



Member of Sumitomo Drive Technologies

Variable Frequency Drives for Conveyors

Reliable, Flexible, Intelligent Drive Solutions for All Conveyor Applications.

Applications



Why Choose Inverter Drives for Conveyor Applications?

Inverter Drives are engineered to provide precise control and superior reliability for conveyor systems across all industries. Whether you're handling delicate food products, high speed packaging lines, heavy duty mining conveyors, or automated logistics, Inverter's advanced Variable Frequency Drives ensure a smooth and optimised operation.

- ✓ **Seamless Integration**
- ✓ **Maximum Productivity**
- ✓ **Future Ready**



Chain Conveyors

Optimised Performance for Every Conveyor Application

Conveyors are essential in industries such as manufacturing, logistics, food processing, and mining. Inverter's Optidrive range delivers efficient, reliable motor control, reducing downtime and ensuring smooth operation in any environment. With IP20 drives suitable for mounting inside cabinets, IP55 drives for switch room/electrical room wall mounting, or IP66 for conveyor mounting, Inverter has the perfect solution for demanding conveyor solutions.

The fully enclosed design allows direct motor-mounting or installation alongside conveyors, saving space, cutting costs, and simplifying installation.

Accurate Speed and Torque Control

Optimised for conveyor applications, Inverter Drives help to:

- ✓ Regulate conveyor speed for efficient material flow
- ✓ Prevent belt slippage and sudden load surges
- ✓ Reduce mechanical wear with smooth acceleration & deceleration
- ✓ Provide onboard CAN bus & Modbus RTU communication for easy integration to PLC's / controllers
- ✓ Synchronise multiple conveyors for seamless production
- ✓ Communication interface options for common industrial fieldbus integration

Maximise Conveyor Performance

- ✓ Full compatibility with latest compact motor technologies and emerging motor designs for conveyor applications
- ✓ Low-maintenance design for maximum uptime
- ✓ Versatile compatibility with all conveyor types

Belt/Roller Conveyor in a Package Distribution Warehouse



Simple & Efficient Conveyor Control

**Roller Conveyors****Lift Conveyors****Pallet Conveyors**

✓ Plug & Play Installation

Quick to install with pre-configured settings, reducing setup time.

✓ Compact and Space Saving

Small footprint, ideal for direct machine mounting or for mounting in an electrical enclosure

✓ IP66-Rated Protection

Designed to withstand dust, moisture, and washdown environments without requiring additional enclosures.

✓ IP20-Rated Protection

Designed for high efficiency/low losses and for operation without derate to 50°C ambient to reduce cabinet size and cooling requirements.

✓ Simple and Reliable Motor Control

Perfect for basic conveyors, with easy setup and minimal commissioning.

✓ Smooth Start and Stop Functions

Minimises mechanical stress on the conveyor, extending belt and motor life.

✓ Cost-Effective Solution

Affordable yet reliable, making it a great option for small to medium-duty conveyors.

✓ User-Friendly Interface

Simple keypad control for easy speed adjustments and parameter changes.

✓ Versatile Motor Compatibility

Works with both standard induction motors and high-efficiency motors for flexible applications.

Conveyor System at our
Inverter Headquarters



High-Performance for Demanding Applications



Belt Conveyors



Incline Conveyors

✓ High-Performance Motor Control

Sensorless vector control ensures precise speed and torque regulation, even under varying loads.

✓ Safe Torque Off (STO) for Enhanced Safety

Ensures immediate power disconnection to prevent accidental conveyor movement, improving personnel safety and compliance with safety standards.

✓ Enclosed Drives: Rugged Design for Harsh Environments

Available in IP55 and IP66 enclosures, protecting against dust and water

✓ IP20 Cabinet Drives

Optimized for size and efficiency to provide an ideal solution for installation inside indoor or outdoor rated electrical control cabinets.

✓ Dynamic Load Adaptation

Automatically adjusts power output to match the conveyor's real-time load.

✓ Handles Heavy Duty Applications

Supports high starting torque, making it ideal for conveyors transporting bulk materials or heavy loads.

✓ Rapid Conveyor Response

Accurate speed control, even in high-speed logistics and sorting applications.

✓ Start Loaded Conveyors Reliably

High torque and optimum motor performance (without encoder) for reliable starting of loaded conveyors.

✓ Predictive Maintenance Features

Real time diagnostics and fault detection help reduce downtime and extend equipment life.

✓ Scalable Display Units

Conveyor speed displayed in convenient scalable units (e.g. Ft/s, M/s)

✓ Multi-Motor Synchronisation & Load Sharing

Precision speed matching & load sharing between multiple drives, ensuring balanced power distribution across motors. Preventing uneven wear, minimises mechanical strain, improves efficiency. Ideal for long conveyors, incline systems, & heavy loads.

✓ Advanced Communication & Automation

Supports EtherNet/IP, Modbus TCP/IP, PROFIBUS, CanOpen, Ethercat, and more for seamless integration with PLC and SCADA systems.

✓ Colder Environment Operation

Cold start protection and motor preheat function for operation in colder environments.

✓ Function Block Editor

Customised functions and monitoring capability through inbuilt Function Block Editor feature.

Enclosure Options

IP20

OPTIDRIVE™ E^3

Sizes 1-5 cover the full power range,
up to 37 kW/50 HP

OPTIDRIVE™ CP^2

Sizes 2-5, 6A, 6B & 8 cover power range,
up to 250 kW/400 HP

- ✓ Compact, robust enclosures for panel/cabinet mounting
- ✓ DIN rail and keyhole mounts for fast, simple installation
- ✓ Maintenance Interval Timer and Service Indication
- ✓ Integrated help card for quick reference
- ✓ Operates up to 50°C with no derating
- ✓ Compact, robust enclosures for panel/cabinet mounting



IP55

OPTIDRIVE™ CP^2

Sizes 4-8 cover power range,
up to 250 kW/400 HP

- ✓ Sizes 4-8 cover power ranges up to 250 kW/400 HP
- ✓ Operates up to 50°C



IP66 Outdoor

OPTIDRIVE™ E^3

Sizes 1-4 up to 22 kW/30 HP

OPTIDRIVE™ CP^2

Sizes 2-4 up to 30 kW/40 HP

- ✓ Outdoor rated tough polycarbonate enclosure
- ✓ Dust tight and washdown ready
- ✓ Conformally coated PCBAs as standard
- ✓ Coated Heatsink as Standard
- ✓ Locally Customisable
- ✓ Direct Machine or Wall Mounting
- ✓ Switched Models



Proven Worldwide Solution in Optimising Conveyor Performance

Optidrive P2 used on a conveyor feeder and crusher in the mining industry in Indonesia to improve efficiency and increase productivity in harsh conditions.



Optidrive E3 and P2 utilised in transferring goods from river transport to warehouse facilities in the Netherlands to provide high starting torque, and efficient auto-tuning capabilities for efficient materials handling.



Optidrive E3 used on a modular conveyor in the construction industry in the United States to accurately control speed depending on the quantity and type of material being transported.



Optidrive E3 integrated within a conveyor system in Brazil to remove metal debris into external bins for safe disposal.



Optidrive P2 installed in motorised trolley and conveyor system in Wales, UK, to reliably transport large amount of decorative stone.



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