

Run Industrial 3-Phase Equipment From Single-Phase Power

SB-20

Smart-Boost™ Rotary Phase Converter

20 HP phase converter built for air compressors, pumps, dust collectors, fans, blowers, flywheels, and any hard-starting load.

Single-Phase
Voltage Input

208-250 V

3-Phase
Voltage Output

208-250 V

Min. Single-
Phase Circuit

50 Amps

Recommended
Motor Size

10 HP

Recommended
3-Phase Amps

24 Amps

Voltage Balance

± 5-10%

Phase Converter Features

Boosted Power for Hard Starts

- Provides the inrush current that hard-starting motors need to reach full speed
- Digital controller delivers up to **300%** more starting current than a standard rotary phase converter

Industrial-Grade Idler Motor

- ABB/Baldor Electric motor with soft start reduces startup stress and extends motor life

Protects Your Equipment

- Shuts down all three power legs during power loss to prevent single-phasing damage

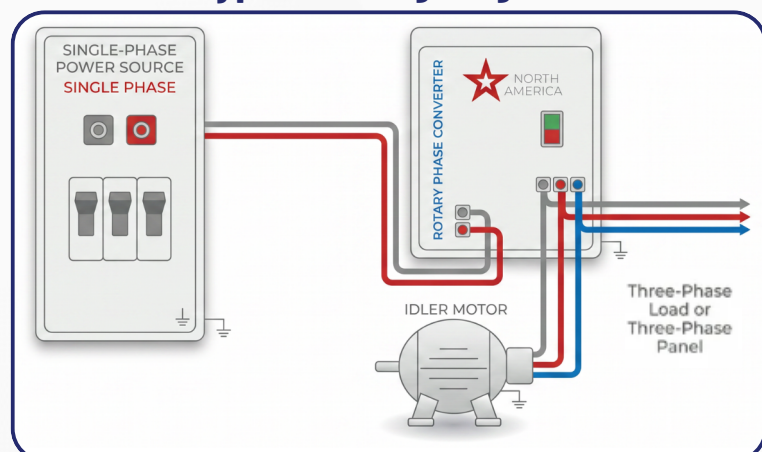
User-Friendly Operation

- Built-in motor starter with On/Off switch
- Power "ON" indicator light shows when the phase converter is running

Easy to Install

- Large power distribution blocks simplify installation
- Pre-wired, factory-tested, and ready to install right out of the box

Typical Wiring Diagram



SB-20 Control Panel and Idler Motor



 **10-Year Parts / Lifetime Labor Warranty***

Why Choose a NAPCco Phase Converter



Made in the USA

Manufactured right in Wisconsin



UL 508A Panel Builder

UL-Listing add-on available



Lifetime Technical Support

Speak with an engineer for the life of the phase converter



Usually Ships Within 1 Business Day

Get three-phase power right when you need it, with no service upgrades required

Not Sure What You Need?

Call our experts for a custom recommendation

 **877-545-2926**

*Idler motor warranty covered by ABB/Baldor



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Model

Brand	NAPCco
Line	Smart-Boost™
SKU	SB-20-1-D3

General

Horsepower / kVA	20 HP (20 kVA)
Kilowatt	14.9 kW
Frequency	60 Hz
Idler Motor Type	ODP
Idler Motor Frame	256TZ
Enclosure Type	NEMA 1 (indoor)

*NEMA 3R and TEFC options available

Single-Phase Electrical Specs

Voltage Input	208-250 V
Min. Fuse Size	50 A
Min. Circuit Breaker Size	50 A
Max. Fuse Size	100 A
Max. Circuit Breaker Size	100 A
Min. Wire Input	2 AWG or 125% of circuit size
Idle Amperage	5.94 A

Three-Phase Electrical Specs

Voltage Output	208-250 V*
Output Amps	54 A
Voltage Balance	± 5-10%*
Min. Wire to Idler Motor	6 AWG
Min. Wire to Load	6 AWG or based on load

*Based on input voltage

Dimensions & Weight

Panel (H x W x D)	18" x 18" x 8"
Idler (Length x Diameter)	18" x 10"
Approx. Idler Weight	234 lbs
Approx. Panel Weight	35 lbs

What Can the SB-20 Power?

Easy / Light Motor Loads Up to 15 HP

Examples: table saw, milling machine, drill press

Medium Motor Loads Up to 12.5 HP

Examples: belt sander, grinder, mixer

Hard Motor Loads Up to 10 HP

Examples: gearhead lathe, dust collector, fan

Very Hard Motor Loads Up to 10 HP

Examples: air compressor, submersible pump

CNC, Resistive & Inductive Loads Up to 24 A

Sizing Guide

Easy/Light Loads:	1 size up
Medium Loads:	1.5x motor HP
Hard Loads:	2x motor HP
Very Hard Loads:	2x motor HP
CNC/Resistive/Inductive	Consider Pro-Line or TritonPro Maxx



Pro Tip: When in doubt, size up. Oversizing improves performance, reduces heat, and extends equipment life.

POPULAR ADD-ONS



Wired and Wireless Remote Switches



Rubber Mounting Feet



Twist-Lock Outlets and Plugs