

Phase Converters



Series 1B Phase Converter

Permits Operation Of 220 Volt 3 Phase Motors On Single Phase Current



CAT. NO.	MODEL NO.	HP RANGE	CODE
8000-100	Model 11000	1/4-1/2 HP	UE
8000-101	Model 1200B	1/2-1 HP	UE
8000-102	Model 1300B	1-3 HP	UE
8000-103	Model 1400B	3-5 HP	UE
8000-104	Model 1500B	5-7 1/2 HP	UE
8000-105	Model 1600B	7 1/2-10 HP	UE

Your selection must be based on the horsepower of the largest motor to be started. Once running, smaller motors can be started one at a time.

Series 3 Phase Converter

Provides Continuous 3 Phase Power to 220 Volt 3 Phase Motors From 220 Volt Single Phase Current

CAT. NO.	MODEL NO.	HP RANGE	CODE
8000-012	Model 3100	1/4-1/2 HP	UD
8000-013	Model 3200	3/4-1 1/2 HP	UD
8000-014	Model 3300	2-3 HP	UD
8000-015	Model 3400	4-6 HP	UD
8000-016	Model 3500	7 1/2-10 HP	UD

Your selection must be based on the horsepower of the largest motor to be operated. Smaller motors may be started while the motor within the converter's range remains running.



Application:

Cedarberg Static Phase Converters are designed to start motors within a specific horsepower range. Smaller motors may be started one at a time, once a motor within the converter's horsepower range is running, provided that the smaller motors are wired into the same circuit.

Cedarberg Rotary Phase Converters are designed to start any motor from fractional horsepower up to the nameplate rating. If the motor on the equipment is larger than the phase converter's nameplate rating, a phase converter of the correct size will need to be purchased. Do not attempt to start a motor that is too large for the converter or damage could occur.

Features:

Instant reversal motors present no problems to these converters. For Series 1B and Series 3 converter installations, we recommend that frequent reversing not be done for extended periods of time. Our Series 1B and Series 3 units will start more than one machine, as long as each motor is within the horsepower range of the converter. When multiple three phase motors are on the same circuit and not within the range of the converter, the following steps must be taken:

- A) Start the largest motor first. (This motor must be within the converter's range.)
- B) While allowing this motor to idle, additional, smaller motors may be started one at a time.
- C) The motor that is within the range of the Series 3 converter must remain running throughout the duty cycle of the smaller motors. With the Series 1B converter, the motor that is within the range of the converter may be turned off once the smaller motor is running and up to speed.
- D) Rotary Phase Converters are capable of starting any motor from fractional horsepower up to their nameplate rating. They are designed to run total horsepower loads up to three times the nameplate rating on Heavy Duty models and up to two times the nameplate rating on Standard Duty models.

Two-speed electric motors can be operated without difficulty, provided both speed ranges lie within the converter's horsepower range. Some foreign and special motors require less starting current and therefore may require a static converter one size smaller than normal.

Standard Duty Rotary Type Phase Converters

Rotary Phase Converter at an Economical Price
 Produces Continuous 3 Phase Power to 220 Volt 3 Phase Motors
 from 220 Volt Single Phase Current



CAT. NO.	MODEL NO.	NAMEPLATE RATING	CODE
8100-051	Model 10A	1 HP	UA
8100-052	Model 30A	3 HP	UA
8100-053	Model 50A	5 HP	UA
8100-054	Model 75A	7 1/2 HP	UA
8100-055	Model 100A	10 HP	UA

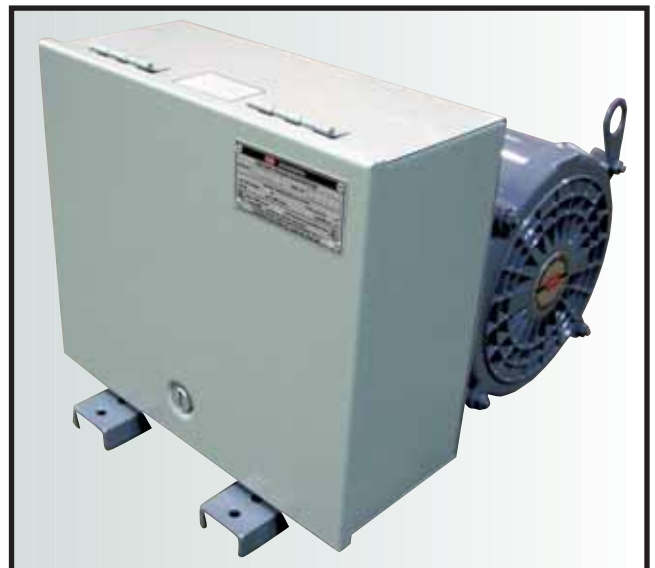
Your selection must be based on the largest horsepower motor to be operated. This converter is designed to operate total horsepower loads up to 2 times the nameplate rating.

- Designed for light starting & running loads (such as drill presses, mills, grinders, etc...) where generated 3 phase power is preferred.

Heavy Duty Rotary Type Phase Converters

Produces Balanced 3 Phase Power for Maximum Motor Efficiency From Single Phase Current

CAT. NO.	MODEL NO.	MFG'S NAMEPLATE RATING*	UL LISTED AMPERAGE OUTPUT OF MFG. LEG (M3)	CODE
8100-001	Model 10	1 HP	1.44	UB
8100-002	Model 30	3 HP	3.80	UB
8100-003	Model 50	5 HP	6.00	UB
8100-004	Model 75	7 1/2	8.80	UB
8100-005	Model 100	10 HP	11.20	UB
8100-006	Model 150	15 HP	6.80	UB



The largest horsepower motor you intend to start should not exceed our converter's nameplate rating. Our converters are designed to run horsepower loads up to 3 times the nameplate rating.

- Designed for medium to heavy starting & running loads (such as gear head lathes, flywheel & hydraulic applications, CNC machinery, etc...) when maximum motor efficiency is required.

Consult factory with application questions & for quotation on larger units.

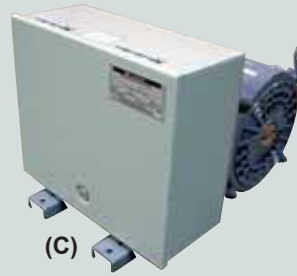
Reference Chart & Sizes and Weights



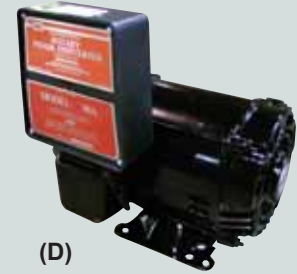
(A)
Series IB
Permits starting of 220V 3Ø motors on 220V 1Ø current



(B)
Series 3
Provides continuous 3Ø power to 220V 3Ø motors from 220V 1Ø current



(C)
Heavy Duty Rotary
Produces balanced 3Ø power for maximum motor efficiency from 1Ø current



(D)
Standard Duty Rotary
Produces continuous 3Ø power to 220 3Ø motors from 220V 1Ø current

Features Common To All Models:

- Easy Installation
- Instant Reversing
- Operates On 50/60 Hz
- Run More Than One Machine

Simplified Selection Guide

Figure	(A)	(B)	(C)	(D)
Model Ranges	Fractional to 10 HP	Fractional to 10 HP	1-25 HP*	1-10 HP
Type of 3Ø conversion	3Ø Starting Current	3Ø Starting & Running Current	Maximum Balanced 3Ø Starting & Running Current	3Ø Starting & Running Current
Motor Efficiency and Performance	Up to 70%	Up to 85%	Up to 100%	Up to 100%
Specification Weights & Measures (See Below)	Maximum size 6"x7"x10" weight 3 lbs.	Maximum size 8"x9"x11" weight 4-8 lbs.	Consult factory for sizes & weights	Consult factory for sizes & weights
Model Selection	Based on HP of largest motor. Once running, additional smaller motors can be started one at a time. Do not size converter to total HP of machines needing conversion.		The largest motor you intend to start should not exceed the nameplate rating. These models are designed to run up to 3 times the nameplate rating. Extremely high starting loads may require an oversized converter. Consult factory.	The largest motor you intend to start should not exceed the nameplate rating. These models are designed to run up to 2 times the nameplate rating. Extremely high starting loads may require an over sized converter. Consult factory.
Multiple Speed Motors	All HP ranges must be within the range of the converter used		Produces maximum efficiency of multi-speed motors	Motors may be operated from 0 HP to nameplate HP of the converter used
Using Transformers & Rectifiers	Power source side of the converter		Power source or load side of the converter	Power source or load side of the converter

Sizes and Weights

* Consult Factory for larger horsepower Heavy Duty Phase Converters

Model	Size (LxWxH)	Weight (Lbs.)
Series IB		
Model 1100-1600B	6 x 7 x 10	3
Series 3		
Model 3100-3200	6 x 7 x 10	4
Model 3300	6 x 7 x 10	5
Model 3400	8 x 9 x 11	7
Model 3500	8 x 9 x 11	8
Standard Duty Rotary		
Model 10A	19 x 15 x 13	36
Model 30A	19 x 14 x 14	64
Model 50A	19 x 14 x 14	80
Model 75A	23 x 19 x 17	116
Model 100A	23 x 19 x 17	145
Heavy Duty Rotary		
Model 10	19 x 14 x 14	78
Model 30	19 x 14 x 14	95
Model 50	21-1/4 x 19 x 14	136
Model 75	21-1/4 x 19 x 14	166
Model 100	21-1/4 x 21-1/4x16	212
Model 150	28 x 20 x 22	300
Model 200	30 x 26 x 24	325
Model 250	30 x 26 x 24	325



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