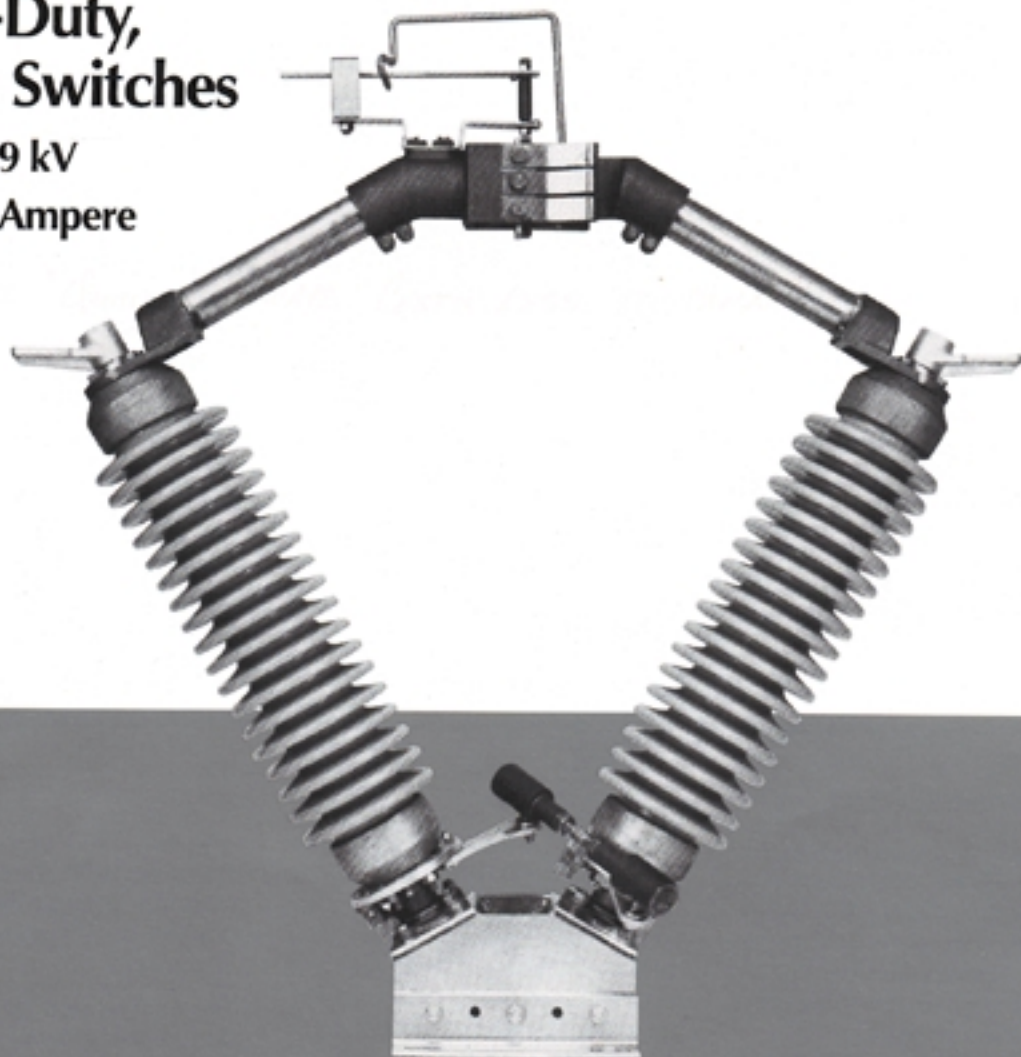


## Type "TCV2" Aluminum Center Break, Heavy-Duty, V-Style Switches

38 kV - 169 kV

600/1200 Ampere



Require Greater Switching *Ability* but Lower Costs?  
Specify "TCV2" by Turner.

☐ Reliability   ☐ Economic Sensibility   ☐ Capability

**Turner Electric Corporation**  
40 Years of Customer Service 1953 - 1993

9510 St. Clair Avenue, Fairview Heights, IL 62208 • 618-397-1865

# Operating and Design Features

## "TCV2" = Switch Ability

**Turner Type "TCV2" switches are heavy-duty, center break Aluminum designs. Two insulator stacks instead of the traditional three reduces cost of materials, assembly and installation.**

The Type "TCV2" is a rotating stack, center break, group operated, heavy-duty air break switch.

The Aluminum "TCV2" model delivers economic sensibility as well as proven dependability.

It's what we call *Switch-Ability!*

Turner has accumulated more than 40 years proven field experience in air break switches. That means you get an easily installed, easily operated heavy-duty switch that provides maximum mechanical and electrical performance under all operating conditions.

Its heavy-duty construction, proven reliability and ease of op-

eration makes the "TCV2" switch perfect for demanding substation and line operations such as breaker isolating and bypassing, transmission line and bus sectionalizing, isolating arrestors, metering equipment and other apparatus.

The 600 Amp switch can be easily upgraded to 1200 Amp.

Internal construction is simple, and virtually maintenance-free. The straight-forward, simple design provides smooth, easy operation, regardless of switch mounting attitude.

"TCV2" switches can be easily mounted in any position: horizontal, vertical, or inverted, with minimal structure requirements. The

low silhouette and side-opening design makes it particularly applicable for low overhead clearance applications. The "V" configuration reduces base mounting requirements, lowering structure costs.

Concerns over station designs and appearances can be minimized due to the "TCV2's" low profile construction.

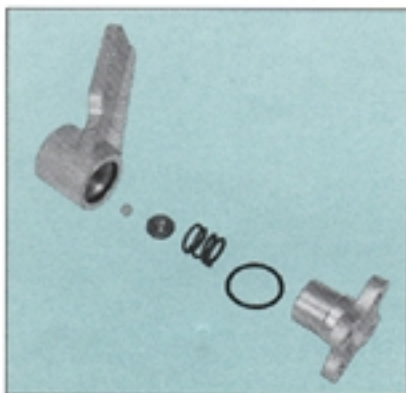
Right hand or left hand opening can be specified at time of order.

Group operation is accomplished with an interphase pipe, group operated control pipe, outboard bearing, vertical operating pipe and swing handle operator.

**Quality may cost more to buy, but it always costs less to own.**

## "TCV2" Operating Features

Moving parts in the blade assembly area are restricted to only one area. The terminal pad to blade interface is threaded, silver-plated and spring-loaded to ensure excellent current transfer as well as corrosion- and contamination- resistance.

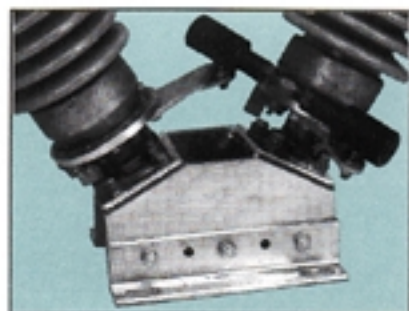


Arc transfer is easily accomplished with simple, easily maintained, stainless steel hardware (arcing horns). The horns are located away from the main current carrying contacts, eliminating any potential damage to critical, primary current-carrying surfaces.

An optional high-speed, quick whip assembly enhances the ability of the product to drop line or bus charging currents, as well as transformer magnetizing current.

The extra heavy mounting base combined with the use of massive current carrying components helps ensure that contacts maintain proper alignment.

The rotating bearing assembly consists of two tapered Timken® roller bearings, which are adjusted and lubricated at the factory and require no further attention for the life of the switch.





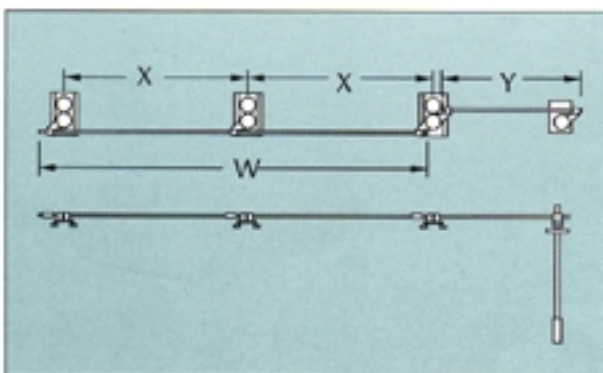
## Hinge Terminal Pad

The pivot point for the pad is directly over the insulator. This provides less bending moment, providing a strong load bearing pad. The terminal pad threads are silver plated, and, once screwed into the hinge casting, sealed by means of a Buna "O" ring seal.



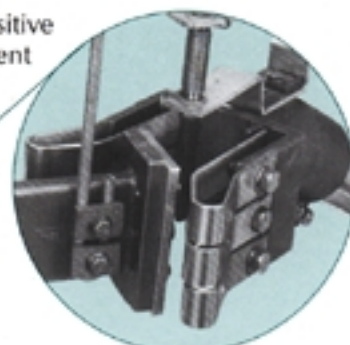
## Insulators

NEMA standard strength grey porcelain insulators of the same voltage rating as the switch will be supplied, unless specified otherwise.



## Reverse Loop Contacts

Massive contact construction provides positive mating, even if some blade misalignment occurs, during seismic activity or under heavy fault current. Silver-to-silver contact surfaces provide low resistivity with high conductivity.



## Current Carrying Parts

The "TCV2" Aluminum switch has both Aluminum and silver or tinned Copper alloy live parts.

## Switch Adjustment

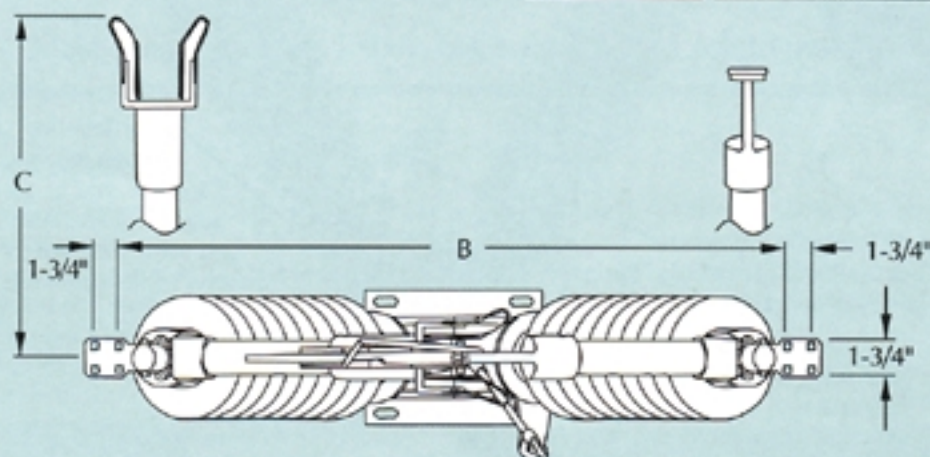
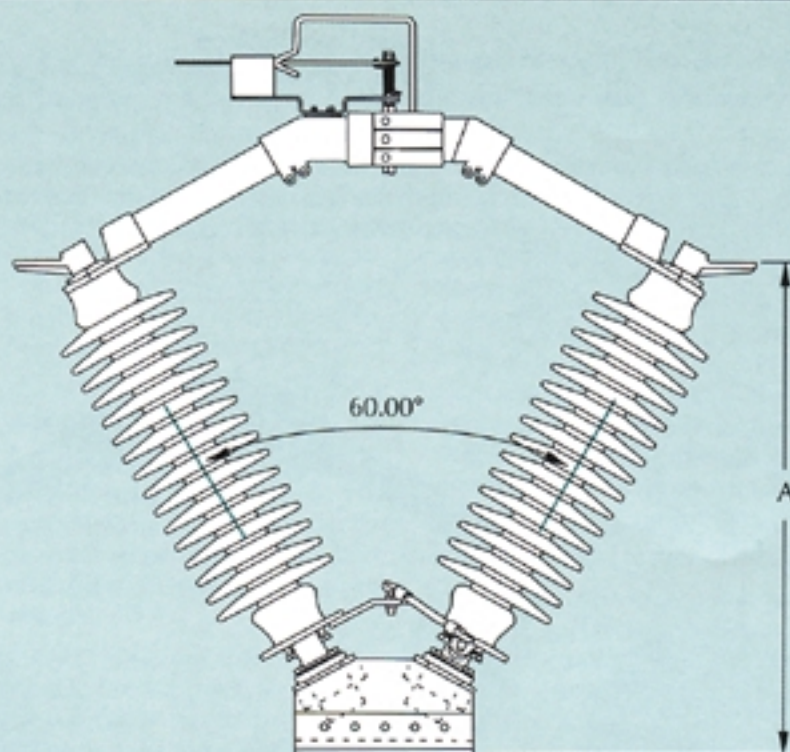
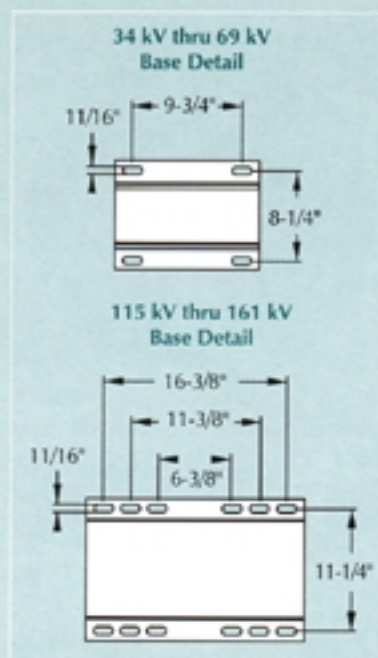
Four leveling screws are provided on the sub-base of each insulator stack, to facilitate easy alignment after assembling the insulators on the switch. Adjusting the screws raises or lowers the end of the switch blade.

## Base

Standard bases are hot dipped galvanized rigid, steel sections. Lifetime bearings, requiring no lubrication, and open-close stops are built into the compact assembly.

kV	X	Y	W
34	48 inches	120 inches	96 inches
46	60 inches	120 inches	120 inches
69	72 inches	120 inches	144 inches
115	108 inches	120 inches	216 inches
138	132 inches	132 inches	264 inches
161	156 inches	156 inches	312 inches

# Dimensions and Nomenclature



Dimensions

kV	A Terminal Pad Height	B Width	C Depth Switch Open	BIL kV
34.5	26	36-3/8	22	200
46	29-3/8	40-3/8	23-3/4	250
69	36-3/8	48-3/8	27-3/4	350
115	52	69	38-1/8	550
138	60-1/4	76-1/8	41-5/8	650
161	67-1/4	84-1/8	45-5/8	750