

NexBot Drives DC112-006 Dc Servo Motor

NexBot
Robotics

SKU: NXB-SRV-DC112-006 | Category: Drive Systems > Servo Motors > DC Servo Motors

Overview

The NexBot Drives DC112-006 is a high-performance brushed DC servo motor designed for reliable and precise motion control in demanding industrial automation environments. This component is engineered to provide dynamic response and accurate positioning, making it an ideal choice for robotic applications requiring agile and repeatable movements. The core of the DC112-006 is its high-energy magnet design, which enables a high torque-to-inertia ratio. This feature allows for rapid acceleration and deceleration, critical for reducing cycle times in pick-and-place, assembly, and material handling tasks. It delivers a continuous rated torque of 1.2 Nm, providing sufficient power for smaller joint actuation and end-of-arm tooling manipulation. The motor's construction emphasizes durability, with a rugged anodized aluminum housing and an IP65 rating, ensuring protection against dust ingress and low-pressure water jets from any direction. Operating on a standard 48VDC power supply, this servo motor integrates seamlessly into common industrial power systems. Its design prioritizes smooth, low-cogging operation across its entire speed range up to a rated speed of 3000 RPM. This results in superior path accuracy and finer control over the robot's movements, which is essential for tasks like dispensing, welding, or inspection. Installation involves mounting the motor to the designated robot joint or fixture and connecting it to a compatible motion control system. Regular inspection of electrical connections is recommended to ensure long-term performance and reliability. The DC112-006 serves as a direct replacement part for specified NexBot robot models, ensuring minimal downtime during maintenance cycles.

Technical Specifications

Parameter	Value	Unit
Weight	2.1	kg
Material	Anodized Aluminum 6061-T6	
Voltage	48VDC	
IP Rating	IP65	
Country of Origin	KR	
Protocol	PROFINET	
Dimensions	185 x 60 x 60 mm	

Parameter	Value	Unit
Torque	1.2 Nm	

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