

110 RADIAL



GENESIS LIVEDRIVE™

POWERING THE
FUTURE OF MOTION



110mm RADIAL FLUX MOTOR REFERENCE DESIGN

The LiveDrive™ motor platform provides what the industry has been waiting for – high torque, direct-drive actuator technology.

The core LiveDrive™ motor technology can be leveraged in axial flux, radial flux and linear motors, taking advantage of three foundational discoveries:

- Magnetic Amplification
- Advanced Structural Magnetic Architecture
- Unparalleled Heat Dissipation

Never before has this level of speed, torque and precision been available in a device with such simplicity; providing low cost of ownership and ease of implementation.

The LiveDrive™ 110 motor provides manufacturers with the ability to design faster and more precise robots and machines that can be safely operated around humans.

GENESIS ROBOTICS AND MOTION TECHNOLOGIES

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110mm RADIAL FLUX MOTOR

SIZE ⁽¹⁾	UNITS	VALUE +/-
OUTER DIAMETER	mm	110
INNER DIAMETER	mm	78
WIDTH	mm	19.2
WEIGHT	kg	0.48
ROTOR INERTIA	kg·m ²	0.00032

PERFORMANCE ⁽²⁾

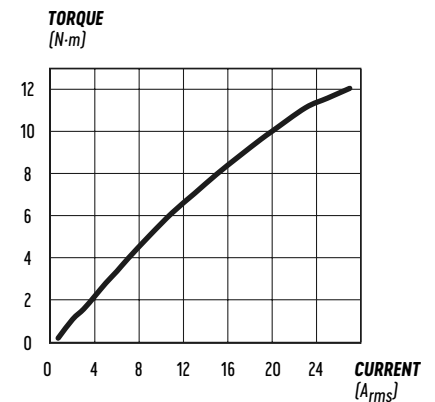
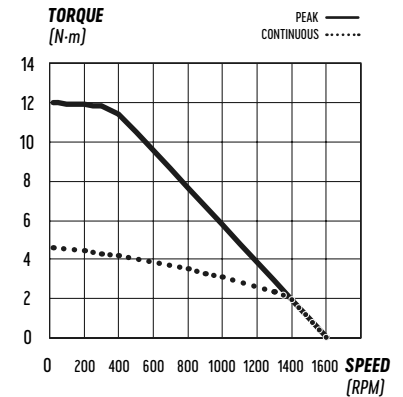
PEAK TORQUE ⁽³⁾	N·m	12	15%
CONTINUOUS TORQUE ⁽³⁾⁽⁴⁾	N·m	4.7	15%
RATED POWER	Watts	325	15%
RATED SPEED	RPM	1,000	
RATED EFFICIENCY	—	67%	15%

ELECTRICAL PARAMETERS

TORQUE CONSTANT	N·m/ A _{rms}	0.56	15%
BACK EMF CONSTANT (PHASE) ⁽⁵⁾	V _{rms} /[rad/s]	0.21	15%
MOTOR CONSTANT ⁽⁶⁾	N·m/ √W	0.46	15%
PEAK CURRENT	A _{rms}	27	
CONTINUOUS CURRENT	A _{rms}	8.4	
PHASE RESISTANCE ⁽⁵⁾⁽⁶⁾	Ohms	0.48	8%

MECHANICAL PARAMETERS

THERMAL CLASS		F	
MAX CONTINUOUS POWER DISSIPATION ⁽⁴⁾	Watts	155	17%



(1) FRAMELESS PARAMETERS (INCLUDES ONLY ROTOR AND STATOR)
 PHOTO ON COVER SHOWS HOUSED MOTOR INCLUDING BEARINGS AND HOUSING
 (2) MAXIMUM COIL TEMPERATURE OF 120 °C
 (3) TORQUE VALUE AT 20 RPM
 (4) WITH A 320mm X 320mm X 16mm RADIATION PLATE
 (5) MEASURED LINE TO NEUTRAL
 (6) AT 25 °C