



LA75 OEM

Objective

The LA75 OEM is the OEM and standalone version of the standard product LA75 version. This version can drive and control a piezoelectric actuator in open or closed loop with controllers from Cedrat Technologies from DC input voltage. It can be used separately or can be coupled with other axis in a cabinet to drive multi-axis piezoelectric mechanisms. The principal objective of this product is to address the industrial applications to be integrated in standard cabinet with DC stabilized input voltage.

Description

The performances are based on a 400W output power in a smaller package able to be integrated with a back plane to be assembled in industrial cabinet. The driver is supplied with standard DC/DC power supplies based on 48V versions.

The thermal management can use an additional heatsink (with fan if necessary) mounted on the side of the product.

The LA75 OEM is composed of a main printed circuit board and an mechanical interface to mount additional heatsink (when required). A rear connector includes the main electrical connections to connect the input voltage, the consign, state of the driver and the controller (if option is chosen). An additional front connector with standard Lemo connector connects the piezoelectric actuator.

In applications which require high power, an additional heatsink can be mounted on the received panel (option Heatsink) to improve the thermal performance of the product.

Performance of the LA75 OEM

References	Unit	LA75 OEM
Notes		Preliminary
Number of channel	None	1 Channel
Output voltage	Volts	10 to 150
Output current	mA	2300
Total Harmonic Distorsion (a)	%	0.2
Signal to noise ratio (b)	dB	85
Output load	μ F	0.025 to 40
Amplifier quiescent current	mA	5
Gain	V/V	20
Order Input range	V	0.5 to 7.5
Bandwidth	Hz	33000
Input Connectors	-	64pin male DIN41612 rear connector or Screw connectors
Outpout connector	-	On the rear connector or Lemo connector
Controller	-	Possibility to integrate SC75 analogue controller or digital UC75 controller, with SG sensor
Operating Input Voltage	VDC	36-52
Maximum Output Power(e)	W	400W
Converter efficiency	%	80 - 90
Synchronisation	-	Yes, with master klok on the master board
Thermal characteristic ©	$^{\circ}$ C/W	1.5
Dimensions	mm ²	220mmx100mm (3U)
Weight	Kilograms	1

(a) Before Current limitation

(b) Sine input 20Hz 2/3Full scale & load 2.3 μ F

(d) On the base plate, must add the heatsink thermal characteristic (preconise 0.12 $^{\circ}$ C/W when high power output)

High power piezoelectric driver; Amplifier, Piezoelectric Actuator ; Mechatron systems ; OEM application; Controller