# **SIEMENS**

ooy.COM.

W.100Y.COM.TW TW.100Y.COM.TW Product data sheet 3RT2027-1AL20



CONTACTOR, AC-3, 15KW/400V, 1NO+1NC, AC 230V 50/60HZ, 3-POLE, SZ S0 SCREW TERMINAL

勝 特 力 材 料 886-3-5753170 胜特力电子(上海) 86-21-34970699 胜特力电子(深圳) 86-755-83298787 Http://www.100y.com.tw

WWW.100Y

WWW.100Y.COM.TW

General technical data:	-OM.TV	WW. 100x.COM.TW
product brand name	TMC	SIRIUS
Size of the contactor	Y.COM.	SO WY TOOK OM TW
Product extension	OXICOM	
auxiliary switch		Yes
function module for communication	1007.Co.	No
Protection class IP / on the front	1100Y.CC	IP20
Protection against electrical shock	100Y.C	finger-safe
Degree of pollution	71100Y	3 NITH WWW.100Y.COM
Installation altitude / at a height over sea level / maximum	mox	2,000
Ambient temperature	100	
during storage	°C	-55 +80
during operating	°C	-25 +60
Shock resistance	MMM.	
at rectangular impulse		
• at AC		8,3g / 5 ms, 5,3g / 10 ms
at sine pulse		
• at AC	WY	13,5g / 5 ms, 8,3g / 10 ms
Impulse voltage resistance / rated value	kV	6 N. TOWN.COM
Insulation voltage / rated value	V	690

WWW.100X.C

WWW	.100 X.	COWLLAN
Maximum permissible voltage for protective separation / between coil and main contacts / in accordance with EN 60947-1	N.100X	400
Mechanical operating cycles as operating time		
of the contactor / typical		10,000,000
of the contactor with added auxiliary switch block / typical		10,000,000
of the contactor with added electronics-compatible auxiliary switch block / typical		5,000,000

Number of NC contacts / for main contacts		0,007.
Number of NO contacts / for main contacts	WY	3, 100 X.CO.T.TW
Connectable conductor cross-section / in main circuit	W	
• at AC-1		
• at 40 °C / minimum permissible	m²	10
• at 60 °C / minimum permissible	m²	10
Operating current	TW	
• at AC-2	TW	
• at 400 V / rated value	Α	32 WWW.1007.COM
• at AC-3		
• at 400 V / rated value	A	32 WWW.100 COM
• at 500 V / rated value	OM A	32 WWW.100Y.COM
• at 690 V / rated value	COA	21 WWW.low.COM.
• at AC-4		
• at 400 V / rated value	CA	22 WWW.CO
perating current	N COM	
• with 1 current path / at DC-1		
• at 24 V / rated value	ACC	35
• at 110 V / rated value	A	4.5
• at 220 V / rated value	A .	CONTAIN MANAGEMINOUS
• at 440 V / rated value	A	0.4
• at 600 V / rated value	A	0.25
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
• at 220 V / rated value	A	105 Y. COM.TW
• at 440 V / rated value	Α	NIOY.COM.TW WW
• at 600 V / rated value	Α	0.8
• with 3 current paths in series / at DC-1		
<ul> <li>with 3 current paths in series / at DC-1</li> <li>at 24 V / rated value</li> <li>at 110 V / rated value</li> <li>at 220 V / rated value</li> </ul>	A	35
• at 110 V / rated value	A	35
• at 220 V / rated value	A	35
	N	M.M. 100X.COW

• at 440 V / rated value	A 2.9
• at 600 V / rated value	A 1.4
Operating current	W.1001 COM.TW
• with 1 current path / at DC-3 / at DC-5	
at 24 V / rated value	A 20
• at 110 V / rated value	A 2.5
• at 220 V / rated value	TW A 1
• at 440 V / rated value	A 0.09
• at 600 V / rated value	A 0.06
• with 2 current paths in series / at DC-3 / at DC-5	
at 24 V / rated value	A V 35
at 110 V / rated value	A 15
at 220 V / rated value	CONT. A 3
at 440 V / rated value	A 0.27
at 600 V / rated value	A 0.16
with 3 current paths in series / at DC-3 / at DC-5	ON COM. TW
• at 24 V / rated value	A 35 WWW.MW.COM
at 110 V / rated value	A 35
• at 220 V / rated value	100 A N 10 NWW LOOM COM
• at 440 V / rated value	A 0.6
• at 600 V / rated value	
Service power	A 0.6
• at AC-1	
• at 230 V / rated value	kW 16
• at 400 V / rated value	kW 28
• at 690 V / rated value	kW 48
• at AC-2	
• at 400 V / rated value	kW 15
• at AC-3	MAN. TON TAN MAN. TOOK.CO.
at 230 V / rated value	kW 7.5
at 400 V / rated value	kW 15
at 690 V / rated value	kW 18.5
• at AC-4	
at 400 V / rated value	kW 11
Thermal short-time current / restricted to 10 s	A 260
Active power loss / at AC-3 / at 400 V / with rated Op current value / per conductor	perating W 2.7
Off-load operating frequency	
• at AC	1/h 5,000
Frequency of operation	COMP. TW MAN. TOWN. COMP.
	COM. TW WWW.LOOV.COM.

	11WW.100Y.CC	OM.TW OM.TW
• at AC-1 / according to IEC 60947-6-2	1/h	1,000
• at AC-2 / according to IEC 60947-6-2	1/h	750
• at AC-3 / according to IEC 60947-6-2	1/h	750
• at AC-4 / according to IEC 60947-6-2	1/h	250

Control circuit:	11	Oux. Willy
Type of voltage / of the controlled supply voltage	MMM	AC
Control supply voltage		
• at 50 Hz / at AC / rated value	V	230
• at 60 Hz / at AC / rated value	V	230
operating range factor control supply voltage rated value / of the magnet coil	W	
• at 50 Hz / for AC		0.8 1.1
• at 60 Hz / for AC		0.85 1.1
Apparent pull-in power / of the solenoid / for AC	V-A	81
Apparent holding power / of the solenoid / for AC	V-A	10.5
Inductive power factor	TW	
with the pull-in power of the coil		0.82
with the pull-in power of the coil		0.25
Closing delay	WIM	
• at AC	ms	8 40
Opening delay	CONTY	
• at AC	ms	4 16
Arcing time	ms	10 10
Residual current / of electronics / for control with signal <0>	O.Y.COM	
• at 230 V / with AC / maximum permissible	mA	7TH WWW.100Y.CO.
• at 24 V / with DC / maximum permissible	mA	16 W
	100	

Number of NC contacts / for auxiliary contacts / instantaneous switching  Number of NO contacts / for auxiliary contacts / instantaneous switching  Operating current  • at AC-12 / maximum  • at AC-15  • at 230 V / rated value  • at 400 V / rated value  • at 500 V / rated value  • at 690 V / rated value	Contact reliability / of the auxiliary contacts	W.100	1 faulty switchir	ng per 100 million (17 V, 1 mA)
switching         Operating current       A       10         • at AC-12 / maximum       A       10         • at AC-15       A       10         • at 230 V / rated value       A       10         • at 400 V / rated value       A       3         • at 500 V / rated value       A       2		stantaneous	OY. TOM.TW	
• at AC-12 / maximum  • at AC-15  • at 230 V / rated value  • at 400 V / rated value  • at 500 V / rated value  A 10  A 3  A 2	- 1 M - 1 M	stantaneous	ON COM.TY	
• at AC-15  • at 230 V / rated value  • at 400 V / rated value  • at 500 V / rated value  A 3  • at 500 V / rated value  A 2	Operating current	WWW		
• at 230 V / rated value  • at 400 V / rated value  • at 500 V / rated value  A  10  A  3	• at AC-12 / maximum	A	10 COM	
<ul> <li>at 400 V / rated value</li> <li>at 500 V / rated value</li> <li>A 2</li> </ul>	• at AC-15			
• at 500 V / rated value A 2	• at 230 V / rated value	A	10	
	• at 400 V / rated value	A	3	
at 690 V / rated value     A  1	• at 500 V / rated value	A	2	
WWW.100X.COW.TW WWW.100X.COW.TW	• at 690 V / rated value	A A	1 N. 100 X.	
		COM.TW	WW.1007	COM.TW

	ow.TW	
Operating current / at DC-12	W.100 Y. COM.TW	
• at 24 V / rated value	A 10	
• at 48 V / rated value	A 6	
• at 60 V / rated value	A 6	
at 110 V / rated value	A 3	
at 125 V / rated value	A 2	
at 220 V / rated value	MITH A 10 CONTIN	
at 440 V / rated value	A 0.3	
• at 600 V / rated value	A 0.15	
Operating current / at DC-13	WW. WIOON.COM.TW	
at 24 V / rated value	A 10	
• at 48 V / rated value	A W 2	
at 60 V / rated value	A 2	
at 110 V / rated value	OOY.COMETW A TWW. COMETW	
at 125 V / rated value	A 0.9	
at 220 V / rated value	A 0.3	
• at 440 V / rated value	A 0.14	
• at 600 V / rated value	W.100 Y.CO A 0.1	

UL/CSA ratings:		
yielded mechanical performance (hp)	OWITY	WW.100 LCOM.1V
for single-phase squirrel cage motors		
• at 110/120 V / rated value	hp	2
at 230 V / rated value	hp	5
for three-phase squirrel cage motors		
• at 200/208 V / rated value	hp	10
• at 220/230 V / rated value	hp	10
• at 460/480 V / rated value	hp	20
• at 575/600 V / rated value	hp	25
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	A	27
• at 600 V / rated value	A	27
Contact rating designation / for auxiliary contacts / according to UL		A600 / Q600

Short-circuit:			W 100 1.
Design of the fuse link	MM 100X	OMITW	WW.100Y
• for short-circuit protection of the auxiliary switch / required	fuse gL/g	јG: 10 A	
for short-circuit protection of the main circuit			
with type of assignment 1 / required	gL/gG L\ 100 A	/ HRC 3NA, DIAZED 5	SSB, NEOZED 5SE:
	NWW.	TON.TV	
WW. 1007. COM	M MM.		

WWW.100Y.COM.TW gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35A

at type of coordination 2 / required	100X	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5 35A
Installation/mounting/dimensions:	W.100	I COMITY
mounting position	VWW.100	+/-180° rotation possible on vertical mounting scan be tilted forward and backward by +/- 22.5 vertical mounting surface
Type of mounting	WWW.	screw and snap-on mounting onto 35 mm stan
Type of fixing/fixation / series installation	MAN	mounting rail according to DIN EN 50022 Yes
Width	mm	45
Height	mm	85
Depth	mm	97
Distance, to be maintained, to the ranks assembly / sidewards	mm	0
Connections:	SN.	MAN.TOO. CONTAIN
Design of the electrical connection		MMM.mm. COM
for main current circuit	- XX	screw-type terminals
for auxiliary and control current circuit	T. A.	screw-type terminals
Type of the connectable conductor cross-section	W.T.	
• for main contacts		
finely stranded		
Tiriciy Stratiaca		
with conductor end processing	OM.TW	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm
with conductor end processing	COM.TY	
with conductor end processing     for AWG conductors / for main contacts	COM.TY	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm 2x (16 12), 2x (14 8)
with conductor end processing     for AWG conductors / for main contacts     for auxiliary contacts	COM.TW COM.TV LCOM.TV X.COM.TV	
with conductor end processing     for AWG conductors / for main contacts	COM.TW COM.TV V.COM.T V.COM	2x (16 12), 2x (14 8)
with conductor end processing     for AWG conductors / for main contacts     for auxiliary contacts     finely stranded	COM.TW COM.TV X.COM.T NY.COM NOX.COM	
<ul> <li>with conductor end processing</li> <li>for AWG conductors / for main contacts</li> <li>for auxiliary contacts</li> <li>finely stranded</li> <li>with conductor end processing</li> </ul>	COM.TW. COM.TW. X.COM.T MY.COM. MY.COM. MY.COM.	2x (16 12), 2x (14 8) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
with conductor end processing     for AWG conductors / for main contacts     for auxiliary contacts         finely stranded             with conductor end processing         for AWG conductors / for auxiliary contacts	COM.TW. COM.TW. COM.TW. X.COM.TW. X.COM.TW. XX.COM.TW.	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
with conductor end processing     for AWG conductors / for main contacts     for auxiliary contacts         finely stranded             with conductor end processing         for AWG conductors / for auxiliary contacts  Sicherheitsrelevante Kenngrößen:	W.100X.COM.TV.CO	2x (16 12), 2x (14 8) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
with conductor end processing     for AWG conductors / for main contacts     for auxiliary contacts         finely stranded             with conductor end processing         for AWG conductors / for auxiliary contacts  Sicherheitsrelevante Kenngrößen:  B10 value / with high demand rate	COM.TW. COM.TW	2x (16 12), 2x (14 8) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14)
with conductor end processing     for AWG conductors / for main contacts     for auxiliary contacts         finely stranded             with conductor end processing         for AWG conductors / for auxiliary contacts  Sicherheitsrelevante Kenngrößen:  B10 value / with high demand rate             according to SN 31920	COM.TW. COM.TW	2x (16 12), 2x (14 8) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14)
• with conductor end processing  • for AWG conductors / for main contacts  • for auxiliary contacts  • finely stranded  • with conductor end processing  • for AWG conductors / for auxiliary contacts  Sicherheitsrelevante Kenngrößen:  B10 value / with high demand rate  • according to SN 31920  T1 value / for proof test interval or service life	COM.TW. COM.TW	2x (16 12), 2x (14 8)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (20 16), 2x (18 14)
• with conductor end processing  • for AWG conductors / for main contacts  • for auxiliary contacts  • finely stranded  • with conductor end processing  • for AWG conductors / for auxiliary contacts  Sicherheitsrelevante Kenngrößen:  B10 value / with high demand rate  • according to SN 31920  T1 value / for proof test interval or service life  • according to IEC 61508	COM.TY CO	2x (16 12), 2x (14 8)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (20 16), 2x (18 14)
with conductor end processing     for AWG conductors / for main contacts     for auxiliary contacts         • finely stranded         • with conductor end processing         • for AWG conductors / for auxiliary contacts  Sicherheitsrelevante Kenngrößen:  B10 value / with high demand rate         • according to SN 31920  T1 value / for proof test interval or service life         • according to IEC 61508  Proportion of dangerous failures	WWW.10	2x (16 12), 2x (14 8)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (20 16), 2x (18 14)  1,000,000  20
• with conductor end processing  • for AWG conductors / for main contacts  • for auxiliary contacts  • finely stranded  • with conductor end processing  • for AWG conductors / for auxiliary contacts  Sicherheitsrelevante Kenngrößen:  B10 value / with high demand rate  • according to SN 31920  T1 value / for proof test interval or service life  • according to IEC 61508  Proportion of dangerous failures  • with low demand rate / according to SN 31920	%	2x (16 12), 2x (14 8)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14)  1,000,000  20
• with conductor end processing  • for AWG conductors / for main contacts  • for auxiliary contacts  • finely stranded  • with conductor end processing  • for AWG conductors / for auxiliary contacts  Sicherheitsrelevante Kenngrößen:  B10 value / with high demand rate  • according to SN 31920  T1 value / for proof test interval or service life  • according to IEC 61508  Proportion of dangerous failures  • with low demand rate / according to SN 31920  • with high demand rate / according to SN 31920	%	2x (16 12), 2x (14 8)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14)  1,000,000  20
• with conductor end processing  • for AWG conductors / for main contacts  • for auxiliary contacts  • finely stranded  • with conductor end processing  • for AWG conductors / for auxiliary contacts  Sicherheitsrelevante Kenngrößen:  B10 value / with high demand rate  • according to SN 31920  T1 value / for proof test interval or service life  • according to IEC 61508  Proportion of dangerous failures  • with low demand rate / according to SN 31920  • with high demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate	% %	2x (16 12), 2x (14 8)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (20 16), 2x (18 14)  1,000,000  20  40  73
• with conductor end processing  • for AWG conductors / for main contacts  • for auxiliary contacts  • finely stranded  • with conductor end processing  • for AWG conductors / for auxiliary contacts  Sicherheitsrelevante Kenngrößen:  B10 value / with high demand rate  • according to SN 31920  T1 value / for proof test interval or service life  • according to IEC 61508  Proportion of dangerous failures  • with low demand rate / according to SN 31920  • with high demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate  • according to SN 31920	% %	2x (16 12), 2x (14 8)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (20 16), 2x (18 14)  1,000,000  20  40  73
• with conductor end processing  • for AWG conductors / for main contacts  • for auxiliary contacts  • finely stranded  • with conductor end processing  • for AWG conductors / for auxiliary contacts  Sicherheitsrelevante Kenngrößen:  B10 value / with high demand rate  • according to SN 31920  T1 value / for proof test interval or service life  • according to IEC 61508  Proportion of dangerous failures  • with low demand rate / according to SN 31920  • with high demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate  • according to SN 31920  Product function	% %	2x (16 12), 2x (14 8)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14)  1,000,000  20  40 73
• with conductor end processing  • for AWG conductors / for main contacts  • for auxiliary contacts  • finely stranded  • with conductor end processing  • for AWG conductors / for auxiliary contacts  Sicherheitsrelevante Kenngrößen:  B10 value / with high demand rate  • according to SN 31920  T1 value / for proof test interval or service life  • according to IEC 61508  Proportion of dangerous failures  • with low demand rate / according to SN 31920  • with high demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate  • according to SN 31920  Product function  • mirror contact to IEC 60947-4-1	% %	2x (16 12), 2x (14 8)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14)  1,000,000  20  40 73

## Certificates/approvals:

### **General Product Approval**

**EMC** 

Functional Safety / Safety of Machinery

Type Examination











Declaration of Conformity

**Test Certificates** 



Special Test Certificate Type Test
Certificates/Test
Report

### **Shipping Approval**











**Shipping Approval** 

other









### **Further information:**

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrial-controls/mall

Cax online generator

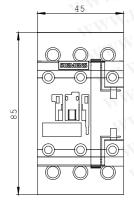
http://www.siemens.com/cax

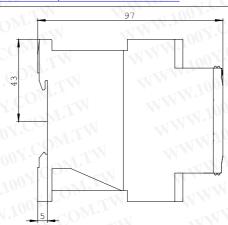
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

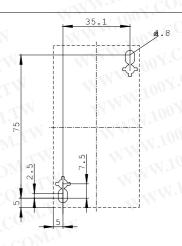
 $\underline{\text{http://support.automation.siemens.com/WW/view/en/3RT2027-1AL20/all}}$ 

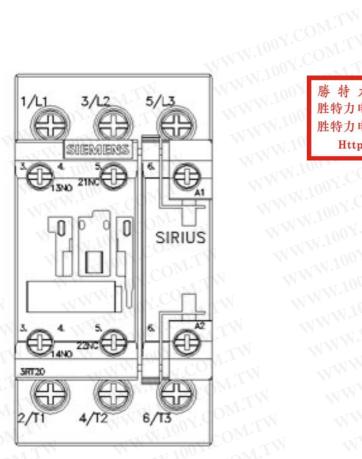
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RT2027-1AL20



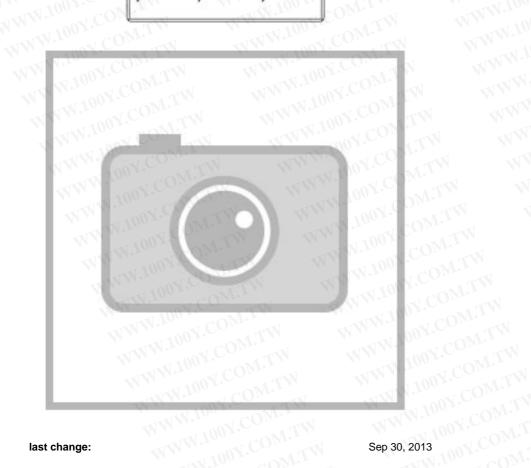






WWW.100Y.COM.TW 勝 特 力 材 料 886-3-5753170 胜特力电子(上海) 86-21-34970699 胜特力电子(深圳) 86-755-83298787 Http://www. 100y. com. tw

WWW.100Y.COM



,100Y.COM.TW WWW.100Y.COM.TW WWW.100Y.COM.TW Sep 30, 2013 last change:

WWW.100Y.COM.TW

WWW.100Y.C

on Y. COM. TW

WWW.100Y.COM.TW