

## APPLICATIONS

- > Piezo drive up to 1 channel
- > Dynamic operation of high capacitance piezo actuator
- > Fast actuation
- > Forced vibration generation

## KEY FEATURES

- > 5 A continuous output current
- > Energy recovery
- > High power density
- > [-20 V;150 V] output voltage range
- > High efficiency
- > Active power factor correction
- > Galvanic isolation
- > Temperature protection for actuators

## RELATED PRODUCT

- > Piezo actuators and stages
- > CTEC Powered 19" subrack
- > UC55 Controllers
- > SG75 / ECS75 sensors conditioners



## SPECIFICATIONS

PARAMETER	TYPICAL VALUE	UNIT
<b>&gt; General</b>		
Function	Driver for piezoelectric actuator	
Number of channels	1	
<b>&gt; Input</b>		
Control input voltage	-1 ... +7.5	V
Control input impedance	10	kΩ
<b>&gt; Output</b>		
Output voltage <sup>(1)</sup>	-20 ... +150	V
Continuous peak output current <sup>(2)</sup>	±5	A
Maximum output load	400	μF
Output impedance	100	μH
<b>&gt; Power amplifier</b>		
Typical efficiency	94	%
Switching frequency	200	kHz
Peak output power <sup>(3)</sup>	440	W
<b>&gt; Gain</b>		
Gain	20	V/V
Gain error	±1	%
Gain linearity error	0.1	%

### > Dynamic performance

Small signal bandwidth (-3dB) <sup>(4)</sup>	3800	Hz
Power bandwidth (-3dB)	See chart	Hz
Max. current slew rate	3.3	A/μs

### > Accuracy

THD <sup>(5)</sup>	0.7	%
Signal to Noise Ratio <sup>(6) (7)</sup>	60	dB

### > Protections

Amplifier : Overcurrent, Overtemperature, Overvoltage  
Actuator : Overcurrent, Overtemperature

## ANNOTATIONS

Guaranteed in labs environment

<sup>(1)</sup> Digitally limited, can be increased to -200 ... +200V upon request

<sup>(2)</sup> Electronically limited

<sup>(3)</sup> Max. instantaneous output power =  $\max(p(t)) = \max(u(t) \times i(t))$

<sup>(4)</sup> Unloaded. Order = 1Vpp

<sup>(5)</sup> With 30μF load at 160Vpp

<sup>(6)</sup> With 30μF load. Order = 0V

<sup>(7)</sup> Computed as RMS output signal/ RMS output Noise floor. 40 Hz ... 20 kHz

## MISCELLANEOUS

PARAMETER	TYPICAL VALUE	UNIT
Mass	1.3	kg
Front face dimension	24F wide, 3U high	
Rack compatibility	RK84F4U-SC75	
Cooling	Forced air	
Operating temperature range	0 ... +40	°C
Storage temperature range	-10 ... +50	°C

## INTERFACES

Order input	BNC type	
Piezo actuator output	LEMO EGG 2B 302 CLL	
DC offset	15 turns screw potentiometer	
DC offset range	-1 ... 7.5 V	
Servo ON/OFF	Selector for control loop	
Piezo actuator temperature input	EPG-00-302-NLN	
Piezo actuator temperature output	TE connectivity : 1-1337480-0	

## INCLUDED ACCESSORIES

> **Piezo cable** Shielded 1.5m - Lemo connector / 2x banana 4mm plug

## OPTIONS

> **UC55** Controller for position loop  
See specific datasheet

> **Piezo cable** Specific length on request

> **Multi outputs LEMO front panel** Allows to connect several actuators in parallel  
Please contact CTEC for more details

## DRAWINGS

