RVS DN

Heavy Duty Soft Starter

Solcon-IGEL's RVS-DN emerges as a highly sophisticated and dependable three-phase motor soft starter, meticulously engineered for compatibility with standard three-phase, three-wire, and six-wire squirrel cage induction motors.

Its exceptional performance extends to controling current and torque during low-voltage motor starts, even in the most demanding environments such as marine and mining installations.

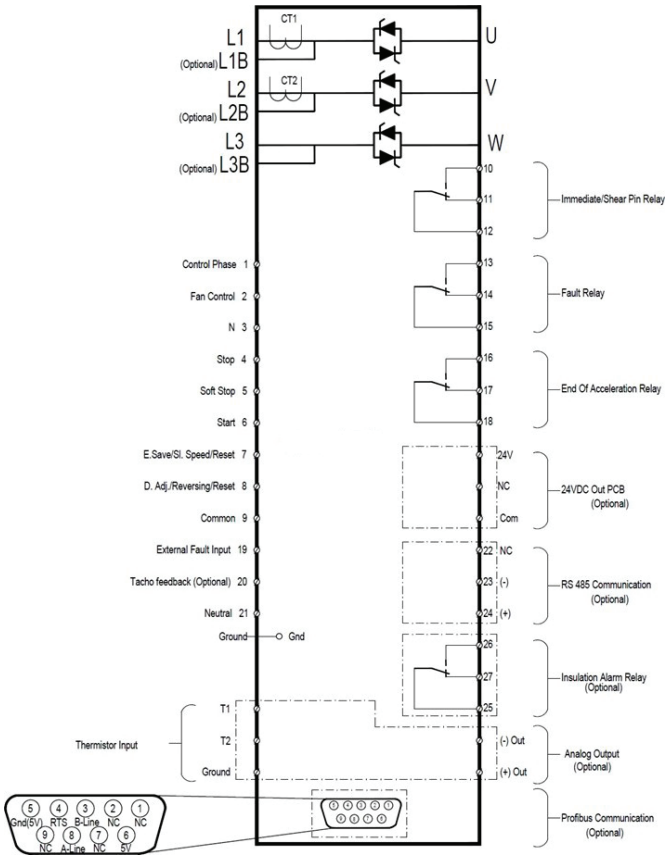
Equipped with advanced functionalities like pump control, slow speed operation, electronic reverse, and enhanced motor protection, the RVS-DN stands as the industry's premier choice for soft starters.

This robust three-phase soft starter initiates motor operation by supplying a gradually increasing voltage, facilitating a smooth start and seamless acceleration while drawing only the minimum required current to initiate motor function.

Specifications

- Supply Voltage: 230-1200V + 10%-15%
- Frequency: 45 – 65 Hz
- Control Supply: 110-230VAC / 110VDC +10% - 15%
- Control Inputs: 110-230VAC / 110VDC +10% - 15% and 24-230V AC/DC option available
- Load: Three phases, three/six wires, squirrel cage induction motor
- Connection type: Standard 3 wire U, V, W, or 6 wire Inside Delta (programmable)

Input/Output Indication Scheme



*For illustration purposes only

Features

- Robust construction
- Advanced start / stop characteristics
- User friendly set up and operation
- Line / Inside delta connection - up to 690V
- Ambient operating temperature: up to 60°C
- Motor insulation tester
- Varied communication options
- Thermistor input
- Analog output
- 45-65Hz Auto-tracking frequency range
- Can be operated without bypass contactor at 50°C up to 820A
- Designed to meet Marine Industry standards: up to 3300A

Soft Start / Soft Stop Functions

- Soft start and soft stop
- Soft, stepless acceleration & deceleration
- Current limiting
- Torque & current control
- Pump control program
- Dual adjustment - characteristics
- Slow speed with electronic reverse Pulse start

Applications

- Pumps
- Thrusters
- Mixers
- Crushers
- Conveyors
- Chillers
- Fans
- Compressors
- Power Packs
- Debarkers
- Ball Mills

Protection Package

- Too many starts & start inhibit time
- Long start time (Stall protection)
- Shear pin (jam) with adjustable delay
- Electronic overload with selectable curves
- Under current
- Phase loss
- Phase sequence & Under/Over frequency
- Under/Over voltage
- Load loss (motor not connected)
- External fault
- Shorted SCR
- Starter over temperature protection
- Motor insulation test (option)
- Motor thermistor (option)
- When using “Preparation for Bypass” all protection remains active

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Models | 31-3300A, 220-690V

Model	Rated Current (A)	Motor kW	Unit Dimensions (mm)			Weight (kg)
			H	W	D	
A	17	7.5	310	153	170	4.5
	31	15				6.0
	44	22				7.5
	58	30				
	72	37				
B	85	45	385	274	238	14.5
	105	55				
	145	75				
	170	90				
C	210	110	455	380	292	32
	310	160				
	390	200				
D	460	250	555	380	292	39
	580	315	640	470	302	48
	820	450	710	470	302	65
	950	560	660	623	290	83.5
E	1,100	630	1,100	723	370	170
	1,400	800				
	1,800	950				
F	2,150	1,250	1300	750	392	240
G	2,400	1,400	1,300	900	410	350
	2,700	1,575				
	3,300	1,750				

* Models 210A - 820A - Dimensions may differ with Marine approvals.
** Models 460A - 820A - Dimensions may differ with UL/cUL approvals.

Models | 105-820A, 1,000-1,200V

Model	Rated Current (A)	Unit Dimensions (mm)			Weight (kg)
		H	W	D	
B1	105	400	325	300	20
B2	170	500	592	345	55
C1	210	500	592	345	
	310				
C2	390	500	592	345	60
D1	460				
D2	580	650	650	400	85
	820				

Ordering Information

RVS-DN	58	400	230	24	0	S
	Full load Current	Mains Voltage	Control Voltage	Control Input Voltage	Options	Front Panel

Full load Current	
Specify	Description
FLC [A]	17, 31, 44, 58, 72, 85, 105, 145, 170, 210, 310, 390, 460, 580, 820, 950, 1100, 1400, 1800, 2150, 2400, 2700, 3300
Mains Voltage	
Specify	Description
400	230 - 400 VAC, 50/60Hz , +10% -15%
480	480VAC, 50/60Hz , +10% -15%
600	600 VAC, 50/60Hz , +10% -15%
690	690 VAC, 50/60Hz , +10% -15%
1000	1000 VAC, 50/60Hz , +10% -15% - Models: 105A, 170A, 210A, 310A, 390A, 460A,580A,820A
1200	600 VAC, 50/60Hz , +10% -15% - Models: 170A, 210A, 310A, 390A, 460A, 580A.
Control Voltage (Terminal 1 & 2)	
Specify	Description
115	115 VAC, 50/60Hz , +10% -15%
230	230 VAC, 50/60Hz , +10% -15%
Control Input Voltage (Terminals 4 - 9)	
Specify	Description
115 or 230	90-230 VAC, 50/60Hz, ±10%
24	24 AC/DC, +10% -15%
Options	
Specify	Description
0	No options
3M	Communication RS-485 Board (MODBUS) [3]
3P	Communication Profibus (factory installed) [3]
4	Motor Insulation Tester [4]
5	Analog card - Thermistor in and Analog out [4]
8	Harsh environment treatment - (Factory installed)
9	Preparation for Bypass contactor
B	Line and load bus bars at bottom (Consult with factory) + (Must be factory supplied).
D	Remote panel mounting replacing the original panel (supplied with 1.5m cable)
M	Marine approval (Consult with factory)
T	Tachometer card for special drive systems (Consult factory)
Notes:	[3] Only one option from 3M or 3P [4] Only one option from: 4 or 5
Front Panel - Standard	

Disclaimer

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