

STELLAR[®] SR35 SOFT STARTER

QUICK-START GUIDE



AUTOMATIONDIRECT.com



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SAFETY

IMPORTANT INFORMATION

Installers should read and understand the instructions in this guide prior to installing, operating and maintaining the soft start. The following symbols may appear in this guide or on the soft start to warn of potential hazards or to draw attention to certain information.

CAUTION STATEMENTS

The examples and diagrams in this manual are included solely for illustrative purposes. The information contained in this manual is subject to change at any time and without prior notice. In no event will responsibility or liability be accepted for direct, indirect or consequential damages resulting from the use or application of this equipment.



DANGEROUS VOLTAGE

INDICATES THE PRESENCE OF A HAZARDOUS VOLTAGE WHICH COULD RESULT IN PERSONAL INJURY OR DEATH.



WARNING/CAUTION

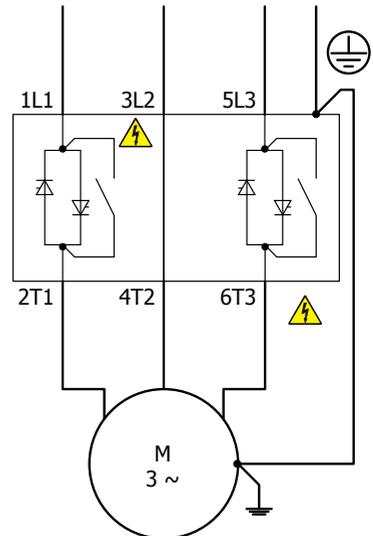
INDICATES A POTENTIAL HAZARD. ANY INSTRUCTIONS THAT FOLLOW THIS SYMBOL SHOULD BE OBEYED TO AVOID POSSIBLE DAMAGE TO THE EQUIPMENT, AND PERSONAL INJURY OR DEATH.



Protective Earth (Ground)

Indicates a terminal which is intended for connection to an external conductor for protection against electric shock in case of a fault.

<ul style="list-style-type: none"> SR35 soft starters contain dangerous voltages when connected to the mains supply. Only qualified personnel that have been completely trained and authorized, should carry out installation, operation and maintenance of this equipment. Installation of the soft start must be made in accordance with existing local and national electrical codes and regulations and have a minimum protection rating. It is the responsibility of the installer to provide suitable grounding and branch circuit protection in accordance with local electrical safety codes. This soft starter contains no serviceable or re-usable parts. The STOP function of the soft starter does not isolate dangerous voltages from the output of the soft start. An approved electrical isolation device must be used to disconnect the soft start from the incoming supply before accessing electrical connections.



MECHANICAL INSTALLATION

MOUNTING

Fix the unit to a flat, vertical surface using the mounting holes (or slots) on its base-plate. The mechanical outline diagrams, shown on [page 6](#), give the dimensions and mounting hole positions for each model. Ensure that:

- The orientation of the unit has the 'TOP' uppermost.
- The location allows adequate front access.
- You can view the keypad display.
- Do not install other equipment that generates significant heat close to the soft starter.

REQUIREMENTS FOR AN ENCLOSURE

For a typical industrial environment, an enclosure would provide the following:

- A single location for the unit and its protection/isolation switch-gear
- The safe termination of cabling and/or busbars
- Means to effect proper air flow through the enclosure if the heat output of the unit is greater than the cabinet can dissipate



ENCLOSURE VENTILATION

When installing the SR35 soft starter into a cabinet, ventilation must be provided if the heat output of the unit is greater than the cabinet can dissipate. The heat dissipated can be approximated with the formula:

- Starting: $Watts (SR35) = (start\ current(A)) \times (start\ time(s)) \times (number\ of\ starts\ per\ hour) \div 1800$
- Running: $Watts (SR35) = 0.4 \times running\ amps$

Use the following formula to determine the fan requirement. An allowance has been incorporated into the formula so that the figure for Q is the air delivery in the fan suppliers' data.

- $Q = (4 \times W_t) \div (T_{max} - T_{amb})$
- $Q = Volume\ of\ air\ (cubic\ meters\ per\ hour - m^3/h)$
- $W_t =$
Heat produced by the unit and all other heat sources within the enclosure (Watts)
- $T_{max} =$ Maximum permissible temperature within the enclosure
(40°C for a fully rated SR35)
- $T_{amb} =$ Temperature of the air entering the enclosure (°C)
(If you prefer to work in CFM, substitute °F for °C. Q is now in CFM)

ALTITUDE DERATE

Altitude above sea level 1000m (3281ft).

Above 1000m, derate by 1% of SR35 i.e. per 100m (328ft) to a maximum altitude of 2000m (6562ft).

AMBIENT TEMPERATURE DERATE

-20°C (-4°F) to 40°C (104°F).

Above 40°C, derate linearly by 2% of SR35 i.e. per °C to a maximum of 60°C (140°F).

HANDLING

The SR35 soft start range is comprised of three frame sizes of various weights and dimensions. See “Dimensions” on [page 6](#) for further information.

Prior to installing the SR35 unit, the installer should carry out a risk assessment. If considered appropriate, a suitable handling device should be used.

Do not lift the SR35 unit by attachment to the 3-phase terminal connections or busbars.



WARNING: HANDLING AND LIFTING HAZARD

ENSURE THE AREA BELOW ANY EQUIPMENT IS CLEAR OF ALL PERSONNEL AND PROPERTY. FAILURE TO FOLLOW THIS PRACTICE MAY RESULT IN DEATH, SERIOUS INJURY, OR DAMAGE TO EQUIPMENT.

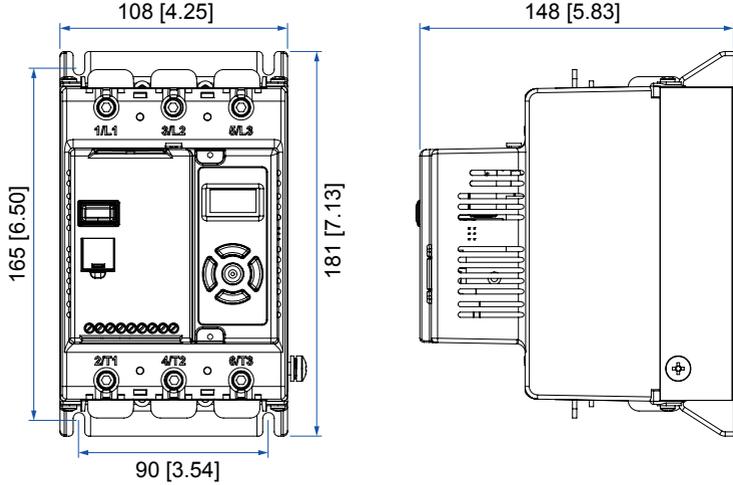
ACCESSORIES

The following accessories have been developed and tested for use with the SR35 range of soft starters:

- SR35-KPD-REM Remote Keypad for SR35-017 to SR35-361. Provides remote functionality for up to 32 soft starter units.
- SR35-PSU 100VAC – 240VAC power supply. Provides mains voltage control power and digital control functionality. For use with SR35-017 to SR35-361.
- SR35-FAN-1 Cooling fan accessory for SR35-017 to SR35-065 only. Increases the number of starts per hour (see “Fan Option” on [page 20](#)).
- SR35-FAN-2 Cooling fan accessory for SR35-077 to SR35-192 only. Increases the number of starts per hour (see “Fan Option” on [page 20](#)).

DIMENSIONS & WEIGHTS

FRAME SIZE 1: SR35-017 TO SR35-065 – DIMENSIONS = (MM [IN])

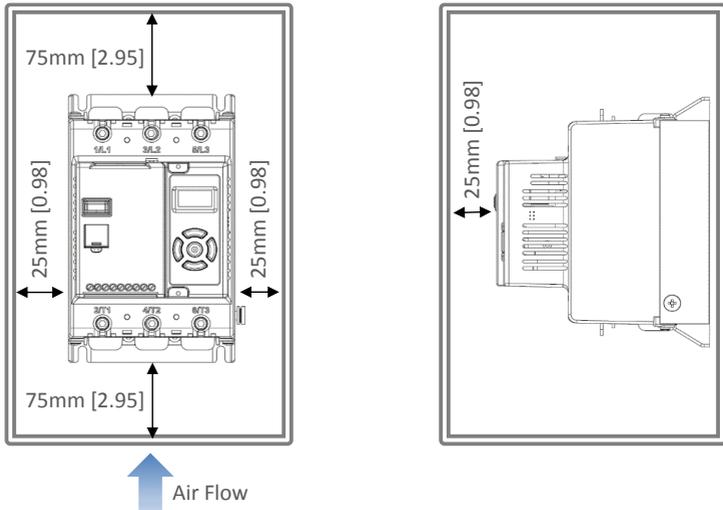


WEIGHT: 1.97kg [3.75lb]

Note: SR35 soft starters may be horizontally mounted with deration. See Horizontal Mounting Rating Tables

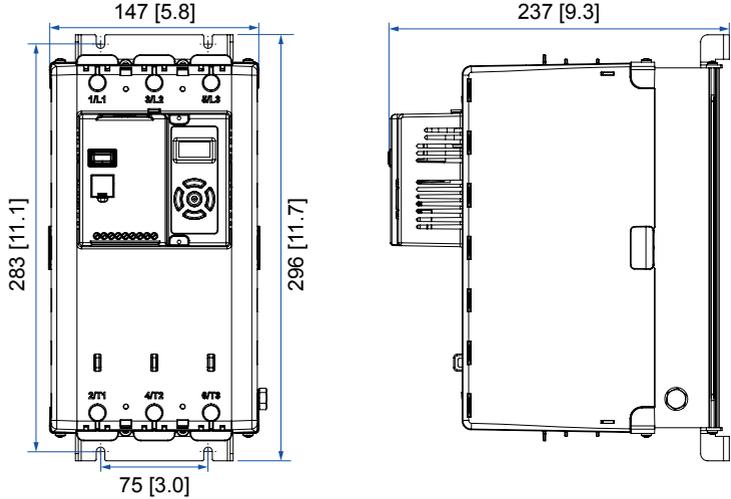
CLEARANCE DIMENSIONS

FRAME SIZE 1: SR35-017 TO SR35-065 – DIMENSIONS = (MM [IN])



DIMENSIONS & WEIGHTS

FRAME SIZE 2: SR35-077 TO SR35-192 – DIMENSIONS = (MM [IN])

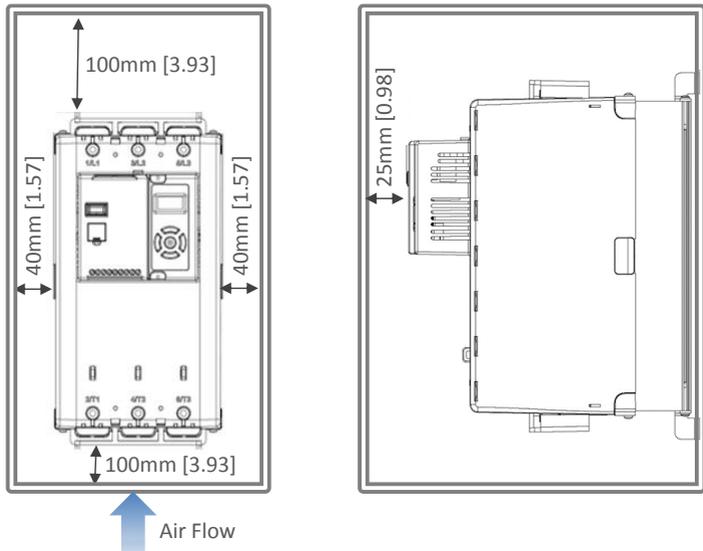


WEIGHT: 6 kg [13.22lb]

Note: SR35 soft starters may be horizontally mounted with deration. See Horizontal Mounting Rating Tables

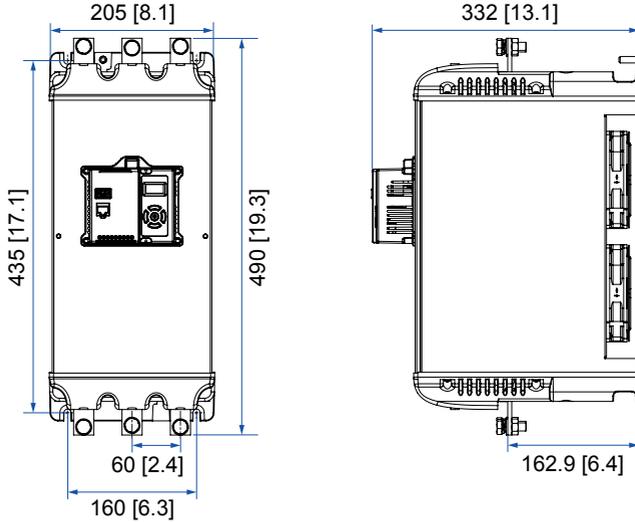
CLEARANCE DIMENSIONS

FRAME SIZE 2: SR35-077 TO SR35-192 – DIMENSIONS = (MM [IN])



DIMENSIONS & WEIGHTS

FRAME SIZE 3: SR35-242 TO SR35-361 – DIMENSIONS = (MM [IN])

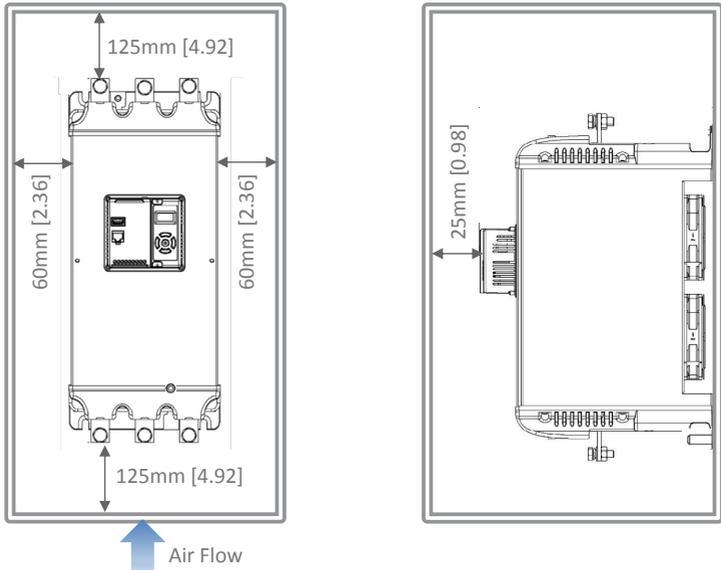


WEIGHT: 15kg [33.10lb]

Note: SR35 soft starters may be horizontally mounted with deration. See Horizontal Mounting Rating Tables

CLEARANCE DIMENSIONS

FRAME SIZE 3: SR35-242 TO SR35-361 – DIMENSIONS = (MM [IN])



ELECTRICAL INSTALLATION

WARNINGS

ISOLATION



CAUTION: SR35 USES SEMICONDUCTOR DEVICES IN THE MAIN CIRCUIT AND IS NOT DESIGNED TO PROVIDE ISOLATION. FOR THIS REASON, ISOLATION MEANS MUST BE INSTALLED IN THE SUPPLY CIRCUIT IN ACCORDANCE WITH THE APPROPRIATE WIRING AND SAFETY REGULATIONS.

ELECTRICAL CONTROL SUPPLY REQUIREMENTS



ALL ELECTRICAL CONNECTIONS ARE MADE TO POWER INPUT AND OUTPUT TERMINALS, CONTROL TERMINALS AND AN EARTH STUD.

FUSE PROTECTION



THE MAINS SUPPLY AND THE CONTROL SUPPLY EACH REQUIRE PROTECTION. ALTHOUGH ALL UNITS HAVE ELECTRONIC OVERLOAD PROTECTION FOR THE SOFT STARTER, THE INSTALLER SHOULD ALWAYS FIT FUSES, FOR MOTOR PROTECTION, BETWEEN THE UNIT AND THE MAINS SUPPLY; NOT BETWEEN THE UNIT AND THE MOTOR. SEMICONDUCTOR FUSES CAN BE SUPPLIED AS AN OPTION FOR SHORT-CIRCUIT PROTECTION OF THE SEMICONDUCTORS. THESE FUSES MUST BE FITTED EXTERNALLY TO THE SR35 CHASSIS TO COMPLY WITH CERTAIN STANDARDS. IT IS THE RESPONSIBILITY OF THE INSTALLER AND SYSTEM DESIGNER/SPECIFIER TO ENSURE THAT THE REQUIRED STANDARDS OR REGULATIONS ARE NOT AFFECTED BY SO DOING.

SAFETY



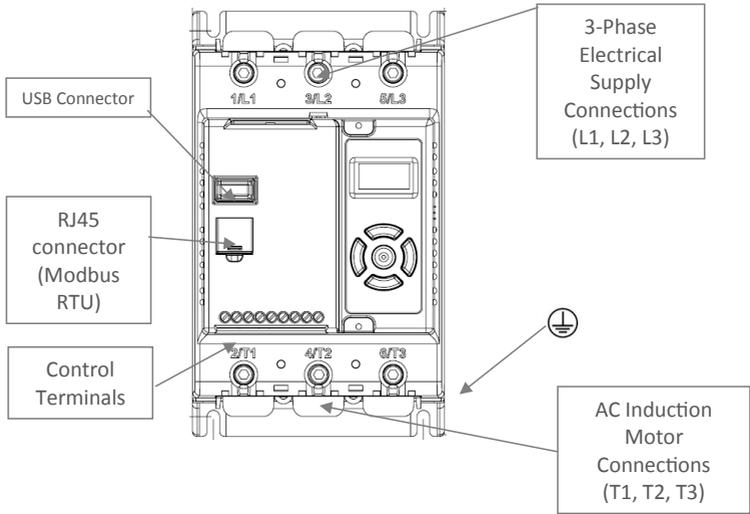
SR35 SOFT STARTERS CONTAIN HAZARDOUS VOLTAGES WHEN CONNECTED TO THE ELECTRICAL POWER SUPPLY. ONLY QUALIFIED PERSONNEL WHO ARE TRAINED AND AUTHORIZED SHOULD CARRY OUT INSTALLATION, OPERATION AND MAINTENANCE OF THIS EQUIPMENT. REFER TO AND CAREFULLY FOLLOW ALL OF THE 'WARNINGS' SECTION AT THE BEGINNING OF THIS USER MANUAL, AS WELL AS OTHER WARNINGS AND NOTES THROUGHOUT THE MANUAL.

ELECTRICAL SUPPLIES

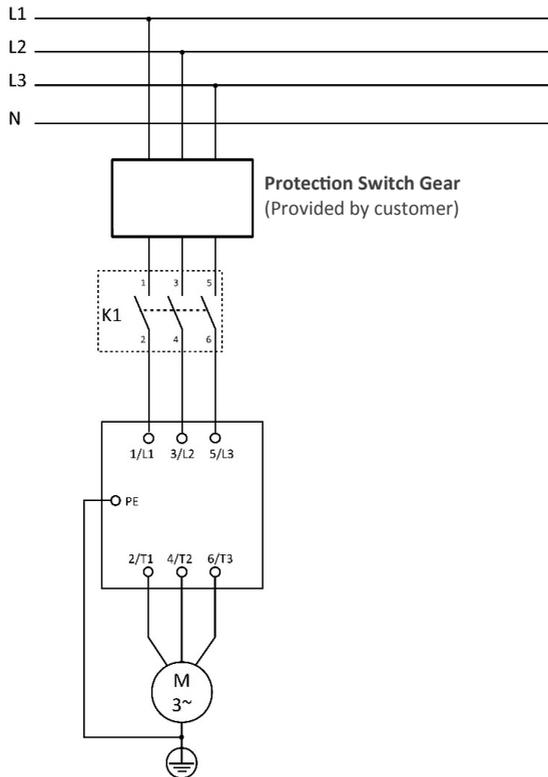
The unit requires a 3-phase balanced Mains Supply to provide the power for the controlled motor, and a 24VDC supply for the internal control circuitry. The unit will not operate unless the control supply voltage is within the specified limits.

Note: See "Control Terminal Functions" on [page 12](#) concerning the 24VDC supply specifications.

ELECTRICAL CONNECTIONS



POWER CIRCUIT WIRING DIAGRAM (3-PHASE)



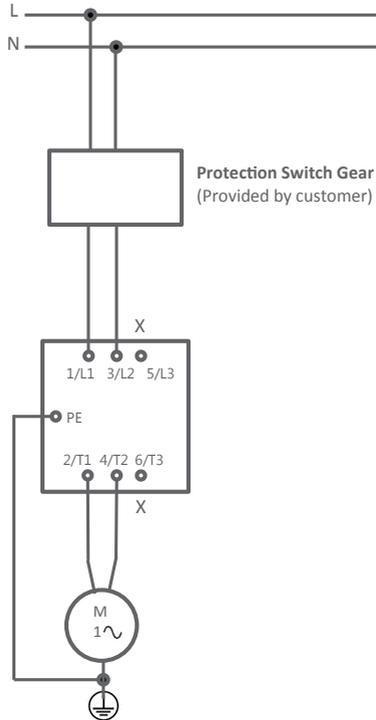
SINGLE-PHASE OPERATION

SR35 soft starters may be operated with a single-phase supply and motor. The base rating of the unit is unchanged.

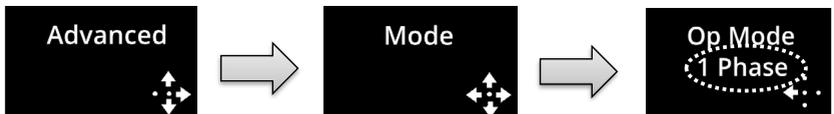
POWER CIRCUIT WIRING DIAGRAM (1-PHASE)



NOTE: Refer to the SR35 User Manual, Chapter 2, pages 11 thru 14, for single phase wiring diagrams.



NOTE: For single-phase operation the mode of the SR35 soft starter must be set correctly in the Advanced Menu:



CONTROL TERMINAL CONNECTIONS



CONTROL TERMINAL FUNCTIONS

Control Terminal Functions				
Terminal	Description	Default	Function Selectable	Note
24Vdc	Control Supply +Us	-	No	#1
0V	Control Supply -Us	-	No	
COM	Digital Inputs Common	-	No	
D1	Digital Input 1	-	No	#2
D2	Digital Input 2	-	Yes	#2
13/14	Main Contactor Control (Run Relay)	-	Yes	#3
21/22	Fault Relay	-	Yes	#3

- 1) **24VDC Specification:** See “General Specifications” on [page 18](#) for VA rating, residual ripple < 100mV, spikes/switching peaks < 240mV, Turn On/Off response no overshoot of V_{out} . Overvoltage voltage protection output voltage must be clamped <30VDC
- 2) The voltage applied to the digital inputs D1 and D2 must not exceed 24VDC
- 3) 250VAC, 2A, $\cos\phi = 0.5$

DIGITAL INPUT 2 (D2) SELECTABLE FUNCTIONS

Different functions may be assigned to Digital Input 2 in the I/O menu. Available assignments are:

- Reset
- Hold Start Ramp
- Enable
- Fire Mode

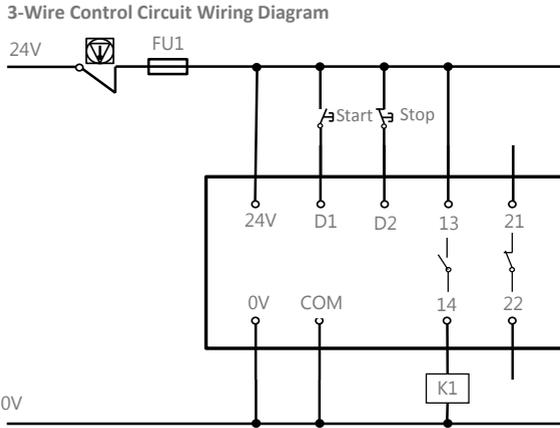


In Fire Mode all trips are disabled.

DIGITAL OUTPUTS 13, 14, 21, 22 SELECTABLE FUNCTIONS

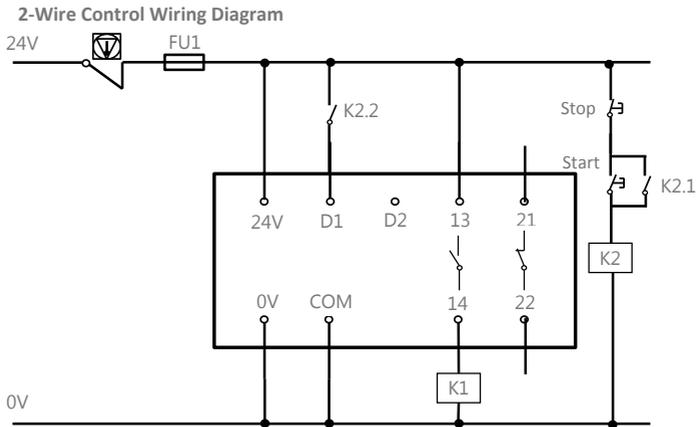
The outputs may be mapped to Fault or Top-of-Ramp, Auto Reset Pending or Exceeded.

3-WIRE CONTROL CIRCUIT WIRING DIAGRAM



NOTE: 110 - 230V control supply possible with optional control supply module SR35-PSU

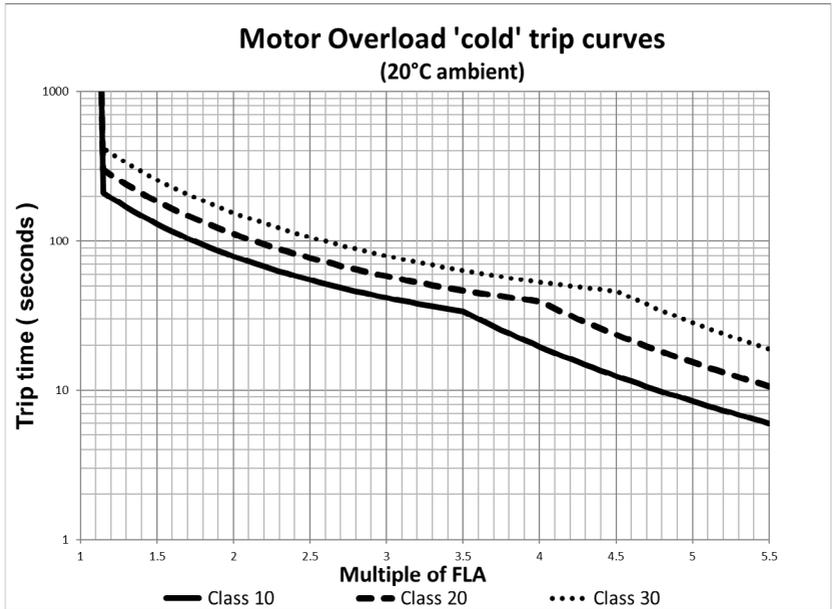
2-WIRE CONTROL CIRCUIT WIRING DIAGRAM



NOTE: 110 - 230V control supply possible with optional control supply module SR35-PSU

MOTOR OVERLOAD

The SR35 provides full motor overload protection, configurable through the user interface. Overload trip settings are determined by the Motor Current setting and the Trip Class setting. Trip class choices are Class 10, Class 20, and Class 30. The SR35 soft starters are protected using full I²T motor overload with memory.



Please note: When the overload has tripped, there is a forced cooling time to allow the overload to recover before the next start.



The 'warm' trip times are 50% of the 'cold' trip time.

CONFIGURATION AND PARAMETERS

DISPLAY AND CONTROLS



- 1 Status messages
- 2 Instantaneous motor current
- 3 Control scheme; Local, Control Terminal, Modbus RTU
- 4 Keypad guidance wizard; Displays which keys are valid for specific menu items
- 5 Motor overload level; 0 to 100%
- 6 Control keypad
- 7 Status LED (incorporated into center button) Green/Red

KEYPAD GUIDANCE EXAMPLES



All keys active



Left & Right keys active

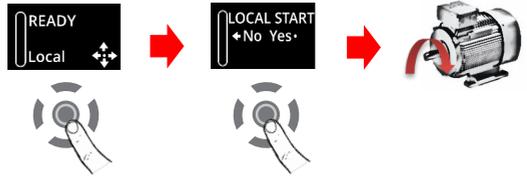


Right, Down, & Centre keys active

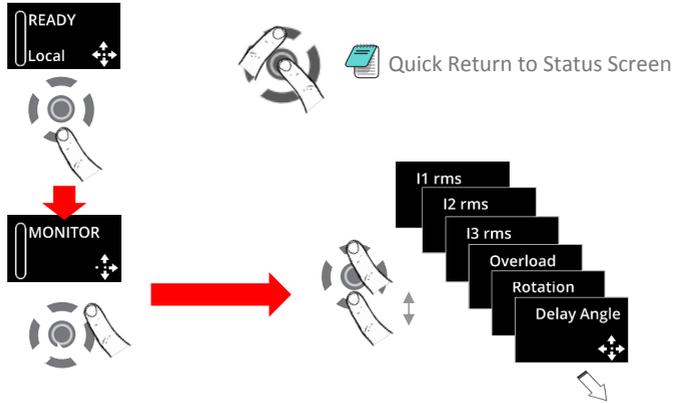
Note: A flashing center button indicates that a menu item may be selected or saved.

HOW TO CONFIGURE THE SR35

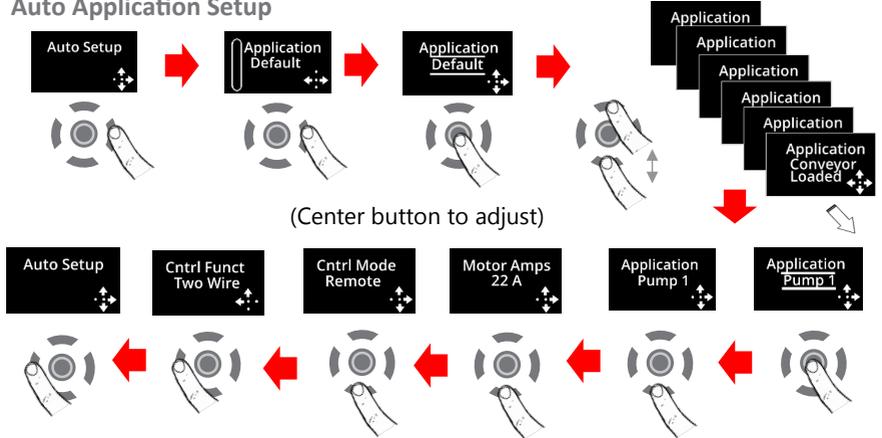
Operation: Local Motor Start



Example Navigation Method



Auto Application Setup



AUTO APPLICATION SETUP PARAMETER SETTINGS

Auto Application Setup Parameter Settings						
	Initial Volts	Start Time	Stop Time	Trip Class	Current Limit	Current Limit Time
Unit	%	s	s	-	FLC	s
Default	20%	10	0	10	3.5	30
Heavy	40%	10	0	20	4	40
Agitator	30%	10	0	10	3.5	25
Compressor 1	40%	15	0	20	3.5	25
Compressor 2	35%	7	0	10	3.5	25
Conveyor Loaded	10%	10	7	20	5.5	30
Conveyor Unloaded	10%	10	7	10	3.5	30
Crusher	40%	10	0	30	3.5	60
Fan High Inertia	40%	10	0	30	3.5	60
Fan Low Inertia	30%	15	0	10	3.5	30
Grinder	40%	10	0	20	3.5	40
Mill	40%	10	0	20	3.5	40
Mixer	10%	10	0	20	4	25
Moulding M/C	10%	10	0	10	4.5	25
Press Flywheel	40%	10	0	20	3.5	40
Pump 1	10%	10	60	10	3.5	25
Pump 2	10%	10	60	20	3.5	25
PumpJack	40%	10	0	20	3.5	40
SawBand	10%	10	0	10	3.5	25
SawCircular	40%	10	0	20	3.5	40
Screen Vibrating	40%	10	0	20	4.5	40
Shredder	40%	10	0	30	3.5	60
Wood Chipper	40%	10	0	30	3.5	60
Compressor 1 = Centrifugal, Reciprocating, Rotary Screw Compressor 2 = Rotary Vane, Scroll Pump 1 = Submersible: Centrifugal, Rotodynamic Pump 2 = Positive Displacement: Reciprocating, Rotary						

TECHNICAL INFORMATION/SPECIFICATION

GENERAL SPECIFICATIONS

General Specifications			
Product Standard		EN 60947-4-2: 2012	
Rated operational voltages	U_e	200VAC to 600VAC (See Key to part numbers)	
Rated operational current	I_e	See "Rating Tables" on page 23	
Rating index			
Rated frequencies		50 – 60Hz \pm 5Hz	
Rated duty		Uninterrupted	
Form designation		Form 1, Internally Bypassed	
Method of operation		Symmetrically controlled starter	
Method of control		Semi-automatic	
Method of connecting		Thyristors connected between motor windings and supply	
Number of poles		3 main poles, 2 main poles controlled by semiconductor switching element	
Rated insulation voltage	U_i	Main circuit	See Key to part numbers
		Control supply circuit	230VAC r.m.s ¹⁾
Rated impulse withstand voltage	U_{imp}	Main circuit	6 kV
		Control supply circuit	4 kV ¹⁾
IP code		Main circuit	IP00 (IP20 with finger guards ⁶⁾)
		Supply and Control circuit	IP20
Overvoltage Category / Pollution degree		III / 3	
Rated conditional short-circuit current and type of co-ordination with associated short circuit protective device (SCPD)		Type 1 co-ordination See Short Circuit Protection Tables for rated conditional short-circuit current and required current rating and characteristics of the associated SCPD	
<i>(table continued next page)</i>			

General Specifications (continued from previous page)				
As Standard	Control Supply ⁽²⁾	Supply input	0, 24V	Protect with UL248 listed fuse rated Max 4A
		Kind of current, rated frequency	DC	
		Rated voltage U _s	24VDC	
		Maximum power consumption	12VA (SR35-017 to SR35-065) 48VA (SR35-077 to SR35-361)	
	Control Circuit ⁽²⁾	Programmable opto-isolated inputs	D1, D2	
		Common input, marking	COM	
		Kind of current, rated frequency	DC	
		Rated voltage U _c	24VDC	
With SR35-PSU module	Control Supply	Supply input	L, N	
		Kind of current, rated frequency	AC, 50 – 60Hz ± 5Hz	
		Rated voltage U _s	110V to 230VAC	
		Rated input current	210mA max (cont.) 1A Peak	
	Control Circuit	Programmable opto-isolated inputs	D1, D2	
		Common input	COM	
		Kind of current, rated frequency	AC, 50 – 60Hz ± 5Hz	
		Rated voltage U _c	110V to 230VAC	
Auxiliary Circuit ³⁾	Form A – Single gap make -contact (normally open)	13, 14		
	Form B – Single gap break-contact (normally closed)	21, 22		
	Utilisation category, voltage rating, current rating	Resistive load, 250VAC, 2A, cosØ = 0.5, 250VAC, 2A ⁴⁾		
Electronic overload relay with manual reset and thermal memory	Trip Class	10 (factory default), 20 or 30 (selectable)		
	Current setting	See Electronic Overload Relay Current Settings		
	Rated frequency	50 to 60Hz ± 5Hz		
	Time-current characteristics	See Fig.1 for trip curves (Trip time T _p ± 20%)		
<p>1) With optional SR35-PSU power supply module.</p> <p>2) Must be supplied by class 2, limited voltage current or protected by a 4A UL 248 listed fuse.</p> <p>3) Compliant with Annex S of IEC 60947-1:2007 at 24VDC.</p> <p>4) Not applicable for UL.</p> <p>5) The safety functions were not evaluated by UL. Listing is accomplished according to requirements of Standard UL 508 and CSA14-13, general use applications.</p> <p>6) For models SR35-017 to SR35-192 the main circuit IP20 rating only applies when the finger guards as supplied are fitted.</p> <p>7) Transient surge suppression shall be installed on the line side of this equipment and shall be rated 600V (phase to phase), suitable for overvoltage category III, and shall provide protection for a rated impulse withstand voltage peak of 6 kV.</p>				

ELECTROMAGNETIC COMPATIBILITY

Electromagnetic Compatibility			
EMC Emission levels	EN 55011	Class A ¹⁾	
EMC Immunity levels	IEC 61000-4-2	8kV/air discharge or 4kV/contact discharge	
	IEC 61000-4-3	10 V/m	
	IEC 61000-4-4	2kV/5kHz (main and power ports)	
		1kV/5kHz (signal ports)	
	IEC 61000-4-5	2kV line-to-ground 1kV line-to-line	
IEC 61000-4-6	10V		
<p><i>1) NOTICE: This product has been designed for environment A. Use of this product in environment B may cause unwanted electromagnetic disturbances, in which case the user may be required to take adequate mitigation measures.</i></p>			

FAN OPTION

Fan Option	
SR35 Model	Maximum Duty Cycle F-S with Optional Fan Fitted
SR35-017 to SR35-100	90-40 (40 cycles per hour)
SR35-125	90-30 (30 cycles per hour)
SR35-156	90-20 (20 cycles per hour)
SR35-192	90-10 (10 cycles per hour)



SR35-242 - SR35-361 have permanently fitted fans.

ENVIRONMENTAL SPECIFICATIONS

Environmental Specifications							
Model (SR35-)	017	022	027	034	041	052	065
Frame Size	1						
Heat output (W)	9	12	14	16	20	25	30
Weight kg [lb]	1.97 [4.20]						
Model (SR35-)	077	100	125	156	192		
Frame Size	2						
Heat output (W)	37	49	61	74	90		
Weight kg [lb]	6.00 [13.23]						
Model (SR35-)	242	302	361				
Frame Size	3						
Heat output (W)	111	139	166				
Weight kg [lb]	15.00 [33.10]						
Ambient Operating Temp.	-20°C [-4°F] to 40°C [104°F] ; above 40°C derate linearly by 2% of SR35 I _e per °C to a maximum of 60°C (140°F)						
Transportation and Storage Temperature	-20°C to 70°C [-4°F to 158°F] continuous						
Humidity	max 85% non-condensing, not exceeding 50% @ 40°C [104°F]						
Maximum Altitude	1,000m [3281ft]; above 1000m derate by 1% of VMX-agility I _e per 100m (328ft) to a maximum altitude of 2,000m (6562ft)						
Environmental Rating	Main Circuit: IP00 (IP20 with optional finger guards); Control Circuit: IP20; No corrosive gases permitted						

WIRE SIZES AND TORQUES

Wire Sizes and Torques						
Terminal		Models (SR35-)	Wire/Busbar Size		Torque	
			Metric	Imperial	N-m	lb-in
Main Terminals Cu STR 75°C only	Terminal	017 to 065	2.5 – 70mm ²	12 – 2/0AWG	9	80
		077 to 192	4 – 185mm ²	12 – 350MCM	14	124
	M10 bolt	242 to 361	2 x 95mm ²	2 x 4/0AWG	28	248
Control Terminals		All models	0.2 – 1.5mm ²	24 – 16AWG	0.5	4.5
Protective Ground ¹⁾ Cu Only	M6 screw	017	≥ 4mm ²	≥ 12AWG	8	71
		022 to 052	≥ 6mm ²	≥ 10AWG		
		065 to 100	≥ 10mm ²	≥ 8AWG		
	M8 screw	125 to 192	≥ 16mm ²	≥ 6AWG	12	106
		M8 Stud	242	≥ 25mm ²		
	302 to 361		≥ 35mm ²	≥ 3AWG		

1) Protective Ground wire size based on bonding conductor requirements of UL508 Table 6.4 and UL508A Table 15.1.

SHORT CIRCUIT PROTECTION

Short Circuit Protection – SR35 Frame Size 1										
Type designation (SR35-)			017	022	027	034	041	052	065-6	
Rated operational current	I_e	A	17	22	29	35	41	55	66	
Rated conditional short circuit current	I_q	kA	5	5	5	5	5	5	10	
Class J time-delay fuse #1	Maximum rating Z_1	A	30	40	50	60	70	100	125	
UL Listed inverse-time delay circuit breaker #1	Maximum rating Z_2	A	60	60	60	60	60	150	150	
Semiconductor fuse (class aR) #2	Type		Mersen 6,9 URD 30__ Bussmann 170M30__ Bussmann 170M31__ Bussmann 170M32__ SIBA 20 61__				Mersen 6,9 URD 31__ Bussmann 170M40__ Bussmann 170M41__ Bussmann 170M42__ SIBA 20 61__			
	Rating	A	160	160	200	200	250	250	250	
Short Circuit Protection – SR35 Frame Sizes 2 & 3										
Type designation (SR35-)			077	100	125	156	192	242	302	361
Rated operational current	I_e	A	80	106	132	160	195	242	302	361
Rated conditional short circuit current	I_q	kA	10	10	10	10	10	18	18	18
Class J time-delay fuse #1	Maximum rating Z_1	A	150	200	250	300	400	450	600	600
UL Listed inverse-time delay circuit breaker #1	Maximum rating Z_2	A	250	300	350	450	500	700	800	800
Semiconductor fuse (class aR) #2	Type		Mersen 6,9 URD 31__ Bussmann 170M40__ Bussmann 170M41__ Bussmann 170M42__ SIBA 20 61__				Mersen 6,9 URD 33__ Bussmann 170M60__ Bussmann 170M61__ Bussmann 170M62__ SIBA 20 63__			
	Rating	A	400	400	550	550	550	800	900	1000
<p># 1. Suitable For Use On A Circuit Capable Of Delivering Not More Than I_q rms Symmetrical Amperes, 600Volts Maximum, When Protected by Class J time delay Fuses with a Maximum Rating of Z_1 or by a Circuit Breaker with a Maximum Rating of Z_2.</p> <p># 2. Correctly selected semiconductor fuses can provide additional protection against damage to the SR35 unit (this is sometimes referred to as type 2 co-ordination). These semiconductor fuses are recommended to provide this increased protection.</p>										

RATINGS TABLES

Ratings Table – Vertically Mounted												
I _e	kW ¹⁾			FLA	HP ²⁾					Trip Class 10 I _e : AC-53a: 3.5-17: F-S ⁴⁾	Trip Class 20 I _e : AC-53a: 4-19: F-S ⁴⁾	Trip Class 30 I _e : AC-53a: 4-29: F-S ⁴⁾
	A ³⁾	230V	400V		500V	A ³⁾	200V	208V	220- 240V			
17	4	7.5	7.5	17	3	5	5	10	15	–	–	SR35-017
17	4	7.5	7.5	17	3	5	5	10	15	–	SR35-017	SR35-022
17	4	7.5	7.5	17	3	5	5	10	15	SR35-017	SR35-022	SR35-027
22	5.5	11	11	22	5	5	7.5	15	20	SR35-022	SR35-027	SR35-034
29	7.5	15	15	27	7.5	7.5	7.5	20	25	SR35-027	SR35-034	SR35-041
35	7.5	18.5	22	34	10	10	10	25	30	SR35-034	SR35-041	SR35-052
41	11	22	22	41	10	10	10	30	40	SR35-041	SR35-052	SR35-065
55	15	30	37	52	15	15	15	40	50	SR35-052	SR35-065	SR35-077
66	18.5	37	45	65	20	20	20	50	60	SR35-065	SR35-077	SR35-100
80	22	45	55	77	20	25	25	60	75	SR35-077	SR35-100	SR35-125
106	30	55	75	100	30	30	30	75	100	SR35-100	SR35-125	SR35-156
132	37	75	90	125	40	40	40	100	125	SR35-125	SR35-156	SR35-192
160	45	90	110	156	50	50	60	125	150	SR35-156	SR35-192	SR35-242
195	55	110	132	192	60	60	60	150	200	SR35-192	SR35-242	SR35-302
242	75	132	160	242	75	75	75	200	250	SR35-242	SR35-302	SR35-361
302	90	160	200	302	100	100	100	250	300	SR35-302	SR35-361	–
361	110	200	250	361	125	125	150	300	350	SR35-361	–	–

Ratings Table – Horizontally Mounted												
I _e	kW ¹⁾			FLA	HP ²⁾					Trip Class 10 I _e : AC-53a: 3.5-17: F-S ⁴⁾	Trip Class 20 I _e : AC-53a: 4-19: F-S ⁴⁾	Trip Class 30 I _e : AC-53a: 4-29: F-S ⁴⁾
	A ³⁾	230V	400V		500V	A ³⁾	200V	208V	220- 240V			
17	4	7.5	7.5	17	3	5	5	10	15	–	SR35-017	SR35-022
17	4	7.5	7.5	17	3	5	5	10	15	SR35-017	SR35-022	SR35-027
17	4	7.5	7.5	17	3	5	5	10	15	SR35-022	SR35-027	SR35-034
22	5.5	11	11	22	5	5	7.5	15	20	SR35-027	SR35-034	SR35-041
29	7.5	15	15	27	7.5	7.5	7.5	20	25	SR35-034	SR35-041	SR35-052
35	7.5	18.5	22	34	10	10	10	25	30	SR35-041	SR35-052	SR35-065
41	11	22	22	41	10	10	10	30	40	SR35-052	SR35-065	–
55	15	30	37	52	15	15	15	40	50	SR35-065	–	–

1) Rated operational powers in kW as per IEC 60072-1 (primary series) corresponding to IEC current rating.
 2) Rated operational powers in hp as per UL508 corresponding to FLA current rating.
 3) The I_e and FLA rating applies for a maximum surrounding air temperature of 40°C. Above 40°C de-rate linearly by 2% of I_e or FLA per °C to a maximum of 60°C.
 4) For SR35-017 to SR35-192, duty cycle F-S = 90-5, however more cycles per hour are possible with optional fan fitted as indicated in Fan Option table. For SR35-242 to SR35-361, duty cycle F-S = 90-3. For more cycles consult AutomationDirect technical support (770-844-4200).

California Customers: California Proposition 65 Warning

WARNING: this product and associated accessories may contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

For more information visit <https://p65warnings.ca.gov>.