

# Universal

RECTIFIERS, INC. 

### Oil Cooled

### Cathodic Protection Rectifiers:

**Heavy-duty, rugged rectifiers for operation under severe conditions**

The "oil cooled" cathodic protection rectifiers, are recognized as industry leading in quality, workmanship and service life. Many years of field-proven service have led to the superior design of these rectifiers. Conservative equipment ratings, controlled manufacturing techniques, plus many extra features ensure long and trouble-free operation.

Typical cathodic protection applications for the oil cooled rectifier line include severe environmental conditions due to high humidity, dust, or other situations that would shorten the life of a standard air cooled rectifier.

Hazardous location models are used for Class 1, Div. 2, Group D locations and comply with U.L. Standard 698. While similar to the standard oil cooled rectifiers, the explosion proof units are fitted with special hazardous area fittings to eliminate possibility of an ignition source.



### Oil Cooled Series Features

- Heavy duty 11 gauge hot dip galvanized cabinet with hinged top lid and stainless steel hardware.
- External cabinet fins for added strength and cooling.
- Heavy duty, draw-pull, stainless steel cabinet latches.
- Separate instrument compartment with hinged door and stainless steel hardware.
- Separate lift-out component racks for the transformer and rectifier stack.
- Heavy duty transformer with 15% over design for reserve capacity.
- Minimum 18-step voltage control link bar taps.
- Quick-change heavy duty knobs for changing tap link bars.
- Minimum 5/16" diameter, solder tap changing studs
- 3/16" Grade XX, Phenolic panels
- AC Input circuit breaker
- Magnetic AC secondary circuit breakers on all units less than 100 amps (instead of fuses)
- Hoyt, separate analog, 2-1/2" round, volt and amp meters
- Silicon diodes protected by surge suppressors and current limiting breakers < 100 Amps or fuses
- All electrical connection hardware is Nickel Plated and double-nutted or soldered
- Multi-strand, high temperature, insulated flexible wiring
- Terminal block for AC input wires (Non-Hazardous models only)

### Optional Features:

- Variety of AC voltage inputs, Single Phase, Three Phase, 50 or 60 Hertz
- AC and/or DC High Energy lightning protection
- Efficiency filter chokes.
- Communication filters.
- Meter switches
- Power-on indicator light
- DC failure warning lights & DC circuit breakers < 100 amps or fuses
- 115 VAC convenience outlet
- Optional cabinet materials, such as stainless steel
- Additional voltage control link bar taps.
- Alternate output control (constant current, constant voltage, constant potential, and constant potential with IR drop free feature.
- Powder coated cabinet finishes over galvanized coating (White or Gray Standard) Other options per request of customer.

CASE SIZE	Single Phase		3-Phase		
	OIL Capacity US Gallons	Maximum DC Watts	Shipping Weight	Maximum DC Watts	Shipping Weight
MAO	20	500	200 lbs		
AO	56	501-1900	450 lbs	0-3600	518 lbs
BO	110	1901-3400	584 lbs	3601-6400	660 lbs
CO	170	3401-4250	731 lbs	6401-8000	860 lbs
DO	213	4251-5300	935 lbs	8001-10,000	1100 lbs
EO	300	5301-6400	1020 lbs	10,001-12,000	1200 lbs
FO	465	6401-8500	1200 lbs	12,001-16,000	1400 lbs
GO	600	8501-10,600	1400 lbs	16,001-20,000	1600 lbs

Each rectifier is custom built and will vary in weight:  
The weights above are approximate.

Source: <http://www.universalrectifiers.com/Oil%20Cooled%20and%20Explosion%20Proof.html> Retrieved 8/28/2017

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