AI Industrial

Rotary Phase Converter Data Sheet

American Rotary Advantage

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 24/7 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.

Features	
● 480V and 240V	● 3R Rain Proof
● Super Quiet, Perfect for Indoor & Outdoor Installation	● -29°C to +50°C
● 3-300HP	● Sun Shield
● Harmonic Free, Utility Friendly	● Rodent Screens
● Automation & Wireless Control Options	● Pure Sinewave Analog Output ad Digital Precision
Additional Options Available	
● Wireless & Wired Remote	● Automated Controls
● Dust Filters	● Safety Shut Off
● 3-Phase Output Breakers	

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American Rotary PHASE CONVERTER

AI Industrial Phase Converter Specifications

General Specification										
Part Number AI	10	20	30	40	50	60	75	100	120	150
kW of Generator (based on FLA)	7.5	14.9	22.4	29.8	37.3	29.8	37.3	29.8	37.3	37.3
Idler/Generator FLA	28	50	76	100	130	100	130	100	130	130
Frequency (Hz)	60									
Generator Type	GENTEC/Variable Impendence									
Magnetic Starter	Included (remote start ready)									
Panel Enclosure	NEMA 1									
Temperature rating	40 C Ambient									
Wave Form	Pure Sinusoidal Analog									
Phase Angle	120 degrees									
Efficency	97%									
Three Phase Output Specifications *(continuous)*										
Output voltage	equals input voltage									
Voltage tolerance	meets IEEE Std. 241-1990 utility									
3-phase output configuration	3-wire delta									
Service factor	1.15									
Output Frequency (Hz)	Input Frequency									
-Output Current-										
(use for resistive & rectified loads, i.e. Welder, CNC, VFD, Power-supply)-amps @ 240V										
3-phase output current recommended for CNC, welder, VFD, voltage sensitive	14	27	40	52	65	75	98	130	150	196
Max. current for IEEE Std. utility line	17	30	46	60	80	90	120	160	180	240
-Starting Motor Loads- (HP/kW)										
Maximum HP start (Moderate Load) Type 1	7.5/5.6	15/11.2	25/18.7	30/22.4	40/30	50/37.3	60/45	80/60	100/74.6	120/90
Maximum HP start (Hard Load) Type 2	5/3.7	10/7.5	15/11.2	20/14.9	25/18.7	30/22.4	37.5/33.6	50/37.4	60/44.8	75/67.2
Maximum HP start (High Inertia) Type 3	3/2.2	7.5/5.6	12.5/9.3	15/11.2	20/14.9	25/18.7	37.5/28.05	40/29.8	50/37.4	75/56.10
Maximum HP start (High Inertia)Type 3 w/ADX	5/3.7	10/7.5	15/11.2	20/14.9	25/18.7	30/22.4	45/33.6	50/37.4	60/44.8	90/67.2
Maximum HP Total Motor Group Load	15/11.2	30/22.4	45/34	60/45	75/56	90/67	135/100.5	150/112	180/134	270/201
Maximum (CNC or VFD) Type 4	5/3.7	10/7.5	15/11.2	20/14.9	25/18.7	30/22.4	45/33.6	50/37.4	60/44.8	90/67.2
Single Phase Input Specifications *(continuous)*										
Voltage Input	208-250									
Input Frequency (Hz)	60									
(HP load / 1-ph amps)	1-ph amps @240V=Approx Load HP x 4.2									
Power Consumption (kW)	0.15	0.30	0.45	0.60	0.75	0.90	1.13	1.50	1.80	2.25
Cost to Run (@.10/kW/HP)	$0.15/hr	$0.15/hr	$0.45/hr	$0.60/hr	$0.75/hr	$0.90/hr	$1.13/hr	$1.50/hr	$1.80/hr	$2.25/hr
Minimum Breaker Size	1.25 x 1ph current									
**Conductors should be sized according to Minimum Breaker Size and NEC requirements*										

Dimensions

Part Number AI	10	20	30	40	50	60	75
X (in.)	20"	20"	20"	20"	20"	20"	20"
Y (in.)	33"	33"	33"	33"	33"	33"	33"
Z (in.)	28.5"	28.5"	28.5"	28.5"	28.5"	28.5"	28.5"