

NexBot Vision AC111-003 Ac Servo Motor 3.5 Nm

NexBot
Robotics

SKU: NXB-SRV-AC111-003 | Category: Drive
Systems > Servo Motors > AC Servo Motors

Overview

The NexBot Vision AC111-003 is a brushless AC servo motor engineered for high-dynamic performance in industrial automation and robotics. This motor is specifically designed to provide precise, repeatable motion control for robot joints, positioning systems, and other automated machinery where accuracy and speed are critical. Its compact, power-dense design allows for integration into tight spaces without compromising on performance, making it an ideal component for sophisticated robotic systems. The core of the AC111-003 features high-energy neodymium magnets and an optimized winding configuration, which together deliver a continuous rated torque of 3.5 Nm and high peak torque for rapid acceleration and deceleration cycles. This high torque-to-inertia ratio enables faster settling times and reduced cycle times in applications such as high-speed pick-and-place, automated assembly, and material handling. The motor's smooth, cog-free rotation at low speeds ensures superior path accuracy for tasks like dispensing, welding, and inspection. Built for reliability in industrial environments, the motor housing is constructed from a durable aluminum alloy and sealed to an IP65 rating, protecting it from dust and low-pressure water jets from any direction. This ensures consistent operation in challenging factory conditions. The motor operates on a standard 480VAC three-phase supply, making it compatible with common industrial power systems. For position and velocity control, it includes an integrated high-resolution feedback system that provides accurate real-time data to the servo drive. Proper installation involves secure mounting to the machine frame and connection to a compatible servo drive and power source. Regular inspection of connections is recommended to ensure long-term operational integrity.

Technical Specifications

Parameter	Value	Unit
Weight	2.8	kg
Material	Aluminum Alloy	
Voltage	480VAC	

Parameter	Value	Unit
IP Rating	IP65	
Country of Origin	DE	
Protocol	PROFINET	
Dimensions	175 x 80 x 80 mm	
Torque	3.5 Nm	

Safety Notice: This product must be installed and operated by qualified personnel in accordance with applicable safety standards (ISO 10218, IEC 61508).