

NexBot Robotics AC111-005

AC Servo Motor 5.0 Nm

NexBot
Robotics

SKU: NXB-SRV-AC111-005 | Category: Drive Systems > Servo Motors > AC Servo Motors

Overview

The NexBot Robotics AC111-005 is a compact, high-torque AC servo motor designed for integration into industrial robotic systems requiring exceptional precision and reliability. This motor provides the power and responsiveness needed for complex motion profiles, making it an ideal choice for applications ranging from automated assembly and material handling to CNC machining and welding. Its core design focuses on delivering high torque density, allowing for powerful performance within a minimal footprint, which is critical for multi-axis robot arm articulation. Key features include a low-inertia rotor and an optimized magnetic circuit, which together minimize cogging torque and enable exceptionally smooth velocity control, even at low speeds. This characteristic is vital for tasks that demand steady tool-path execution, such as dispensing or laser cutting. The motor's robust construction, featuring an anodized aluminum housing, ensures efficient thermal dissipation, allowing it to operate consistently under continuous duty cycles without performance degradation. With an IP65 rating, the motor is sealed against dust ingress and low-pressure water jets, ensuring dependable operation in challenging industrial environments where particulates or fluids are present. Engineered to operate on a 400VAC supply, the AC111-005 integrates seamlessly with NexBot Robotics drive systems. Its design facilitates straightforward installation and replacement on compatible robot models, reducing downtime during maintenance cycles. The motor's inherent positional accuracy and dynamic response make it a crucial component for maintaining the overall repeatability and performance of the robotic system. By providing consistent power and precise control, this servo motor helps achieve higher throughput and product quality in automated manufacturing processes.

Technical Specifications

Parameter	Value	Unit
Weight	3.5	kg
Material	Anodized Aluminum	
Voltage	400VAC	
IP Rating	IP65	
Country of Origin	SE	
Protocol	PROFINET	

Parameter	Value	Unit
Dimensions	185 x 86 x 86 mm	
Torque	5.0 Nm	

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