

# **TA1322** Series Voltage Output Current Converter

LI078V3/2016

## 1. Features:

① The printed circuit board is directly welded and installed , and the appearance is beautiful;

<sup>(2)</sup> Can effectively suppress the interference of the primary side current fast transient pulse signal;

③ Reliable insulation between primary winding and secondary winding, winding and shielding;

④ Built-in precision resistance, can be directly measured, easy to use;

<sup>(5)</sup> Fully enclosed, good mechanical and environmental resistance, strong voltage isolation capability, safe and reliable.

# 2. Ambient Conditions:

(1) Ambient temperature:  $-40^{\circ}C \sim +85^{\circ}C$ ;

② Relative humidity:  $\leq 90\%$  at 40°C;

③ Atmospheric pressure: 860~1060mbar

(about 650~800mmHg).

# 3. Operating Frequency Range: 20Hz~1kHz

4. Insulation Thermal Class: B grade (130°C)

# 5. Safety Features:

- (1) Dielectric resistance: >1000M $\Omega$  in normal condition;
- 2 Insulation withstand voltages: 3KV 50Hz/1min;

3 Fire retardancy: In conformity with UL94-V0.

# 6. Model Naming Rules (Figure 1):



M: Ultramicrystalline core ; Do not add M: Iron coreC: For measurement; B: For protectionProduct numberA: Flexible wire input; B: Pin inputStructural code

Figure 1







### 7. Outline Drawing and Installation Dimensions: (tolerance±0.5mm)



#### 8. Performance Parameters:

Model	Rated Input Current	Maximum Input Current	Rated Output Voltage	Non-linearity	Phase Shift
TA1322A-1CM	5A	6A	0.5V	≤0.5%	≤10'
TA1322A-2CM	5A	6A	2V	≤0.5%	≤10'
TA1322B-1CM	5A	6A	2.5V	≤0.5%	≤10'
TA1322B-2CM	5A	6A	3.53V	≤0.5%	≤10'

• Note: If the parameters in the table do not meet the user's requirements, customization can be made according to the user's specifications.

# 9. The characteristics and performance parameters of the current converter used as protection:

① Features: Strong overload capacity, able to withstand 20~40 times the instantaneous impact without saturation, and the waveform has no obvious distortion;

2 Model and performance parameters:

Model	Rated Input Current	Maximum Input Current	Rated Output Voltage	Maximum Output Voltage	Non-linearity	Phase Shift
TA1322A-1BM	5A	100A	0.055V	1.1V	≤0.5%	≤10'
TA1322A-2BM	5A	100A	0.1765V	3.53V	≤0.5%	≤10'
TA1322B-1BM	1A	20A	0.3535V	7.07V	≤0.5%	≤10'
TA1322B-2BM	5A	100A	0.1V	2V	≤0.5%	≤10'

• Note: If the specifications in the table do not meet the user's requirements, customization can be done per the user's specifications.



# **TA1323 Series Voltage Output Current Converter**

LI082V3/2016

### 1. Features:

- ① The printed circuit board is directly welded and installed, and the appearance is beautiful;
- ② Can effectively suppress the interference of the primary side current fast transient pulse signal;

③ Reliable insulation between primary winding and secondary winding, winding and shielding;

④ Built-in precision resistance, can be directly measured, easy to use;

<sup>(5)</sup> Fully enclosed, good mechanical and environmental resistance, strong voltage isolation capability, safe and reliable.

# 2. Ambient Conditions:

- (1) Ambient temperature:  $-40^{\circ}C \sim +85^{\circ}C$ ;
- ② Relative humidity:  $\leq 90\%$  at 40°C;
- 3 Atmospheric pressure: 860 $\sim$ 1060mbar

(about 650~800mmHg).

## 3. Operating Frequency Range : 20Hz~1kHz

4. Insulation Thermal Class: Class B (130°C)

### 5. Safety Features:

- (1) Dielectric resistance: >1000M $\Omega$  in normal condition;
- 2 Insulation withstand voltages: 3KV 50Hz/1min;
- ③ Fire retardancy: In conformity with UL94-V0.

### 6. Model Naming Rules: see Figure 1



M: Ultramicrystalline core ; Do not add M: Iron coreC: For measurement; B: For protectionProduct numberA: Flexible wire input; B: Pin inputStructural code

Figure 1





#### 7. Outline Drawing and Installation Dimensions: (tolerance±0.5mm)

Figure 2: TA1323A

Figure 3: TA1323B

#### 8. Performance Parameters:

Model	Rated Input Current	Maximum Input Current	Rated Output Voltage	Non-linearity	Phase Shift
TA1323A-1CM	5A	6A	2V	≤0.5%	≤10'
TA1323A-2CM	5A	6A	3.53V	≤0.5%	≤10'
TA1323B-1CM	5A	6A	2V	≤0.5%	≤10'
TA1323B-2CM	5A	6A	3.53V	≤0.5%	≤10'

• Note: If the parameters in the table do not meet the user's requirements, customization can be made according to the user's specifications.

# 9. The characteristics and performance parameters of the current converter used as protection:

(1) Features: Strong overload capacity, able to withstand  $20 \sim 40$  times the instantaneous impact without saturation, and the waveform has no obvious distortion;

Model	Rated Input Current	Maximum Input Current	Rated Output Voltage	Maximum Output Voltage	Non-linearity	Phase Shift
TA1323A-1BM	5A	100A	0.115V	2.3V	≤0.5%	≤10'
TA1323A-2BM	5A	100A	0.1765V	3.53V	≤0.5%	≤10'
TA1323B-1BM	5A	100A	0.115V	2.3V	≤0.5%	≤10'
TA1323B-2BM	5A	100A	0.1765V	3.53V	≤0.5%	≤10'

2 Model and performance parameters:

• Note: If the specifications in the table do not meet the user's requirements, customization can be done per the user's specifications.



# **TA1424 Series Voltage Output Current Converter**

LI079V3 /2016

## 1. Features:

① The printed circuit board is directly welded and installed , and the appearance is beautiful;

<sup>(2)</sup> Can effectively suppress the interference of the primary side current fast transient pulse signal;

③ Reliable insulation between primary winding and secondary winding, winding and shielding;

④ Built-in precision resistance, can be directly measured, easy to use;

<sup>(5)</sup> Fully enclosed, good mechanical and environmental resistance, strong voltage isolation capability, safe and reliable.

# 2. Ambient Conditions:

- (1) Ambient temperature:  $-40^{\circ}C \sim +85^{\circ}C$ ;
- ② Relative humidity:  $\leq 90\%$  at  $40^{\circ}$ C;
- ③ Atmospheric pressure: 860~1060mbar(about 650~800mmHg).

### 3. Operating Frequency Range: 20Hz~20kHz

### 4. Insulation Thermal Class: Class B (130°C)

### 5. Safety Features:

- (1) Dielectric resistance: >1000M $\Omega$  in normal condition;
- 2 Insulation withstand voltages: 3KV 50Hz/1min;
- ③ Fire retardancy: In conformity with UL94-V0.

### 6. Model Naming Rules: see Figure 1 below



M: Ultramicrystalline core ; Do not add M: Iron core C: For measurement; B: For protection Product number A: Flexible wire input; B: Pin input

Figure 1





# 7. Outline Drawing and Installation Dimensions: (tolerance±0.5mm)

#### 8. Performance Parameters:

Model	Rated Input Current	Maximum Input Current	Rated Output Voltage	Non-linearity	Phase Shift
TA1424A-1CM	1A	1.2A	2V	≤0.5%	≤10'
TA1424A-2CM	5A	6A	2V	≤0.5%	≤10'
TA1424B-1CM	5A	6A	5V	≤0.5%	≤10'
TA1424B-2CM	5A	6A	3.53V	≤0.5%	≤10'

• Note: If the specifications in the table do not meet the user's requirements, customization can be done per the user's specifications.



# **TAS1907-01 Miniature Active AC Current Converter**

(5A/5V Electronic I/V Converter)

LI032V1/2008-EN

# 1. Features:

- ① The device takes in AC current signal as input and outputs AC voltage signal.
- 2 It has an integrated operational amplifier, enabling high accuracy measurements.
- 3 It is completely sealed, ensuring strong mechanical and environmental endurance, with high

dielectric strength and safe and reliable usage.

④ With an elegant and compact design, it can be directly soldered onto a PCB.

# 2. Ambient Conditions:

- (1) Ambient temperature:  $-55^{\circ}C \sim +85^{\circ}C$ ;
- ② Relative humidity:  $\leq 90\%$  at 40°C;
- ③ Atmospheric pressure: 860~1060mba(about 650~800mmHg).

# 3. Operating Frequency Range: 20Hz~10kHz

# 4. Insulation Thermal Class: Class B (130°C)

### 5. Safety Features:

- (1) Dielectric resistance: >1000M $\Omega$  in normal condition;
- 2 Insulation withstand voltages: 2KV 50Hz/1min;
- ③ Fire retardancy: In conformity with UL94-V0.

### 6. Outline Drawing, Installation Dimension and Function of Pins (table below):

Pin No.	2-4	6	7	8	9	10
Function	input	+B	adjusting	G	-B	output



### 7. Technical Parameters:

- ① Rated input current (virtual value):5A (Pin 2-4)
- 2 Rated output voltage (virtual value): 5V (Pin 8-10)
- ③ Non-Linearity ≤0.3%
- ④ Phase Shift ≤30'
- ⓑ Insulating Withstand Voltage≥2000V
- 6 Working Power Supply(B)±15V~22V







# 8. Application Instructions:

①The input coil between Pin 2 and Pin 4 must be connected in series with the loop of the measured current circuit, Pin 6 connected to +B. Pin 9 connected to -B. Pin 8 connected to ground. Pin10 is the output terminal. Pin7 is the adjusting terminal.

(2) While input AC current moving between  $0 \sim 5A$ , output of  $0 \sim 5V$  between Pin10 and Pin 8 is obtained and is linearly correspondent.

③Phase shift can be compensated by connecting a capacitor between Pin 7 and Pin10 and compensated to  $\leq 15$ ' when choosing a capacitor of  $0.033\mu$ F.

④Output voltage can be changed by connecting a resistor between Pin7 and Pin10 and it will be as bellow if the resistor connected is R and input current is 5A:

$$\frac{5R}{1000+R} \quad ( \quad \tilde{V} \quad )$$

#### 9. Attention:

① Pin 8 must be connected to ground, otherwise the accuracy will be compromised.

② If you want to convert the output AC signal to a DC signal, you can use the absolute value rectification method. Otherwise, the linear relationship will be disrupted due to the voltage drop across the diode.

③ Increasing the working voltage between Pin 6 and Pin 9 can extend the measuring range, whereas decreasing it will reduce the range.

④ If the output and input parameters do not suit your needs, we can customize them according to your specifications.