



TBV-ADA1220 series hall effect voltage transmitter is the measuring principle of the hall effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

## Electrical data (Ta=25°C±5°C)

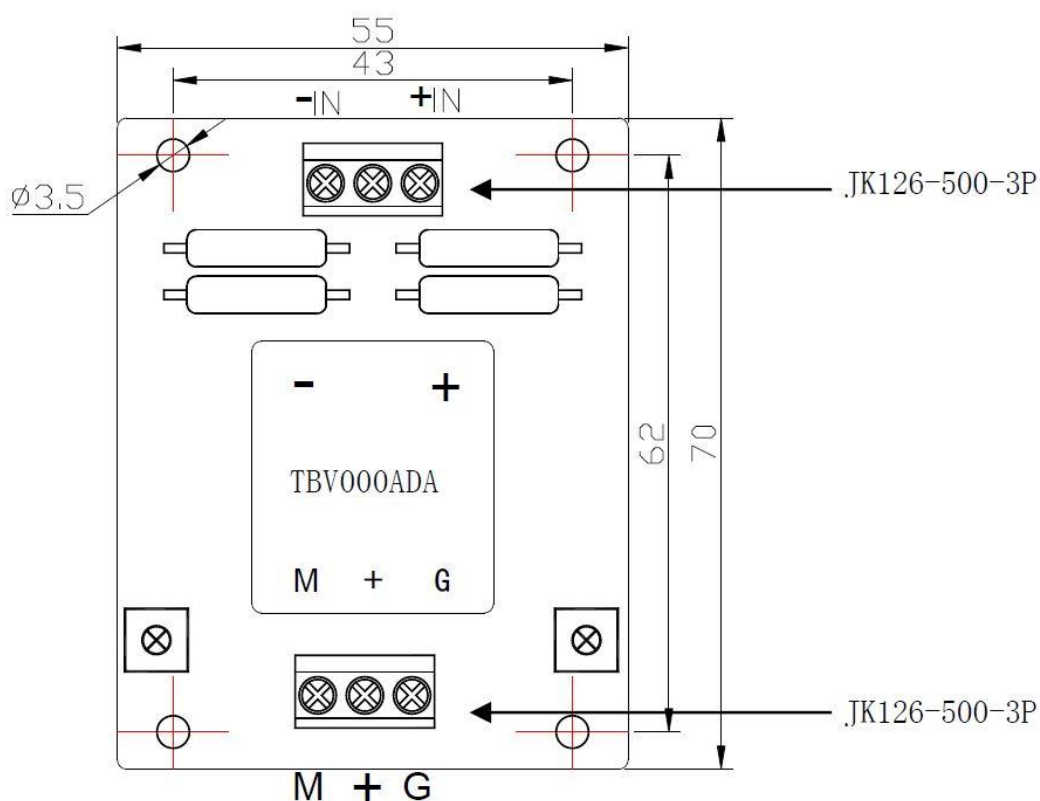
| Type<br>Parameter                             | TBV50<br>ADA1220                                                       | TBV100<br>ADA1220 | TBV200<br>ADA1220 | TBC300<br>ADA1220 | TBV400<br>ADA1220 | TBV500<br>ADA1220 | Unit  |
|-----------------------------------------------|------------------------------------------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------|
| Rated input (AC V <sub>pn</sub> )             | 50                                                                     | 100               | 200               | 300               | 400               | 500               | V     |
| Measure range (AC V <sub>p</sub> )            | 100                                                                    | 200               | 400               | 600               | 800               | 1000              | V     |
| Rated output (DC I <sub>sn</sub> )            | 0-20                                                                   |                   |                   |                   |                   |                   | mA    |
| Turns ratio (N <sub>p</sub> /N <sub>s</sub> ) | 3333:1000                                                              |                   |                   |                   |                   |                   | T     |
| Rated input ( I <sub>pn</sub> )               | 3.0                                                                    |                   |                   |                   |                   |                   | mA    |
| Supply voltage                                | 12±5%                                                                  |                   |                   |                   |                   |                   | V     |
| Consumption current                           | 20+I <sub>p</sub> X (N <sub>p</sub> /N <sub>s</sub> )+ I <sub>sn</sub> |                   |                   |                   |                   |                   | mA    |
| Zero current                                  | ±0.2                                                                   |                   |                   |                   |                   |                   | mA    |
| Offset current drift                          | ≤±0.005                                                                |                   |                   |                   |                   |                   | mA/°C |
| Linearity                                     | @V <sub>p</sub> =0-V <sub>pn</sub> ≤0.2                                |                   |                   |                   |                   |                   | %FS   |
| Response time                                 | ≤200                                                                   |                   |                   |                   |                   |                   | mS    |
| Band-width                                    | @-3dB 40 ~ 5000                                                        |                   |                   |                   |                   |                   | KHZ   |
| Galvanic isolation                            | @ 50HZ, AC,1min 2.5                                                    |                   |                   |                   |                   |                   | KV    |

## Applications

- AC variable speed drives
- Static converters for DC motor drives
- Variable speed drives
- Power supplies for welding applications
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)

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**Mechanical dimension (for reference only)**

Remarks :

1. All dimensions are in mm.
2. General tolerance  $\pm 1$

### Directions for use

1. When the current is measured through a transmitter, the voltage will be measured at the output end.  
(Note: The false wiring may result in the damage of the transmitter).
2. Customs can adjust Output amplitude of the transmitter by needs.
3. Custom design in the different rated input current and the output voltage available.

## Standards

- UL94-V0
- EN60947-1:2004
- IEC60950-1:2001
- EN50178:1998
- SJ 20790-2000

## General data

|                       | Value       | Unit | Symbol |
|-----------------------|-------------|------|--------|
| Operating temperature | -40 to +85  | °C   | TA     |
| Storage temperature   | -40 to +125 | °C   | TS     |
| Mass(approx)          | 43          | g    | M      |

## Characteristics chart

Effects of impulse noise



← (Output voltage)