User Manual: NexBot Drives LA013-006 6-Axis Robot Arm 120kg Payload

SKU: NXB-ROB-LA013-006 | Version: 1.0 | Brand: NexBot Robotics

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1. Safety Information

READ ALL SAFETY INSTRUCTIONS BEFORE OPERATION. Failure to follow safety procedures may result in serious injury or equipment damage.

DANGER: Isolate all hazardous energy before servicing NexBot Drives LA013-006 6-Axis Robot Arm 120kg Payload; stored electrical or mechanical energy may remain present after shutdown.

WARNING: Operate NXB-ROB-LA013-006 only within its intended Robots > Articulated Robots > Large Articulated (50-200kg) duty profile and published specification limits.

CAUTION: Use only approved tools, mating parts, and installation hardware to prevent premature wear or unsafe operation.

NOTICE: Protect the product from contamination, impact, and environmental exposure beyond IP67 during installation and service.

2. Product Overview

NexBot Drives LA013-006 6-Axis Robot Arm 120kg Payload (NXB-ROB-LA013-006) is an industrial robot platform built for automated handling, machine tending, and repeatable production motion in manufacturing cells. Its product profile emphasizes the characteristics buyers expect from a robot rather than from a component: payload capacity, reach, axis coordination, motion repeatability, and controller-level integration into line equipment. The platform is suited to continuous-duty factory environments where predictable cycle performance, maintenance access, and installation planning all matter to engineering teams. It fits robotics programs that need a complete robot arm for deployment, expansion, or replacement within an existing automation footprint.

3. Getting Started

1. Confirm product identity

Verify the installed item is NexBot Drives LA013-006 6-Axis Robot Arm 120kg Payload with SKU NXB-ROB-LA013-006. Cross-check the unit against project documentation before applying power or connecting it to the host system.

2. Review operating context

Understand how the product is used within the Robots > Articulated Robots > Large Articulated (50-200kg) workflow, including any upstream and downstream dependencies, service intervals, and operator responsibilities.

3. Complete initial startup

Power up the unit under controlled conditions, observe indicator states, and verify the product initializes cleanly with the expected 480VAC 3-Phase operating setup.

4. Operation

Normal operation

Run NexBot Drives LA013-006 6-Axis Robot Arm 120kg Payload within the documented workload, environmental, and service conditions. Track alarms, unusual noise, heat, or vibration so corrective action can be scheduled before unplanned downtime occurs.

Interface and controls

Use the supported electrical and control interfaces to commission, monitor, and troubleshoot the device. Validate all signal mappings and control behavior after maintenance or part replacement, especially where EtherNet/IP communication is required.

> **Tip:** Capture a baseline of healthy status indicators after commissioning so later diagnostics can be compared quickly.

Load and application limits

Keep the product within the published ratings for speed, force, load, and environmental exposure. Where applicable, confirm mounting, routing, and attached tooling do not compromise access, cooling, or serviceability; rated payload reference: 120 kg.

Change management

Whenever hardware, firmware, wiring, or connected tooling changes, repeat the relevant verification and commissioning checks before returning the equipment to production service.

> **Tip:** Update maintenance records immediately after any wiring, parameter, or parts change.

5. Maintenance Schedule

Interval	Task	Notes
Daily	Inspect NexBot Drives LA013-006 6-Axis Robot Arm 120kg Payload for visible wear, damage, contamination, loose hardware, and abnormal status indicators.	Record any abnormalities before the next production cycle begins.
Monthly	Verify mounting integrity, connector condition, and cable routing or strain relief points.	Retorque or reseat hardware only to the documented service specification.
Quarterly	Review diagnostic logs, event history, and operational trends for early signs of degradation.	Escalate recurring warnings before they develop into hard faults.
Annually	Perform a full service inspection covering mechanical condition, electrical connections, and functional verification.	Coordinate annual service with planned downtime to minimize production disruption.

6. Troubleshooting

Symptom	Possible Cause	Solution
Unit does not initialize or remain ready	Incoming supply, controls wiring, or commissioning parameters do not match the documented 480VAC 3-Phase configuration.	Verify power quality, wiring continuity, protective devices, and startup parameters before restarting the unit.
Intermittent communication or status loss	Loose connectors, damaged cabling, or interface mismatch on EtherNet/IP.	Inspect physical connections, confirm interface settings, and replace damaged cables or connectors as needed.
Unexpected wear, vibration, or overheating	Mechanical loading, contamination, misalignment, or duty cycle exceeds the intended application conditions.	Inspect the installation, restore proper alignment and cooling, and verify the product is being used within its published operating limits.

Symptom	Possible Cause	Solution
Connected equipment performance is inconsistent	The installed product is not configured correctly for the host system or compatible robot series (R-50).	Validate the configuration, confirm compatibility, and rerun the functional verification procedure after any corrections.

7. Technical Specifications

Parameter	Value	Unit
Weight	1350.0	kg
Material	Cast Iron and Aluminum Alloy	
Voltage	480VAC 3-Phase	
IP Rating	IP67	
Country of Origin	IT	
Protocol	EtherNet/IP	
Reach	2702 mm	
Payload	120 kg	
Axes	6	
Repeatability	±0.05 mm	