Product Research Report: Siemens SIRIUS 3RW4027-1BB15 Soft Starter

1. Product Name

Siemens SIRIUS 3RW4027-1BB15

2. SEO Keywords

- Siemens 3RW4027-1BB15 soft starter
- SIRIUS 3RW40 soft starter 25A
- Siemens motor soft starter 15kW
- 3RW4027 soft starter datasheet
- Siemens soft starter 200-600V
- 3RW40 S00 soft starter
- Siemens bypass soft starter
- Siemens industrial soft starter heavy duty

3. Category

Soft Starter → Siemens → SIRIUS 3RW40

4. Product Introduction

Series#: Soft Starter → Siemens → SIRIUS 3RW40
- Siemens SIRIUS 3RW4027-1BB15 Soft Starter
- We have large inventory for Siemens SIRIUS 3RW40 Soft Starters, 3RW40 soft starters and related accessories.
- 100% Original and new,In stock by Eaton Company.
- Delivery time: Ready in stock and 1 days for ship out
- MOQ: 1pcs

5. Brand & Model

model：3RW4027-1BB15
brand：Siemens

6. Service & Applications

The Siemens SIRIUS 3RW4027-1BB15 is a compact S00 size soft starter from the 3RW40 series, rated for heavy-duty applications. It delivers an operational current of 25 A at 40°C (heavy-duty AC-53a) and 32 A for standard duty (AC-53b), supporting motor power up to 11 kW (heavy duty) or 15 kW (standard duty) at 400 V. The main circuit operates across a wide 200–600 V AC range, while the control supply accepts 110–230 V AC/DC. An integrated bypass contactor bridges the thyristors once the motor reaches full speed, eliminating heat generation and enabling side-by-side mounting without spacing gaps. Three front-panel potentiometers allow adjustment of starting time (0–20 s), end-of-starting voltage (30%–70%), and stopping time (0–20 s) for soft stop functionality. 2-phase control with voltage ramp profile. Screw terminals (BB variant) and IP20 protection. Typical applications include pumps, fans, compressors, conveyors, crushers, and any application requiring reduced mechanical stress during motor starting, reduced inrush current, and smooth acceleration/deceleration control. Weight approximately 0.41 kg, compact 45 mm width.

7. Specifications Table

Feature	Specification
Product Series	SIRIUS 3RW40
Size	S00
Operational Current (Heavy Duty, 40°C)	25 A
Operational Current (Heavy Duty, 50°C)	20 A
Operational Current (Standard Duty, 40°C)	32 A
Operational Current (Standard Duty, 50°C)	25 A
Motor Power, Heavy Duty (400 V)	11 kW (15 HP)
Motor Power, Standard Duty (400 V)	15 kW (20 HP)
Motor Power, Heavy Duty (500–600 V)	15 kW (20 HP)
Motor Power, Standard Duty (500–600 V)	18.5 kW (25 HP)
Main Circuit Voltage	200–600 V AC
Control Supply Voltage	110–230 V AC/DC (wide range)
Control Type	2-phase control
Starting Profile	Voltage ramp
Starting Time (adjustable)	0–20 s
End of Starting Voltage (adjustable)	30%–70% of line voltage
Stopping Time / Soft Stop (adjustable)	0–20 s
Internal Bypass Contactor	Yes (integrated)
Connection Type	Screw terminals (BB variant)
Degree of Protection	IP20 (finger-safe)
Ambient Temperature (Heavy Duty)	Up to 50°C
Width	45 mm
Weight	~0.41 kg
Mounting	DIN Rail or screw mounting
Standards	IEC 60947-4-2
Utilization Category	AC-53a (heavy duty) / AC-53b (standard duty)

8. FAQ

Q: What is the difference between -1BB14 and -1BB15 versions of the 3RW4027?
A: The -1BB14 is the standard duty version, while the -1BB15 is the heavy-duty rated variant with an integrated bypass contactor for higher operational demands and reduced heat dissipation.

Q: What control voltage does the 3RW4027-1BB15 accept?
A: It has a wide-range control supply input accepting 110–230 V AC/DC, 50/60 Hz — no separate control transformer is needed for most applications.

Q: What motor sizes can this soft starter handle?
A: Up to 11 kW (15 HP) for heavy-duty starts and 15 kW (20 HP) for standard-duty applications at 400 V. At 500–600 V, it handles up to 15 kW heavy duty and 18.5 kW standard duty.

Q: Does the 3RW4027-1BB15 need spacing between units for cooling?
A: No, thanks to the integrated bypass contactor, the thyristors are bypassed after starting, eliminating heat generation and allowing side-by-side mounting without clearance gaps.

Q: What adjustments are available on the front panel?
A: Three rotary potentiometers: starting time (0–20 s), end-of-starting voltage (30%–70%), and soft stop time (0–20 s).

Q: Can this soft starter be used with single-phase motors?
A: No, the 3RW4027 uses 2-phase control (L1 and L3) and is designed for 3-phase asynchronous induction motors only.

Q: What is the utilization category of this device?
A: AC-53a for heavy-duty starts (conveyors, compressors) and AC-53b for standard-duty starts (pumps, fans).

Q: Does this soft starter support communication protocols?
A: The base 3RW4027 does not include communication interfaces. For networked applications, consider the 3RW5 series or external communication modules.