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*American Rotary Advantage*

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**American Rotary** has been making premium rotary phase converters for more than a decade. For more than 10 years, American Rotary has led the industry in innovation and design. We have introduced, field-tested, and proven several technologically advanced features which have driven increases in the reliability and precision voltage balancing capabilities of phase conversion unmatched in the industry.

We provide the industry leading telephone support for technical, application and sizing issues. We stand behind our products with the best warranty in the industry. We use premium components to ensure that our products perform for you. American Rotary is a UL Certified Control Panel Builder, and our rotary phase converters are available UL Listed to US and Canadian Safety Standards. We have partnered with Baldor Electric one of the world's largest and most respected manufacturers to supply our custom-engineered idler/generators. The engineers at American Rotary worked with the engineers at Baldor for over a year designing a custom induction generator for phase conversion, which reduced the inrush current on start-up so drastically (83% reduction...a stock motor requires 600% more inrush) that American Rotary's induction generator was granted a Soft Start rating, and a resulting reduction in operating cost!

American Rotary is listed with D&B as well as the Better Business Bureau, and we are committed to high ethical and privacy standards.

***American Rotary offers 3 different types of Rotary Phase Converters***

**AR Series**

perfect for light to medium duty, general purpose loads

**AD Series**

if the AR series is like a carbureted engine, the AD series is fuel injected...more powerful, reliable, and precise. Runs w/fully programmable MicroSmart controller

**ADX Series**

in addition to the AD, the ADX series adds nitrous... 250% more starting power, for compressors, pumps, flywheel loads, etc. w/fully programmable MicroSmart controller

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*Standard Features*

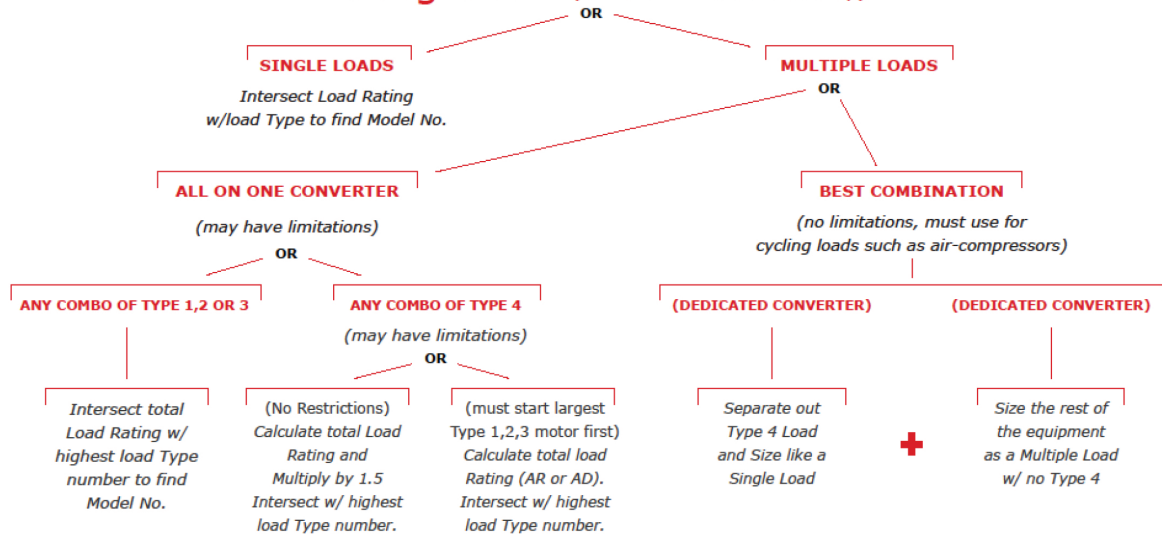
American Rotary engineers the entire phase converter system to provide optimum performance. We are the only manufacturer that has developed a read induction Generator, along with two separate optimized start and run circuits. For ease of installation, we build the starter into the converter.

	AR	AD	ADX
Made in the USA	✓	✓	✓
Modular & Expandable	✓	✓	✓
VIT Generator	✓	✓	✓
Full Current Latching Starter	✓	✓	✓
3 Phase Breaker and Receptacle Slots	✓	✓	✓
MicroSmart Digital Industrial Programmable Controller		✓	✓
CTR Transient Reactor			✓

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Sizing

Sizing Guide (use table below and round up)



FIND LOAD TYPE

A			B			C			Type 1 Load	Type 2 Load	Type 3 Load	Type 4 Load					
Single or Group Load Rating Total			@240V			Model No.			Model No.			Model No.			Model No.		
HP	kW	amps	Type 1 Load			Type 2 Load			Type 3 Load			Type 4 Load					
			General Purpose, moderate load, non-computer <i>Milling Machine, Drill Press, Table Saw, Clutched Lathe, etc.</i>			Hard Loads that develop Full HP during use. <i>Gearhead Lathe, Ironworker, Hydraulic Pump, Pizza Mixer, etc.</i>			High Inertia, Start under load. <i>Flywheel, Hoists, U-frame, Air-compressors, Elevators, Foreign Motors, 2-speed, etc.</i>			CNC, VFD, current protected, precision voltage balanced, computer, rectified, resistive. <i>HVAC, Machining Center, Welder, Battery Charger, EDM, motor run w/VFD, motor w/overloads, Bread Mixer, Bandsaw, Widebelt Sander</i>					
2	1.49	5.6	AR, AD, ADX			AD, ADX			ADX			rec AD, (AR, ADX)					
3	2.24	9.6	5			5			ADX-5			5					
5	3.37	15	7.5			7.5			ADX-7.5			7.5					
7.5	5.59	22	10			10			ADX-10			10					
10	7.46	28	12.5			15			ADX-15			15					
12.5	9.32	35	15			20			ADX-20			20					
15	11.2	42	20			25			ADX-25			25					
20	14.9	54				30			ADX-30			30					
25	18.6	68				40			ADX-40			40					
30	22.4	80				50			ADX-50			50					
40	29.8	104				60			ADX-60			60					
50	37.3	130				75			ADX-75			75					
60	44.7	150				Dual - 50			Dual ADX-50			Dual - 50					
						Dual - 60			Dual ADX-60			Dual - 60					

note: Group loads according to machines that will be run at the same time.  
American Rotary recommends that all Type 4 loads be run on dedicated phase converters.

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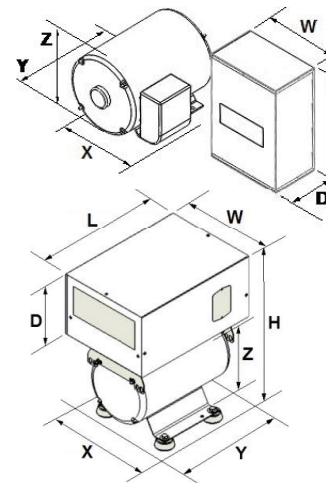
*Specifications*

Converter Selection & Load Chart (208-240V)					
Model Rating	Largest Motor Start	Max Total HP(Amps) For Optimal Performance	Min. Recommended Wire Gauge		
			1-Phase Input	3-Phase Output	Panel to Idler Wiring
5	2.5	5 (14)	8	12	12
7	3.5	7 (19.6)	8	10	12
10	5	10 (28)	8	10	12
15	7.5	15 (42)	6	8	10
20	10	20 (56)	4	6	10
25	12.5	25 (70)	2	6	8
30	15	30 (84)	1	4	8
40	20	40 (112)	1/0	3	6
50	25	50 (140)	3/0	2	4
60	30	60 (168)	4/0	1/0	3
75	37.5	75 (210)	250 MCM	2/0	2

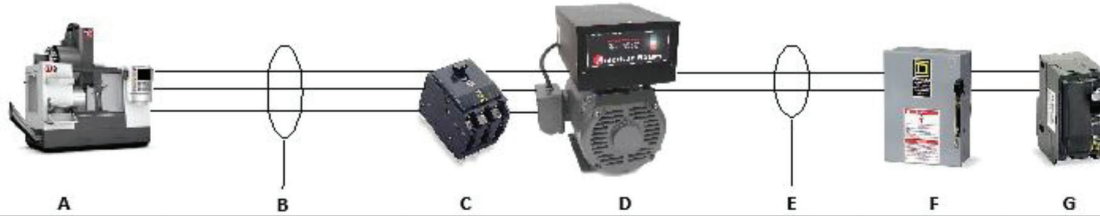
Converter Selection & Load Chart (480V)					
Model Rating	Largest Motor Start	Max Total HP(Amps) For Optimal Performance	Min. Recommended Wire Gauge		
			1-Phase Input	3-Phase Output	Panel to Idler Wiring
5	2.5	5 (6)	12	14	12
7	3.5	7 (9)	12	14	12
10	5	10 (13)	10	12	12
15	7.5	15 (19)	10	12	10
20	10	20 (25)	8	10	10
25	12.5	25 (31)	8	10	10
30	15	30 (38)	6	8	10
40	20	40 (50)	4	6	8
50	25	50 (63)	2	4	6
60	30	60 (75)	1	3	4
75	37.5	75 (94)	2/0	2	3

**Dimensions & Weights**

Part Number	5	7.5	10	15	20	25	30	40	50	60	75
<b>AR AD ADX</b>											
<b>L (in.)</b>	15.8	15.8	15.8	15.8	15.8	19.3	19.3	23	23	23	23
<b>W (in.)</b>	11.3	11.3	11.3	11.3	11.3	13.5	13.5	19	19	19	19
<b>D (in.)</b>	7.75	7.75	7.75	7.75	7.75	8.25	8.25	8.3	8.3	8.3	8.3
<b>X (in.)</b>	11.5	13	12.5	14.5	17.5	17.5	20.5	23	23	22	22
<b>Y (in.)</b>	12	12.5	12	15.5	14	17	18.5	21	21	21	22
<b>Z (in.)</b>	8.5	9.5	10	11	12	13	14	16	16	17	17
<b>H (in.)</b>	17.4	18.4	18.9	19.9	20.9	22.5	23.5	26	26	27	27
<b>Weight (lbs.)</b>	123	142	168	249	296	320	382	398	506	568	617



*Installation*



Load FLA (full load amps)	3 ph. Wire gauge	3 ph. Breaker or Fuse	Panel to Generator wire gauge	1 ph. Wire gauge	1 ph. Safety Disconnect	1 ph. Breaker or Fuse																	
Amps @ operating voltage	Load FLA x 1.2 (round up)	3 ph. Wire amp rating x 1.25 (round up)	3 ph. Wire from Phase converter panel to idler/generator	3 ph. Load amps x	1 ph. Amps (round up)	1 ph. Wire amp rating x 1.25 (round up)																	
<b>240V</b> = HP X 2.8 = (Kw X 2.8)/PF = Kva / 2.75	increase wire size for every 50 feet wire size   amps		<b>Caution:</b> This is a minimum rating for a breaker or Fuse for proper performance and operation of the phase converter and may not meet applicable local, state or national electric codes.	Converter HP   wire size 5   12 7.5   12 10   12 15   12 20   10 25   8 30   8 40   6 50   4 60   3 75   2	1.5 for AR, AD, ADX voltage balanced phase converters or 1.9 for other rotary type phase converters by other manufacturers	available in these common sizes 30 A 60A 100A 200A 400A 600A	<b>Caution:</b> This is a minimum rating for breaker or Fuse for proper performance and operation of the phase converter and may not meet applicable local, state or national electric codes.																
	<b>480V</b> = HP x 1.4 = (kW x 1.4)/PF = kVA / 1.4	12						25	increase wire size for every 50 feet.	Use table in column B to find wire size.	also commonly available in fused or non-fused												
10		35																					
8		50																					
<b>208V</b> = HP X 3.2 = (Kw X 3.2)/PF = Kva / 3.15	6	65																					
	4	85																					
	3	100																					
<b>PF (power factor)</b> typical motor = .8 resistive heater = 1 welder = .85	2	115																					
	1	130																					
	1/0	150																					
3/0	200																						
4/0	230																						
250	255																						
300	285																						
350	310																						

NOTE: Ground all equipment. This table is not intended to replace or supersede Local, State or National Electric codes.