

DATA CENTER

APPLICATIONS



The first industrial motor with embedded variable speed intelligence that delivers ultra low harmonic performance.

- One motor instead of separate motor and VFD
- Compact, high power density design
- Current Harmonic Distortion (THDi) < 5%
- Power levels available up to 75HP
- Designed for harsh indoor and outdoor environments

01 High Power Density



AC-Link Power Converter

VIDAR's patented AC-Link power converter removes the DC stage, reducing size by 30-60%^[1] compared to a typical variable frequency drive.

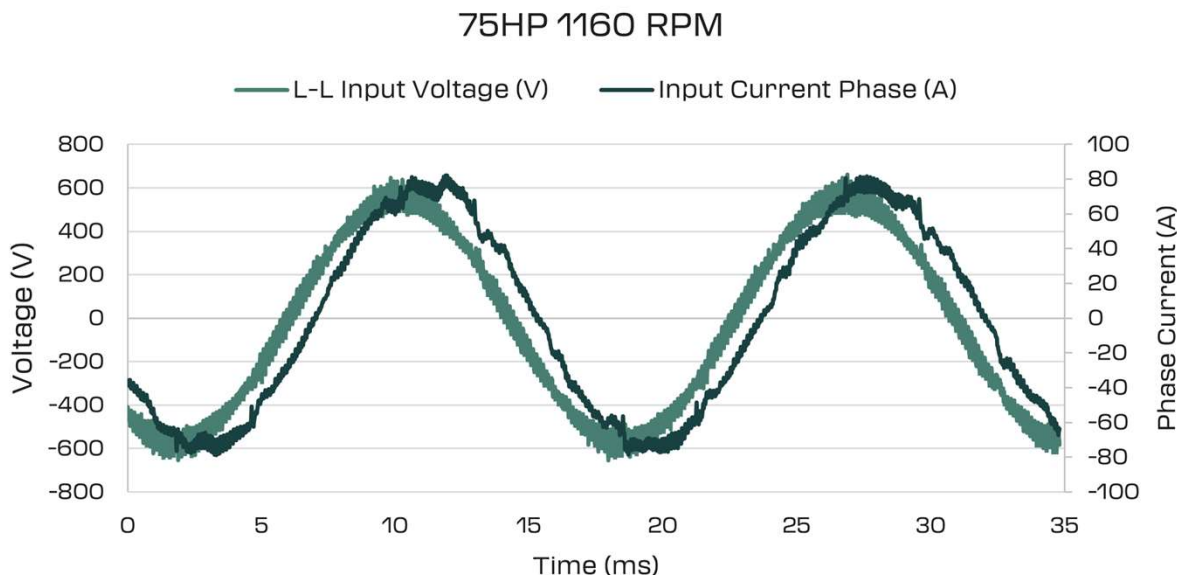
Other embedded motor drive solutions are limited in shaft power. VIDAR extends beyond that range with ratings up to 75 HP and is the only embedded motor drive solution that delivers ultra low harmonic performance.

1. Based on equivalent VFD that provides ultra-low harmonic or regenerative capabilities.

02 Power Quality

VIDAR boasts a near unity power factor and ultra-low current harmonics (<5%, meets IEEE-519)^[2]. No need for further accessories like harmonic filters, sine wave filters, dV/dt filters, or shielded VFD cable.

Eliminate components, reduce complexity, and scale with velocity.



MEETS IEEE-519

2. Based on operation at full or rated load.

03 Industrial Grade Reliability

VIDAR is purpose-built for harsh industrial environments, designed for reliable operation both indoors and outdoors.

Proven in the extreme cold of Canada and the heat and humidity of Louisiana, VIDAR delivers consistent performance across the toughest conditions.

Ideal for cooling towers, chiller loops, and CDU systems, VIDAR delivers reliability wherever your cooling system operates.

High Efficiency

SRMA Motor Design

VIDAR uses a synchronous reluctance motor with permanent ferrite magnet assistance, eliminating rotor induced currents to improve efficiency and power density.



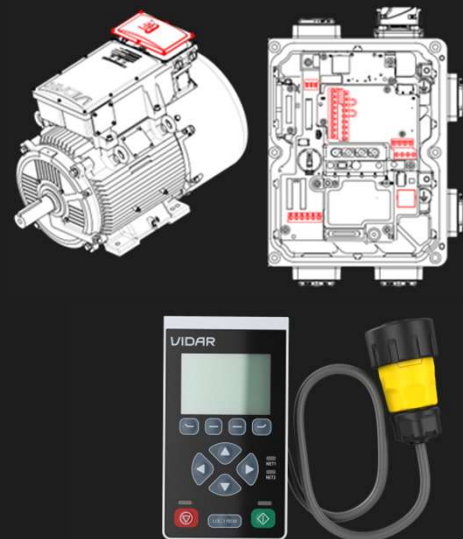
Lower Operating Temperature and Higher Efficiency

Operating 10 to 25 percent cooler than induction motors, VIDAR reduces energy losses, extends component life, and improves reliability.

Certifications & More

Area Classification	Class I Div II Groups A,B,C,D T4
Designed with intent to meet	IEEE-841
IP Rating - Motor	IP55
IP Rating - Electronics	IP66
Corrosion Testing	ASTM B-117 Salt Spray B-845 Method K
Vibration	IEC 60721-3-3 (2019) 3M11
Operating Temperature	-25 to 40°C
Insulation Class	Class H
Winding Temp. Measurement	KTY84 (QTY 2)
Anti-Condensation Protection	Integral
Overload/Overheat Protection	Integral

Control & Communication



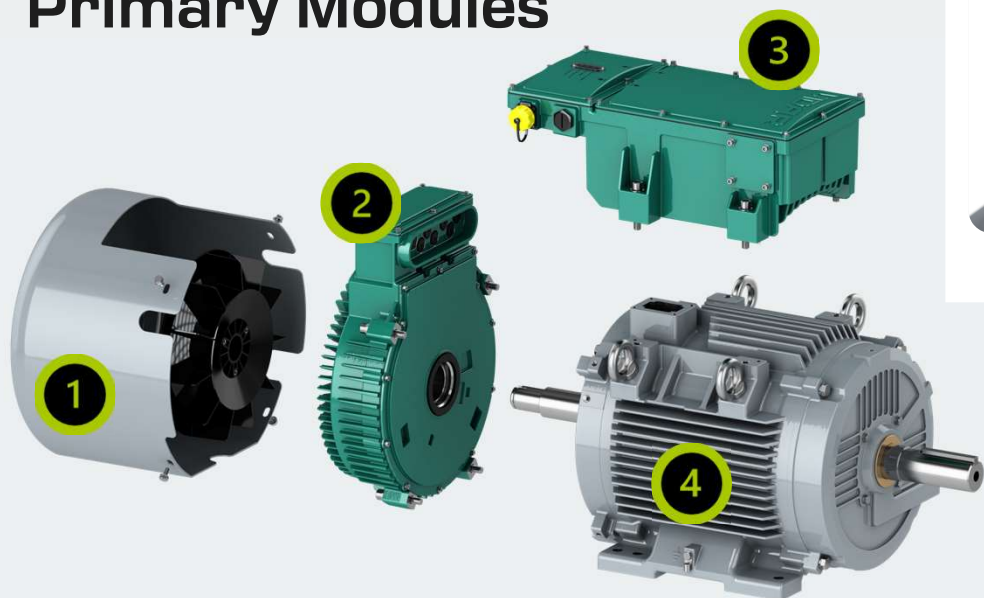
- Built in PID Controller
- Ethernet IP & Modbus TCP Communication
- Built in 24VDC power supply
- Standard IOs

04 Serviceability

A modular construction means less downtime and quicker maintenance activities. For example, swapping the AC-Link power converter takes under 30 minutes.

VIDAR protects itself from catastrophic damage and points you to what needs replacement.

Primary Modules



LED Fault Indicators

1. Bi-directional Cooling Fan
2. AC-Link Converter
3. Terminal Box
4. SRMA Motor

Ratings

C-Face Available

NEMA Frame	HP	Voltage	PDS Eff.*%	Min RPM	Max RPM
254/6	15, 20	480V, 3 ϕ	90.6 - 90.8	180	4500
284/6	25, 30	480V, 3 ϕ	91.1 - 92.0	180	4500
324/6	40, 50	480V, 3 ϕ	92.2 - 92.8	180	4500
364/5	60, 75	480V, 3 ϕ	92.6 - 93.4	180	4500

*PDS Eff. = Power Drive System Efficiency, combined motor and converter efficiency as defined by IEC 61800-9

**GET IN
TOUCH**



VIDAR, LLC
114 Palmetter Ave.
Syracuse, NY 13206
United States

E: vidar@itt.com
P: +1 (315) 234-1973
W: www.vidarmotors.com
All Rights Reserved