OMRON

The frequency inverter for lifts

VARISPEED L7

stop the search, enjoy the ride

Advanced Industrial Automation

OMRON

The Omron-Yaskawa L7 Varispeed frequency inverter is built with the focus firmly on reliability, ease-of-use and smooth performance. Designed specifically for the lift market, the L7 series ensures that lifts exceed the ride quality and safety demands of the market. Available in power ratings from 3.7kW up to 55kW, the Varispeed L7 offers a cost-effective solution for all your lift requirements.

Made to drive lifts

The Varispeed L7 is based on years of experience in inverter design, and uses the latest proven technology to provide reliability and safety. Furthermore, lift-specific features have been developed in response to market needs. These standard features include direct control of motor brake and motor contactor, short floor operation, door opening control and hardware base block. In addition, both open loop and closed loop vector control is available in the Varispeed L7, providing the optimum speed regulation to suit the application.

Ease of use has been considered from the outset. An LCD operator is available to provide plain text set-up and monitoring of the inverter, while a non-rotating auto-tuning function ensures the inverter can obtain all of the required motor information without the need to decouple the motor from the gearbox. Option cards are available to integrate the L7 series into communication networks such as CANopen, DeviceNet or Profibus-DP.

Key features

- **High rated output current**
- **Direct control of motor brake and contactor**
- **Dedicated Lift sequence**
- **Emergency evacuation (battery operation)**
- **Short floor operation**
- **Door opening control**
- **Auto-tuning at standstill**
- **Connectivity to all popular field busses**
- **PC configuration and commissioning tool**

High reliability

Omron-Yaskawa's frequency inverters are currently being used in over 100,000 lifts around the world! The L7 ensures **3 million full load starts** during its lifetime.

Ease of use

The L7 inverter has all the relevant **lift, function and sequence parameters**. This allows the inverter to be easily adjusted to every controller sequence available on the market, making it ready for immediate use. **Non-rotating auto-tuning** measures all the necessary motor equivalent circuit data at start-up, so there is no need to disconnect the lift for acquiring data on vector control. This also saves your setting up time. In addition, the PC commissioning tool **SYSDrive Configurator** ensures easy set-up.

Cost effective

The **high current rating** of the L7, even at high temperatures, enables you to choose the same kW rating for inverters and motors. The **dedicated lift functionality** saves you time during installation and start-up. The L7's **four built-in relays** provide output signals that eliminate the need for extra components in the lift controller panel. The relays **control the motor brake and contactors directly**.

Safety built in

Even in the event of a power failure the L7 will continue to bring the lift to a correct stop using **a battery or an UPS** (uninterruptible power supply); the choice is yours. The L7 features **advanced IGBT protection**, with five levels of over-current protection available before an over-current failure occurs. **A brake and contactor control/supervision circuit** guarantees safe operation.

High performance

The L7 provides **best ride comfort** through precise speed regulation and **best levelling accuracy** through unique slip compensation.

General specifications of L7 frequency inverter series

Model: CIMR-L7	L744P0	L745P5	L747P5	L74011	L74015	L74018	L74022	L74030	L74037	L74045	L74055
Applicable motor output (kW)	4.0	5.5	7.5	11	15	18.5	22	30	37	45	55
Rated output current at 45° (A)	11	14	18	27	34	41	48	65	80	96	128
Rated output current at 55° (A)	10.2	13.1	16.8	25.2	31.7	38	44.8	60.8	74.7	89.6	119.3
Rated output current 10kHz, at 45° (A)	10.2	13.0	16.7	25.1	31.6	38.1	44.6	48.8	60.0	72.0	96.0
Carrier frequency	8kHz default (adjustable up to 15kHz with derating)							5kHz default (adjustable up to 10kHz with derating)			
Maximum output voltage	3-phase 380V-480V (limited by input voltage)										
Rated input voltage and frequency	3-phase 380V-480V, 50/60Hz										
Speed accuracy	Vector control with PG: 0.01% Open loop vector control: 0.2%										
Braking transistor	Built-in						Optional				
Control I/O	8 Digital inputs (PNP/NPN), 1 analogue input, 4 relay outputs, 3 option ports										

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