

Solid State Relays Accessories Type MS1...



- Rated operational voltage: 115, 230 or 400 VACrms
- Supply output: 14 VDC @ $I_{max.} = 110 \text{ mA}$
- Short-circuit protected
- 5 A SPST relay output
- LED indication for power supply on and relay on
- Insulation: 2000 Vrms/4 mm
- H2 housing

Product Description

Power supply unit with built-in control relay for motor controllers type RSC/RSO and RTC/RTO.

Ordering Key

MS 1 400

Motor controller _____
Supply unit _____
Index no. _____
Rated operational voltage _____

Type Selection

Type	Index no.	Rated operational voltage
MS: Supply unit for motor controller	1	115: 115 VACrms 230: 230 VACrms 400: 400 VACrms

Selection Guide

Rated operational voltage	230 VACrms	400 VACrms
115 VACrms		
MS 1 115	MS 1 230	MS 1 400

General Specifications

	MS 1 115	MS 1 230	MS 1 400
Rated operational voltage (terminals 21 & 22)	115 VACrms	230 VACrms	400 VACrms
Operational frequency range	45 to 65 Hz	45 to 65 Hz	45 to 65 Hz
Environment			
Degree of protection	IP 20 B	IP 20 B	IP 20 B
Pollution degree (IEC 60664)	3	3	3
Overvoltage category	III	III	III
Indication for			
Power supply ON	LED, green	LED, green	LED, green
Relay ON	LED, yellow	LED, yellow	LED, yellow
Approval	CSA	CSA	CSA
CE-marking	Yes	Yes	Yes



Supply Specifications

	MS 1 115	MS 1 230	MS 1 400
Operational voltage range	103 to 126 VACrms	207 to 253 VACrms	360 to 440 VACrms
Voltage interruption	≤ 40 ms	≤ 40 ms	≤ 40 ms

Input Specifications

Relay pick-up voltage	≤ 8.0 VDC
Relay drop-out voltage	≥ 0.6 VDC
Max. input voltage	≤ 21.2 VDC
Input impedance	640 Ω

Output Specifications

Supply output range	10 to 30 VDC								
Rated DC output voltage @ 110 mA (terminals 1 & 4)	14 VDC								
Relay output SPST (terminals 23 & 24)	<table border="0"> <tr> <td>AC 1</td> <td>5 A, 250 VAC</td> </tr> <tr> <td>AC 15</td> <td>2 A, 250 VAC</td> </tr> <tr> <td>DC 1</td> <td>5 A, 24 VDC</td> </tr> <tr> <td>DC 13</td> <td>3 A, 24 VDC</td> </tr> </table>	AC 1	5 A, 250 VAC	AC 15	2 A, 250 VAC	DC 1	5 A, 24 VDC	DC 13	3 A, 24 VDC
AC 1	5 A, 250 VAC								
AC 15	2 A, 250 VAC								
DC 1	5 A, 24 VDC								
DC 13	3 A, 24 VDC								

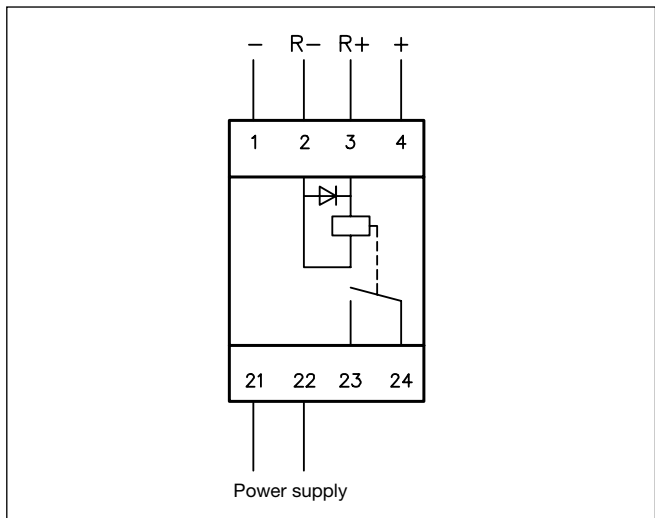
Thermal Specifications

Operating temperature	-20° to +50°C (-4° to +122°F)
Storage temperature	-50° to +85°C (-58° to +185°F)

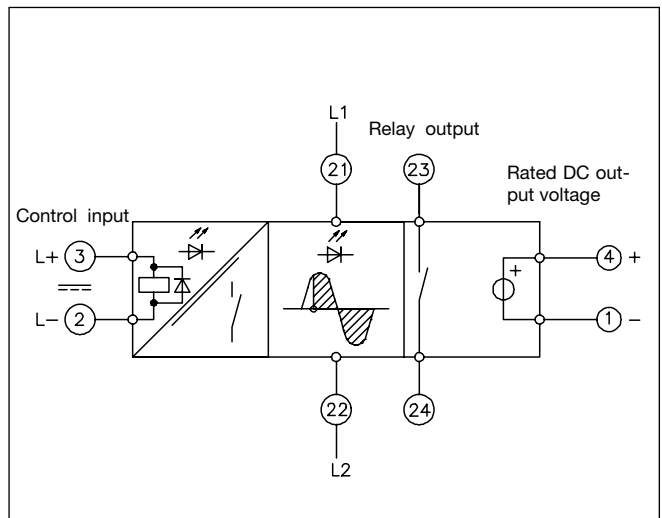
Isolation

Rated isolation voltage Supply to electronic circuit	≥ 2000 VACrms
Rated impulse withstand voltage	4000 Vp (1.2/50 μs)

Wiring Diagram



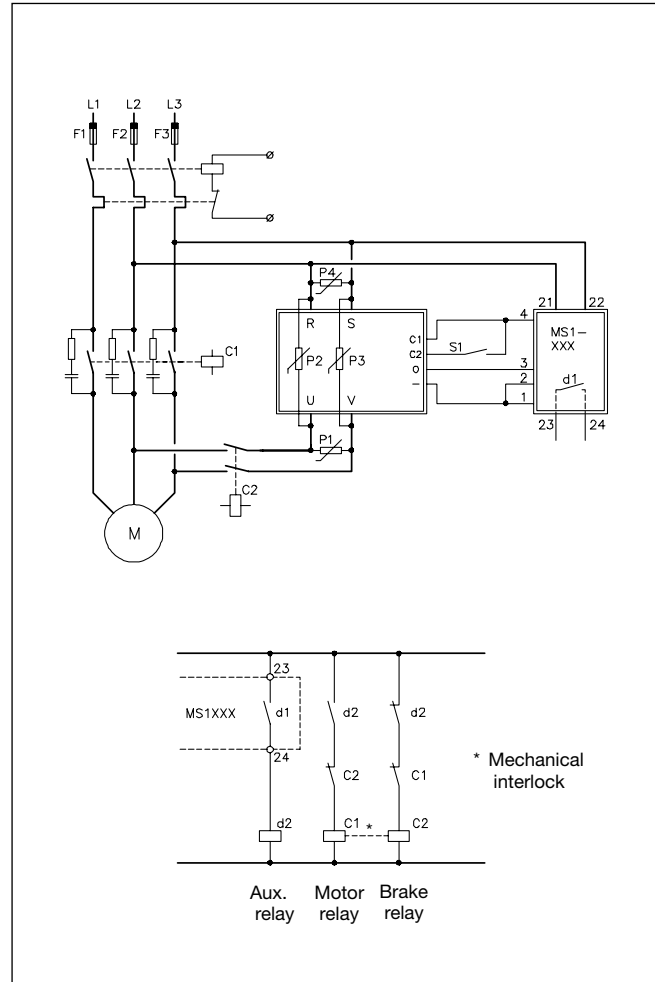
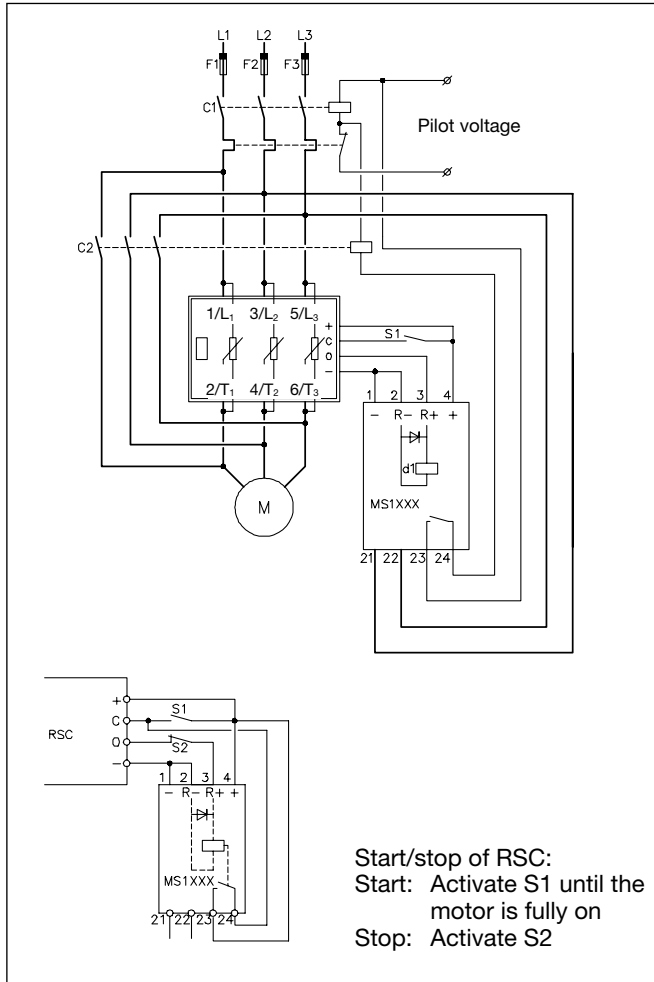
Functional Diagram



Applications

The MS1.. power supply connected to a motor controller (RSC) for soft starting/soft stopping of an induction motor.

The MS1.. power supply connected to a motor controller (RTC) for dynamic braking of an induction motor.



For a 400 V application the following components are recommended:

S1 closed:
Motor is running

Fuses:
F2 - F3 FERRAZ

S1 opened:
Motor brakes and stops

RTO 1210:
6.9 gRB 10-16

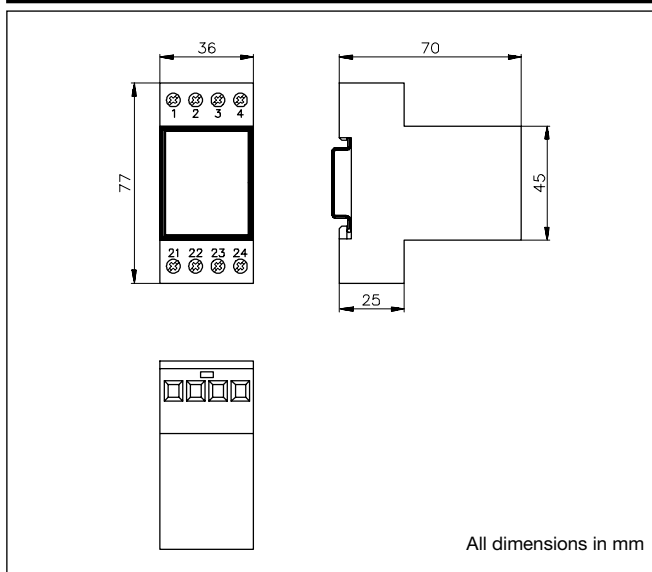
Varistors:
S20K420 Siemens

RTO 1225:
6.9 gRB 10-25

RC:
PMR 209 Rifa 47 Ω/1.1 μF

RTO 1250:
6.921CP gRC 22 x 58/50

Dimensions



Housing Specifications

Weight	Approx. 250 g
Housing material	Noryl, black
Mounting	DIN rail
Terminals	
Mounting screws	M 3.5
Mounting torque	≤ 0.8 Nm