

# PA57-1000

## AC Permanent Magnet Motor



### EXTREME POWER-DENSITY AND EFFICIENT PERFORMANCE

#### LEVERAGE THE BENEFITS OF PM TECHNOLOGY.

The Leonardo DRS PA series Permanent Magnet (PM) motors are designed to maximize the benefits of PM technology with direct water cooling. Inherently more efficient, this PM motor is one of the most power dense motors available in industry today. **At 750 lbs (340 kg) the PA57-1000 motor produces 1.3 HP per lb. (2.2kW per kg) at 4,000 rpm.**

The completely enclosed water cooled is CE ATEX certified to operate in moist and dusty environments and in extreme temperatures (-40 to +60°C ). This motor has also been in service in applications including transit propulsion and marine power and propulsion applications.

Leonardo DRS is a leader in the design and manufacture of advanced electrical machinery, focusing on machines for demanding jobs where efficient performance and precise control are required.



# PA57-1000 AC PERMANENT MAGNET (PM) MOTOR

## MOTOR SPECIFICATIONS

PERFORMANCE	STANDARD	HIGH-POWER
Rated power	675 HP (500 kW)	1000 HP (750 kW)
Rated speed	2,100 rpm	3,600 rpm
Maximum operating speed	2,500 rpm	4,000 rpm
Rated voltage	330 Vrms L-N	570 Vrms L-N
Rated phase current	270 Arms	230 Arms
Rated frequency	630 Hz	1080 Hz
Efficiency at rated speed	96%	
Stall torque	2,000 ft-lb (2712 Nm)	
Motor frequency constant	0.3 Hz/RPM	

## PHYSICAL CHARACTERISTICS

Weight	750 lbs. (340 kg)
Cooling (water/glycol)	120° F (50° C) max
Coolant flow rate	10 gpm (5 gpm per stator)

## BENEFITS

- Extremely power-dense
- Energy efficient
- Generator applications
- Low rotor inertia

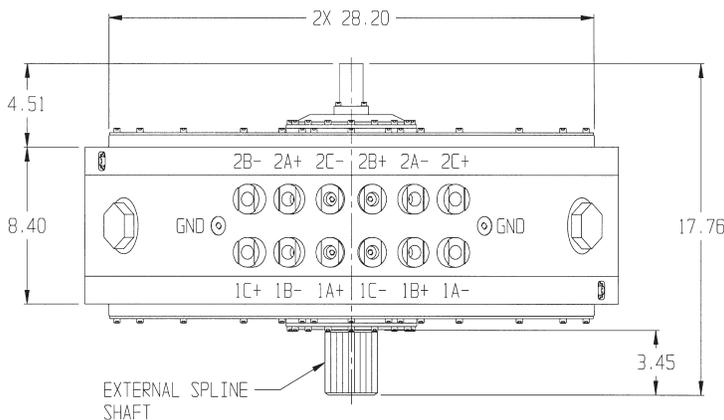
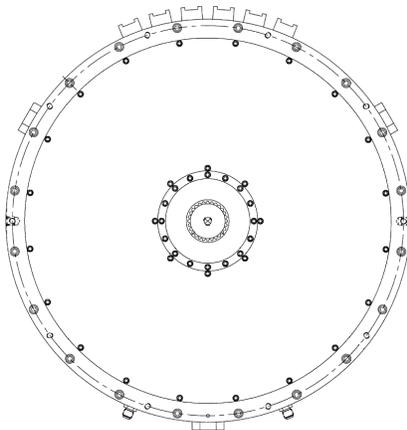
## FEATURES

- Liquid cooling
- Dual stator
- Certified IP Class I Div. II: Explosive Environments
- Choice of internal or external splined shaft

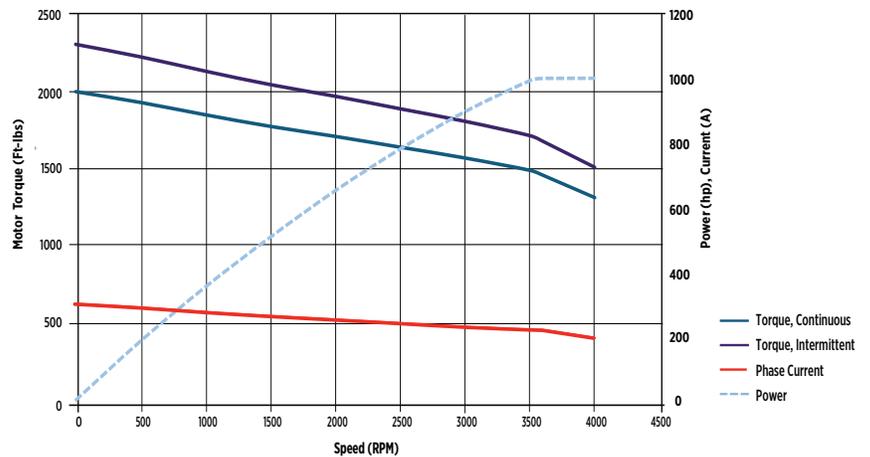
## OPTIONAL FEATURES

- ABS Certification
- Special Shaft Extensions
- Rotor Temperature Sensor

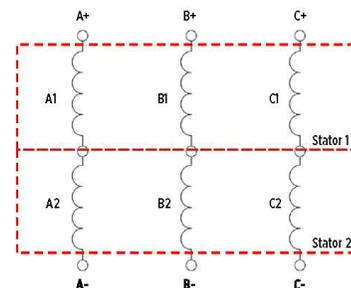
## MOTOR DIMENSIONS



## MOTOR CHARACTERISTICS



## CONNECTION DIAGRAM



## Naval Power Systems

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