

Touch Free Rectifier™

Cathodic protection rectifier

ENERGY & MINING

The Corpro Touch Free Air-Cooled Rectifier Series is designed to meet industry requirements for operator safe rectifiers (Touch Free). This is achieved by limiting accessibility to energized parts within the rectifier depending on which door is accessed. The Touch Free Rectifier™ combines advanced microprocessor technology, CSA/UL approved quality components and certified manufacturing methods to achieve an advanced safety rectifier for the cathodic protection industry. The mode of operation is performed by stepping down the incoming AC power, which is then isolated and rectified to a controlled DC output. [Input overload and short circuit protection is provided by magnetic-trip circuit breakers, output protection by means of a microprocessor fusing device (FRM-050™) in the transformer secondary, thus eliminating one time fusing and significantly reducing heat generation.] Primary AC/DC lightning protection is provided by high energy Metal Oxide Varistor (M.O.V.) arrestors and secondary surge suppression by disk-style M.O.V.'s. The DC output is controlled by rotary tap switches with 25-steps of combined adjustment. The rectifier controller (or CRC-100™) has three (Volts/Current/Potential) alarms, AC Line Synchronized interruption (Time, CIS, WFA), high intensity alphanumeric LED displays. The CRC-100™ available options include Bluetooth, GPS synchronized interruption, and SCR controlled constant voltage, current, potential control and IR-free.

Rectifier Features

- Slide out chassis for easy access while field servicing by journeymen electricians or A.I.T. graduates
- Full-wave silicon rectification
- High energy AC input surge protection
- High energy DC output surge protection
- Secondary AC surge protection
- DC meter probe sockets for measurement verification
- All brass/copper hardware finished in electro-less nickel plate for superior corrosion prevention
- Wall or pole mounting (optional floor stands)
- One-year warranty, from date of purchase against defective components and faulty workmanship
- Full complement of options to tailor the rectifier to the specific installation requirements
- Analog or digital metering (CRC-100™) +/- 2% accuracy



FRM-050™ Fuse Replacement Module (50 Amps)

- Programmable inrush current delay
- Current input range 5-50 Amperes AC
- No heat generation
- High intensity RGB LED status indicator
- Real time clock for logging when the module is tripped (optional)

CRC-100™ Corpro Rectifier Controller (Model 100)

- Three individually programmable alarms (Volts/Current/Potential)
- Six digit by three row high intensity alphanumeric LED display
- AC line synchronized interruption (external high power relay/SSR required) for timed, CIS and WFA modes
- External relay required

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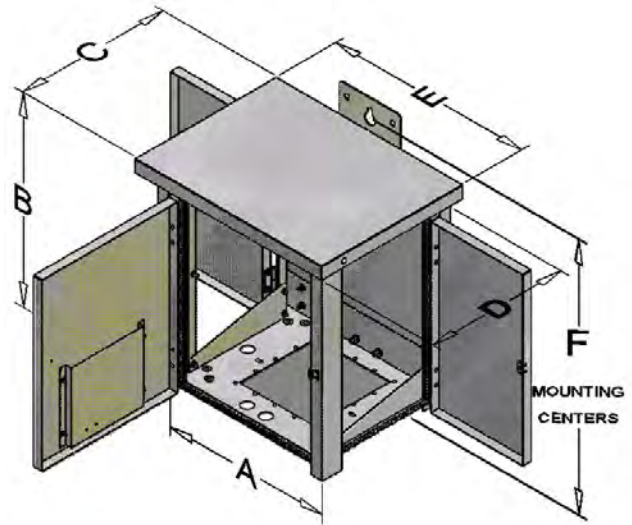
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Touch Free Rectifier™

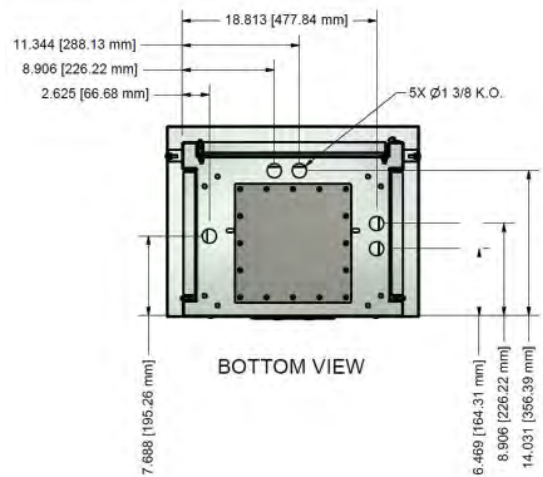
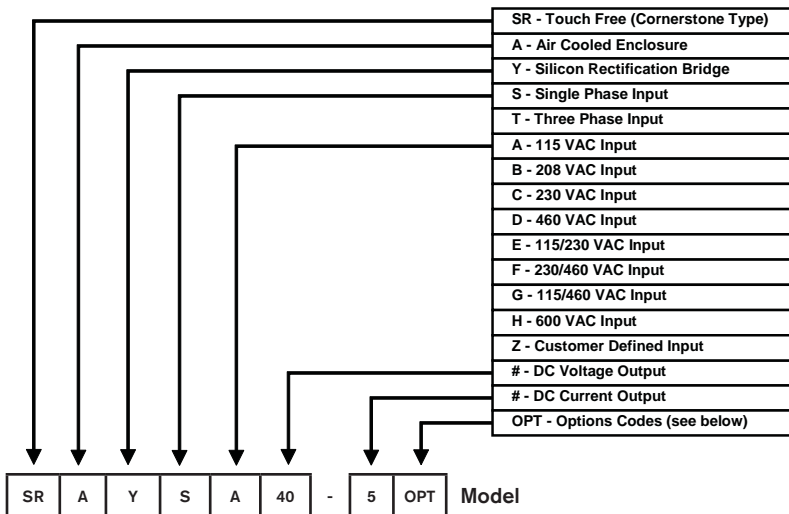
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Specifications

- Single phase inputs: 115, 115/230, 230, 230/460, 460, & 600 VAC., 60 Cycle (50 Hz. optional)
- Secondary AC circuit protection provided by FRM-050™
- Output voltage 8 to 100 volts DC
- Output current 4 to 250 amperes DC (40 amps with FRM-050™)
- Cooling by natural air convection
- Cabinet rated NEMA 3R, constructed of 12 or Ga. mill galvanized steel, finished in 3-5 mils, fusion bond polyester powder paint, white
- Stainless steel hardware
- CNC cut, fully engraved front panel, or lamicoid labels
- Standard 25-steps of adjustment using rotary tap switches
- Operating ambient: -40° to +45°C (-40° to 113°F)
- Approved to CSA standards
- Transformer constructed to Class "H" (180°C/256°F) temperature requirements with a minimum efficiency of 95%
- Full 4 digit metering on volts and amps
- 3.5 digital metering on potential (optional)



Ordering Guide



CASE SIZE	DIMENSIONS (Inches)					
	A	B	C	D	E	F
A2	21.44	25.81	18.50	16.87	24.41	29.01
A3	24.25	36.69	23.41	21.80	27.28	39.89

Option Code Summary

- | | |
|--|--|
| B - Multiple Negative Outputs | WA1 - SCR Expansion Module, Single Phase SCR Control |
| C - Multiple Positive Outputs | WA2 - GPS Expansion Module, GPS Synchronized Interruption |
| E - Floor Mounting Legs | WA3 - SCR/GPS Expansion Module, Single Phase SCR Control |
| G - None Standard Knockouts | W2 - CRC-100 Volts/Current Alarms, Interruption, Bluetooth |
| H - 50Hz Input Frequency | Z - Unlisted Option (customer defined) |
| L - FRM-050 (5-50 amp) AC | |
| M - Multiple Output Lugs (pos. or neg.) | |
| N - Efficiency Filter | |
| O - Communications Filter | |
| T - Special Ambient Temperature (>45°C) | |
| R - Non Standard Enclosure Finish | |
| W - CRC-100 Volts/Current Alarms, Interruption | |

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