TTN-MAN-015 V1.0 – 23/04/2024

DATASHEET

Turntide Axial Flux Motor 440 (AF440)

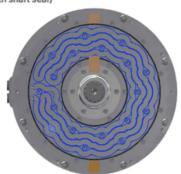


Features

- Primary Powertrain Traction Motor or Generator
- Peak Efficiency >95%
- Excellent power and torque density
- Low cogging and low ripple torque gives a smooth, quiet operation in direct drive applications
- Compact design with flat front and back faces for mounting
- IP67 rated shaft seals (optional)
- Low inertia 4 x composite rotors with excellent rotor dynamic stability
- Suitable for inverter supply voltages up to 800V_{DC}
- Designed to be driven by two inverters
- Liquid cooling for improved heat transfer and enhanced performance, using water / glycol for system integration
- Integrated PT100 winding temperature sensors
- Sin/Cos resolver compatible with most commercially available inverters







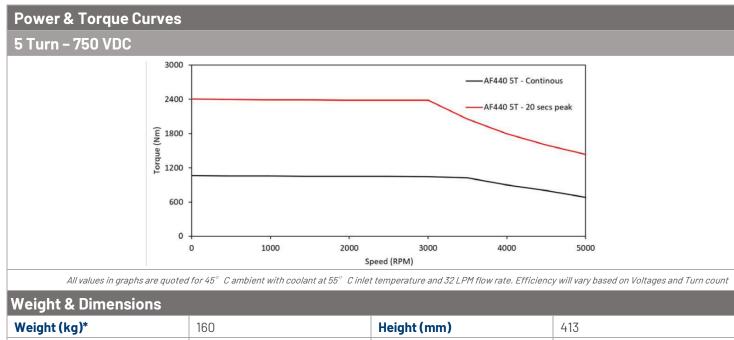
Stator Coolant Path

Specifications (600 V_{DC} ^{††})

Characteristics			
Maximum Speed (rpm)	5000	Continuous Torque (Nm)	1040
Peak Torque** (Nm)	2400	Nominal Output Power (kW)	376
Recommended Coolant Flow Rate (LPM)	32	Peak Output Power** (kW)	880

^{**} For up to 20s test conditions

 $\dagger \uparrow$ All values in table are quoted for 45°C ambient with coolant at 55°C inlet temperature and 32 LPM flow rate, contact Turntide for higher temperature ratings.



Depth (mm) 443 Diameter (mm) 380 *Weight as delivered dry All dimensions shown in mm 8x M10x1.5 ₹25 ON Ø358 PCD (FRONT AND REAR) 2x Ø8 H7 ₹8 ON Ø358 PCD LOCATION HOLES (FRONT AND REAR) COOLANT PORT CONNECTIONS AND TOPBOX ORIENTATION

For further information please contact our team of experts at electrificationsales@turntide.com

TURNTIDE TECHNOLOGIES

CONFIGURABLE IN LEFT OR RIGHT DIRECTION WHEN LOOKING AT

2 x G1/2 ▼14.5 COOLANT I/0

Our breakthrough technologies accelerate electrification and sustainable operations for energy-intensive industries



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CONTACT TURNTIDE FOR DETAILED SHAFT

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