

# 5kV

# VACUUM CIRCUIT BREAKER



## SURVIVABLE POWER WHERE NAVY COMBATANTS NEED IT

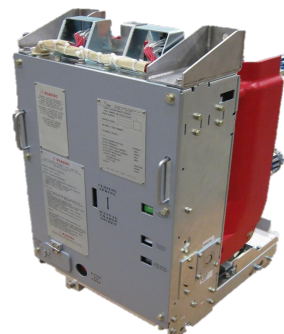
As electric drive ships and power hungry weapon systems are fielded, 5kV generation and distribution systems become natural stepping stones. To minimize the risk, Leonardo DRS developed our 5kV 1600A medium voltage Vacuum Circuit Breaker (VCB). This circuit breaker is based on a COTS breaker that DRS militarized to provide a small, lightweight, and cost effective solution. Used on the latest U.S. Navy ships for power distribution, the military hardened VCB is designed to withstand rugged Navy combatant conditions for the life of the ship.

The Vacuum Interrupter design significantly reduces breaker size and weight as arc chutes are not needed. Maintenance is reduced since no contact adjustments are required, only a periodic check of the integral wear indicator is needed. The VCB is drawout (removable) for ease of inspection and replacement.

From power distribution and electrical control products to ship control automation, Leonardo DRS offers advanced product development, world-class manufacturing and global engineering services and support. That is why our products are found on all U. S. Navy combatants since WWII.

### SELECTED FEATURES

- Maintenance free vacuum interrupter
- Trip free operation
- Interlocks for proper and safe operation
- Built-in contact erosion indicator
- Operations counter
- Mechanical position indicator
- Closing springs charged indicator
- Mechanical and electric open and close capability



# 5kV VACUUM CIRCUIT BREAKER (VCB)

## BREAKER SPECIFICATIONS

CHARACTERISTICS	MEASUREMENT
Voltage	4160V to 7200V
Dielectric Withstand	19,000V for 1 minute
Basic Impulse Level (BIL)	60,000V
Corona Extinction Voltage Level	17,500V
Max. Continuous Current	1600A
Max. Voltage and Frequency	8,250VAC, 60Hz
Max. Short Circuit Interrupting Current	41,000A symmetrical
Short Circuit Duration	3 seconds
Max. Short Circuit Making Current	106,600A peak
Max. Trip Time	50 milliseconds
Max. Close Time	100 milliseconds
Mechanical Endurance	5,000 cycles
Poles	3
Operating Temperature	-30 to +75° C
Operating Humidity	95% non-condensing
Width	18.5 inches (47.0 cm)
Height	32.2 inches (81.8 cm)
Depth	22.5 inches (57.2 cm)
Weight	380 lbs. (172.4 kg)

## MILITARY STANDARD COMPLIANCE

- MIL-DTL-32485
- MIL-S-901, Grade A
- MIL-STD-167-1

## ATTACHMENTS

Electrical Closing Device	Standard
Shunt Trip Device	Standard
Grounding Contacts	Standard
Auxilliary Switches	Quantity: 15
	Ratings: 120VAC, 15A/125VDC, 10A
Secondary Disconnect Pins	50

This breaker fits in a two (2) VCB high, 80" high x 23" wide x 54" deep vertical unit.



### Naval Power Systems

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