RSXK
Технические характеристики

По вопросам продаж и поддержки обращайтесь:

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Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
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Красноярск (391)204-63-61
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Ростов-на-Дону (863)308-18-15
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Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
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Motor Controllers
AC Semiconductor Motor Controller
Type RSXK

- **Soft starting, soft stopping of 3-phase induction motors**
- **Energy optimising 3-phase controlled softstarter**
- **Adjustable integrated overload protection**
- **Operational voltage: 230-460VAC/400-575VAC/ 500-690VAC 3-phase**
- **Operational current: 22 - 1800Arms**
- **Keypad operation and LCD monitoring menu**
- **Adjustable Overcurrent "shearpin" protection**
- **Ramp-up and Ramp-down time settings up to 255sec**
- **In Delta compatibility**
- **Optional Modbus and Remote Keypad operation**
- **Automatic application setup**

Product Description

RSXK is a series of 3-phase controlled softstarters for 3-phase induction motors. Advanced features of the product include automatic application setup, energy optimising capability, keypad programming, LCD monitoring menu and much more. The robust design of the product ensures that even applications with starting trip class 30 can be soft-started and soft-stopped.

Ordering Key **RSX K 40 0500 B 0 1V C F**

- X-Line Motor Controller
- Keypad operation
- Rated operational voltage
- Rated operational current
- Control voltage
- Housing
- Cooling Fans Voltage
- Options
- Communications Card
- Auxiliary Function Card

Type Selection

Type	Rated operational voltage U_e	Rated operational current I_e		Control voltage U_c
RSXK: X-line motor controller with Keypad settings	40: (230-460VACrms)	0022: 22 AACrms	0382: 382AACrms	B: 115 or 230VACrms *
	50: (400-575VACrms)	0029: 29 AACrms	0430: 430AACrms	
	60: (500-690VACrms)	0035: 35 AACrms	0540: 540AACrms	
		0041: 41 AACrms	0610: 610AACrms	
		0055: 55 AACrms	0690: 690AACrms	
		0066: 66 AACrms	0850: 850AACrms	
		0080: 80 AACrms	0950: 950AACrms	
		0097: 97 AACrms	1060: 1060AACrms	
		0132: 132AACrms	1150: 1150AACrms	
		0160: 160AACrms	1190: 1190AACrms	
		0195: 195AACrms	1346: 1346AACrms	
		0230: 230AACrms	1518: 1518AACrms	
		0280: 280AACrms	1673: 1673AACrms	

* To be supplied to terminals X1, X2 for internal control circuitry

Housing	Cooling Fans Voltage*	Options
0: IP00	0: No Fan selection required	V00: Nil
1: IP20	1: 115VACrms	VC0: Communications Card
	2: 230VAcrms	V0F: Auxiliary Function Card
		VCF: Communications Card + Auxiliary Function Card

* Cooling Fans are available from RSXK..0035B1.V.. onwards.

Note: Please see Type Selection Guide on next page.

Type Selection Guide

Type	Rated Operational Voltage	Rated Operational Current	Control Voltage	Housing	Cooling Fans Voltage	Options	
RSXK	40	22 - 382	B	1	0	V	00
	50						C0
	60						0F
							CF

Type	Rated Operational Voltage	Rated Operational Current	Control Voltage	Housing	Cooling Fans Voltage	Options	
RSXK	40	430 - 1673	B	0	1	V	00
	50						C0
	60				2		0F
							CF

Selection Guide

In Line			In Delta		
Ie (A) 400V	kW 400V	HP 460V	Motor Current	kW 400V	HP 460V
22	11	15	38	19	25
29	15	20	50	25	34
35	19	25	60	32	43
41	22	30	71	38	51
55	30	42	95	51	72
66	37	54	114	64	93
80	45	60	138	77	103
97	55	75	168	95	129
132	75	106	228	129	183
160	90	150	277	155	259
195	110	175	337	190	303
230	132	200	398	228	346
280	160	250	484	277	433
350	200	270	606	346	467
382	220	300	661	381	519
430	250	360	744	433	554
540	315	400	935	545	649
610	355	550	1056	614	814
690	400	600	1195	692	935
850	500	750	1472	866	1160
950	560	820	1645	969	1299
1060	630	915	1835	1091	1420
1190	711	1000	2061	1229	1558
1346	800	1165	2331	1385	1732
1518	900	1200	2629	1558	2078
1673	1000	1300	2879	1732	2251

Continuous Rating AC-53a			
Trip Class 10B	Trip Class 10	Trip Class 20	Trip Class 30
3.5-12:XX	3-23:XX	4-19:XX	4-29:XX
RSXK..0022B1..V..	RSXK..0022B1..V..	RSXK..0022B1..V..	RSXK..0023B1..V..
RSXK..0029B1..V..	RSXK..0029B1..V..	RSXK..0029B1..V..	RSXK..0029B1..V..
RSXK..0035B1..V..	RSXK..0035B1..V..	RSXK..0041B1..V..	RSXK..0042B1..V..
RSXK..0041B1..V..	RSXK..0041B1..V..	RSXK..0042B1..V..	RSXK..0042B1..V..
RSXK..0055B1..V..	RSXK..0055B1..V..	RSXK..0055B1..V..	RSXK..0066B1..V..
RSXK..0066B1..V..	RSXK..0066B1..V..	RSXK..0067B1..V..	RSXK..0080B1..V..
RSXK..0080B1..V..	RSXK..0067B1..V..	RSXK..0081B1..V..	RSXK..0081B1..V..
RSXK..0081B1..V..	RSXK..0080B1..V..	RSXK..0097B1..V..	RSXK..0132B1..V..
RSXK..0132B1..V..	RSXK..0132B1..V..	RSXK..0160B1..V..	RSXK..0160B1..V..
RSXK..0160B1..V..	RSXK..0133B1..V..	RSXK..0195B1..V..	RSXK..0195B1..V..
RSXK..0195B1..V..	RSXK..0195B1..V..	RSXK..0230B1..V..	RSXK..0280B1..V..
RSXK..0230B1..V..	RSXK..0230B1..V..	RSXK..0280B1..V..	RSXK..0350B1..V..
RSXK..0280B1..V..	RSXK..0280B1..V..	RSXK..0382B1..V..	RSXK..0382B1..V..
RSXK..0350B1..V..	RSXK..0351B1..V..	RSXK..0430B0..V..	RSXK..0430B0..V..
RSXK..0382B1..V..	RSXK..0382B1..V..	RSXK..0430B0..V..	RSXK..0430B0..V..
RSXK..0382B1..V..	RSXK..0430B0..V..	RSXK..0430B0..V..	RSXK..0610B0..V..
RSXK..0540B0..V..	RSXK..0610B0..V..	RSXK..0690B0..V..	RSXK..0795B0..V..
RSXK..0610B0..V..	RSXK..0610B0..V..	RSXK..0795B0..V..	RSXK..0850B0..V..
RSXK..0690B0..V..	RSXK..0690B0..V..	RSXK..0850B0..V..	RSXK..0950B0..V..
RSXK..0850B0..V..	RSXK..0850B0..V..	RSXK..1060B0..V..	RSXK..1150B0..V..
RSXK..0950B0..V..	RSXK..0950B0..V..	RSXK..1150B0..V..	RSXK..1346B0..V..
RSXK..1060B0..V..	RSXK..1060B0..V..	RSXK..1346B0..V..	RSXK..1673B0..V..
RSXK..1190B0..V..	RSXK..1190B0..V..	RSXK..1518B0..V..	RSXK..1673B0..V..
RSXK..1346B0..V..	RSXK..1346B0..V..	RSXK..1673B0..V..	Contact CG Rep
RSXK..1518B0..V..	RSXK..1518B0..V..	Contact CG Rep	Contact CG Rep
RSXK..1673B0..V..	RSXK..1673B0..V..	Contact CG Rep	Contact CG Rep

Externally Bypassed AC-53b			
Trip Class 10B	Trip Class 10	Trip Class 20	Trip Class 30
3.5-12:XX	3-23:XX	4-19:XX	4-29:XX
RSXK..0022B1..V..	RSXK..0022B1..V..	RSXK..0022B1..V..	RSXK..0022B1..V..
RSXK..0022B1..V..	RSXK..0022B1..V..	RSXK..0023B1..V..	RSXK..0023B1..V..
RSXK..0023B1..V..	RSXK..0023B1..V..	RSXK..0029B1..V..	RSXK..0029B1..V..
RSXK..0029B1..V..	RSXK..0029B1..V..	RSXK..0042B1..V..	RSXK..0042B1..V..
RSXK..0042B1..V..	RSXK..0042B1..V..	RSXK..0042B1..V..	RSXK..0055B1..V..
RSXK..0055B1..V..	RSXK..0042B1..V..	RSXK..0055B1..V..	RSXK..0067B1..V..
RSXK..0055B1..V..	RSXK..0055B1..V..	RSXK..0080B1..V..	RSXK..0081B1..V..
RSXK..0081B1..V..	RSXK..0080B1..V..	RSXK..0097B1..V..	RSXK..0097B1..V..
RSXK..0132B1..V..	RSXK..0097B1..V..	RSXK..0133B1..V..	RSXK..0133B1..V..
RSXK..0133B1..V..	RSXK..0132B1..V..	RSXK..0160B1..V..	RSXK..0195B1..V..
RSXK..0160B1..V..	RSXK..0160B1..V..	RSXK..0230B1..V..	RSXK..0230B1..V..
RSXK..0230B1..V..	RSXK..0195B1..V..	RSXK..0280B1..V..	RSXK..0280B1..V..
RSXK..0280B1..V..	RSXK..0280B1..V..	RSXK..0351B1..V..	RSXK..0382B1..V..
RSXK..0350B1..V..	RSXK..0351B1..V..	RSXK..0430B0..V..	RSXK..0430B0..V..
RSXK..0351B1..V..	RSXK..0382B1..V..	RSXK..0430B0..V..	RSXK..0430B0..V..
RSXK..0382B1..V..	RSXK..0382B1..V..	RSXK..0430B0..V..	RSXK..0430B0..V..
RSXK..0540B0..V..	RSXK..0540B0..V..	RSXK..0690B0..V..	RSXK..0690B0..V..
RSXK..0610B0..V..	RSXK..0610B0..V..	RSXK..0690B0..V..	RSXK..0850B0..V..
RSXK..0690B0..V..	RSXK..0690B0..V..	RSXK..0690B0..V..	RSXK..0850B0..V..
RSXK..0850B0..V..	RSXK..0850B0..V..	RSXK..0950B0..V..	RSXK..0950B0..V..
RSXK..0950B0..V..	RSXK..0950B0..V..	RSXK..1060B0..V..	RSXK..1190B0..V..
RSXK..1060B0..V..	RSXK..1060B0..V..	RSXK..1190B0..V..	RSXK..1518B0..V..
RSXK..1150B0..V..	RSXK..1150B0..V..	RSXK..1518B0..V..	RSXK..1673B0..V..
RSXK..1190B0..V..	RSXK..1190B0..V..	RSXK..1673B0..V..	Contact CG Rep
RSXK..1518B0..V..	RSXK..1518B0..V..	RSXK..1673B0..V..	Contact CG Rep
RSXK..1673B0..V..	RSXK..1673B0..V..	Contact CG Rep	Contact CG Rep

Note: Please refer to Product Selector Guide for further information on how to select the correct softstarter.

General Specifications

Ramp up time	1…255 sec
Ramp down time	0…255 sec
Parameter Selection	6 Button Keypad
Form Designation	Form 1
Integrated Overload Protection	Yes
Auxiliary Contacts (programmable relays)	
Run (11,12,14)	AC1 230VAC 3A
Top of Ramp (21,22,24)	AC1 230VAC 3A

Input Specifications

Control Supply (Us)	115V or 230VACrms
Control Supply (Uc) S0, S1	12V/24V DC or 115/230VAC
Rated AC frequency	50/60Hz +/- 10%
Rated Insulation Voltage (Ui)	690V

Supply Specifications

Operational voltage (Ue)	
RSXK40….	230 - 460 VACrms (-15% + 10%)
RSXK50….	400 - 575 VACrms (-15% + 10%)
RSXK60….	500 - 690 VACrms (-15% + 10%)
Rated AC frequency	50 - 60 Hz +/- 2Hz

Output Specifications (Overload cycle according to EN/IEC 60947-4-2)

	Continuous/Optimising (AC53a)			
Product Code	**Trip Class 10B**	**Trip Class 10**	**Trip Class 20**	**Trip Class 30**
RSXK..0022… - RSXK..0160…	AC53a 3.5-12:75-5	AC53a 3-23:75-5	AC53a 4-19:75-5	AC53a 4-29:75-5
RSXK..0195… - RSXK..0382…	AC53a 3.5-12:60-3	AC53a 3-23:60-3	AC53a 4-19:60-3	AC53a 4-29:60-3
RSXK..0430… - RSXK..1673…	AC53a 3.5-12:60-3	AC53a 3-23:60-3	AC53a 4-19:60-3	AC53a 4-29:60-3

	Externally Bypassed (AC53b)			
Product Code	**Trip Class 10B**	**Trip Class 10**	**Trip Class 20**	**Trip Class 30**
RSXK..0022… - RSXK..0160…	AC53b 3.5-12:708	AC53b 3-23:697	AC53b 4-19:701	AC53b 4-29:691
RSXK..0195… - RSXK..0382…	AC53b 3.5-12:1188	AC53b 3-23:1177	AC53b 4-19:1181	AC53b 4-29:1171
RSXK..0430… - RSXK..1673…	AC53b 3.5-12:1188	AC53b 3-23:1177	AC53b 4-19:1181	AC53b 4-29:1171

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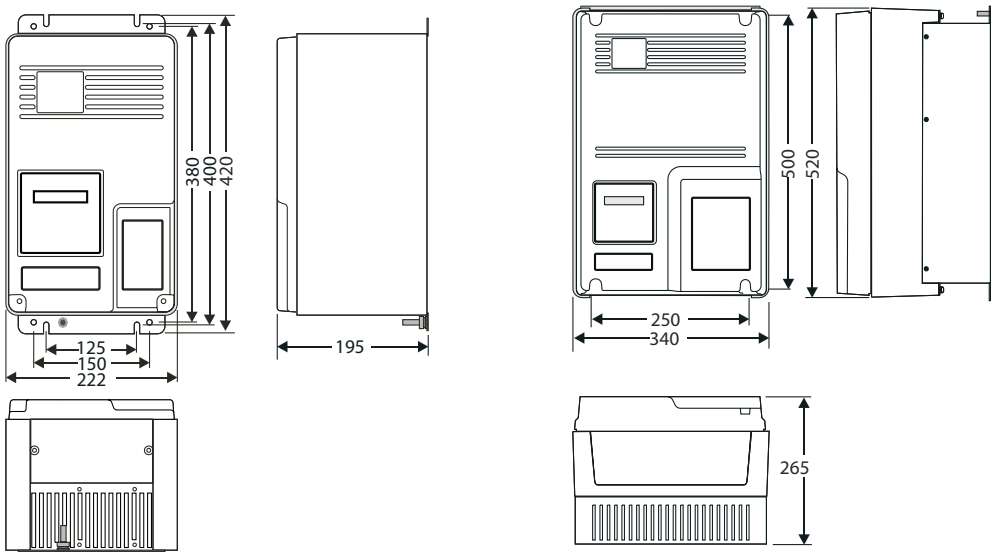
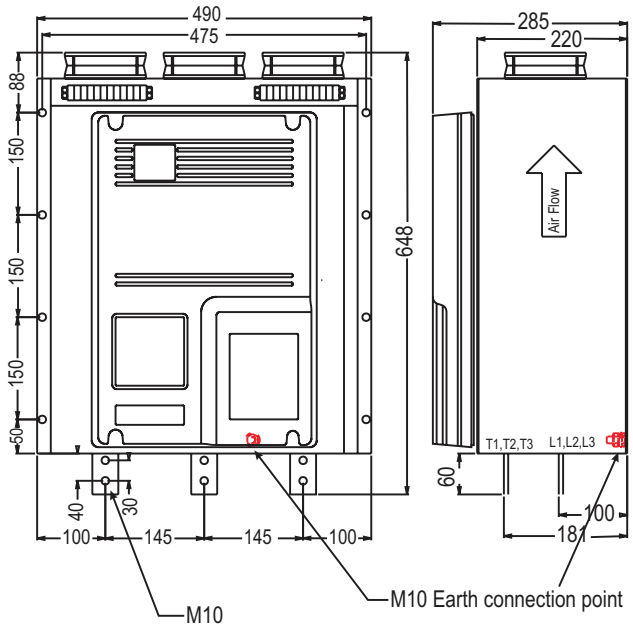
Dimensions



Dimensions	Width (W)	Height (H)	Depth (D)	Unit Cooling Method	Mounting Clearance		
					Side	Top & Bottom	Front
RSXK..0022B1.V.. To RSXK..0029B1.V..	222	420	195	Natural Convection	15	75	25
RSXK..0035B1.V.. To RSXK..0160B1.V..	222	420	195	Forced-air with built in fan			
RSXK..0195B1.V.. To RSXK..0382B1.V..	340	520	265				

All dimensions in mm



Dimensions	Width (W)	Height (H)	Depth (D)	Unit Cooling Method	Mounting Clearance		
					Side	Top & Bottom	Front
RSXK..0430B0.V.. To RSXK..0690B0.V..	490	648	285	Forced-air with built in fan	25	200	25
RSXK..0541B0.V..	508	738	282				
RSXK..0850B0.V.. To RSXK..1150B0.V..	635	746	322				
RSXK..1190B0.V..	635	782	322				
RSXK..1346B0.V.. To RSXK..1673B0.V..	775	775	475				

All dimensions in mm

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Conductor Data

RSXK..0022B1.V.. to RSXK..0160B1.V..		Terminal Type	Conductor Type	Cable Cross Section * AWG	Cable Cross Section * mm²	Terminal Tightening Torque
Power	L1, L2, L3, T1, T2, T3	M8 metric threaded studs	Use 75°C copper (Cu) conductor only. Wire shall be fitted with close eyelet lug.	1/0	50	106 lb.in. (12 Nm)
Ground	PE ⏚	M8 metric threaded stud				

RSXK..0195B1.V.. to RSXK..0382B1.V..		Terminal Type	Conductor Type	Cable Cross Section * AWG	Cable Cross Section * mm²	Busbar size (mm)*	Terminal tightening torque
Power	L1, L2, L3, T1, T2, T3	M8 metric threaded studs	Use 75°C copper (Cu) conductor only. Wire shall be fitted with close eyelet lug.	2 x 250MCM	2 x 120	20 x 6	106 lb.in. (12 Nm)
Ground	PE ⏚	M8 metric threaded stud					

RSXK..0430B0.V.. to RSXK..0690B0.V..		Terminal Type	Terminal Tightening Torque	Minimum busbar size (mm) for max. current rating	
Power	L1, L2, L3, T1, T2, T3	2 off M10 nuts and bolts	46 Nm. 34 lb-ft	520 Amp 562 Amp 662 Amp 817 Amp	25 x 10, 40 x 5 25 x 12, 40 x 6 40 x 8, 50 x 5 40 x 10, 50 x 8
Ground	PE ⏚	M8 metric threaded stud	23 Nm. 17 lb-ft		

RSXK..0541B0.V..		Terminal Type	Terminal Tightening Torque	Minimum busbar size (mm) for max. current rating	
Power	L1, L2, L3, T1, T2, T3	1 off M12 nut and bolt	79 Nm. 58 lb-ft	825 Amp	50 x 8, 60 x 6
Ground	PE ⏚	M10 metric threaded stud	46 Nm. 34 lb-ft		

RSXK..0850B0.V.. to RSXK..1150B0.V..		Terminal Type	Terminal Tightening Torque	Minimum busbar size (mm) for max. current rating	
Power	L1, L2, L3, T1, T2, T3	1 off M12 nut and bolt	79 Nm. 58 lb-ft	895 Amp 1000 Amp 1115 Amp 1210 Amp	50 x 10, 60 x 8 50 x 12, 60 x 8 50 x 16, 60 x 10 60 x 12
Ground	PE ⏚	M10 metric threaded stud	46 Nm. 34 lb-ft		

RSXK..1190B0.V..		Terminal Type	Terminal Tightening Torque	Minimum busbar size (mm) for max. current rating	
Power	L1, L2, L3, T1, T2, T3	2 off M12 nut and bolt	79 Nm. 58 lb-ft	1360 Amp	60 x 12, 80 x 8
Ground	PE ⏚	M10 metric threaded stud	46 Nm. 34 lb-ft		

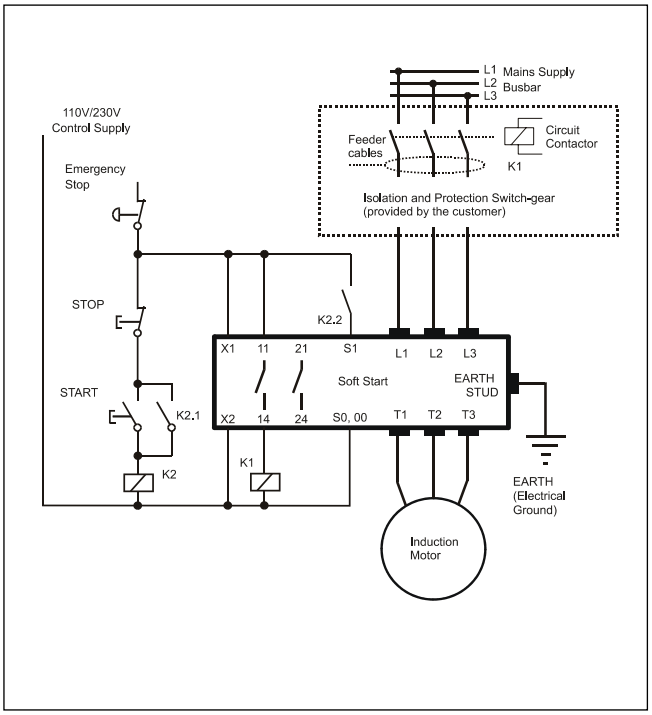
RSXK..1346B0.V.. to RSXK..1673B0.V..		Terminal Type	Terminal Tightening Torque	Minimum busbar size (mm) for max. current rating	
Power	L1, L2, L3, T1, T2, T3	2 off M12 nut and bolt	79 Nm. 58 lb-ft	1420 Amp 1580 Amp 1810 Amp	80 x 8, 100 x 5 80 x 10, 100 x 6 80 x 12, 100 x 10
Ground	PE ⏚	M12 metric threaded stud	79 Nm. 58 lb-ft		

All models Secondary conductors	Terminal Type	Wire Type	Cable Cross Section * AWG min.	Cable Cross Section * AWG max.	Cable Cross Section * mm² min.	Cable Cross Section * mm² max.	Terminal Tightening Torque
X1, X2 S0, S1 11, 12, 14, 21, 22, 24	Screw clamp Terminals	Solid or Stranded	22	14	0.3	2.5	4.4 lb.in. (0.5 Nm)

* The conductor sizes indicated in the above table are the maximum allowed for each chassis size. The actual conductor used must comply with local wiring regulations.
Note: To maintain approvals for cable connections, the wire terminals should conform to local regulations and be fitted using specified crimping tools as indicated by the manufacturer.

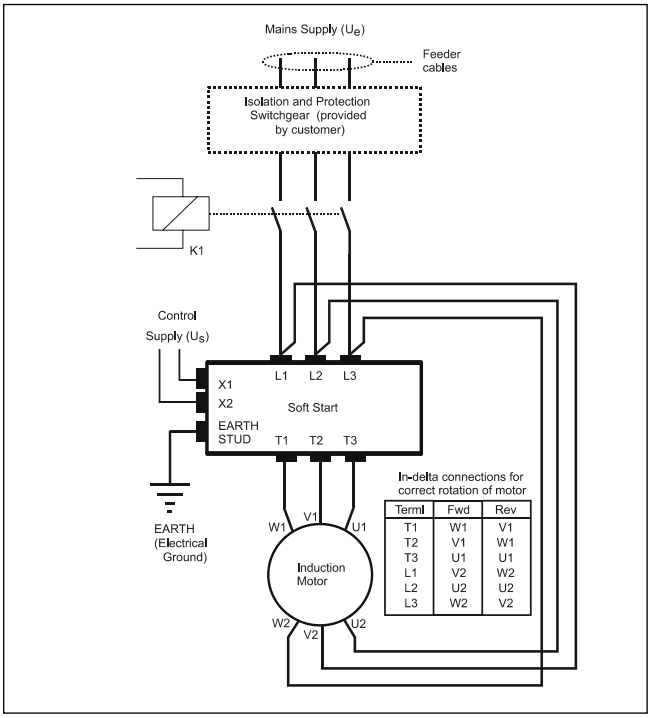
Wiring Diagrams

In Line Connection of Motors (Note 1)



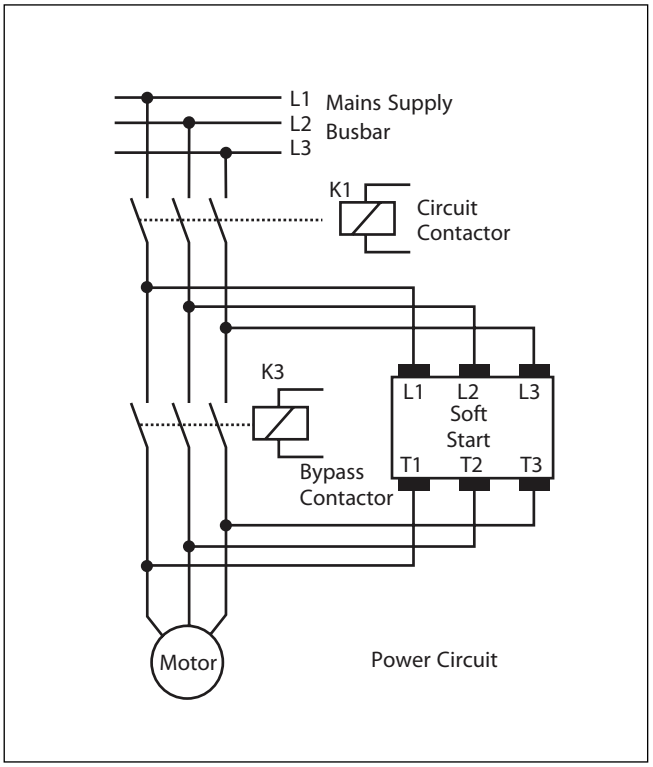
Note 1: The in-line configuration shown above requires that the firing mode be set to '0'.

In Delta Connection of Motors (Note 2)



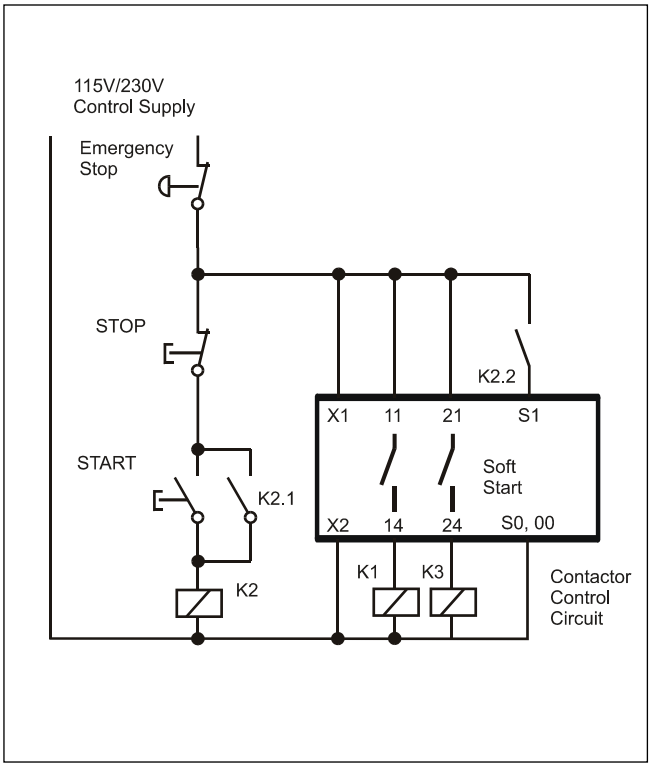
Note 2: The In-Delta configuration requires that the firing mode be set to '1'. An in-line contactor controlled by the RSXK MUST be used in the In-Delta firing mode.

Connection for bypass operation (Note 3)



Note 3: The bypass configuration is automatically detected as "Auto Bypass" is set as default.

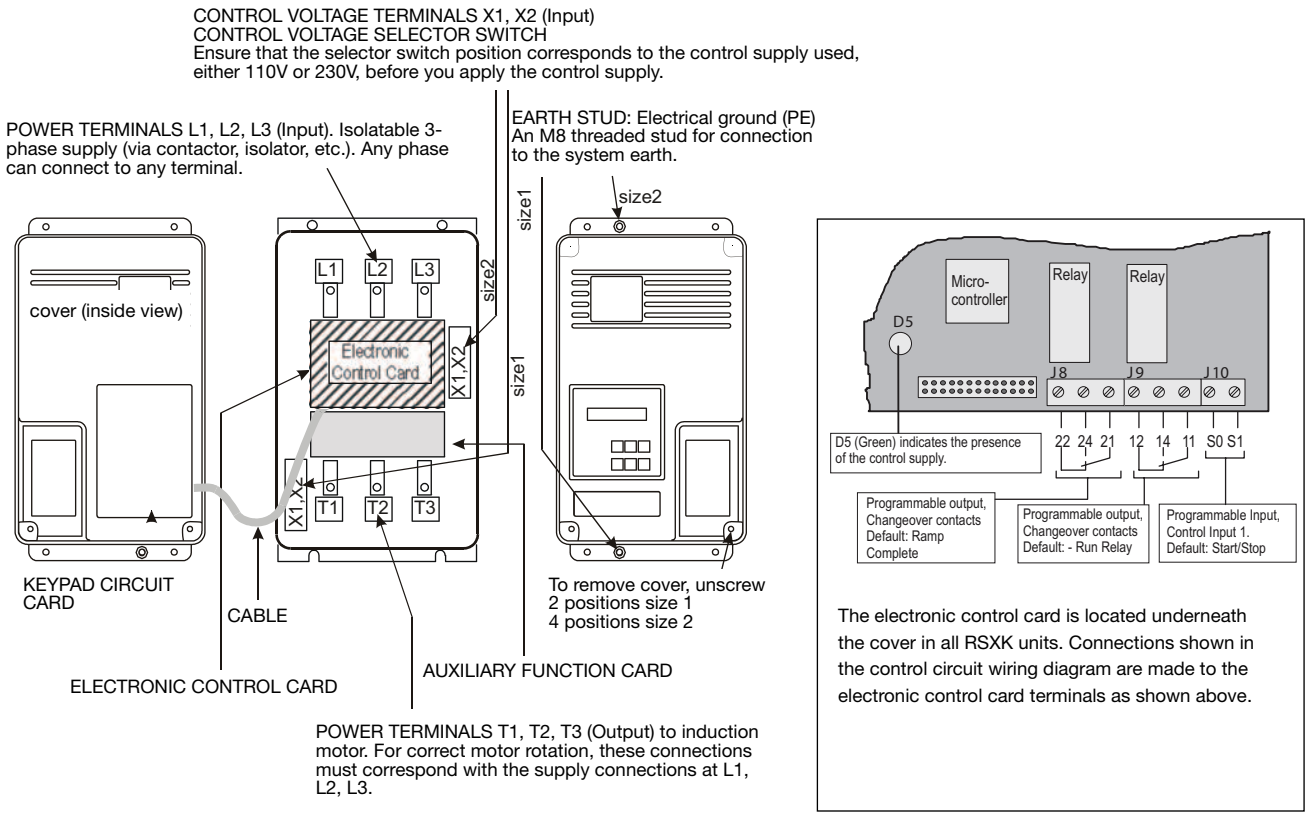
Control Circuit Wiring (Note 4)



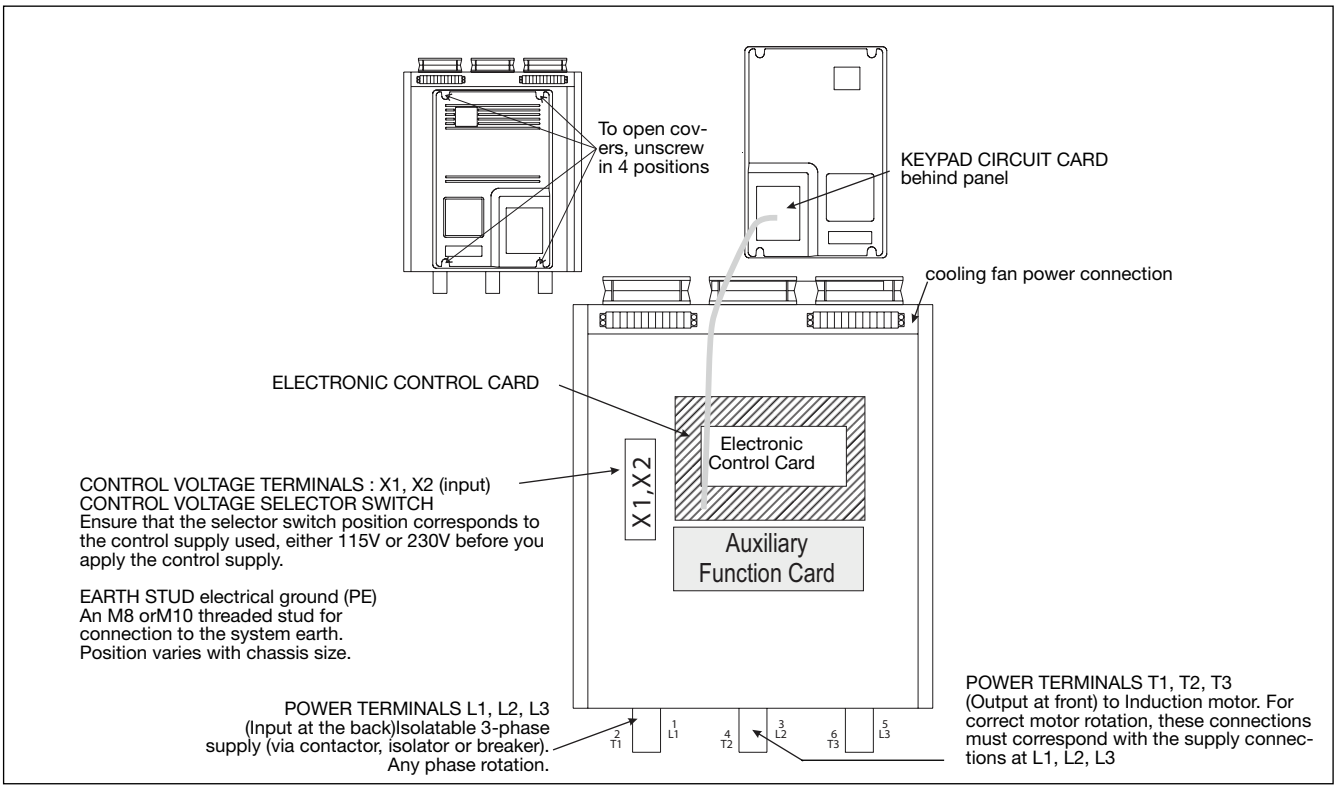
Note 4: Contactor K3 is required for the ‘operation in Bypass Power Circuit’ and is controlled by the programmable relay set as ‘Top of Ramp’ relay.

Terminal Diagram

Applicable to RSXK..0022B1.V.. up to RSXK..0382B1.V..



Applicable for RSXK..0430B0.V.F up to RSXK..1673B0.V.F



Standards

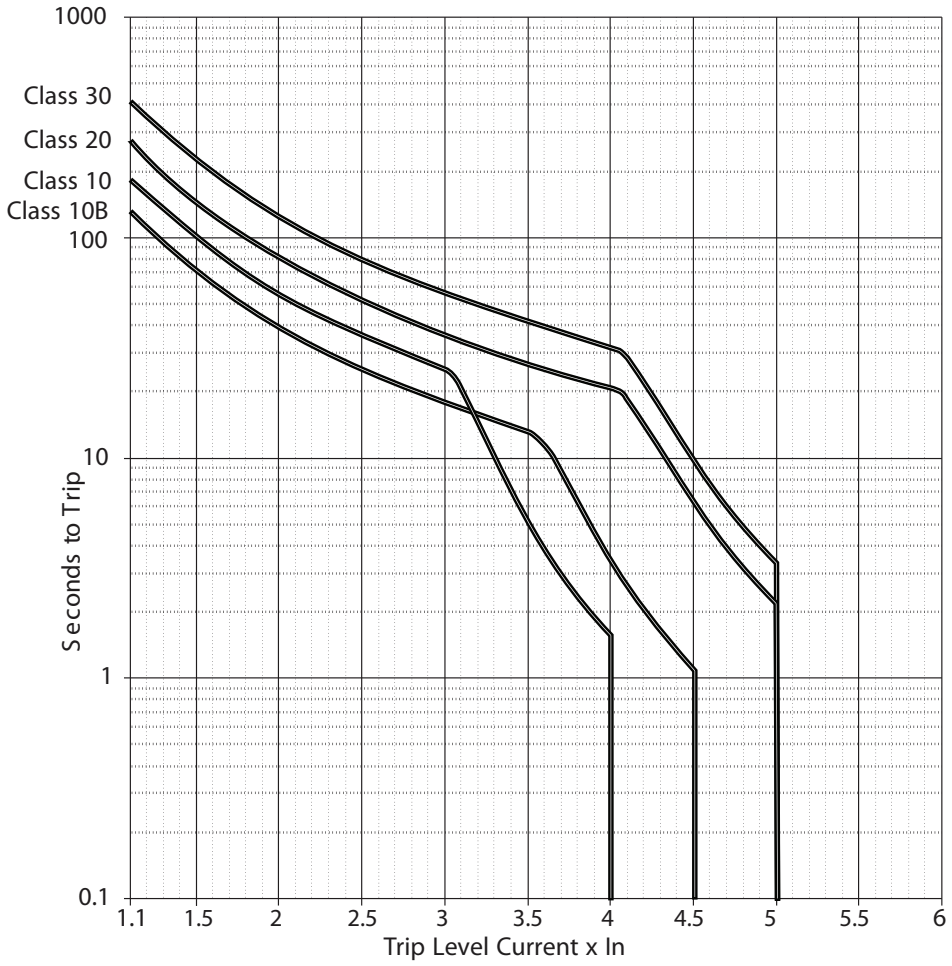
CE Marking	LVD	IEC/EN 60947-4-2
Electrostatic Discharge (ESD)		
Immunity		IEC/EN 61000-4-2
		8kV, Air discharge
		6kV, Contact
Electrical Fast Transient		
Burst Immunity		IEC/EN 61000-4-4
Output		2kV/5kHz
Input		2kV/5kHz

Conducted Radio Frequency Immunity	IEC/EN 61000-4-6 140dbµV, 0.15-80MHz
Radio Interference field emission (radiated)	IEC/EN 55011, Class A
Radio Interference voltage emission (conducted)	IEC/EN 55011, Class A
Electrical Surge Immunity	IEC/EN 61000-4-5
Output, line to line	1kV
Output, line to earth	2kV
Input, line to line	1kV
Input, line to earth	2kV
Radiated Radio Frequency Immunity	IEC/EN 61000-4-3 10V/m, 80 - 1000 Mhz

Alarms

Fault Code		Explenation
1	Phase Loss	Input side phase loss at the ramp start, during ramp or during normal running.
2	Too Hot	The heatsink is above the maximum allowed temperature or input open circuit.
3	Comms	There have been a number of serial communication errors but communications are still active.
4	SCR Firing	Short circuit thyristor during normal running.
5	SCR Signal	Short circuit thyristor during normal running or Motor side phase loss during the ramp or during normal running.
6	SCR Signal	Input side phase loss during normal running. Short circuit thyristor or motor side phase loss during the ramp or during normal running.
7	Sensing Signal	Short circuit thyristor, external noise or motor side phase loss during the ramp or during normal running.
8	Motor, SCR Loss	Short circuit thyrisor or motor side phase loss at the start of the ramp.
9	Sensing Signal	Short circuit thyristor, external noise or motor side phase loss during the ramp or during normal running.
10	SCR Shorted	Short circuit thyristor or motor side phase loss during the ramp.
11	Low Current	Current has fallen below the under-current level. (Only active during normal running)
12	C/L Time Out	Current limit during the ramp has exceeded the current limit time-out period.
13	Overload	Current has exceeded the overload level. (Active at all stages of operation)
14	Shearpin	Current has exceeded the shearpin current level. (Only active during normal running)
15	Thermistor	Thermistor input is open circuit or thermistor resistance has exceeded its trip point.
16	User	A trip input from the user to the soft starter.
17	Comms Timeout	Serial communications have been lost.
18	Bypass failed	Bypass contactor failed to close on AC53b unit.
Stopped Cooling		Displayed during the period for which the soft starter will not restart to allow heatsink cooling.

Overload Trip Curves



Current limit and Overload level settings are adjustable. The RSXK monitors current in one phase only and this limits overload currents in accordance with the trip curves shown here. Parameter P106 may be changed to select Class 10B, 10, 20 or 30. This will automatically change the motor current rating (Trip level) of the unit to maintain over current protection.

Note: The overload monitors one of the phases only and the current limit level is only active during motor starting.
It is recommended that the control supply is maintained between starts to ensure the integrity of the overload, which will reset on its removal.

Environmental Specifications

Ambient temperature	0ºC to 40ºC (32ºF to 104ºF) Above 40ºC de-rate linearly by 2% of unit FLC per ºC to a derate of 40% at 60ºC.
Transport and Storage temperature	
Continuous	-25ºC to +60ºC (-13ºF to 140ºF)
Not exceeding 24 hrs	-25ºC to +75ºC (-13ºF to 167ºF)
Relative Humidity	<85% non-condensing, not exceeding 50% @ 40ºC

Degree of Protection	IP20 up to RSXK..0382B1.V.. IP00 - RSXK..0430B0.V.. To RSXK..1673B0.V..
Installation altitude	1000m. Above 1000m de-rate linearly by 1% FLC per 100m to a maximum altitude of 2000m
Pollution Degree	2

CARLO GAVAZZI

Short Circuit Protection

Type of coordination: 1
Semiconductor Fuse Types

Product Code	Short Circuit Amp RMS (kA)	SIBA Fuse	Amps
RSXK..0022B1.V..	5	2018920.80	80
RSXK..0023B1.V..	5	2018920.80	80
RSXK..0029B1.V..	5	2018920.80	80
RSXK..0035B1.V..	5	2018920.100	100
RSXK..0041B1.V..	5	2018920.100	100
RSXK..0042B1.V..	10	2061032.250	250
RSXK..0055B1.V..	10	2061032.250	250
RSXK..0066B1.V..	10	2061032.250	250
RSXK..0067B1.V..	10	2061032.250	250
RSXK..0080B1.V..	10	2061032.250	250
RSXK..0081B1.V..	10	2061032.400	400
RSXK..0097B1.V..	10	2061032.400	400
RSXK..0132B1.V..	10	2061032.400	400
RSXK..0133B1.V..	10	2061032.450	450
RSXK..0160B1.V..	18	2061032.500	500
RSXK..0195B1.V..	18	2061032.630	630
RSXK..0230B1.V..	18	2061032.630	630
RSXK..0280B1.V..	18	2061032.630	630
RSXK..0350B1.V..	18	2061032.800	800
RSXK..0351B1.V..	18	2061032.800	800
RSXK..0382B1.V..	30	2063032.900	900
RSXK..0430B0.V..	30	2063032.800	800
RSXK..0540B0.V..	30	2067132.1000	1000
RSXK..0610B0.V..	42	2067132.1000	1000
RSXK..0690B0.V..	42	2067132.1250	1250
RSXK..0541B0.V..	42	2067132.1250	1250
RSXK..0850B0.V..	85	2068132.1400	1400
RSXK..0950B0.V..	85	2068132.1400	1400
RSXK..1060B0.V..	85	2068132.1400	1400
RSXK..1150B0.V..	85	2068132.1400	1400
RSXK..1190B0.V..	85	2 x 2067132.1000	2000
RSXK..1346B0.V..	85	2 x 2067132.1250	2500
RSXK..1518B0.V..	100	2 x 2067132.2000	4000
RSXK..1673B0.V..	100	2 x 2067132.2000	4000

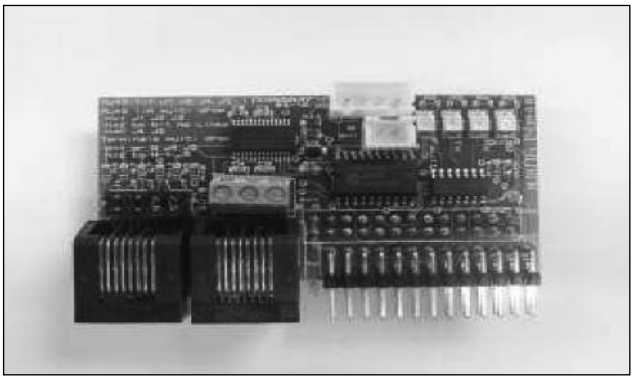
Short Circuit
Co-ordination type 1:
Special purpose fuses, for the protection of semiconductor devices, rated 700VAC, can be used to obtain the required short circuit ratings. Suitable for use on a circuit capable of delivering not more than the RMS Symmetrical Amperes indicated in this table at maximum rated operational voltage, when protected by Semiconductor Fuse type, manufactured by Company and Mod. No. indicated. These fuses are for short circuit protection of the semiconductors and must be mounted externally by the user between the unit and the mains supply, not between the unit and the motor.

Accessories

Keypod

- Ordering Code: MMRK
- Can be used on a one to one basis, or one Keypod can control several Soft Starters
- Seven buttons with individual Start and stop
- Display via a 2 line 32 character LED
- Eliminates panel mounted Start and Stop push buttons, Ammeters, Run, Top of Ramp and Alarm Lamps
- The Keypod gives continous display of motor phase current and control status, Starting, Stopping, Full Volts, Optimising, Current Limitation, Overload and Fault Indication

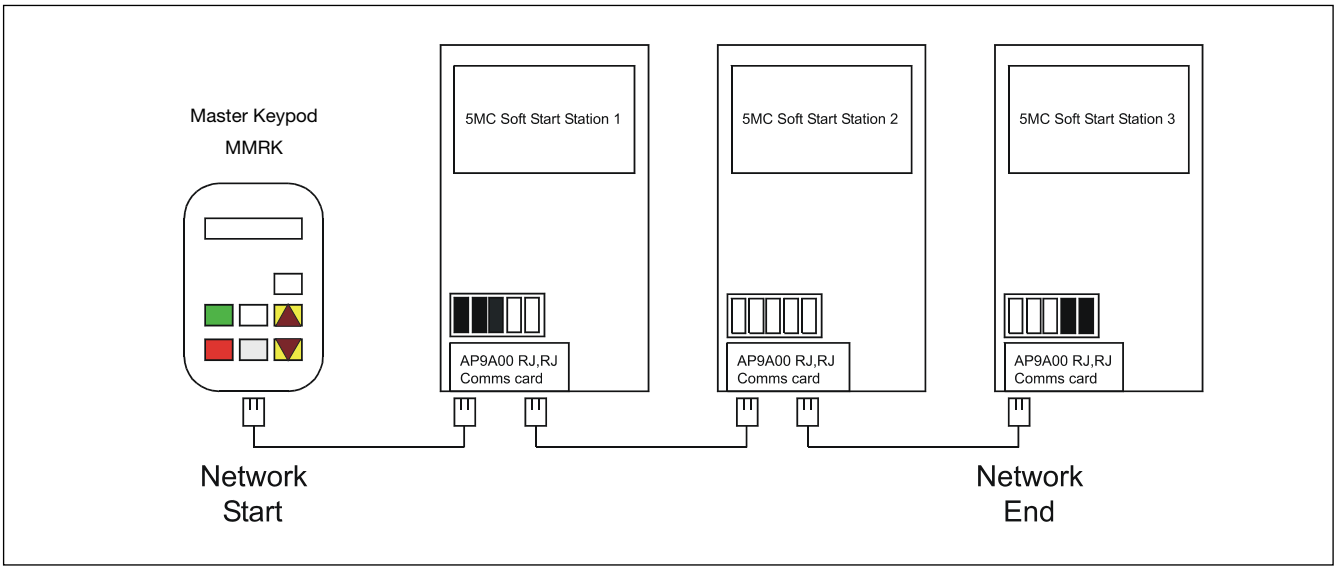
Communications Card (Modbus)



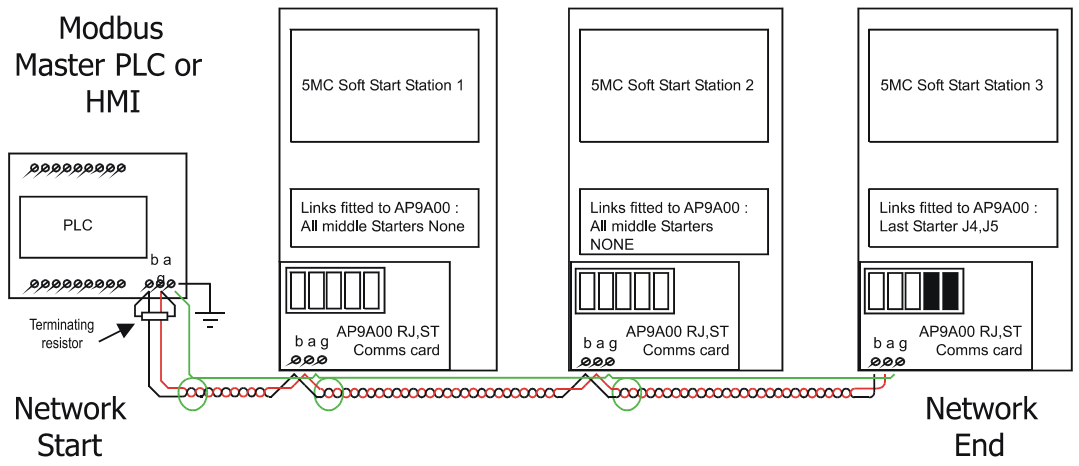
AP9A00 circuit board

- Ordering Code: MMKC or Option VC.
  (refer to RSXK ordering code)
- Enables the set up, control and monitoring of single or multiple RSXK softstarters
- RS485 interface with 50V isolation for demanding industrial applications
- Interface is suitable for conection to the remote keypod or a standard Modbus network running at 9600 baud 8N1.
- Connection via standard CAT5 RJ45 terminated ethernet cable
- Onboard RJ45 connector for mulitple softstarter connection
- Standard twisted pair wiring may also be used via the secondary screw terminals

Connection of multiple RSXK softstarters via RJ45 connectors



Connection of multiple RSXK softstarters via RJ45 connectors



Installation Instructions (J1 - J5 Link Options)

J1: When linked, 12V is passed through to the RJ45 connectors. This is for use with the Carlo Gavazzi net only. It supplies power to the remote keypod. Only the unit closest to the keypod should have this link fitted.

J2: When linked, the onboard 1k grounding resistor is shorted out. This is for use with Carlo Gavazzi net only. Only the unit closest to the keypod should have this link fitted.

J3: When linked, the serial communications isolated ground is connected to the local unit ground. If muliple MAX3157 (isolated comms) chips are connected, J3 must be shorted.

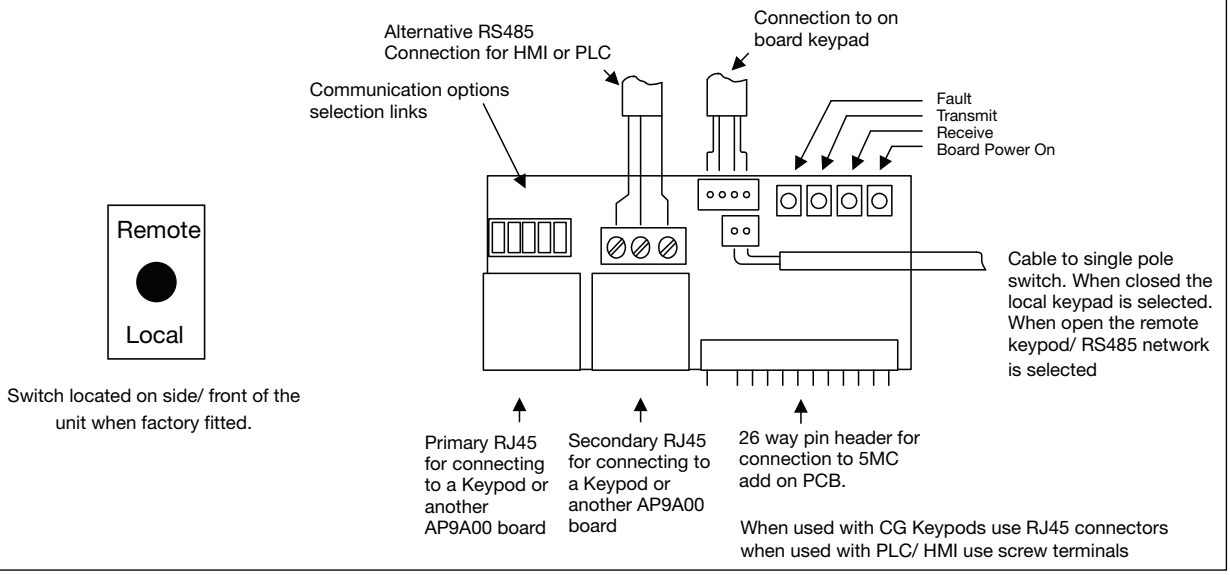
J4: When linked, a 100ohm terminating resistor is connected between the A and B RS485 lines on both the RJ45 and screw terminal connections. For RS485 networks only, the nodes at each physical end of the network have terminating resistors fitted.

J5: When linked, a 1k resistor is connected between screw terminal G and local ground. Normally, only one of the units would have this link fitted.

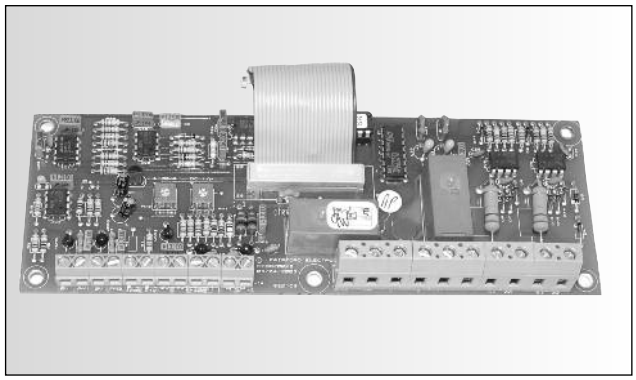
• When connecting the remote Keypod through the RJ45 connector to a single softstarter, links J1,J2,J4 and J5 should be linked.

• When connecting the softstarter to a PLC/HMI through twisted pair connection, fit terminating resistor (may be internal) at PLC/HMI end and links J4 and J5 on the softstarter.

Connection Diagram

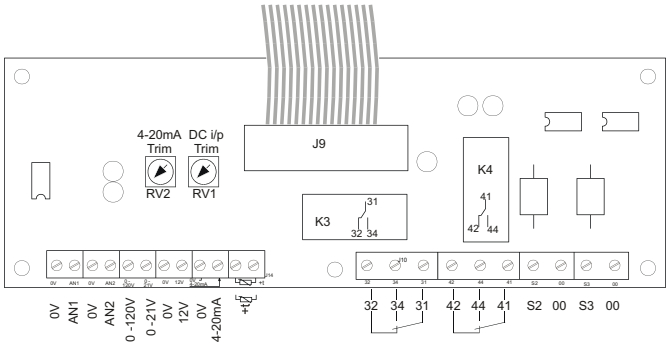


Auxiliary Function Card



- Ordering Code: MMFC or Option V.F (refer to RSXK ordering code)
- Two 0 - 10V Analogue Outputs
- One 0 - 21V DC Input
- One 4 - 20mA Input
- One Thermistor Input
- Two Programmable Output Relays
- Two Programmable Input Relays

Connection Diagram



Terminal Markings	Function	Description
0V **AN1**	Analogue Output 1	A voltage (range 0-10V) represents the analogue value of a selected parameter. (Advanced user facility)
0V **AN2**	Analogue Output 2	A voltage (range 0-10V) represents the analogue value of a selected parameter. (Advanced user facility)
0-120V	No function	This is an unused terminal
0-21V	DC Input	A 0-21V that is factory pre-set for a 0-10V input range but can be trimmed up by the user to the full 0-21V range. Can be mapped to a selected parameter. (Advanced user facility)
0V	Zero volts	Common 0V terminal for DC input and Voltage Output.
0V **12V**	Voltage Output	A voltage source (12V, 100mA max.) for use with either the 4-20mA input or the DC input. (Advanced user facility)
0V **4-20mA**	4-20mA Input	Input for an external electronic device with analogue trimming pot. Can be mapped to a selected parameter. (Advanced user facility)
T1 **T2** +t	Thermistor Input	Two-wire input for a PTC motor thermistor. P42 indicates the relative value.
32 **34** **31**	Programmable Output Relay K3	Relay K3 Default function - Alarm Changeover contacts that can be mapped from a selected parameter. (Advanced user facility)
42 **44** **41**	Programmable Output Relay K4	Default function - Overload Integrator Changeover contacts that can be mapped from a selected parameter. (Advanced user facility)
S2 **00**	Programmable Input 2	Control Input 2 Can be mapped to a selected parameter. (Advanced user facility)
S3 **00**	Programmable Input 3	Control Input 3 Can be mapped to a selected parameter. (Advanced user facility)

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