

RHINO D 2X300 K4 CC/CV

NEW GENERATION DIESEL ENGINE-DRIVEN WELDING SET





Key Attributes

Chopper-Based, Energy-Efficient Diesel Welding Generator

- **Multi-Process Capability:** Supports MMA, Gouging, TIG, and FCAW welding with CC and CV modes. Current rating doubles in Single Operator Mode.
- **Stable Output:** Consistent current and voltage in Single and Double Operator modes, unaffected by engine speed or cable length.
- **Voltage-Sensing Wire Feeder Ready:** Works in CC/CV modes for self-shielded and solid wires. Power drawn directly from welding output-no external supply needed.
ReachFeed: 15/18 kg (300 mm dia.) wire spool
CompactFeed: 5 kg (200 mm dia.) wire spool
- **Fuel Efficient:** Extended run time with reduced fuel consumption.
- **Remote Control Option:** For added operational convenience.

- **Electrode Performance:** Optimized for cellulosic (6010, 7010G, 8010G) and specialty electrodes, plus self-shielded flux-cored and solid wires.
- **Auxiliary Power:** Integrated 3-phase 22 KVA and 1-phase 6 KVA outputs for tools, lighting, and grinding.
- **Comprehensive Protection:** Safeguards against short circuits and overheating. Ideal for fabrication, pipe welding, and construction sites.



Salient Features

- **Versatile Applications:** Suitable for cross-country, in-plant pipe, and tube welding.
- **Heavy-Duty Use:** Perfect for heavy fabrication and site-based projects.
- **High Reliability:** Performs consistently even in harsh site conditions.
- **Low Noise Operation:** Controlled sound levels for improved work environment.
- **Brushless Design:** Negligible maintenance requirements.

Engine

The unit is powered by a four-cylinder, air-cooled diesel engine equipped with a heavy-duty dry-type air cleaner, fuel filter, fuel lift pump, mechanical governor, electric starter motor, and battery charging alternator. The engine is safeguarded against high cylinder head temperature and low lube oil pressure for enhanced reliability.



Control Panel

- 1 Display PCB
- 2 Battery Charging Current Indicator
- 3 Oil Pressure Indicator
- 4 Engine safety Unit
- 5 Fuel Level Indicator
- 6 Remote Control Socket
- 7 Hour Meter Indicator
- 8 Emergency Stop
- 9 Engine Starting MCB
- 10 Engine Starting Switch
- 11 Rotatory Switch
- 12 Selector Switch
- 13 Welding Output Terminal, 'B'
- 14 Circuit Breakers For 3Ø Auxiliary supply
- 15 Earthing Point
- 16 3Ø Auxiliary Supply Sockets



17. 1Ø Auxiliary Supply Sockets
18. Circuit Breakers For 1Ø Auxiliary supply
19. Welding Output Terminal, 'A'
20. Current/Voltage Control Potentiometer
21. Arc Force Potentiometer

Control Panel Section for Main Welding output (6, 11, 12, 13, 19, 20, 21)

- **Remote Control Socket:** Enables current and voltage control in remote mode; function activates automatically when the remote unit is connected.
- **Rotary Switch:** Allows selection between Single Operator and Double Operator modes.
- **Process Selector Switch:** Choose between MMA, Scratch TIG, MIG/FCAW, or SSPW modes.
- **Main Welding Output Terminals:**
Side A: Positive (+) and Negative (-) terminals
Side B: Positive (+) and Negative (-) terminals
- **Current/Voltage Control Potentiometer:** For precise adjustment of welding parameters.
- **Arc Force Control Potentiometer:** Fine-tunes arc performance for optimal results.

Control Panel section for Engine Control (2, 3, 4, 5, 7, 8, 9, 10)

- **Engine Controls & Instruments:** Includes battery charging current indicator, oil pressure indicator, digital engine safety unit (ESU), fuel level indicator, hour meter, emergency stop, engine starting MCB, and key switch.
- **Battery Charging Current Indicator:** Displays charging current while the engine is running.
- **Oil Pressure Indicator:** Monitors lubricant oil pressure; engine automatically shuts down in case of low oil pressure.
- **Digital Engine Safety Unit (ESU):** Activates engine stop solenoid during low oil pressure, high cylinder head temperature, or fan belt failure.
- **Fuel Level Indicator:** Shows fuel level in the tank.
- **Hour Meter:** Displays total engine running hours.
- **Emergency Stop Switch:** Instantly halts engine and all functions in case of failure or abnormal conditions.
- **Engine Starting MCB:** Must be switched ON before starting the engine.
- **Key Switch:** Used for ignition and engine start/stop functions.



Other than the above, the following protections are also built-in

- **Engine Stop Solenoid:** 12 V solenoid operating the fuel cut-off lever on the fuel injection pump.
- **Temperature Switch:** Mounted on a cylinder head to monitor cylinder head temperature.
- **Belt Failure Switch:** Activates in the event of fan belt failure.

Control Panel Section for Auxiliary Power (14, 16, 17, 18)

Auxiliary Power Sockets

- Two 3-Phase Sockets: 60 Hz, 415 V, 11 KVA each (Total 22 KVA), protected by individual circuit breakers.
- Two Single-Phase Sockets: 60 Hz, 220 V, 3 KVA each (Total 6 KVA), protected by individual circuit breakers.

Circuit Breakers

- For 3-Phase Auxiliary Supply
- For Single-Phase Auxiliary Supply

Dedicated Sockets

- 3-Phase Auxiliary Supply Sockets
- Single-Phase Auxiliary Supply Sockets

Auxiliary Power Source (Built-in)

Mode	Weld Load together with Auxiliary Load (Both Sockets)		Auxiliary Mode without Weld Load	Unit
Mode	Weld Load together with Auxiliary Load (Both Sockets)		Auxiliary Mode only without Weld Load	Unit
Rating	Auxiliary Load	Weld Load	22 KVA Total (11 KVA + 11 KVA From Each Socket)	KVA
	18 KVA	100A@24V		
	15 KVA	200A@28V		
	11 KVA	300A@32V		
	6 KVA	400A@36V		
	3 KVA	500A@40V		
Rating (Single Phase)	6 KVA Total (at Welding Load of Maximum 350A, 34V)		6 KVA Total, (3 KVA + 3 KVA From Each Socket)	KVA
Voltages (3 Ph/1 Ph)	415/220			Volts
Frequency	60			Hz
Phases	3/1			No.
MCB RATING	32/32			Amps



Technical Specifications

Mode	Value	Unit			
Welding Generator	Brushless		Type		
Welding Range	Double Operator	Single Operator	Type		
	CC	CV	-		
	89V	89V	OCV (VDC)		
	40-300 A	40-300 A	40-600 A	40-600 A	Amps
	-	14-40V	-	14-40V	VOLTS
Max. Hand Welding Current 40%	300A @32V	600A @32V	Amps		
Max. Hand Welding Current 60%	250A @30V	500A @40V	Amps		
Max. Hand Welding Current 100%	200A @28V	400A @36V			
Open Circuit Voltage (max.)	89 VDC	Volts			
Generally, Conforms To	2635		IS		
Insulation	H		Type		
Engine					
Make / Type / Speed	Kirloskar / HA-494 / 1800 RPM	-			
Cylinder	4		Nos.		
Engine Cooling	Air Cooled		Type		
Engine Rating	52 @1800 RPM		BHP		
Conforms To	3046		ISO		
Starting (12 V)	Electric (Battery-capacity 80 (CCA at-18° C as per IEC 420A)		Type / AH		
Fuel Consumption @100 %D.C.	5.1		LTRS/HR.		
Fuel Tank Capacity	70		LTRS.		

Dimensions and Weight

Machine Type	Skid Mounted	Two Wheel mounted	Four Wheel Mounted
Dimensions LxWxH (MM)	2100x820x1250	3050x1455x1850	3500x1555x1850
Weight (Approx. KG)	1100	1250	1350

Ordering Code

Product Code	Description
F10.33.102.0100	Diesel Engine Driven Set, Model: Rhino-D 2 X 300 CC/VC K4, 3 Ph. Auxiliary 415 Volts, 22 (11+11) KVA (2 Sockets); 1 Phase Auxilary 220 Volts, 6 (3+3) KVA (2 Sockets), Skid Mounted.
F10.33.102.0101	Diesel Engine Driven Set, Model: Rhino-D 2 X 300 CC/CV K4, 3 Ph Auxiliary 415V, 22 (11+11) KVA (2 Sockets); 1 Ph Auxilary 220V, 6 (3+3) Kva (2 Sockets), Two Wheel Undercarriage.
F10.33.102.0102	Diesel Engine Driven Set, Model: Rhino-d 2 X 300 Cc/cv K4, 3 Ph Auxiliary 415V, 22 (11+11) Kva (2 Sockets); 1 Ph Auxilary 220 Volts, 6 (3+3) Kva (2 Sockets), Four Wheel Undercarriage.



WARRANTY DETAILS

Three years from the date of commissioning, ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices/ Authorized Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.

All engines and engine accessories are warranted by the engine or engine accessory manufacturer and are not covered by this warranty.

ADOR is not responsible for cable wear and consequential damage resulting from cable wear due to flexing and abrasion. Enduser is responsible for routine inspection of cables for possible wear and to remedy the is superior to cable failure.

In view of continuous development, ADOR WELDING LIMITED reserves the right to modify/change the design and /or the specifications without any prior notice.

Backed by dedicated customer care package.



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