## SIEMENS

## Data sheet

## 3RT2026-2AK60-Z W96



power contactor, AC-3e/AC-3, 25 A, 11 kW / 400 V, 3-pole, 110 V AC, 50 Hz / 120 V, 60 Hz, auxiliary contacts: 1 NO + 1 NC, spring-loaded terminal, size: S0, multi-unit packaging, pack = 18 units

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	SO
product extension	
<ul> <li>function module for communication</li> </ul>	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	5.7 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	1.9 W
<ul> <li>without load current share typical</li> </ul>	10.5 W
surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	6 kV
<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	8,3g / 5 ms, 5,3g / 10 ms
shock resistance with sine pulse	
• at AC	13,5g / 5 ms, 8,3g / 10 ms
mechanical service life (operating cycles)	
<ul> <li>of contactor typical</li> </ul>	10 000 000
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> </ul>	5 000 000
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
during operation	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V

<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operational current	050 V
at AC-1 at 400 V at ambient temperature 40 °C rated value	40 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated	40 A
value	
— up to 690 V at ambient temperature 60 °C rated value	35 A
• at AC-3	
— at 400 V rated value	25 A
— at 500 V rated value	18 A
— at 690 V rated value	13 A
• at AC-3e	
— at 400 V rated value	25 A
— at 500 V rated value	18 A
— at 690 V rated value	13 A
• at AC-4 at 400 V rated value	15.5 A
<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	35.2 A
• at AC-5b up to 400 V rated value	20.7 A
● at AC-6a	
<ul> <li>— up to 230 V for current peak value n=20 rated value</li> </ul>	20.2 A
<ul> <li>— up to 400 V for current peak value n=20 rated value</li> </ul>	20.2 A
<ul> <li>— up to 500 V for current peak value n=20 rated value</li> </ul>	20.2 A
<ul> <li>— up to 690 V for current peak value n=20 rated value</li> </ul>	12.9 A
● at AC-6a	
<ul> <li>— up to 230 V for current peak value n=30 rated value</li> </ul>	13.5 A
<ul> <li>— up to 400 V for current peak value n=30 rated value</li> </ul>	13.5 A
<ul> <li>— up to 500 V for current peak value n=30 rated value</li> </ul>	13.5 A
— up to 690 V for current peak value n=30 rated value	13 A
minimum cross-section in main circuit at maximum AC-1 rated value	10 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	9 A
• at 690 V rated value	9 A
operational current	
<ul> <li>at 1 current path at DC-1</li> </ul>	
— at 24 V rated value	35 A
— at 60 V rated value	20 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	35 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
• at 1 current path at DC-3 at DC-5	
- at 24 V rated value	20 A
— at 24 V rated value — at 60 V rated value	
	5 A
— at 220 V rated value	1 A

— at 440 V rated value	0.09 A
— at 600 V rated value	0.06 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	15 A
— at 220 V rated value	3 A
— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	10 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
operating power	
• at AC-2 at 400 V rated value	11 kW
• at AC-3	
— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	11 kW
— at 690 V rated value	11 kW
• at AC-3e	
— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	11 kW
— at 690 V rated value	11 kW
operating power for approx. 200000 operating cycles at AC-	
4	
• at 400 V rated value	4.4 kW
at 690 V rated value	7.7 kW
operating apparent power at AC-6a	
• up to 230 V for current peak value n=20 rated value	8 kVA
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	13.9 kVA
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	17.4 kVA
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	15.4 kVA
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	5.3 kVA
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	9.3 kVA
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	11.6 kVA
<ul> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	15.5 kVA
short-time withstand current in cold operating state up to 40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	375 A: Use minimum cross-section acc. to AC 1 rated value
	375 A; Use minimum cross-section acc. to AC-1 rated value 300 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> <li>limited to 10 s switching at zero current maximum</li> </ul>	210 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>Imited to 10's switching at zero current maximum</li> <li>Imited to 30's switching at zero current maximum</li> </ul>	144 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>Imited to 30's switching at zero current maximum</li> <li>Imited to 60's switching at zero current maximum</li> </ul>	118 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	5 000 1/h
operating frequency	
at AC-1 maximum	1 000 1/h
• at AC-2 maximum	750 1/h
• at AC-2 maximum • at AC-3 maximum	750 1/h
• at AC-3e maximum	750 1/h 250 1/h
at AC-4 maximum	250 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	440.14
<ul> <li>at 50 Hz rated value</li> </ul>	110 V

- et CO Lie reted velue	100.1/
at 60 Hz rated value     operating range factor control supply voltage rated value of	120 V
magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	81 VA
• at 60 Hz	79 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.72
• at 60 Hz	0.74
apparent holding power of magnet coil at AC	
• at 50 Hz	10.5 VA
• at 60 Hz	8.5 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.25
• at 60 Hz	0.28
closing delay	
• at AC	8 40 ms
opening delay	
• at AC	4 16 ms
arcing time	10 10 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous	1
contact	
number of NO contacts for auxiliary contacts instantaneous contact	1
operational current at AC-12 maximum	10 A
operational current at AC-15	
<ul> <li>at 230 V rated value</li> </ul>	10 A
<ul> <li>at 400 V rated value</li> </ul>	3 A
• at 500 V rated value	2 A
• at 690 V rated value	1 A
operational current at DC-12	
• at 24 V rated value	10 A
<ul> <li>at 48 V rated value</li> </ul>	6 A
<ul> <li>at 60 V rated value</li> </ul>	6 A
<ul> <li>at 110 V rated value</li> </ul>	3 A
<ul> <li>at 125 V rated value</li> </ul>	2 A
<ul> <li>at 220 V rated value</li> </ul>	1 A
<ul> <li>at 600 V rated value</li> </ul>	0.15 A
operational current at DC-13	
• at 24 V rated value	10 A
• at 48 V rated value	2 A
• at 60 V rated value	2 A
• at 110 V rated value	1 A
• at 125 V rated value	0.9 A
• at 220 V rated value	0.3 A
• at 600 V rated value	0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	21 A
• at 600 V rated value	22 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
— at 110/120 V rated value	2 hp
— at 230 V rated value	3 hp
<ul> <li>for 3-phase AC motor</li> </ul>	
— at 200/208 V rated value	5 hp

at 220/230 V rated value	7.5 hp
— at 220/230 V rated value — at 460/480 V rated value	7.5 hp 15 hp
— at 575/600 V rated value	20 hp
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	A00071000
design of the fuse link	
for short-circuit protection of the main circuit	
<ul> <li>— with type of coordination 1 required</li> </ul>	gG: 100 A (690 V, 100 kA), aM: 50 A (690 V, 100 kA), BS88: 100 A (415 V, 80
····· ····	kA)
<ul> <li>— with type of assignment 2 required</li> </ul>	gG: 35A (690V, 100kA), aM: 20A (690V, 100kA), BS88: 35A (415V, 80kA)
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
side-by-side mounting	Yes
height	102 mm
width	45 mm
depth	97 mm
required spacing	
with side-by-side mounting	10
— forwards	10 mm
— upwards	10 mm
- downwards	10 mm
— at the side	0 mm
for grounded parts     for used	10
— forwards	10 mm 10 mm
— upwards — at the side	6 mm
— downwards	10 mm
for live parts	10 mm
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	spring-loaded terminals
<ul> <li>for auxiliary and control circuit</li> </ul>	spring-loaded terminals
<ul> <li>at contactor for auxiliary contacts</li> </ul>	Spring-type terminals
• of magnet coil	Spring-type terminals
type of connectable conductor cross-sections for main contacts	
• solid	2x (1 10 mm²)
solid or stranded	2x (1 10 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (1 6 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>	2x (1 6 mm²)
connectable conductor cross-section for main contacts	
• solid	1 10 mm <sup>2</sup>
• stranded	1 10 mm <sup>2</sup>
<ul> <li>finely stranded with core end processing</li> </ul>	1 6 mm²
finely stranded without core end processing	1 6 mm²
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 2.5 mm <sup>2</sup>
• finely stranded with core end processing	0.5 1.5 mm <sup>2</sup>
finely stranded without core end processing	0.5 2.5 mm²
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid or stranded	2x (0.5 2.5 mm <sup>2</sup> )
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm <sup>2</sup> )
— finely stranded without core end processing	2x (0.5 2.5 mm <sup>2</sup> )
<ul> <li>for AWG cables for auxiliary contacts</li> </ul>	2x (20 14)

18 8
20 14
Yes
450 000
40 %
73 %
100 FIT
20 a
IP20
finger-safe, for vertical contact from the front
Yes
Yes
own-russian-business ates. f the EAC certification if you intend to import or offer to supply these products to an ates Russia or Belarus).
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Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2026-2AK60-Z W96

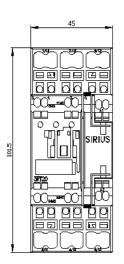
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-2AK60-Z W96 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

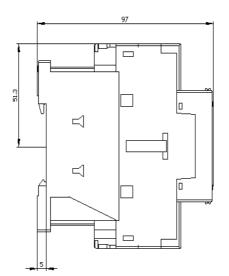
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2026-2AK60-Z W96&lang=en

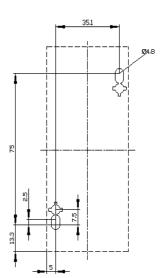
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

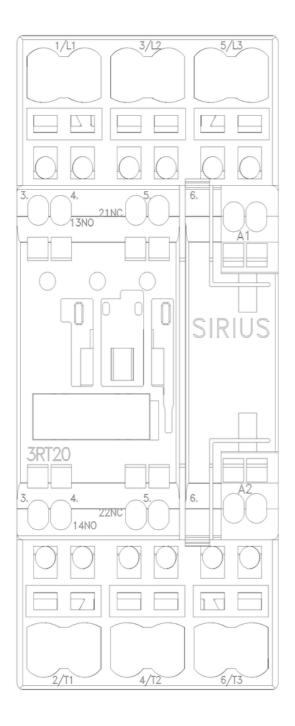
https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-2AK60-Z W96/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2026-2AK60-Z W96&objecttype=14&gridview=view1











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