS FOLLOWS:				

MAESTRO 1200 (I)

1200 AMP CAPACITY SAW WELDER

Key Attributes

- MAESTRO 1200 (I) outfit is an Inverter-based submerged arc welder suitable for a wide range of automatic welding applications. It includes main parts like welding head, flux hopper, flux, electrode wire feed unit, electrode, and flux recovery unit, with the welding head supplying filler and flux metal to the joint for welding.
- The applications of submerged arc welding include the following:
  - The submerged arc welding process can be used to weld pressure vessels like boilers.
  - It is used in various applications, including structural outlines, pipes, earth moving tools, shipbuilding, railroad construction, and locomotives.
  - This type of welding can also be used to repair machine parts.

MAESTRO 1200 (I)

1200 AMP CAPACITY SAW WELDER

SALIENT FEATURES:

- IGBT Inverter-based digitally controlled welding head and power source.
- High efficiency and high power-factor – resulting in substantial energy saving over conventional SAW outfits.
- Power source is CC-CV type and capable of GOUGING and SAW processes.
- SAW Welding can be done in either CV or CC modes. In the constant current mode of SAW welding, advanced adaptive control technology is utilized to obtain the most stable arc parameters, highest level of penetration, and excellent weld bead finish.
- The complete system consists of IGBT inverter-based power source; tractor/boom-mounted welding head, and interconnecting cables. SAW flux is used for shielding weld metal against the external atmosphere.
- User can save and recall up to ten programs.
- Better user interface having 128 X 64-character LCD display for selecting various modes and buttons, LED, and indicator lamp, which helps in easy operation of the equipment.
- Automatically selects the SAW mode based on welding head connections to power source.

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
INPUT VOLTAGE, PHASE, FREQUENCY	415 V +15% / -10%, 3 PHASE, 50 / 60 HZ	V AC
INPUT POWER @ 415V AC	55 @ 100% DUTY CYCLE, 66 @ 60% DUTY CYCLE	KVA
INPUT SUPPLY CURRENT @ 415V AC	76 @ 100% DUTY CYCLE, 92 @ 60% DUTY CYCLE	A
EFFICIENCY	> 85	%
POWER FACTOR	UP TO 0.93	-
OPEN CIRCUIT VOLTAGE @ 415V INPUT SUPPLY	90 V	VDC
WELDING CURRENT RANGE (CC - GOUGING MODE)	100-1200	A
WELDING VOLTAGE RANGE (CV - SAW MODE)	26 - 44	A
WELDING CURRENT (40°C)	1000 @ 100% DUTY CYCLE, 1200@ 60% DUTY CYCLE	A
WELDING ELECTRODE SIZES (DIAMETER) IN MMA APPLICATION	3.2,4,5,6.3 MM	MM
GOUGING ELECTRODE SIZES (DIAMETER) IN GOUGING APPLICATION	UP TO 12 MM	-
SAW WELDING WIRE SIZES (DIAMETER)	2.5,3.2,4,5 MM	MM
COOLING	FORCED AIR	TYPE
CLASS OF INSULATION	H	-

MAESTRO 1200 (I)

1200 AMP CAPACITY SAW WELDER

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
DEGREE OF PROTECTION	IP23	-
DIMENSIONS (L X W X H - INCLUDING EYEBOLT)	930 X 525 X 950	MM
WEIGHT (APPROX.)	115	KG.

TECHNICAL SPECIFICATIONS - WELDING HEADS

SAW HEAD	UNIT	WH -15 L1(I)	WH -15 01(I)	WH -15 02(I)	WH -15 03(I)
MAX. WELDING CURRENT @ 60% DUTY CYCLE	AMPS, DC	1500	1500	1500	1500
		1250	1250	1250	1250
RECOMMENDED POWER SOURCE		PS 1200 (I)			
RECOMMENDED WIRE DIAMETER SINGLE WIRE	MM	2.0, 2.5, 3.15, 4.0 AND 5.0			
SPEED RANGE WIRE FEED	M / MIN.	0.5 - 4.0	0.5 - 4.0	0.5 - 4.0	0.5 - 4.0
SPEED RANGE CARRIAGE	M / MIN.	1.5	N. A.	N. A.	N. A.
INPUT TO CONTROL UNIT	VOLTS, AC	42 V, 1 PH, 50 HZ FROM POWER SOURCE			
RANGE OF ADJUSTMENT					
VERTICAL (Z)	MM	140 (MANUAL)	140 (MANUAL)	100 (MOTORIZED)	100 (MOTORIZED)
HORIZONTAL (X) - TRANSVERSE TO TRAVEL DIRECTION	MM	140 (MANUAL)	140 (MANUAL)	100 (MOTORIZED)	100 (MOTORIZED)
HORIZONTAL (7) - IN DIRECTION OF TRAVEL	MM	-	140 (MANUAL)	100 (MOTORIZED)	100 (MOTORIZED)
MAXIMUM SWIVEL					
TRANSVERSE TO HEAD TRAVEL	DEGREE	45			
PARALLEL TO HEAD TRAVEL	DEGREE	30			
HORIZONTAL SWING	DEGREE	270			
STANDARD BORE FOR SPOOL	MM	285 - 315 (ADJUSTABLE)			

MAESTRO 1200 (I)

1200 AMP CAPACITY SAW WELDER

TECHNICAL SPECIFICATIONS - WELDING HEADS

SAW HEAD	UNIT	WH -15 L1(I)	WH -15 01(I)	WH -15 02(I)	WH -15 03(I)
WEIGHT OF SPOOL (MAX.)	KG	25			
FLUX HOPPER CAPACITY (MAX.)	KG / LITRES	*10 / 7			
DIMENSIONS (L X W X H)	MM	1130 X 638 X 730	1500 X 1030 X 580	1500 X 1050 X 600	1500 X 1050 X 600
WEIGHT (WITHOUT FLUX AND WIRE)	KG	68	80	110	110
NOTES:	* HOPPER 80 MM ADJUSTMENT FOR WELDING HEAD				
	# RANGE OF ADJUSTMENTS: THE THREE AXES OF WELDING HEAD ARE DEFINED AS FOLLOWS				
	X - AXIS: HORIZONTAL AXIS, TRANSVERSE TO DIRECTION OF BOOM TRAVEL				
	Y - AXIS: HORIZONTAL AXIS, ALONG THE DIRECTION OF BOOM TRAVEL				
	Z - AXIS: VERTICAL AXIS, PERPENDICULAR TO DIRECTION OF BOOM TRAVEL				

HYPERTHERM

POWERMAX 45 XP

INVERTER BASED AIR PLASMA CUTTING MACHINES

1/3 Phase | CC

Key Attributes

POWERMAX 45 XP is a professional-grade plasma system for cutting 5/8" thick metal, gouging, and marking.

SALIENT FEATURES:

- Small size and light weight provides exceptional portability for a 5/8" rated cutting system.
- Handheld and mechanized usage with CNC interface and FastConnect™ torch connection.
- Patented drag-cutting technology makes it easy to use – even for first-time operators.
- Tackle different jobs with multiple, easy-to-use torch and consumable styles.
- No need to change the air pressure. Smart Sense™

HYPERTHERM

POWERMAX 45 XP

INVERTER BASED AIR PLASMA CUTTING MACHINES

MAXIMUM PRODUCTIVITY

- Finish jobs faster with cut speeds one and a half times greater than oxyfuel on 1/4" mild steel.
- Spend less time on grinding and edge preparation due to superior cut and gouge quality.
- Fast change out of consumables using the new torch disable switch feature.

- RUGGED AND RELIABLE
- Duramax® Lock torches are designed for high-impact and heat resistance.
- SpringStart™ technology ensures consistent starting and a more reliable torch.
- Hypertherm Certified™ reliability ensures performance in the most demanding environment.

TECHNICAL SPECIFICATIONS

PARAMETERS	VALUE	UNIT
INPUT VOLTAGE SINGLE PHASE (± 10%)	200–240, 1, 50–60	VOLTS AC, NO., HZ
INPUT VOLTAGE THREE PHASE (± 10%)	480 V AC, 3, 50–60	VOLTS AC, NO., HZ
INPUT CURRENT @ 6.5 KW	39/32 @ 200 - 240 V 1-PHASE; 9.4 @ 480 V, 3-PHASE	AMPS, AC
OUTPUT CURRENT	10 – 45	AMPS, DC
RATED OUTPUT VOLTAGE	145	VOLTS, DC
DUTY CYCLE @ 40° C	45 @ 50%, 41 @ 60%, 32 @ 100%	AMPS, DC
OPEN CIRCUIT VOLTAGE (OCV)	275	VOLTS, DC
DIMENSIONS WITH HANDLES (L X W X H)	17.4" X 6.8" X 14.1"	INCHES
WEIGHT WITH 20 FEET TORCH	31	POUNDS (LB)
GAS SUPPLY	CUTTING: AIR (CLEAN, DRY AND OIL-FREE), NITROGEN, GOUGING: AIR (CLEAN, DRY AND OIL-FREE), NITROGEN, MARKING: AIR (CLEAN, DRY AND OIL-FREE), ARGON	INCHES
RECOMMENDED GAS INLET FLOW RATE/PRESSURE	400 SCFH @ 90 PSI	SCFH / PSI
INPUT POWER CABLE LENGTH	10'	FEET
ENGINE DRIVE REQUIREMENT	10 KW FOR FULL 45 AMPS OUTPUT	
CERTIFICATIONS	CSA-CERTIFIED FOR USE IN THE AMERICAS AND ASIA	

HYPERTHERM

POWERMAX 65/85/105 SYNC™

INVERTER BASED AIR PLASMA CUTTING MACHINES

1/3 Phase | CC

Key Attributes

The next generation of Powermax 65/85/105 A systems, the Powermax SYNC is the result of several years of design and manufacturing innovation with the main objective of solving common customer pain points associated with plasma system operation.

SALIENT FEATURES:

- Easy to identify single-piece cartridge consumables are color coded by process to eliminate parts mix-up and simplify consumable inventory management.
- New SmartSYNC™ torches with the Hypertherm cartridge automatically set the correct amperage and operating mode, eliminating setup errors.
- End of life detection lets the operator know when it's time to change the cartridge.
- Less operator fatigue when using handheld torches with new flexible lead. The lead has the same robustness of our previous lead jacket material and will also be used on robotic torches. .Small size and light weight provides exceptional portability for a 5/8" rated cutting system.

HYPERTHERM

POWERMAX 65/85/105 SYNC™

INVERTER BASED AIR PLASMA CUTTING MACHINES

MAXIMUM PRODUCTIVITY

- Tackle a wide range of jobs with easily interchangeable torch styles and application-specific Hypertherm cartridge consumables for various types of cutting and gouging.
- Reduce training time with simplified set up and consistent performance.
- Time-saving hand torch controls allow the operator to adjust the amperage on the fly and change consumables and applications without returning to the power supply. Finish jobs faster with cut speeds one and a half times greater than oxyfuel on 1/4" mild steel.

TECHNICAL SPECIFICATIONS

MODELS	POWERMAX 65 SYNC™	POWERMAX 85 SYNC™	POWERMAX 105 SYNC™	UNIT
INPUT VOLTAGE SINGLE PHASE (± 10%)	200–480, 1, 50–60	200–480, 1, 50–60	NA	VOLTS AC, NO., HZ
INPUT VOLTAGE THREE PHASE (± 10%)	200 - 600, 3, 50–60	200 - 600, 3, 50–60	200 - 600, 3, 50–60	VOLTS AC, NO., HZ
4.196 mm	9 KW	12.2 KW	16.8 KW	KW
INPUT CURRENT	200/208/240/480 V, 1-PH 52/50/44/ 22 A @ 9 KW 200 /208/240/480/600 V,3-PH 32/31/ 27/13 /13 A @ 9 KW	200/208/240/480 V, 1-PH 70/68/58/ 29 A @ 12.2 KW 20 0/208/240/480/60 0 V, 3-PH 42/40/35 /18/17 A @ 12.2 KW	200/208/240/480 /600 V,3-PH 58/56/ 49/25/ 22 A @ 16.8 KW	AMPS AC
OUTPUT CURRENT	20–65 A	25–85 A	30–105 A	AMPS, DC
RATED OUTPUT VOLTAGE	139 VDC	143 VDC	160 VDC	VOLTS, DC
DUTY CYCLE @ 104° F	50% @ 65 A, 230–600 V, 1/3-PH 40% @ 65 A, 200–208 V, 1/3-PH 100% @ 46 A, 230 –600 V,1/3-PH	60% @ 85 A, 230–600 V, 3-PH 60% @ 85 A, 480 V, 1-P H 50% @ 85 A 240 V, 1-PH 50% @ 85 A, 200–208 V, 3-PH 40% @ 85 A, 200–208 V, 1-PH 100% @ 66 A, 230 –600 V, 1/3-PH	70% @ 105 A, 240 V, 3-PH 80% @ 105 A, 480–600 V, 3-PH 100% @ 94 A, 480–600 V, 3-PH 100% @ 88 A, 240 V, 3-PH	AMPS, DC
OPEN CIRCUIT VOLTAGE (OCV)	295 VDC	305 VDC	300 VDC	-
DIMENSIONS WITH HANDLES	M D19" D; 9.2" W; 17" H	19" D; 9.2" W; 17" H	23.3" D; 10.8" W; 20.0" H	INCHES
WEIGHT W/25' TORCH	61 LBS.	67 LBS.	95 LBS.	POUNDS (LB)

HYPERTHERM

POWERMAX 65/85/105 SYNC™

INVERTER BASED AIR PLASMA CUTTING MACHINES

TECHNICAL SPECIFICATIONS

MODELS	POWERMAX 65 SYNC™	POWERMAX 85 SYNC™	POWERMAX 105 SYNC™	UNIT
GAS SUPPLY	CLEAN, DRY, OIL-FREE AIR OR NITROGEN	CLEAN, DRY, OIL-FREE AIR OR NITROGEN	CLEAN, DRY, OIL-FREE AIR OR NITROGEN	
OPTIMUM INLET GAS PRESSURE	110–120 PSI	110–120 PSI	110–120 PSI	PSI
MINIMUM INLET GAS PRESSURE	75 PSI	75 PSI	80 PSI	PSI
RECOMMENDED INLET GAS FLOW RATE	CUTTING: 450 SCFH, 7.5 SCFM @ 85 PSI GOUGING: 450 SCFH, 7.5 SCFM @ 70 PSI	CUTTING: 450 SCFH, 7.5 SCFM @ 85 PSI GOUGING: 450 SCFH, 7.5 SCFM @ 70 PSI	CUTTING: 550 SCFH, 92 SCFM @ 90 PSI GOUGING: 550 SCFH, 92 SCFM @ 70 PSI	CFH / PSI
INPUT POWER CABLE LENGTH	10’	10’	10’	FEET
ENGINE DRIVE REQUIREMENT	15 KW FOR FULL 65 A OUTPUT	20 KW FOR FULL 85 A OUTPUT	30 KW FOR FULL 105 A OUTPUT	
CERTIFICATIONS	CSA- CERTIFIED FOR USE IN THE AMERICAS AND ASIA			

Welding Equipment

OPTIONAL ACCESSORIES

OPTIONAL ACCESSORIES

WELDING TRANSFORMERS RED 400 (S) / 403 / 503 / 603, TPA 403:

- Welding cables with Electrode Holder, Earthing cable with Earth clamp (50 mm2 / 70 mm2). Lengths – 5 Meter / 10 Meter.

THYROLUXE 401 / 600 / 1000 / 1200; GL 601;

- Welding cables with Electrode Holder, Earthing cable with Earth clamp (50 mm2 for THYROLUXE 401; 70 mm2 for THYROLUXE 600; 95 mm2 for THYROLUXE 1000 and 1200; 70 mm2 for GL 601). Lengths – 5 Meter / 10 Meter.
- In-built VRD Unit.
- RCCB (for THYROLUXE 401 / 600 only).
- Gouging Torch models CAG 9 / CAG 15 (with GL 601, THYROLUXE 100, THYROLUXE 1200 only)

SUPERGEN 320:

- Welding cables with Electrode Holder, Earthing cable with Earth clamp (50 mm2 / 70 mm2). Lengths – 5 Meter / 10 Meter.

SILENT CHALLENGER 401 / 501 / 2 X 301:

- Welding cables with Electrode Holder, Earthing cable with Earth clamp (50 mm2 / 70 mm2). Lengths – 5 Meter / 10 Meter.
- Digital Engine Control Panel with Auto shut off (SC 401 / 501 only)
- DPAV Meters
- Spark Arrestor
- Two-wheel undercarriage with Leaf spring and / or Parking brake arrangement.

CHAMP 250, CHAMP 250 X, CHAMP T 400, CHAMP 400 X, CHAMP 600, CHAMP 1200:

- Remote Control Unit (standard 10-meter Length) for CHAMP 250 / CHAMP T 400 / other CHAMP Series machines which do not have Remote Control Unit in standard supply scope. Extended lengths of Remote-Control units with 5 meter increments up to 50-meter length can be offered for CHAMP T 400 and CHAMP 600.
- Welding cables with Electrode Holder, Earthing cable with Earth clamp (25 mm2 for CHAMP 250 / CHAMP 250 X; 50 mm2 for CHAMP T 400 / CHAMP 400 X; 70 mm2 for CHAMP 600; 95 mm2 for CHAMP 1200. Lengths – 5 Meter / 10 Meter.
- In-built VRD Unit – for CHAMP 250, CHAMP T 400, CHAMP 600, CHAMP 1200 only
- RCCB (CHAMP T 400 and CHAMP 600).
- Gouging Torch models CAG 9 / CAG 15 (with CHAMP 600 / 1200 only).

CHAMPTIG 300 P / 400 P / 400 AD / 500 AD

- Handheld or Foot Controlled Remote Unit – 10-meter length.
- Welding cables with Electrode Holder, (50 mm2 / 70 mm2). Lengths – 5 Meter / 10 Meter.
- RCCB.

OPTIONAL ACCESSORIES

MAXIMIG 251 / 400 / 600, STRIKER 400, CHAMPMIG 250 / 400 / 500 / 600. CHAMPMIG 400 CC-CV, CHAMPMULTI 400 / 600, CHAMP PULSE 500.

- Power Source – Wire feeder Interconnection cable of alternate lengths (in 5-meter increments) – up to 10 meter for MAXIMIG 251 / CHAMPMIG 250, up to 15 meter for CHAMPMIG 400 / CHAMPMULTI 400 / CHAMPMIG 400 CC-CV, up to 20 meter for CHAMPMIG 500 / CHAMPMULTI 600 / CHAMP PULSE 500.
- Earthing cable with Earth clamp (25 mm2 for MAXIMIG 250 / CHAMPMIG 250; 50 mm2 for CHAMPMIG 400 / CHAMP MULTI 400; 70 mm2 for CHAMPMIG 500 / CHAMPMULTI 600 / CHAMP PULSE 500; Lengths – 5 Meter / 10 Meter.
- Gas Preheater with 3-meter cable and suitable plug – 110 V (for use with CO2 Shielding Gas)
- Single stage Gas Regulator with Flow gauge – Argon Regulator / CO2 Regulator
- RCCB – with CHAMPMIG 400 / CHAMP MULTI 400 only.

MAESTRO series SAW Equipments:

- Welding cable and Earthing cable assemblies – 70 mm2 twin parallel / 95 mm2 twin parallel with connecting lugs at both ends (for Welding Cable) and connecting lug + Heavy duty Earthing clamp (for Earthing cable) – different lengths in increments of 5 meter up to 25 meter.
- Power Source to Welding Head controller control interconnection cable (standard scope – 10 meter) additional lengths in increments of 5 meters up to 20 meters.

ador
peace of mind™

ADOR WELDING LIMITED

Corporate Marketing Office: Survey No.147 / 2B+3, Near Khandoba Mandir, Akurdi Chowk, Chinchwad, Pune - 411019. Maharashtra. India.

1800 233 1071 cmo@adorians.com +91 20 40706000

www.adorwelding.com