



The frequency inverter for lifts

# VARISPEED L7

stop the search, enjoy the ride



Advanced Industrial Automation





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, the Varispeed L7 using 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 autotuning 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.

*DeviceNet is a registered trademark of Open DeviceNet Vendors Association.*



### High reliability

Omron-Yaskawa's frequency inverters are currently being used in over 10,000 lifts around the world! The L7 ensures **3 million full road 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 autotuning** 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.

## 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
- Autotuning at standstill
- Connectivity to all popular field busses
- PC configuration and commissioning tool

### 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										

**OMRON EUROPE B.V.** Wegalaan 67-69, NL-2132 JD, Hoofddorp, The Netherlands. Tel: +31 (0) 23 568 13 00 Fax: +31 (0) 23 568 13 88 [www.europe.omron.com](http://www.europe.omron.com)

### UNITED KINGDOM

**Omron Electronics Ltd**  
Opal Drive, Fox Milne, Milton Keynes, MK15 0DG, UK  
Tel: +44 (0) 870 752 08 61  
Fax: +44 (0) 870 752 08 62  
[www.omron.co.uk](http://www.omron.co.uk)

### Austria

Tel: +43 (0) 1 80 19 00  
[www.omron.at](http://www.omron.at)

### Belgium

Tel: +32 (0) 2 466 24 80  
[www.omron.be](http://www.omron.be)

### Czech Republic

Tel: +420 267 31 12 54  
[www.omron.cz](http://www.omron.cz)

### Denmark

Tel: +45 43 44 00 11  
[www.omron.dk](http://www.omron.dk)

### Finland

Tel: +358 (0) 9 549 58 00  
[www.omron.fi](http://www.omron.fi)

### France

Tel: +33 (0) 1 49 74 70 00  
[www.omron.fr](http://www.omron.fr)

### Germany

Tel: +49 (0) 2173 680 00  
[www.omron.de](http://www.omron.de)

### Hungary

Tel: +36 (0) 1 399 30 50  
[www.omron.hu](http://www.omron.hu)

### Italy

Tel: +39 02 32 681  
[www.omron.it](http://www.omron.it)

### Netherlands

Tel: +31 (0) 23 568 11 00  
[www.omron.nl](http://www.omron.nl)

### Norway

Tel: +47 (0) 22 65 75 00  
[www.omron.no](http://www.omron.no)

### Poland

Tel: +48 (0) 22 645 78 60  
[www.omron.com.pl](http://www.omron.com.pl)

### Portugal

Tel: +351 21 942 94 00  
[www.omron.pt](http://www.omron.pt)

### Russia

Tel: +7 095 745 26 64  
[www.russia.omron.com](http://www.russia.omron.com)

### Spain

Tel: +34 913 777 900  
[www.omron.es](http://www.omron.es)

### Sweden

Tel: +46 (0) 8 632 35 00  
[www.omron.se](http://www.omron.se)

### Switzerland

Tel: +41 (0) 41 748 13 13  
[www.omron.ch](http://www.omron.ch)

### Turkey

Tel: +90 (0) 216 474 00 40  
[www.omron.com.tr](http://www.omron.com.tr)

For the Middle East, Africa and other countries in Eastern Europe,  
Tel: +31 (0) 23 568 13 00 [www.europe.omron.com](http://www.europe.omron.com)

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