# Specification for approval

**Description(产品类型):** Encapsulated transformer

**Customer(客户)p/n:**

**ZETTLER(赛特勒) p/n:** BV30XXXX012

**Revision(版本号):** A6

**页　数/Page:** 7

**Drafted(制作):** Li xiaoxu

**Checked(审核):** Chen chaolu

**Approved(确认):** He zongnian

RoHS COMPLIANT

| | | | |
|---|---|---|---|
| A6 | 2022/7/20 | Add BOM.<br>Add VDE UL ambient TEMP. in the precautions for use<br>Add UL and VDE file numbers | Li xiaoxu |
| A5 | 2022/3/4 | Remove not CE conform parts for EU market | Stöckel |
| A4 | 2021/12/9 | Add VDE and UL ambient TEMP. in the marking | Li xiaoxu |
| A3 | 2021/11/25 | Add VDE and UL ambient TEMP. in the precautions for use. | Li xiaoxu |
| A2 | 2021/11/4 | Add VDE logos into marking | Li xiaoxu |
| A1 | 2021/9/30 | Merge the data code into the marking | Li xiaoxu |
| Rev. | Date | Description | Approved |

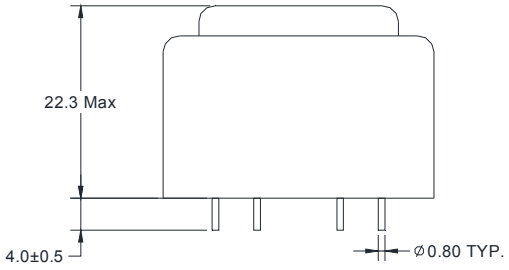
**Approved by Customer（客户确认）:**_____

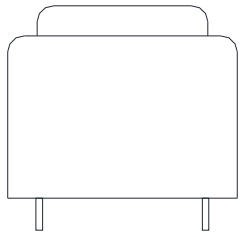
Friendly Reminder: Please help to sign this Spec when approve , and fax to our company .Or else, we will consider you have accepted it and make future order based on this Spec.

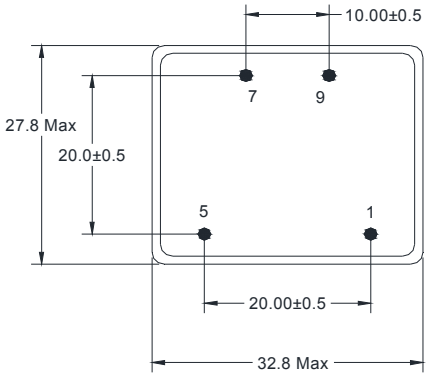
友情提示:请在签字确认后,按封面的传真号码回传给赛特勒磁电有限公司.如无回传,则视为默认,后续的相关订单将以按本承认书的规定为技术要求.

**ZETTLER MAGNETICS**
ADD:No.6, Xinjing road, Xinyang Industrial Zone，Haicang District.,XiaMen, 361028, PR China
中国厦门市海沧区新阳工业区新景路 6 号
TEL:+86 592 2631586　(FAX):+86 592 2631599

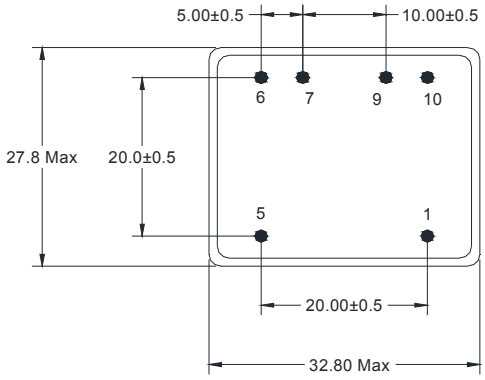
## 1、OUTLINE DRAWING(外形图):UNIT(单位)：mm



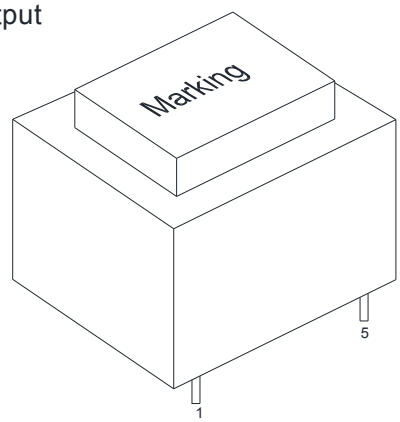






Single output




Dual output



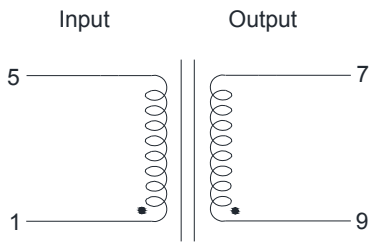

Notes :

◆ PCB opening aperture is recommended to be 1.3mm;（建议 PCB 开孔孔径为 1.3mm）

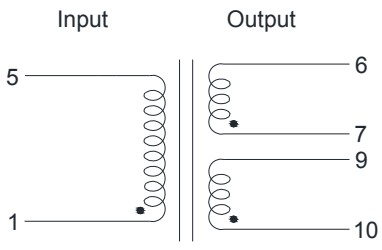
◆ If PIN layout and footprint have slightly deviation, please refer to actual PCB assembly, the ones can be normally inserted into PCB is qualified .(PIN 距、排距尺寸测量有偏差时, 以 PCB 下板实装确认, 可正常下板为合格)

◆The Pin length doesn't include the solder tip (PIN 脚长度不包括锡尖）

## 2、SCHEMATIC(原理图):




Single Output




Dual output

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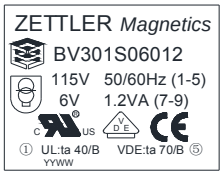
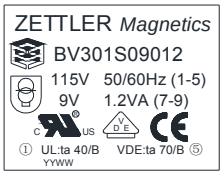
**TEL:+86 592 2631586 (FAX):+86 592 2631599**

## 3、Marking (标签图)




BV301S06012

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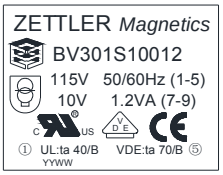


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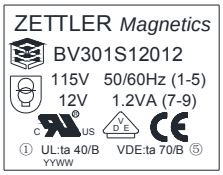


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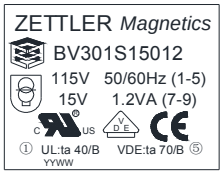


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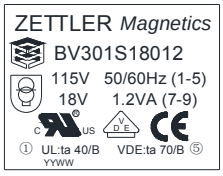


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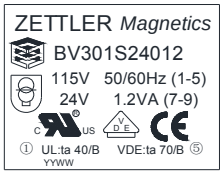


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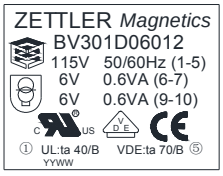


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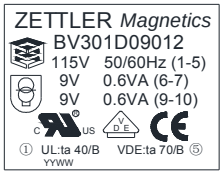


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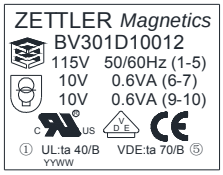


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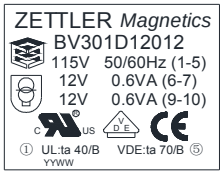


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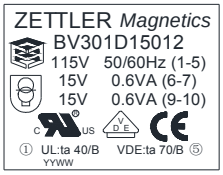


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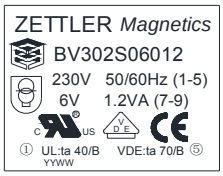


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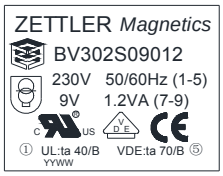


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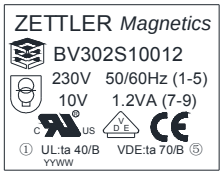


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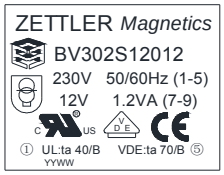


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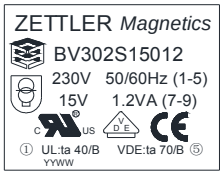


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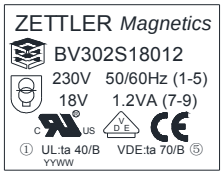


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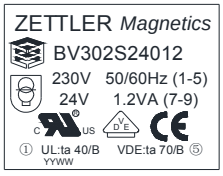


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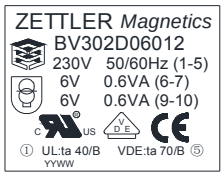


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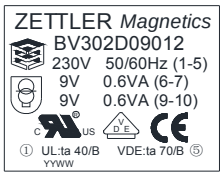


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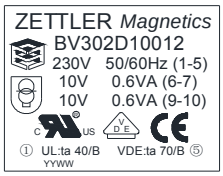


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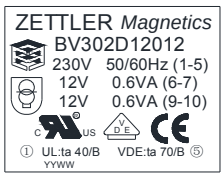


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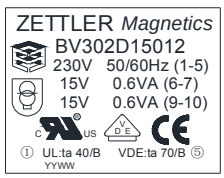


BV302D15012

**YY:Year WW:Week**

## 4-1、ELECTRICAL SPECIFICATION(电气特性测试)( Single Output 单输出):

| ITEM (项目) | EXCITATION CURRENT 空载电流(mA) Max | LOSS POWER 空载损耗（W）Max | RATED LOAD VOLTAGE 负载电压 (V) | NO LOAD VOLTAGE 空载电压(V) max | HI-POT VOLTAGE 耐压 | INSULATION RESISTANCE 绝缘阻抗 | RESISTANCE 直流电阻(Ω) | |
|---|---|---|---|---|---|---|---|---|
| 测试条件 TEST CONDITION | Input 输入:115V 50Hz | | Input 输入:115V 50Hz | | 1mA/1S/ 50Hz | DC 500V 100MΩ | Ta=25℃ | |
| 端子 TERMINAL | 1--5 | | 7--9 | 7--9 | P--S | P--S | 1--5 | 7--9 |
| BV301S06012 | 25 | 0.8 | 6.3±10% @ 200mA | 9.3 | 2800V | DC 500V 100MΩ MIN | 886±20% | 7.4±20% |
| BV301S09012 | 25 | 0.8 | 9.5±10% @ 133mA | 17 | | | 886±20% | 18.5±20% |
| BV301S10012 | 25 | 0.8 | 10.5±10% @ 120mA | 17 | | | 886±20% | 18.5±20% |
| BV301S12012 | 25 | 0.8 | 12.5±10% @ 100mA | 18.5 | | | 886±20% | 29±20% |
| BV301S15012 | 25 | 0.8 | 15.5±10% @ 80mA | 21.5 | | | 886±20% | 47±20% |
| BV301S18012 | 25 | 0.8 | 18.8±10% @ 66.7mA | 26.5 | | | 886±20% | 66±20% |
| BV301S24012 | 25 | 0.8 | 25±10% @ 50mA | 36 | | | 886±20% | 127±20% |
| | | | | | | | | |
| 测试条件 TEST CONDITION | Input 输入:230V 50Hz | | Input 输入:230V 50Hz | | 1mA/1S/ 50Hz | DC 500V 100MΩ | Ta=25℃ | |
| 端子 TERMINAL | 1--5 | | 7--9 | 7--9 | P--S | P--S | 1--5 | 7--9 |
| BV302S06012 | 15 | 0.8 | 6.3±10% @ 200mA | 9.3 | 4200V | DC 500V 100MΩ MIN | 3300±20% | 7.4±20% |
| BV302S09012 | 15 | 0.8 | 9.5±10% @ 133mA | 17 | | | 3300±20% | 18.5±20% |
| BV302S10012 | 15 | 0.8 | 10.5±10% @ 120mA | 17 | | | 3300±20% | 18.5±20% |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BV302S12012 | 15 | 0.8 | 12.5±10% @ 100mA | 18.5 | | | 3300±20% | 29±20% |
| BV302S15012 | 15 | 0.8 | 15.5±10% @ 80mA | 21.5 | | | 3300±20% | 47±20% |
| BV302S18012 | 15 | 0.8 | 18.8±10% @ 66.7mA | 26.5 | | | 3300±20% | 66±20% |
| BV302S24012 | 15 | 0.8 | 25±10% @ 50mA | 36 | | | 3300±20% | 127±20% |

## 4-2、ELECTRICAL SPECIFICATION(电气特性测试)( Dual output 双输出):

| ITEM (项目) | EXCITATION CURRENT 空载电流(mA) Max | LOSS POWER 空载损耗（W） Max | RATED LOAD VOLTAGE 负载电压 (V) | NO LOAD VOLTAGE 空载电压(V) max | HI-POT VOLTAGE 耐压 | INSULATION RESISTANCE 绝缘阻抗 | RESISTANCE 直流电阻(Ω) | | |
|---|---|---|---|---|---|---|---|---|---|
| 测试条件 TEST CONDITION | Input 输入:115V 50Hz | | Input 输入:115V 50Hz | | 1mA/1S/ 50Hz | DC 500V 100MΩ | Ta=25℃ | | |
| 端子 TERMINAL | 1--5 | | 6—7 9--10 | 6—7 9--10 | P--S | P--S | 1--5 | 6--7 | 9--10 |
| BV301D06012 | 25 | 0.8 | 2×6.3±10%@ 2×100mA | 2×9.3 | 2800V | DC 500V 100MΩ MIN | 886±20% | 16±20% | 14±20% |
| BV301D09012 | 25 | 0.8 | 2×9.5±10%@ 2×66.5mA | 2×17 | | | 886±20% | 44.4±20% | 40.1±20% |
| BV301D10012 | 25 | 0.8 | 2×10.5±10% @ 2×60mA | 2×17 | | | 886±20% | 44.4±20% | 40.1±20% |
| BV301D12012 | 25 | 0.8 | 2×12.5±10% @ 2×50mA | 2×18.5 | | | 886±20% | 58.7±20% | 49.5±20% |
| BV301D15012 | 25 | 0.8 | 2×15.5±10% @ 2×40mA | 2×21.5 | | | 886±20% | 103±20% | 93±20% |

| 测试条件 TEST CONDITION | Input 输入:230V 50Hz | | Input 输入:230V 50Hz | | 1mA/1S/ 50Hz | DC 500V 100MΩ | Ta=25℃ | | |
|---|---|---|---|---|---|---|---|---|---|
| 端子 TERMINAL | 1--5 | | 6—7 9--10 | 6—7 9--10 | P--S | P--S | 1--5 | 6--7 | 9--10 |
| BV302D06012 | 15 | 0.8 | 2×6.3±10%@ 2×100mA | 2×9.3 | 4200V | DC 500V 100MΩ MIN | 3300±20% | 16±20% | 14±20% |
| BV302D09012 | 15 | 0.8 | 2×9.5±10%@ 2×66.5mA | 2×17 | | | 3300±20% | 44.4±20% | 40.1±20% |
| BV302D10012 | 15 | 0.8 | 2×10.5±10% @ 2×60mA | 2×17 | | | 3300±20% | 44.4±20% | 40.1±20% |
| BV302D12012 | 15 | 0.8 | 2×12.5±10% @ 2×50mA | 2×18.5 | | | 3300±20% | 58.7±20% | 49.5±20% |
| BV302D15012 | 15 | 0.8 | 2×15.5±10% @ 2×40mA | 2×21.5 | | | 3300±20% | 103±20% | 93±20% |

## 5、PRECAUTIONS FOR USE (产品使用注意事项):

Ambient temperature range(使用环境温度范围): -25～+70℃
Storage temperature range(保存温度范围): -25～+85℃
Ambient TEMP.(VDE): ta 70/B
Ambient TEMP.(UL): ta 40/B
UL 认证号/ UL file No.：E177998
VDE 认证号/VDE file No.：40022230

## 6. BOM (材料表):

| NO.<br>序号 | MATERIAL TYPE<br>材料名称 | DESCRIPTION<br>规格描述 | SUPPLIERS<br>供应商 | UL NO.<br>认证号 |
|---|---|---|---|---|
| 1 | BOBBIN | PBT 4130<br>94V-0<br>PA66 A3X2G5,<br>(94-V0) | CHANG CHUN PLASICS CO LTD<br>BASF SE | E59481<br>E41871 |
| 2 | CASE | PBT 4130<br>94V-0<br>PA66 A3X2G5,<br>(94-V0) | CHANG CHUN PLASICS CO LTD<br>BASF SE | E59481<br>E41871 |
| 3 | WIRE | UEW | ELEKTRISOLA HANGZHOU CO LTD<br>TA YA ELECTRIC LTD<br>YICHI<br>NingBo XINJIAN ELECTRONICS INDUSTRY CO.，LTD | E258243<br>E197768<br>E363385<br>E197317 |
| 4 | GLUE | PU552FL | WEVO-CHEMIE GMBH | E108835 |
| | | 7800AR(*)/7800BR(#) | WUXI EAST-GRACE ELECTRONIC MATERIAL TECHNOLOGY CO LTD | E309982 |