ARC 630 WELDING RECTIFIER

HEAVY-DUTY INDUSTRIAL DC ARC WELDING POWER SOURCE

Technical Data Sheet
Model: ARC-630

The **ARC 630 Welding Rectifier Machine** is a high-capacity, heavy-duty DC welding power source designed for demanding industrial fabrication, structural metalwork, and pipeline construction. Built with robust magnetic and thyristor controls, it delivers a stable, continuous DC output ensuring deep penetration, smooth arc characteristics, and minimal spatter across continuous duty cycles.

KEY OPERATING FEATURES

- **Heavy-Duty Cycle:** Rated for continuous operation at high output current in harsh environments.
- **Wide Current Range:** Precise stepless current adjustment suited for thin sheets to thick plates.
- **Multi-Process Capable:** Ideal for Shielded Metal Arc Welding (SMAW/MMA) and Carbon Arc Gouging.
- **Excellent Arc Stability:** Smooth DC output minimizes spatter and enhances weld bead quality.
- **Thermal Overload Protection:** Built-in thermal sensors and forced-air fan cooling system.
- **All-Electrode Suitability:** Compatible with basic, rutile, cellulosic, and stainless steel electrodes.

TECHNICAL SPECIFICATIONS

PARAMETER	SPECIFICATION VALUE
Input Voltage / Frequency	415 V ± 10%, 3-Phase, 50/60 Hz
Rated Input Capacity	36 kVA / 30 kW
Welding Current Range	60 A – 630 A
Rated Duty Cycle (40°C)	60% @ 630 A / 100% @ 488 A
Open Circuit Voltage (OCV)	70 V – 80 V DC
Rated Output Voltage	44 V DC
Usable Electrode Diameter	Ø 2.5 mm – Ø 6.0 mm (Continuous)
Carbon Arc Gouging Capacity	Up to Ø 8.0 mm Carbon Rods
Insulation Class / Protection Grade	Class H / IP23S
Cooling Type	Forced Air Cooling (Heavy-Duty Fan)
Dimensions (L × W × H)	760 mm × 520 mm × 780 mm
Approximate Net Weight	185 kg

APPLICATIONS & INDUSTRY USE

Heavy Fabrication
Shipbuilding, structural steelwork, pressure vessels, and heavy equipment manufacturing.

Site & Field Construction
Oil & gas pipelines, storage tanks, power plant installation, and bridge erection.

Gouging & Maintenance
Heavy duty gouging, beveling, cast iron repairs, and hardfacing applications.

* Specifications are subject to standard manufacturing tolerances and field installation environment conditions. Ensure proper 3-phase grounding and circuit protection prior to operation.