



FEATURES

- iLGA inspectable Land Grid Array
- 4.5-14Vdc input voltage range
- Programmable output voltage from 0.591-5.5Vdc
- Drives up to 200 μ F ceramic capacitive loads
- High power conversion efficiency at 93%
- Outstanding thermal derating performance
- Short circuit and over current protection
- On/Off control and Power Good signal
- Optional Sequence/Tracking operation (OKL2-T/3-W12 models)
- Certified to UL/EN/IEC 60950-1 safety, 2nd Edition
- RoHS-6 hazardous substance compliance

PRODUCT OVERVIEW

The OKL-T/3-W12 series are miniature non-isolated Point-of-Load (PoL) DC/DC power converters for embedded applications. Featuring inspectable Land Grid Array (iLGA) format, the OKL-T/3-W12 measures only 0.48 x 0.48 x 0.244 inches max. (12.2 x 12.2 x 6.2 mm max.).

The wide input range is 4.5 to 14 Volts DC. The maximum output current is 3 Amps. Based on fixed-frequency synchronous buck converter switching topology, the high power conversion

efficient Point of Load (PoL) module features programmable output voltage and On/Off control. These converters also include under voltage lock out (UVLO), output short circuit protection, and over-current protections.

An optional sequence/tracking feature on OKL2-T/3-W12 models allows power sequencing of PoL's. These units are certified to all standard UL/EN/IEC 60950-1 safety certifications (2nd Edition) and RoHS-6 hazardous substance compliance.

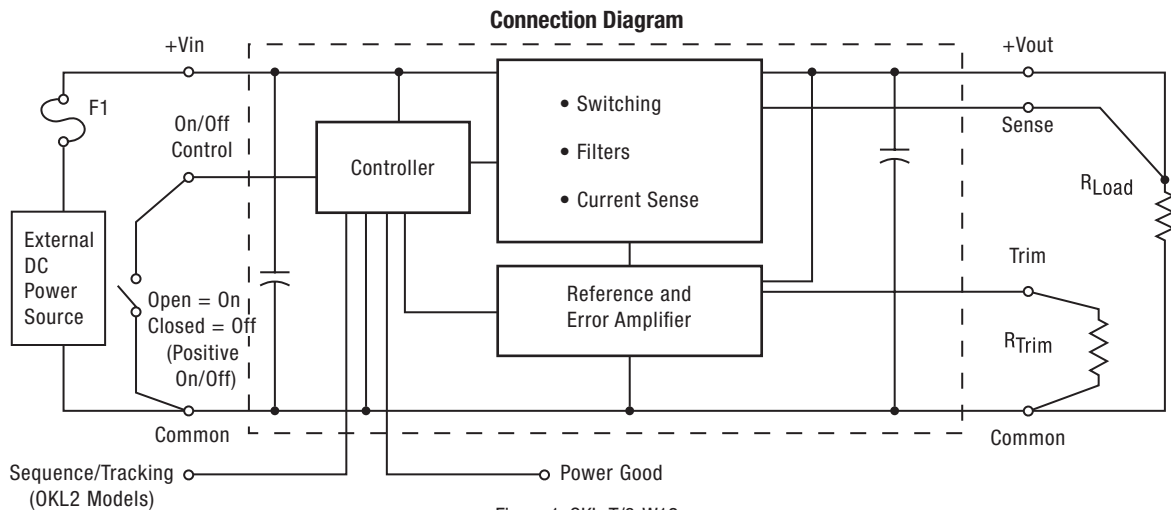


Figure 1. OKL-T/3-W12

Note: Murata Power Solutions strongly recommends an external input fuse, F1. See specifications.

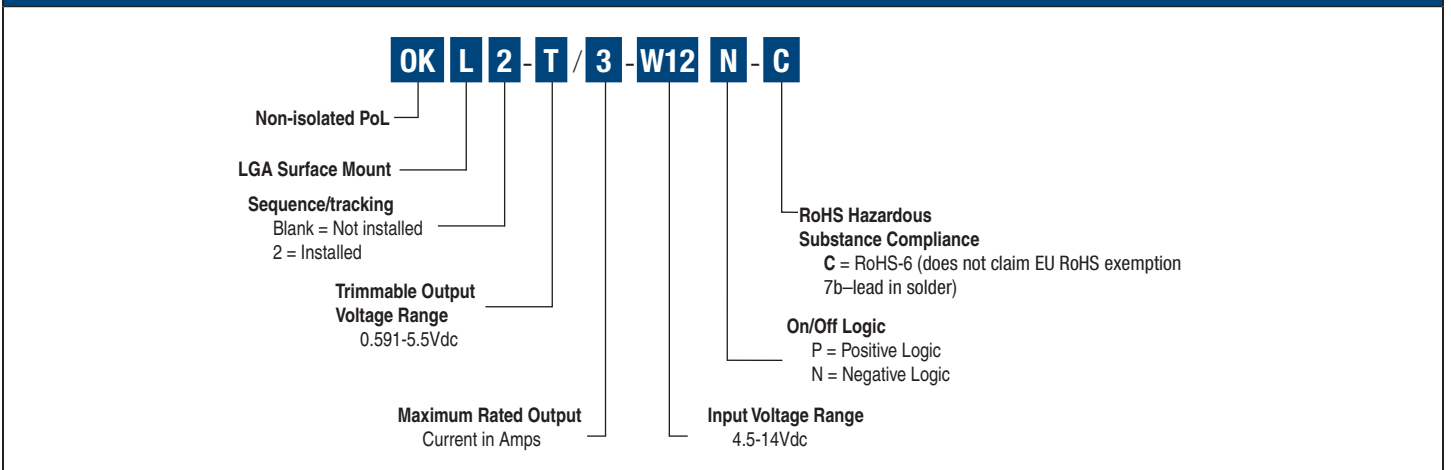


Performance Specifications and Ordering Guide

Model Number	Output						Input				Efficiency		On/Off Logic	Seq/Track	Package - Pinout P83
	Vout (Volts) ①	Iout (Amps, max.)	Power (Watts)	R/N (mV p-p) Max. ④	Regulation (max.)		Vin nom. (Volts)	Range (Volts)	Iin, no load (mA) ④	Iin, full load (Amps) ②	Min.	Typ.			Case C83 inches (mm)
					Line	Load									
OKL-T/3-W12P-C	0.591-5.5	3	15.0	37	±0.25%	±0.25%	12	4.5-14	20	1.34	91%	93%	Pos.	no	
OKL-T/3-W12N-C	0.591-5.5	3	15.0	37	±0.25%	±0.25%	12	4.5-14	20	1.34	91%	93%	Neg.	no	0.48x0.48x0.244 max 12.2x12.2x6.2 max
OKL2-T/3-W12P-C	0.591-5.5	3	15.0	37	±0.25%	±0.25%	12	4.5-14	20	1.34	91%	93%	Pos.	yes	0.48x0.48x0.244 max 12.2x12.2x6.2 max
OKL2-T/3-W12N-C	0.591-5.5	3	15.0	37	±0.25%	±0.25%	12	4.5-14	20	1.34	91%	93%	Neg.	yes	0.48x0.48x0.244 max 12.2x12.2x6.2 max

- ① The output range is limited by Vin. See detailed specs.
 - ② All specifications are at nominal line voltage, Vout=nominal (5V for W12 models) and full load, +25 deg.C. unless otherwise noted. Output capacitors are 10 µF ceramic. Input cap is 22 µF. See detailed specifications.
 - ③ Use adequate ground plane and copper thickness adjacent to the converter.
 - ④ Ripple and Noise (R/N) and no-load input current are shown at Vout=1V. See specs for details.
- I/O caps are necessary for our test equipment and may not be needed for your application.

PART NUMBER STRUCTURE



Product Label

Because of the small size of these products, the product label contains a character-reduced code to indicate the model number and manufacturing date code. Not all items on the label are always used. Please note that the label differs from the product photograph. Here is the layout of the label: The label contains three rows of information:

Model Number	Product Code
OKL-T/3-W12P-C	L01103
OKL-T/3-W12N-C	L00103
OKL2-T/3-W12P-C	L21103
OKL2-T/3-W12N-C	L20103

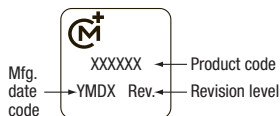


Figure 2. Label Artwork Layout

- First row – Murata Power Solutions logo
- Second row – Model number product code (see table)
- Third row – Manufacturing date code and revision level

The manufacturing date code is four characters:

- First character – Last digit of manufacturing year, example 2009
- Second character – Month code (1 through 9 = Jan-Sep; 0, N, D = Oct, Nov, Dec)
- Third character – Day code (1 through 9 = 1 to 9, 10 = 0 and 11 through 31 = A through Z)
- Fourth character – Manufacturing information