# **SIEMENS**

Data sheet 3RT1044-1AV60



CONTACTOR, AC-3 30 KW/400 V, AC 480 V, 60 HZ, 3-POLE, SIZE S3, SCREW CONNECTION  $\,$ 

Figure similar

product brand name	SIRIUS
Product designation	power contactor

General technical data:	
Size of contactor	S3
Insulation voltage	
Rated value	1 000 V
Surge voltage resistance Rated value	6 kV
Protection class IP	
• on the front	IP00
of the terminal	IP00
Degree of pollution	3
Mechanical service life (switching cycles)	
<ul> <li>of the contactor typical</li> </ul>	10 000 000
<ul> <li>of the contactor with added electronics-</li> </ul>	5 000 000
compatible auxiliary switch block typical	
<ul> <li>of the contactor with added auxiliary switch</li> </ul>	10 000 000
block typical	

Ambient conditions:	
Installation altitude at height above sea level	2 000 m
maximum	
Ambient temperature	
during operation	-25 +60 °C
during storage	-55 +80 °C

Main circuit:	
Number of NO contacts for main contacts	3

Operating current  • at AC-1 at 40 V  — at ambient temperature 40 °C Rated value • at AC-1 up to 690 V  — at ambient temperature 60 °C Rated value — at ambient temperature 60 °C Rated value — at ambient temperature 60 °C Rated value — at 400 V Rated value — at 690 V Rated value — at 600 V Rated value — at 60 °C minimum permissible  • at 40 °C minimum permissible • at 40 °C minimum permissible • at 40 °C minimum permissible  • at 40 °C minimum permissible  • at 40 °C minimum permissible  Operating current for ≥ 200000 operating cycles at AC-4  • at 400 V Rated value • at 600 °V Rated value • 28 A • at 690 V Rated value • 20 A  Operating current  • with 1 current path at DC-1 — at 24 V Rated value • 4.5 A  • with 2 current paths in series at DC-1 — at 24 V Rated value • with 3 current paths in series at DC-1 — at 24 V Rated value • with 3 current paths in series at DC-1 — at 24 V Rated value • with 3 current paths in series at DC-5 — at 110 V Rated value • with 1 Current path at DC-3 at DC-5 — at 24 V Rated value — at 110 V Rated value — at 24 V Rated value — at 110 V Rated value — at 24 V Rated value — at 20 V Rated value — at 20 V Rated value — at 40 C Rated v	Number of NC contacts for main contacts	0
- at ambient temperature 40 °C Rated value  • at AC-1 up to 690 V  — at ambient temperature 40 °C Rated value  • at AC-3  — at ambient temperature 60 °C Rated value  • at AC-3  — at 400 V Rated value  • at 60 °C minimum permissible  • at 40 °C minimum permissible  • at 400 V Rated value  • at 690 V Rated value  • at 110 V Rated value  — at 24 V Rated value  — at 24 V Rated value  — at 110 V Rated value  • with 3 current paths in series at DC-1  — at 24 V Rated value  • with 3 current paths in series at DC-1  — at 24 V Rated value  • with 1 current path at DC-3 at DC-5  — at 110 V Rated value  • with 1 current path at DC-3 at DC-5  — at 110 V Rated value  • with 2 current paths in series at DC-3 at DC-5  — at 110 V Rated value  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value  • at AC-1  — at 230 V at 60 °C Rated value  • at AC-1  — at 230 V at 60 °C Rated value	Operating current	
• at AC-1 up to 690 V — at ambient temperature 40 °C Rated value — at ambient temperature 60 °C Rated value 90 A • at AC-3 — at 400 V Rated value — at 690 V Rated value — at 690 V Rated value  • at 60 °C minimum permissible • at 40 °C minimum permissible  • at 400 V Rated value • at 400 V Rated value • at 690 V Rated value • at 690 V Rated value • at 690 V Rated value • at 110 V Rated value — at 110 V Rated value — at 110 V Rated value • with 2 current paths in series at DC-1 — at 24 V Rated value • with 3 current paths in series at DC-1 — at 24 V Rated value • with 3 current paths in series at DC-1 — at 24 V Rated value • with 7 current paths at DC-3 at DC-5 — at 110 V Rated value • with 2 current paths in series at DC-3 — at 24 V Rated value • with 3 current paths in series at DC-3 — at 24 V Rated value • with 2 current paths in series at DC-3 — at 24 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 110 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 110 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 110 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 110 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 110 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 24 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 110 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 24 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 24 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 24 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 24 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 24 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 24 V Rated value • with 3 current paths in series at DC-3 at DC-5 — at 24 V Rated value • at AC-1 — at 230 V at 60 °C Rated value	● at AC-1 at 400 V	
at ambient temperature 40 °C Rated value at ambient temperature 60 °C Rated value at 400 V Rated value at 400 V Rated value at 60 °C minimum permissible at 400 V Rated value at 600 V Rated value at 24 V Rated value at 24 V Rated value at 110 V Rated value at 24 V Rated value at 110 V Rated value at 24 V Rated value at 25 V	— at ambient temperature 40 °C Rated value	100 A
- at ambient temperature 60 °C Rated value  • at AC-3  — at 400 V Rated value  Connectable conductor cross-section in main circuit at AC-1  • at 60 °C minimum permissible  • at 40 °C minimum permissible  Operating current for ≥ 200000 operating cycles at AC-4  • at 400 V Rated value  • at 690 V Rated value  • at 100 V Rated value  • at 110 V Rated value  — at 24 V Rated value  — at 110 V Rated value  — at 24 V Rated value  90 A  Operating power  • at AC-1  — at 230 V at 60 °C Rated value	● at AC-1 up to 690 V	
	— at ambient temperature 40 °C Rated value	100 A
	— at ambient temperature 60 °C Rated value	90 A
- at 690 ∨ Rated value 47 A  Connectable conductor cross-section in main circuit at AC-1  • at 60 °C minimum permissible 35 mm²  Operating current for ≥ 200000 operating cycles at AC-4  • at 400 ∨ Rated value 28 A • at 400 ∨ Rated value 20 A  Operating current  • with 1 current path at DC-1  — at 24 ∨ Rated value 90 A  — at 110 ∨ Rated value 90 A  • with 2 current paths in series at DC-1  — at 24 ∨ Rated value 90 A  • with 3 current paths in series at DC-1  — at 24 ∨ Rated value 90 A  • with 10 ∨ Rated value 90 A  • with 10 ∨ Rated value 90 A  • with 2 current paths in series at DC-1  — at 24 ∨ Rated value 90 A  • with 3 current paths in series at DC-1  — at 24 ∨ Rated value 90 A  • with 10 ∨ Rated value 90 A  Operating current  • with 1 current path at DC-3 at DC-5  — at 24 ∨ Rated value 40 A  • with 2 current paths in series at DC-3 at DC-5  — at 110 ∨ Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 ∨ Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 ∨ Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 ∨ Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 ∨ Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 ∨ Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 ∨ Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 ∨ Rated value 90 A	• at AC-3	
Connectable conductor cross-section in main circuit at AC-1  • at 60 °C minimum permissible  • at 40 °C minimum permissible  • at 40 °C minimum permissible  Operating current for ≥ 200000 operating cycles at AC-4  • at 400 ∨ Rated value  • at 690 ∨ Rated value  • at 690 ∨ Rated value  • with 1 current path at DC-1  — at 24 ∨ Rated value  — at 110 ∨ Rated value  — at 24 ∨ Rated value  — at 110 ∨ Rated value  — at 24	— at 400 V Rated value	65 A
at AC-1  • at 60 °C minimum permissible • at 40 °C minimum permissible 35 mm²  Operating current for ≥ 200000 operating cycles at AC-4  • at 400 V Rated value • at 690 V Rated value  • at 690 V Rated value  • with 1 current path at DC-1  — at 24 V Rated value  — at 110 V Rated value  — at 110 V Rated value  90 A  • with 3 current paths in series at DC-1  — at 24 V Rated value  90 A  • with 3 current paths in series at DC-1  — at 24 V Rated value  90 A  • with 10 V Rated value  90 A  • with 3 current paths in series at DC-1  — at 24 V Rated value  90 A  • with 10 V Rated value  90 A  • with 2 current path at DC-3 at DC-5  — at 24 V Rated value  40 A  2.5 A  • with 2 current paths in series at DC-5  — at 24 V Rated value  90 A  • with 1 current path at DC-3 at DC-5  — at 24 V Rated value  90 A  • with 2 current paths in series at DC-3 at DC-5  — at 110 V Rated value  90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  90 A  • with 2 current paths in series at DC-3 at DC-5  — at 110 V Rated value  90 A  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value  90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  90 A  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value  90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  90 A  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value  90 A  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value  90 A	— at 690 V Rated value	47 A
• at 40 °C minimum permissible     Operating current for ≥ 200000 operating cycles at AC-4     • at 400 V Rated value     • at 690 V Rated value     • at 690 V Rated value     • at 690 V Rated value     • with 1 current path at DC-1     — at 24 V Rated value     — at 110 V Rated value     — at 24 V Rated value     — at 24 V Rated value     — at 110 V Rated value     • with 1 current path at DC-3 at DC-5     — at 24 V Rated value     — at 24 V Rated value     — at 110 V Rated value     — at 24 V Rated value     — at		
Operating current for ≥ 200000 operating cycles at AC-4         • at 400 V Rated value       28 A         • at 690 V Rated value       20 A         Operating current         • with 1 current path at DC-1       — at 24 V Rated value         — at 110 V Rated value       90 A         • with 2 current paths in series at DC-1       — at 24 V Rated value         — at 110 V Rated value       90 A         • with 3 current paths in series at DC-1       — at 24 V Rated value         — at 110 V Rated value       90 A         Operating current         • with 1 current path at DC-3 at DC-5       — at 24 V Rated value         — at 110 V Rated value       2.5 A         • with 2 current paths in series at DC-3 at DC-5       — at 110 V Rated value         • with 3 current paths in series at DC-3 at DC-5       — at 110 V Rated value         • with 3 current paths in series at DC-3 at DC-5       — at 24 V Rated value         • with 3 current paths in series at DC-3 at DC-5       — at 24 V Rated value         • with 3 current paths in series at DC-3 at DC-5       — at 110 V Rated value         • with 3 current paths in series at DC-3 at DC-5       — at 24 V Rated value         • with 3 current paths in series at DC-3 at DC-5       — at 24 V Rated value         • with 3 current paths in series at DC-3 at	• at 60 °C minimum permissible	35 mm²
AC-4  • at 400 V Rated value 28 A  • at 690 V Rated value 20 A  Operating current  • with 1 current path at DC-1  — at 24 V Rated value 90 A  — at 110 V Rated value 90 A  • with 2 current paths in series at DC-1  — at 24 V Rated value 90 A  — at 110 V Rated value 90 A  • with 3 current paths in series at DC-1  — at 24 V Rated value 90 A  • with 3 current paths at DC-3 at DC-5  — at 110 V Rated value 90 A  Operating current  • with 1 current path at DC-3 at DC-5  — at 24 V Rated value 40 A  — at 110 V Rated value 90 A  Operating current  • with 2 current paths in series at DC-3 at DC-5  — at 24 V Rated value 40 A  — at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value 90 A  Operating power  • at AC-1  — at 230 V at 60 °C Rated value 34 kW	• at 40 °C minimum permissible	35 mm²
• at 400 V Rated value 20 A  • at 690 V Rated value 20 A  Operating current  • with 1 current path at DC-1  — at 24 V Rated value 90 A  — at 110 V Rated value 90 A  • with 3 current paths in series at DC-1  — at 24 V Rated value 90 A  • with 3 current paths in series at DC-1  — at 24 V Rated value 90 A  • with 10 V Rated value 90 A  Operating current  • with 1 current path at DC-3 at DC-5  — at 24 V Rated value 2.5 A  • with 2 current paths in series at DC-3 at DC-5  — at 110 V Rated value 2.5 A  • with 2 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value 90 A  Operating power  • at AC-1  — at 230 V at 60 °C Rated value 34 kW		
● at 690 V Rated value       20 A         Operating current         ● with 1 current path at DC-1       90 A         — at 24 V Rated value       90 A         ● with 2 current paths in series at DC-1       90 A         — at 24 V Rated value       90 A         ● with 3 current paths in series at DC-1       90 A         — at 24 V Rated value       90 A         — at 110 V Rated value       90 A         Operating current       90 A         ● with 1 current path at DC-3 at DC-5       40 A         — at 24 V Rated value       2.5 A         ● with 2 current paths in series at DC-3 at DC-5       90 A         — at 110 V Rated value       90 A         ● with 3 current paths in series at DC-3 at DC-5       90 A         — at 24 V Rated value       90 A         ● with 3 current paths in series at DC-3 at DC-5       90 A         — at 24 V Rated value       90 A         ● with 3 current paths in series at DC-3 at DC-5       90 A         — at 24 V Rated value       90 A         ● with 3 current paths in series at DC-3 at DC-5       90 A         — at 24 V Rated value       90 A         ● with 3 current paths in series at DC-3 at DC-5       90 A         — at 24 V Rated value       90 A <td></td> <td>28 Δ</td>		28 Δ
Operating current  • with 1 current path at DC-1  — at 24 V Rated value 90 A  — at 110 V Rated value 90 A  • with 2 current paths in series at DC-1  — at 24 V Rated value 90 A  — at 110 V Rated value 90 A  • with 3 current paths in series at DC-1  — at 24 V Rated value 90 A  • with 3 current paths in series at DC-1  — at 24 V Rated value 90 A  Operating current  • with 1 current path at DC-3 at DC-5  — at 24 V Rated value 40 A  — at 110 V Rated value 2.5 A  • with 2 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  • with 2 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value 90 A  Operating power  • at AC-1  — at 230 V at 60 °C Rated value 34 kW		
with 1 current path at DC-1  — at 24 V Rated value 90 A  4.5 A  with 2 current paths in series at DC-1  — at 24 V Rated value 90 A  — at 110 V Rated value 90 A  with 3 current paths in series at DC-1  — at 24 V Rated value 90 A  with 3 current paths in series at DC-1  — at 24 V Rated value 90 A  Operating current  with 1 current path at DC-3 at DC-5  — at 24 V Rated value 40 A  — at 110 V Rated value 2.5 A  with 2 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  with 2 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value 90 A  with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value 90 A  Operating power  at AC-1  — at 230 V at 60 °C Rated value 34 kW		2071
- at 24 V Rated value 90 A - at 110 V Rated value 4.5 A  • with 2 current paths in series at DC-1 - at 24 V Rated value 90 A - at 110 V Rated value 90 A  • with 3 current paths in series at DC-1 - at 24 V Rated value 90 A  • with 3 current paths in series at DC-1 - at 24 V Rated value 90 A  Operating current  • with 1 current path at DC-3 at DC-5 - at 24 V Rated value 2.5 A  • with 2 current paths in series at DC-3 at DC-5 - at 110 V Rated value 90 A  • with 2 current paths in series at DC-3 at DC-5 - at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5 - at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5 - at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5 - at 24 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5 - at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5 - at 24 V Rated value 90 A  Operating power  • at AC-1 - at 230 V at 60 °C Rated value 34 kW		
<ul> <li>at 110 V Rated value</li> <li>with 2 current paths in series at DC-1</li> <li>at 24 V Rated value</li> <li>90 A</li> <li>with 3 current paths in series at DC-1</li> <li>at 24 V Rated value</li> <li>with 3 current paths in series at DC-1</li> <li>at 24 V Rated value</li> <li>90 A</li> <li>Operating current</li> <li>with 1 current path at DC-3 at DC-5</li> <li>at 24 V Rated value</li> <li>with 2 current paths in series at DC-3 at DC-5</li> <li>at 110 V Rated value</li> <li>with 2 current paths in series at DC-3 at DC-5</li> <li>at 110 V Rated value</li> <li>with 3 current paths in series at DC-3 at DC-5</li> <li>at 110 V Rated value</li> <li>90 A</li> <li>with 3 current paths in series at DC-3 at DC-5</li> <li>at 110 V Rated value</li> <li>90 A</li> <li>with 3 current paths in series at DC-3 at DC-5</li> <li>at 24 V Rated value</li> <li>90 A</li> <li>with 3 current paths in series at DC-3 at DC-5</li> <li>at 110 V Rated value</li> <li>90 A</li> <li>with 3 current paths in series at DC-3 at DC-5</li> <li>at 110 V Rated value</li> <li>90 A</li> <li>with 3 current paths in series at DC-3 at DC-5</li> <li>at 24 V Rated value</li> <li>90 A</li> <li>on A</li> <li>Operating power</li> <li>at AC-1</li> <li>at 230 V at 60 °C Rated value</li> <li>34 kW</li> </ul>	·	90 A
with 2 current paths in series at DC-1  — at 24 V Rated value  90 A  with 3 current paths in series at DC-1  — at 24 V Rated value  90 A  with 3 current paths in series at DC-1  — at 24 V Rated value  90 A  Operating current  with 1 current path at DC-3 at DC-5  — at 24 V Rated value  40 A  2.5 A  with 2 current paths in series at DC-3 at DC-5  — at 110 V Rated value  90 A  with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  90 A  with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value  90 A  o with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  90 A  o with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value  90 A  o with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  90 A  o with 3 current paths in series at DC-3 at DC-5  — at 24 V Rated value  90 A  Operating power  • at AC-1  — at 230 V at 60 °C Rated value  34 kW		4.5 A
- at 24 V Rated value 90 A  - at 110 V Rated value 90 A  • with 3 current paths in series at DC-1  - at 24 V Rated value 90 A  - at 110 V Rated value 90 A  Operating current  • with 1 current path at DC-3 at DC-5  - at 24 V Rated value 40 A  - at 110 V Rated value 2.5 A  • with 2 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  - at 124 V Rated value 90 A  Operating power  • at AC-1  - at 230 V at 60 °C Rated value 34 kW		
with 3 current paths in series at DC-1     — at 24 V Rated value 90 A     — at 110 V Rated value 90 A  Operating current      with 1 current path at DC-3 at DC-5     — at 24 V Rated value 40 A     — at 110 V Rated value 2.5 A      with 2 current paths in series at DC-3 at DC-5     — at 110 V Rated value 90 A     — at 24 V Rated value 90 A      with 3 current paths in series at DC-3 at DC-5     — at 110 V Rated value 90 A      with 3 current paths in series at DC-3 at DC-5     — at 24 V Rated value 90 A      with 3 current paths in series at DC-3 at DC-5     — at 110 V Rated value 90 A  Operating power      at AC-1     — at 230 V at 60 °C Rated value 34 kW		90 A
- at 24 V Rated value 90 A  - at 110 V Rated value 90 A  Operating current  • with 1 current path at DC-3 at DC-5  - at 24 V Rated value 40 A  - at 110 V Rated value 2.5 A  • with 2 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  - at 24 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  Operating power  • at AC-1  - at 230 V at 60 °C Rated value 34 kW	— at 110 V Rated value	90 A
- at 24 V Rated value 90 A  - at 110 V Rated value 90 A  Operating current  • with 1 current path at DC-3 at DC-5  - at 24 V Rated value 40 A  - at 110 V Rated value 2.5 A  • with 2 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  - at 24 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  Operating power  • at AC-1  - at 230 V at 60 °C Rated value 34 kW	<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
Operating current  • with 1 current path at DC-3 at DC-5  — at 24 V Rated value 40 A  — at 110 V Rated value 2.5 A  • with 2 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  — at 24 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  Operating power  • at AC-1  — at 230 V at 60 °C Rated value 34 kW		90 A
<ul> <li>with 1 current path at DC-3 at DC-5  — at 24 V Rated value  — at 110 V Rated value  2.5 A</li> <li>with 2 current paths in series at DC-3 at DC-5  — at 110 V Rated value  — at 24 V Rated value  90 A  • with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  90 A</li> <li>with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value  90 A</li> <li>operating power  • at AC-1  — at 230 V at 60 °C Rated value  34 kW</li> </ul>	— at 110 V Rated value	90 A
- at 24 V Rated value 40 A  - at 110 V Rated value 2.5 A   • with 2 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  - at 24 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  - at 24 V Rated value 90 A  Operating power  • at AC-1  - at 230 V at 60 °C Rated value 34 kW	Operating current	
<ul> <li>— at 110 V Rated value</li> <li>● with 2 current paths in series at DC-3 at DC-5</li> <li>— at 110 V Rated value</li> <li>— at 24 V Rated value</li> <li>● with 3 current paths in series at DC-3 at DC-5</li> <li>— at 110 V Rated value</li> <li>— at 24 V Rated value</li> <li>90 A</li> <li>Operating power</li> <li>● at AC-1</li> <li>— at 230 V at 60 °C Rated value</li> <li>34 kW</li> </ul>	<ul><li>with 1 current path at DC-3 at DC-5</li></ul>	
<ul> <li>with 2 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  — at 24 V Rated value 90 A</li> <li>with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  — at 24 V Rated value 90 A</li> <li>Operating power  • at AC-1  — at 230 V at 60 °C Rated value 34 kW</li> </ul>	— at 24 V Rated value	40 A
- at 110 V Rated value 90 A  - at 24 V Rated value 90 A  • with 3 current paths in series at DC-3 at DC-5  - at 110 V Rated value 90 A  - at 24 V Rated value 90 A  Operating power  • at AC-1  - at 230 V at 60 °C Rated value 34 kW	— at 110 V Rated value	2.5 A
<ul> <li>— at 24 V Rated value</li> <li>● with 3 current paths in series at DC-3 at DC-5</li> <li>— at 110 V Rated value</li> <li>— at 24 V Rated value</li> <li>90 A</li> <li>Operating power</li> <li>● at AC-1</li> <li>— at 230 V at 60 °C Rated value</li> <li>34 kW</li> </ul>	<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
<ul> <li>with 3 current paths in series at DC-3 at DC-5  — at 110 V Rated value 90 A  — at 24 V Rated value 90 A</li> <li>Operating power  • at AC-1  — at 230 V at 60 °C Rated value 34 kW</li> </ul>	— at 110 V Rated value	90 A
— at 110 V Rated value       90 A         — at 24 V Rated value       90 A         Operating power         ● at AC-1       — at 230 V at 60 °C Rated value       34 kW	— at 24 V Rated value	90 A
— at 24 V Rated value 90 A  Operating power	• with 3 current paths in series at DC-3 at DC-5	
Operating power  ● at AC-1  — at 230 V at 60 °C Rated value 34 kW	— at 110 V Rated value	90 A
at AC-1  — at 230 V at 60 °C Rated value  34 kW	— at 24 V Rated value	90 A
— at 230 V at 60 °C Rated value 34 kW	Operating power	
	• at AC-1	
— at 400 V Rated value 59 kW	— at 230 V at 60 °C Rated value	
	— at 400 V Rated value	59 kW

— at 690 V Rated value	102 kW
— at 690 V at 60 °C Rated value	102 kW
• at AC-2 at 400 V Rated value	30 kW
• at AC-3	
— at 230 V Rated value	18.5 kW
— at 400 V Rated value	30 kW
— at 500 V Rated value	37 kW
— at 690 V Rated value	45 kW
Operating power for ≥ 200000 operating cycles at AC-4	
• at 400 V Rated value	15.1 kW
• at 690 V Rated value	18.6 kW
Thermal short-time current restricted to 10 s	600 A
Active power loss at AC-3 at 400 V for rated value of	4.6 W
the operating current per conductor	
No-load switching frequency	
• at AC	5 000 1/h
Operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	400 1/h
• at AC-3 maximum	1 000 1/h
• at AC-4 maximum	300 1/h
Control circuit/ Control:	
Type of voltage of the control supply voltage	AC:

Control circuit/ Control:	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
at 60 Hz Rated value	480 V
Rated value	60 Hz
Operating range factor control supply voltage rated value of the magnet coil at AC	
● at 60 Hz	0.8 1.1
Apparent pick-up power of the magnet coil at AC	232 V·A
Inductive power factor with closing power of the coil	0.55
Apparent holding power of the magnet coil at AC	20 V·A
Inductive power factor with the holding power of the coil	0.28
Closing delay	
• at AC	16 57 ms
Opening delay	
• at AC	10 19 ms
Arcing time	10 15 ms

Auxiliary circuit:	
Number of NC contacts	

<ul> <li>for auxiliary contacts</li> </ul>	
<ul> <li>instantaneous contact</li> </ul>	0
Number of NO contacts	
• for auxiliary contacts	
<ul><li>instantaneous contact</li></ul>	0
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V Rated value	6 A
• at 400 V Rated value	3 A
Operating current at DC-12	
● at 60 V Rated value	6 A
• at 110 V Rated value	3 A
• at 220 V Rated value	1 A
Operating current at DC-13	
• at 24 V Rated value	10 A
• at 60 V Rated value	2 A
• at 110 V Rated value	1 A
• at 220 V Rated value	0.3 A
Contact reliability of the auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

1.11	(CCA	
UL/	USA	ratings:

Contact rating of the auxiliary contacts acc. to UL A600 / Q600

# Short-circuit:

# Design of the fuse link

• for short-circuit protection of the main circuit

fuse gL/gG: 250 A — with type of assignment 1 required fuse gL/gG: 125 A - with type of assignment 2 required fuse gL/gG: 10 A

• for short-circuit protection of the auxiliary switch

required

### Installation/ mounting/ dimensions

installation/ mounting/ ulmensions.	
Mounting type	screw and snap-on mounting onto 35 mm and 75 mm standard
	mounting rail
<ul><li>Side-by-side mounting</li></ul>	Yes
Height	146 mm
Width	70 mm
Depth	139 mm
Required spacing	
● for grounded parts	
— at the side	6 mm

# Type of electrical connection

• for main current circuit screw-type terminals

<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals
Type of connectable conductor cross-section	
• for main contacts	
— solid	2x (2.5 16 mm²)
— stranded	2x (10 50 mm²)
— single or multi-stranded	2x (2,5 16 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (2.5 35 mm²)
<ul> <li>finely stranded without core end</li> </ul>	2x (10 35 mm²)
processing	
<ul> <li>for AWG conductors for main contacts</li> </ul>	2x (10 1/0)
Type of connectable conductor cross-section	
for auxiliary contacts	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• for AWG conductors for auxiliary contacts	2x (20 16), 2x (18 14), 1x 12

	approv	

General Prod	uct Approval		Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates
<b>S</b>	(UL	ERC	Baumusterbescheini gung	EG-Konf.	spezielle Prüfbescheinigunge n

# **Shipping Approval**





GL







Bestätigungen

other

# other

Umweltbestätigung

sonstig

# Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system) http://www.siemens.com/industrymall

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10441AV60

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT10441AV60&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT10441AV60&lang=en</a>



