

NexBot Safety STP113-012 Stepper Motor 1.2 Nm

NexBot Robotics

SKU: NXB-SRV-STP113-012 | Category: Drive Systems > Servo Motors > Stepper Motors

Overview

The NexBot Safety STP113-012 is a high-performance stepper motor designed for precise motion control in automated systems and robotic applications. This motor provides an optimal balance of torque, speed, and resolution, making it a versatile component for tasks requiring accurate positioning and consistent performance. Its robust construction ensures long-term reliability in continuous-duty industrial environments. The core of the STP113-012 is its ability to deliver a substantial holding torque of 1.2 Nm, which securely maintains the load position even when the motor is stationary, preventing drift and ensuring process integrity. With a standard 1.8° step angle (200 steps per revolution), this motor offers fine control over movement, which is critical for applications like automated assembly, material handling, and positioning of end-of-arm tooling. The low-inertia rotor design facilitates rapid acceleration and deceleration, reducing cycle times and increasing overall system throughput. Engineered for compatibility with microstepping drivers, the STP113-012 operates with reduced vibration and acoustic noise, contributing to a smoother motion profile and a quieter work environment. This feature is particularly beneficial in collaborative robot applications or in facilities where noise reduction is a priority. The motor is built to a standard NEMA 23 frame size, ensuring straightforward mechanical integration with a wide range of existing mounts and hardware. Its 24VDC operating voltage is common in industrial control cabinets, simplifying power supply requirements. The motor's thermal characteristics are managed to ensure stable performance across a range of operating temperatures. Installation is simplified by its standard mounting pattern and pre-wired leads, allowing for quick connection to a compatible motor driver.

Technical Specifications

Parameter	Value	Unit
Weight	1.1	kg
Material	Anodized Aluminum	
Voltage	24VDC	
IP Rating	IP40	
Country of Origin	JP	
Dimensions	76 x 57 x 57 mm	
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).