

# RVAC

Vacuum Switchgear  
Better Switch To Better Protection.



# KYLE® RVAC VACUUM SWITCHGEAR

When you require frequent 600-amp main line switching or fuse protection, you require RVAC. It's perfect for applications like shopping malls and industrial parks and it's made by Kyle — you know how tough our requirements are.



15, 25, 35kV

Vacuum Interruption

600-Amp Switching

Oil, Envirotemp® FR3™, R-TEMP®, SF<sub>6</sub>  
Insulation Available

Distribution Automation

Low Profile

Deadfront Construction



RVAC – SOURCE SIDE

Kyle's Type RVAC padmounted vacuum switchgear is designed for applications including industrial parks and shopping malls where frequent 600-amp main line switching and fuse protection are required. RVAC incorporates vacuum interruption, designed specifically for repetitive switching duty and proven through decades of field usage.

RVAC padmounted vacuum switchgear features deadfront construction for optimum safety. Oil, R-TEMP®, Envirotemp® FR3™ or SF<sub>6</sub> insulation provides a compact, low-profile design that is unobtrusive in commercial and industrial/office park applications. A wide range of current-limiting fusing options provides simple, easy coordination with system requirements.

Available in single- or three-phase units, RVAC switchgear is offered in 15, 25, and 35kV ratings.

#### **Deadfront Construction For Added Safety**

The deadfront construction of RVAC padmounted switchgear offers a high safety factor for utility personnel and the general public. Inside, all terminators are covered with insulating rubber. All internal parts are completely

sealed in insulating medium to reduce maintenance and eliminate the problems of moisture, dirt, and wildlife commonly associated with air-insulated switchgear.

#### **Vacuum Technology**

Cooper Power Systems' Distribution Switchgear products incorporate vacuum technologies which have advanced the durability and extended the application base for vacuum products.

The patented axial-magnetic field vacuum interrupter, designed and manufactured by Kyle Distribution Switchgear, is the most advanced vacuum interrupter in the world. You can rely on Kyle vacuum interrupters to provide dependable operation for the lifetime of the switchgear.

Kyle vacuum interrupters employ axial-magnetic field contacts which keep the arc in an easier-to-interrupt diffuse mode, resulting in less power in the arc that needs to be dissipated.



Furthermore, Kyle's patented design uses the entire contact surface, resulting in far less contact erosion and the longest life of any vacuum interrupter in the industry.

#### **Insulation For Different Environmental Requirements**

Fire-resistant fluids, as well as commonly used oil and SF<sub>6</sub>, are offered as insulation media for selected RVAC Switchgear models.

R-TEMP fluid, manufactured by Cooper Power Systems, has a higher fire point and higher dielectric strength than mineral oil. R-TEMP fluid is Classified by Underwriters Laboratories and is Approved by Factory Mutual for use in indoor or outdoor installations.

Envirotemp FR3 fluid is Classified by Underwriters Laboratories and is Approved by Factory Mutual for use in indoor or outdoor installations. It has an even higher fire point than R-TEMP fluid. Plus, it's readily bio-degradable and is not bio-accumulating. Because it is a seed oil-based fluid, it can be differentiated from mineral oil regulation per the Edible Oil Regulatory Reform Act: Public Law 104-55. Both Envirotemp FR3 and R-TEMP are Cooper Power Systems' products suitable for indoor/outdoor installations where ambient temperature is 0° C or higher.

#### **ANSI Padmount Switchgear Standard**

RVAC meets ANSI C37.72, which specifies complete deadfront construction. The RVAC's vacuum load-break switches also meet the stringent ANSI switching duty cycle, not only at 15kV, but at 25kV and 35kV, as well.

#### **Fusing**

The Cooper type ELSG full-range, current-limiting fuse provides consistent clearing of low currents, as well as reliable, high-speed interruption of high-magnitude short circuit currents.



In addition to providing excellent protective characteristics over a wide range of applications, the "E"-rated ELSG fuses have time-current characteristics that coordinate easily with other upstream and downstream protective devices.

#### **Distribution-Automation Accessories**

DC Motor Operators and SCADA accessories are available for RVAC switchgear. These accessories will allow for remote operation and monitoring of the unit, which speeds up the circuit/load reconfiguration. The motor operator control can handle up to six motors, and it has SCADA contacts for remote operation and status indication.



#### **Durable Paint Finish**

Keeping your switchgear painted in the field is important, not only because it extends the operational life of the unit, but also because customers expect you to keep equipment you install near their property looking good. With the cost of repainting, the durability of the factory finish can have a significant impact on your maintenance budget.

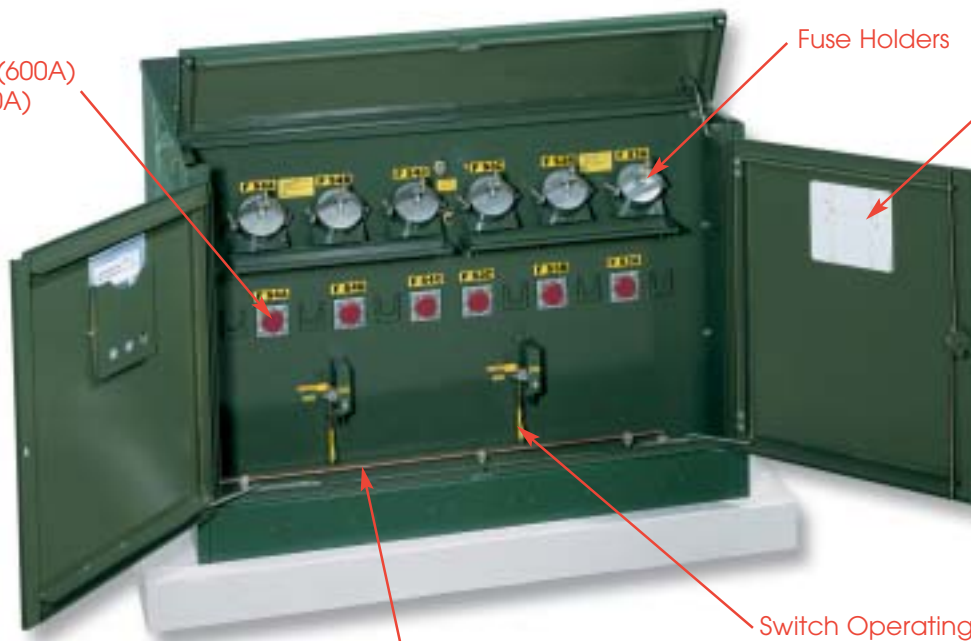
Painted with the most advanced coating system in the industry (similar to that used in the automotive industry), RVAC Switchgear retains a like-new protective finish years after others have blistered, cracked, chalked, or rusted.

Cooper Power Systems' RVAC Switchgear exceeds the requirements of ANSI C57.12.28 and C57.12.29.

Deadfront Bushings (600A)  
or Bushing Wells (200A)

Fuse Holders

Phase  
Diagram



Switch Operating Handles

Ground Rod

RVAC – TAP SIDE FUSED UNIT

## Ratings of RVAC Padmounted Switchgear

Nominal Voltage	15kV	25kV	35kV
Maximum Design Voltage, kV	15.5	27	38
BIL, kV	95	125	150
1-Minute Withstand, Switch and Terminators, kV	34	40	50
Continuous Current, Amps	600	600	600
Load Switching, Amps	600	600	600
Momentary Current 10 Cycles, Amps (asym.)	20,000	20,000	20,000
1 Sec., Amps (sym.)	12,000	12,000	12,000
3 Shot Make and Latch Amps (asym.)	20,000	20,000	20,000
Interrupting Rating (kA) (1)	50	20 - 50	12.2 - 50

(1) Interrupting rating for fused units depends on the selected fuses and the application voltage.

## RVAC Selection and Ordering Guide\*

Model	One-Line Diagram	Nominal Voltage (kV)	Oil/SF <sub>6</sub> Insulated Catalog Numbers
3		15	KPRV331 (2)
		25	KPRV334 (2)
		35	KPRV337 (2)
5		15	KPRV533
		25	KPRV536
		35	KPRV539
6		15	KPRV632
		25	KPRV635
		35	KPRV638
6B		15	KPRV6B32
		25	KPRV6B35
		35	KPRV6B38
7		15	KPRV732
		25	KPRV735
		35	KPRV738
7B		15	KPRV7B32
		25	KPRV7B35
		35	KPRV7B38
9		15	KPRV932
		25	KPRV935
		35	KPRV938
9B		15	KPRV9B32
		25	KPRV9B35
		35	KPRV9B38

(2) Catalog numbers are for oil units. For SF<sub>6</sub> insulated units, replace KPRV with KPSRV.

\* Replace the last digit of the catalog number with the appropriate digit from the Bushing Amperage Ratings table. Contact your Cooper Power Systems representative for information on configurations not listed.

Model	One-Line Diagram	Nominal Voltage (kV)	Oil/SF <sub>6</sub> Insulated Catalog Numbers
10		15	KPRV1031 (2)
		25	KPRV1034 (2)
		35	KPRV1037 (2)
10T		15	KPRV10T32 (2)
		25	KPRV10T34 (2)
		35	KPRV10T37 (2)
11		15	KPRV1132
		25	KPRV1135
		35	KPRV1138
11B		15	KPRV11B32
		25	KPRV11B35
		35	KPRV11B38
12		15	KPRV1232
		25	KPRV1235
		35	KPRV1238
12B		15	KPRV12B32
		25	KPRV12B35
		35	KPRV12B38
13A		15	KPRV13A31 (2)
		25	KPRV13A34 (2)
		35	KPRV13A37 (2)
15B		15	KPRV15B32
		25	KPRV15B35
		35	KPRV15B38

## Bushing Guide

Voltage Rating	Bushing Amperage Rating (Source/Tap)		
	600A/600A	600A/200A	200A/200A
15kV	1	2	3
25kV	4	5	6
35kV	7	8	9

**COOPER** Power Systems

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