



SIMOVAC-RVAT™ NON-ARC-RESISTANT AND SIMOVAC-RVAT-AR™ ARC-RESISTANT MEDIUM-VOLTAGE

Reduced-voltage autotransformer controllers

Up to 4.16 kV, 63, kA, 720 A
usa.siemens.com/simovac

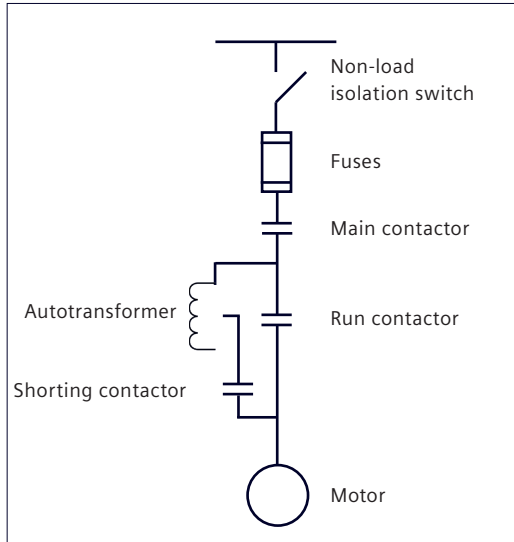
Features and benefits:

- Up to 4.16 kV operating voltage
- Fixed-mounted 400 A or 720 A vacuum contactor (optional 400 A plug-in for main contactor)
- Non-load-break isolating switch
- Available non-arc-resistant and arc-resistant versions
- Arc-resistant design tested for internal arcing to IEEE C37.20.7, up to 63 kA, 0.5 s, accessibility type 2B
- UL (or C-UL) available
- Isolating switch with visible indication through viewing window to verify that the power cell is isolated from line side – no need to open panel door
- Isolating switch mechanically interlocked with the access doors to prevent user access to primary compartment when isolation switch is closed
- Low-voltage compartment isolated from the medium-voltage compartment
- All components front accessible, facilitating routine inspection or parts replacement
- Current-limiting fuses, contactor assembly and isolating switch assembly are easily removed from the enclosure
- Delivers more torque per incoming ampere than the solid state reduced voltage (SSRV) motor controller
- Low-voltage test mode; no special tools required
- Current limit
- Trained and certified local personnel in U.S. available for start-up, commissioning, and maintenance.

SIEMENS

Description

A leader in the design of medium-voltage controllers, Siemens offers reduced-voltage, autotransformer non-reversing controller in addition to its solid-state, reduced-voltage (SSRV) controller. This traditional electro-mechanical starting approach is rated for NEMA medium-duty applications. Motor data must be provided when ordering to ensure that the autotransformers are sized properly.



Technical ratings

| Characteristics | Unit | Voltage class | |
|--|----------------------|-------------------------------------|-------------------------------------|
| System design voltage | kV | 2.4 | 4.16 |
| Enclosed continuous current ¹ | A | 400 / 720 | 400 / 720 |
| Interrupting capacity kA | Fuse class E2 kA | Up to 63 | Up to 63 |
| Motor horsepower rating (three-phase) ⁴ | Induction type motor | Up to 1,500 / up to 3,000 | Up to 2,500 / up to 5,000 |
| Maximum motor fuse rating | | 24R ² / 57X ³ | 24R ² / 57X ³ |

Footnotes:

1. Refer to controller maximum current capability table for further detail.
2. With 24R fuse, interrupting capacity is 50 kA.
3. With 48X or 57X, interrupting capacity is 50 kA.
4. For horsepower greater than shown, please consult factory.

Autotransformer controller starting characteristics

| Autotransformer tap settings | % motor voltage | % motor current | % line current | % torque |
|------------------------------|-----------------|-----------------|----------------|----------|
| 50% tap | 50 | 50 | 28 | 25 |
| 65% tap | 65 | 65 | 45 | 42 |
| 80% tap | 80 | 80 | 67 | 64 |

Dimensions in inches (mm)

| Type | Width (W) ³ | Height (H) ^{1,7,9} | Depth (D) ^{2,6} | Configuration | Weight in lbs (kg) non-arc-resistant | Weight in lbs (kg) arc-resistant |
|------|------------------------|-----------------------------|--------------------------|---------------|--------------------------------------|----------------------------------|
| 400 | 72 (1,829) | 80 (2,038) ⁵ | 30 (762) | 1, 3 | 4,465 (2,025) | 5,145 (2,334) |
| 720 | 84 (2,134) | 95 (2,413) | 30 (762) | 2, 3 | 6,283 (2,850) | 6,963 (3,158) |

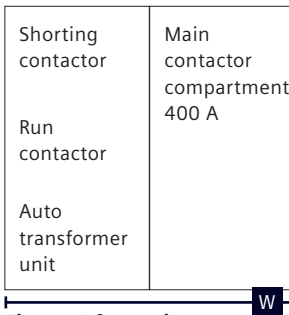


Figure 1 front view
400 A RVAT

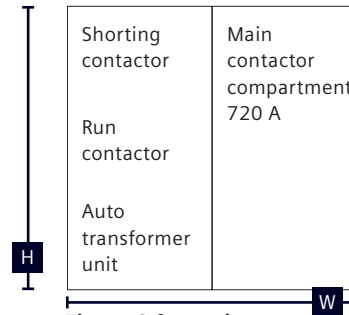


Figure 2 front view
720 A RVAT

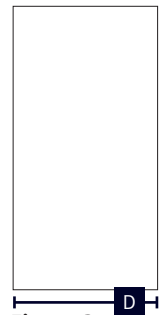


Figure 3 side view 400 A or 720 A RVAT

Footnotes:

1. Add 17.0" (432 mm) for height of SIMOVAC-RVAT-AR arc-resistant controller (total 112.0" (2,845 mm)).
2. Add 10.5" (267 mm) for depth of SIMOVAC-RVAT-AR arc-resistant controller (total 40.5" (1,029 mm)).
3. Add 6.0" (152 mm) for width per section for outdoor (non-arc-resistant).
4. Add 850 lbs (386 kg) for weight per section for outdoor (non-arc-resistant).
5. Height increases to 107.3" (2,725 mm) for outdoor (non-arc-resistant).
6. Depth increases to 37.4" (950 mm) for outdoor (non-arc-resistant).
7. Add 13.0" (330 mm) the height for horizontal bus bar compartment.
8. Consult factory for other ratings.
9. For non-arc-resistant with 4,000 A main bus, add 7.25" (184 mm) to the overall height and 75 lbs (35 kg) to the total weight per section.

Legal Manufacturer

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