

Square D™ Brand VR Medium Voltage Vacuum Circuit Breaker

ANSI/NEMA Vacuum Circuit Breakers 27 kV; 1200, 2000, and 2750 A; 16–40 kA



Square D™ brand, Type VR medium voltage circuit breakers manufactured by Schneider Electric have been on the market for more than 30 years. Their quality, reliability, and performance are widely recognized across North America, as well as everywhere ANSI applications are required worldwide.

Standard features include:

- 3-cycle interrupting rating
- ANSI rated per C37.06, C37.09, C37.54
- UL Listed
- Spring-charged, stored-energy operating mechanism
- Permanently mounted manual charging handle
- Two “a” and “b” spare contacts
- Wheels that roll directly to floor level from lower cell for maintenance

The circuit breaker contacts are located where indicators are readily accessible. The front accessible mechanism allows for ease of maintenance. The circuit breaker operates at a high speed and, because of the hermetically sealed vacuum interrupters, has a longer life cycle.

With their wide range of ratings and benefits, the Type VR circuit breakers are offered not only in Masterclad™ medium voltage switchgear, but also in semi-assembled switchgear and OEM components.

Associated Drawings

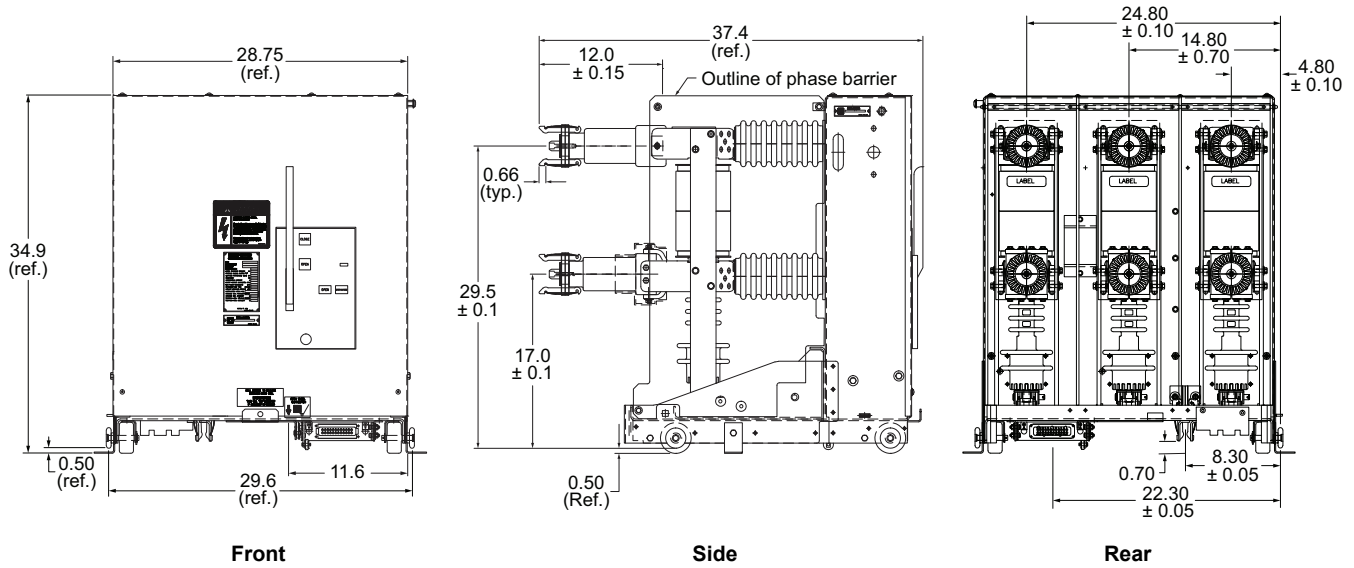
- Circuit breaker schematic diagram—drawing no. 46040-651
- Circuit breaker wiring diagram—drawing no. 46040-652

Instruction Bulletin

- Document no. 6055-41

Dimensions

1200/2000/2750 A, 16/25/40 kA



Weights

27 kV Circuit Breaker Rating	Weight (lbs.)
1200 A, 16/25/40 kA	625
2000 A, 16/25/40 kA	650
2750 A, 16/25/40 kA	775

27 kV Ratings

Nominal Voltage	k Factor	3-Phase MVA Rating ▲	Rated Continuous Current	Rated Maximum Voltage	Insulation Level Rated Withstand		Interrupting Ratings					Catalog Number
					Power Frequency	Impulse 1.2x50 μs	System Interrupting	Close and Latch	Short Time	Short Time Duration	Interrupting Time	
kV rms			A rms	kV	kV rms	kV peak	kA rms	kA peak	kA rms	Seconds	Cycles	
27	1	750	1200	27	60	125	16	43	16	2	3	VR-2701612
	1	750	2000	27	60	125	16	43	16	2	3	VR-2701620
	1	750	2750	27	60	125	16	43	16	2	3	VR-2701627
	1	1250	1200	27	60	125	25	68	25	2	3	VR-2702512
	1	1250	2000	27	60	125	25	68	25	2	3	VR-2702520
	1	1250	2750 ■	27	60	125	25	68	25	2	3	VR-2702527
	1	2000	1200	27	60	125	40	108	40	2	3	VR-2704012
	1	2000	2000	27	60	125	40	108	40	2	3	VR-2704020
1	2000	2750 ■	27	60	125	40	108	40	2	3	VR-2704027	

▲ This rating is for reference only.

■ 2750 A circuit breakers are not UL Listed.

Control Voltage Operating Range (ANSI 37.06, Table 9)

Rated Voltage	Closing Voltage Range	Tripping Voltage Range
24 Vdc	Not available	14–28 Vdc
48 Vdc	38–56 Vdc	28–56 Vdc
125 Vdc	100–140 Vdc	70–140 Vdc
250 Vdc	200–280 Vdc	140–280 Vdc
120 Vac	104–127 Vac	104–127 Vac
240 Vac	208–254 Vac	208–254 Vac

Control Device Rating Standard

Circuit Breaker Rating	Control Description	Rated Voltage	Current At Rated Voltage (A)		Time Duration Of Current Flow	Burden (VA)		DC Resistance (Ohms)
			Inrush	Run		Inrush	Run	
All circuit breakers	Charging motor	24 Vdc 48 Vdc 125 Vdc 250 Vdc 120 Vac 240 Vac	15 (max.)	2.5 (max.)	5–10 sec. max.	▲ 720 1875 3750 1800 3600	▲ 120 313 625 300 600	Not applicable
	Anti-pump relay	24 Vdc 48 Vdc 125 Vdc 250 Vdc 120 Vac 240 Vac	Not applicable 0.025 0.009 0.004 0.016 0.008		Not applicable	▲ 1.2 1.2 1.2 2.0 2.0		Not applicable

▲ 0.8 PF

Circuit Breaker-Mounted Auxiliary Contact Ratings

Continuous Rating: 20 A, up to 600 V

Interruption Rating		
Voltage	Non-Inductive	Inductive
24 Vdc	18 A	10 A ■
48 Vdc	18 A	10 A ■
125 Vdc	5 A	3 A ■
250 Vdc	2 A	1 A ■
120 Vac	20 A	20 A ▲
240 Vac	18 A	18 A ▲

▲ 0.8 PF

■ 0.08 H

Technical Publications

<http://products.schneider-electric.us/support/technical-library/>

Schneider Electric USA, Inc.
1415 S. Roselle Road
Palatine, IL 60067 USA
1-888-778-2733
www.schneider-electric.us

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

All trademarks are owned by Schneider Electric Industries SAS or its affiliated companies.