**RCXWXXXG1 Triac**


## Constant Current Dimmable Driver

**Model: RC3W300G1 Triac**
**RC6W150G1 Triac**
**RC7W350G1 Triac**
**RC8W200G1 Triac**

| Model | Output Current | Input Current | Input Power | Output Power Range | PF | Efficiency (*Typical) | Output Voltage | No load Voltage |
|---|---|---|---|---|---|---|---|---|
| RC3W300G1 Triac | 300mA | 0.04A | 6.5W | 2.4-3.9W | ≥0.9 | 65% | 8-13V | 25V |
| RC6W150G1 Triac | 150mA | 0.06A | 10.5W | 4.05-6W | ≥0.9 | 71% | 27-40V | 53V |
| RC7W350G1 Triac | 350mA | 0.06A | 10.5W | 4.55-7W | ≥0.9 | 73% | 13-20V | 35V |
| RC8W200G1 Triac | 200mA | 0.06A | 10.5W | 5.4-8W | ≥0.9 | 78% | 27-40V | 53V |

*** Test result @230V, 50Hz, Full Load.**

## 1. Parameters

| Category | Item | Technical Norm |
|---|---|---|
| Features | Output Type | Constant Current |
| | Dimming Type | Phase dimming |
| | Dimming range | 1%-100% |
| | IP Grade | IP44 |
| | Insulation Class | Class II |
| Input | Rated Input Voltage | 220-240VAC_stable |
| | Range of Input Voltage | 198-264VAC or 180-280VDC（Without dimmer） |
| | Frequency | 0/50/60Hz（Without dimmer） |
| | Input Current | ≤0.06A |
| | Input Power | ≤10.5W |
| | Power Factor | ≥0.9（230VAC,full load） |
| | THD | ≤15%（230VAC,full load） |
| | No-load Power Consumption | ≤0.5W @230VAC |
| | Inrush Current | ≤6A/16us (230VAC，full load) |
| Output | Output Voltage | 8-13V @RC3W300G1 Triac |
| | | 27-40V @RC6W150G1 Triac/ @RC8W200G1 Triac |
| | | 13-20V @RC7W350G1 Triac |
| | Output Current | 300mA @RC3W300G1 Triac |
| | | 150mA @RC6W150G1 Triac |
| | | 200mA @RC8W200G1 Triac |

| | | |
|---|---|---|
| | | 350mA @RC7W350G1 Triac |
| | No Load Voltage | 50VDC Max. @RC6W150G1 Triac/@RC8W200G1 Triac |
| | | 35VDC Max. @RC3W300G1 Triac |
| | | 35VDC Max. @RC7W350G1 Triac |
| | Max. Output Power | RC3W300G1：3.9W<br>RC6W150G1：6W<br>RC7W350G1：7W<br>RC8W200G1：8W |
| | Efficiency(230VAC full load@max current) | RC3W300G1≥65%<br>RC6W150G1≥71%<br>RC7W350G1≥73%<br>RC8W200G1≥78% |
| | Current Ripple（<120Hz） | ±5%(Imax-Imin)/(Imax+Imin) |
| | PstLM | ≤1 |
| | SVM | ≤0.4 |
| | Current Accuracy | ±10% |
| | Line Regulation | ±5% |
| | Load Regulation | ±5% |
| | Started Delay Time | ≤0.5S（230VAC,full load） |
| Protection | Short Circuit Protection | Auto Recovery |
| | Overload Protection | Auto Recovery |
| | No-load Protection | Auto Recovery |
| | Insulation voltage | I/P to O/P , 3.75KVac/1min |
| | Insulation resistance | >100M ohm @ 500VDC |
| | Leakage current | I/P to O/P <0.7mA |
| Environment | Ta/Operation Temperature | -20….+60℃ |
| | Ts/Storage Temperature | -25….+85℃ |
| | Tc/Enclosure Temperature | RC3W300G1/RC6W150G1 Triac/RC8W200G1 Triac:85℃<br>RC7W350G1 Triac:90℃ |
| | Humidity | 10%....90%RH |
| | Atmosphere | 86-108KPa |
| Construction | Connection Method | Push-in Terminal |
| | Installation | Build-in |
| | PRI Wire preparation | 0.5-1.5□ |
| | SEC Wire preparation | 0.5-1.5□ |
| | Dimension | Φ42.5*22.5mm (R*H) |
| Standards | Certification | CE |
| | Safety Standards | EN 61347-1:2015/A1:2021<br>EN 61347-2-13:2014/A1:2017<br>EN IEC 62384:2020 |
| | EMC Standards | EN IEC 55015:2019 |

| | | |
|---|---|---|
| | | EN IEC 55015:2019/A11:2020<br>EN IEC 61000-3-2:2019/A1:2021<br>EN 61000-3-3:2013/A2:2021<br>EN IEC 61547:2023 |
| | Performance | EN62384:2020 |
| | Surge | L-N/2KV |
| Others | RoHS | Complied to 2011/65/EU |
| | REACH | EU Regulation (EC) No 1907/2006 |
| | Life Time | 50000h @Ta / Tc |
| | Warranty | 5years , F.R. <10000ppm |
| | Noise | ≤ 22dB @Background noise ≤ 18dB ,Interval ≥ 15cm |

Remark:

1. All Parameters, if not specified, are measured at 230VAC/50Hz and 25℃ ambient temperature.
2. LED Driver is a component of the luminaires, Luminaires and wire layout will affect the EMC, please check the EMC with end products again.
3. It is recommended that the control mode is back dimming for better effect
4. Do not install upside down.

## 2. Trailing Edge Dimmer list approved by KGP

| Manufacturer | Model | Q'ty of parallel connection |
|---|---|---|
| Yikai | EU-200P | T.B.D |
| Schneider | SBD315 | T.B.D |
| Schneider | SBD200LED | T.B.D |
| Eltaro | DTD55-230V | T.B.D |
| Berker | 286710 | T.B.D |
| ETMAN | ETM321PV2 | T.B.D |
| EUCHIPS | Walldin 106 | T.B.D |
| JISIM | JP1101 | T.B.D |

## 3. Connected quantities of different current Breaker 不同电流断路器连接数量

### RC3W300G1 Triac

| TYPE | Connected quantities of different current Breaker | | | | | | Input Voltage（V） | Inrush Current(A) | Time（μs） |
|---|---|---|---|---|---|---|---|---|---|
| | current（A） | 10 | 13 | 16 | 20 | 25 | | | |
| | Installation wire diameter | 1.5mm² | 2.5mm² | 2.5mm² | 4mm² | 4mm² | | | |
| TYPE B | | 133 | 173 | 213 | 267 | 333 | @230VAC | 4.5 | 20us |
| TYPE C | | 213 | 277 | 341 | 427 | 533 | | | |
| TYPE D | | 341 | 444 | 546 | 683 | 853 | | | |

### RC6W150G1 Triac；RC7W350G1 Triac；RC8W200G1 Triac

| TYPE | Connected quantities of different current Breaker | | | | | | Input Voltage（V） | Inrush Current(A) | Time（μs） |
|---|---|---|---|---|---|---|---|---|---|
| | current（A） | 10 | 13 | 16 | 20 | 25 | | | |
| | Installation wire diameter | 1.5mm² | 2.5mm² | 2.5mm² | 4mm² | 4mm² | | | |
| TYPE B | | 120 | 156 | 192 | 240 | 300 | @230VAC | 5 | 20us |
| TYPE C | | 192 | 250 | 307 | 384 | 480 | | | |
| TYPE D | | 307 | 399 | 492 | 614 | 768 | | | |

## 4. Label


R,C
KGP
KGP Electronics GmbH
Hueckstraße 19
DE-58511 Lüdenscheid
LED Dimmable Driver
RC3W300G1 Triac
PRI:220-240VAC 50/60Hz 0.03A PF:≥0.9C
SEC:Constant Current:300mA
8-13VDC No load:25VDC Max.3.9W
ta:60°C tc:85°C
For LED modules only
Enginnering Sample
PRI
SEC
N
L
+
-


R,C
KGP
KGP Electronics GmbH
Hueckstraße 19
DE-58511 Lüdenscheid
LED Dimmable Driver
RC7W350G1 Triac
PRI:220-240VAC 50/60Hz 0.06A PF:≥0.9C
SEC:Constant Current:350mA
13-20VDC No load:35VDC Max.7W
ta:60°C tc:90°C
For LED modules only
Enginnering Sample
PRI
SEC
N
L
+
-


R,C
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Hueckstraße 19
DE-58511 Lüdenscheid
LED Dimmable Driver
RC6W150G1 Triac
PRI:220-240VAC 50/60Hz 0.06A PF:≥0.9C
SEC:Constant Current:150mA
27-40VDC No load:55VDC Max.6W
ta:60°C tc:85°C
For LED modules only
Enginnering Sample
PRI
SEC
N
L
+
-


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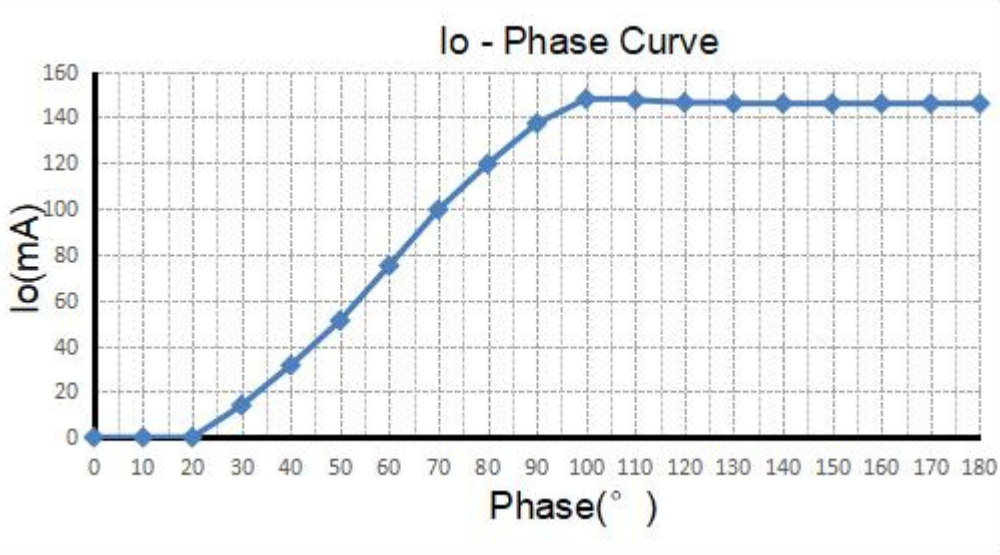
KGP Electronics GmbH
Hueckstraße 19
DE-58511 Lüdenscheid
LED Dimmable Driver
RC8W200G1 Triac
PRI:220-240VAC 50/60Hz 0.06A PF:≥0.9C
SEC:Constant Current:200mA
27-40VDC No load:55VDC Max.8W
ta:60°C tc:85°C
For LED modules only
Enginnering Sample
PRI
SEC
N
L
+
-

侧面

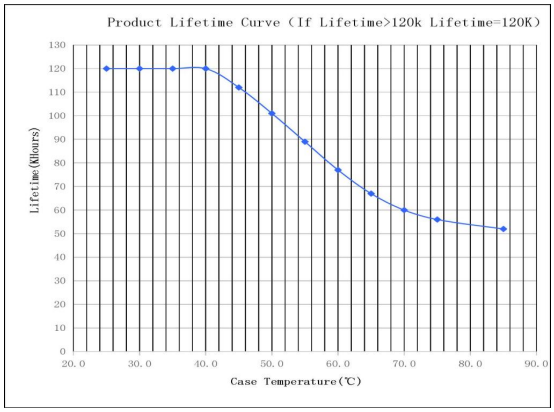
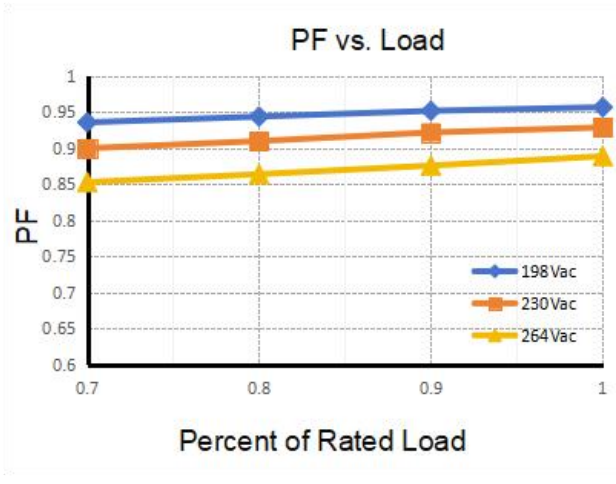
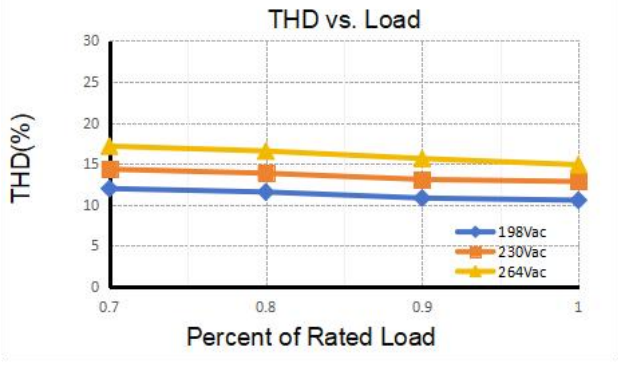
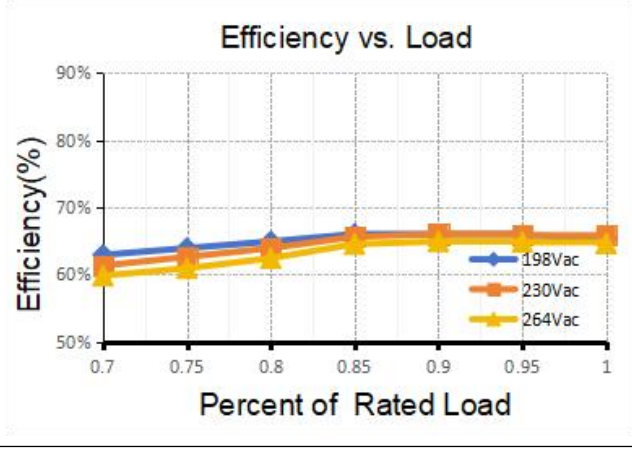

SELV

## 5. Dimming curve

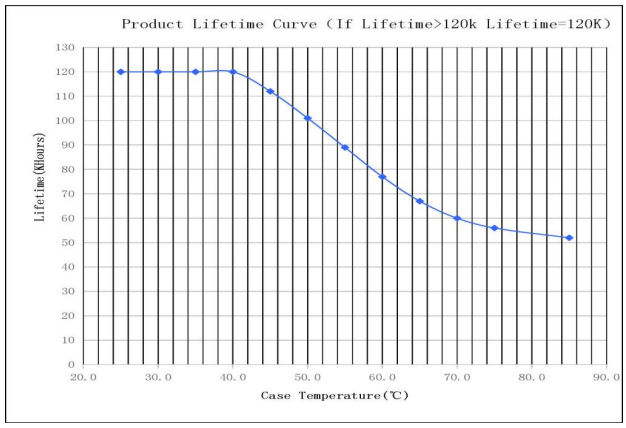
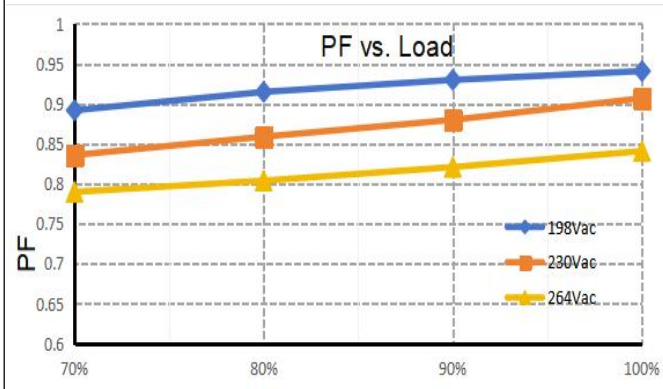
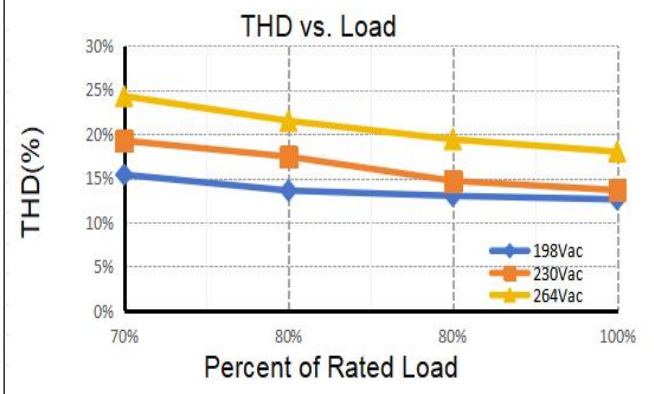
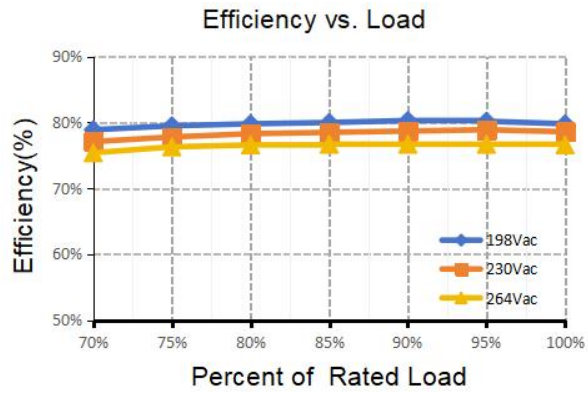



## 6. Electrical values

### RC3W300G1 Triac:

| Lifetime vs. Case Temperature | PF vs. Load |
|---|---|
|  |  |
| **THD vs. Load** | **Efficiency vs. Load** |
|  |  |

## RC6W150G1 Triac:

| Lifetime vs. Case Temperature | PF vs. Load |
|---|---|
|  |  |
| **THD vs. Load** | **Efficiency vs. Load** |
|  |  |

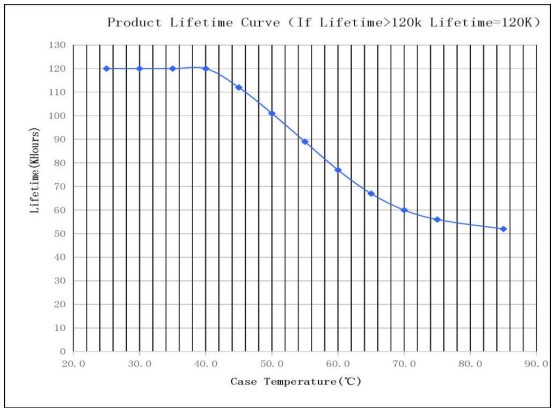
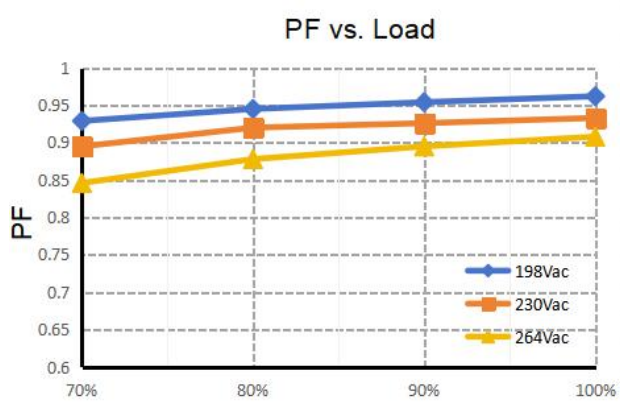








## RC7W350G1 Triac:

| Lifetime vs. Case Temperature | PF vs. Load |
|---|---|
|  |  |
| **THD vs. Load** | **Efficiency vs. Load** |





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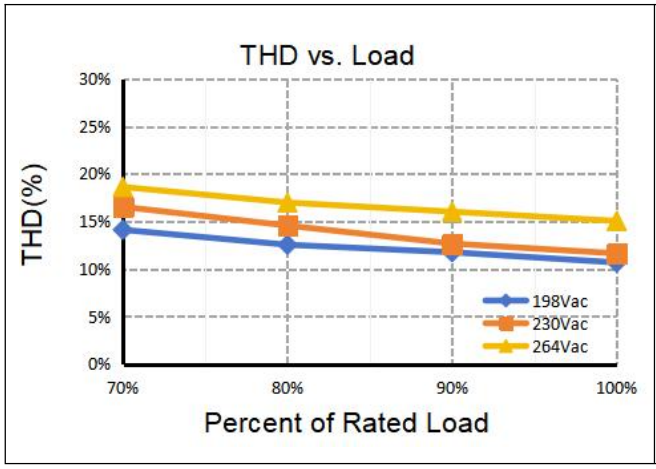
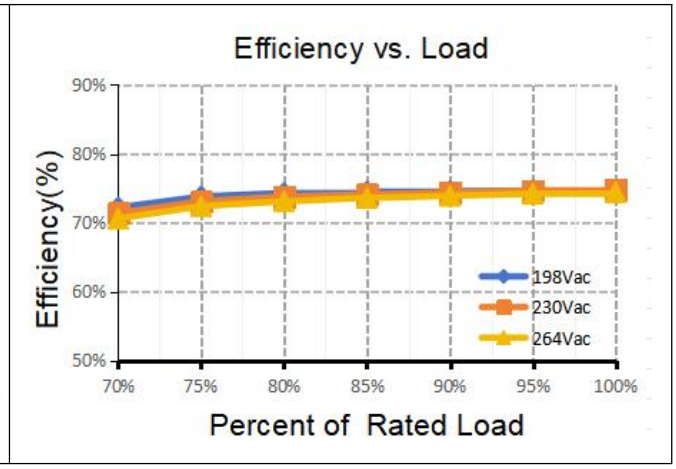
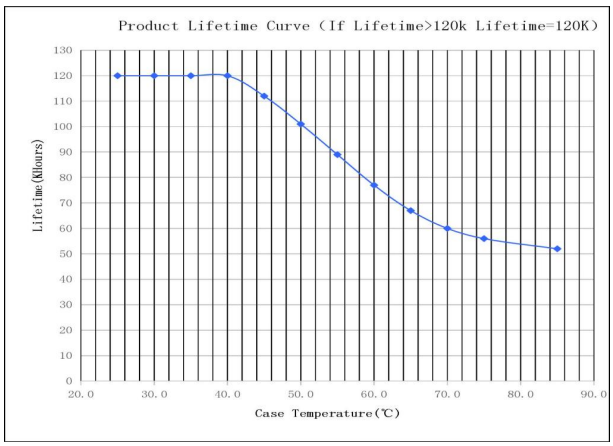
## RCXWXXXG1 Triac



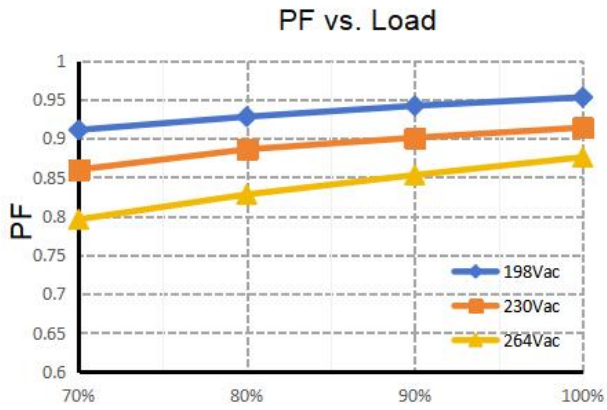




## RC8W200G1 Triac:

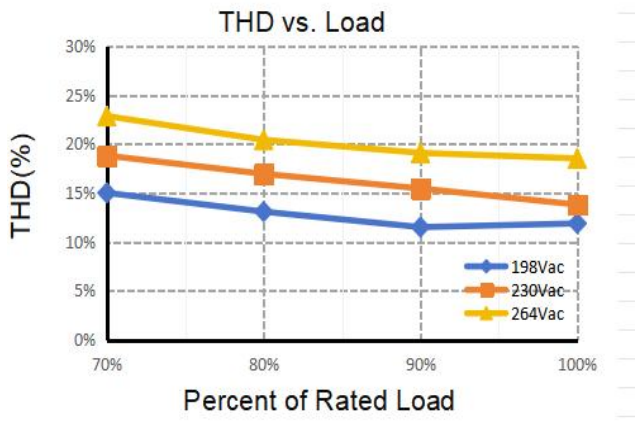
Lifetime vs. Case Temperature



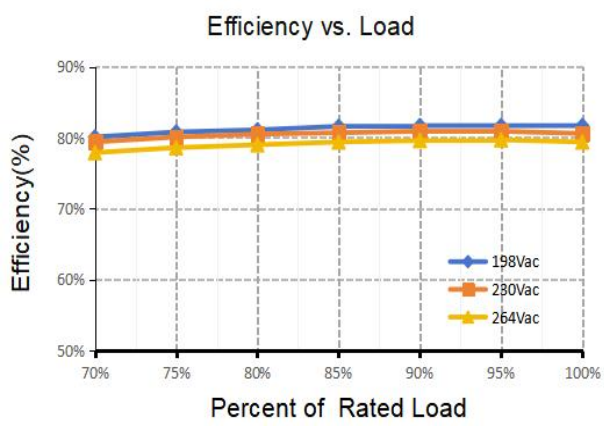

PF vs. Load



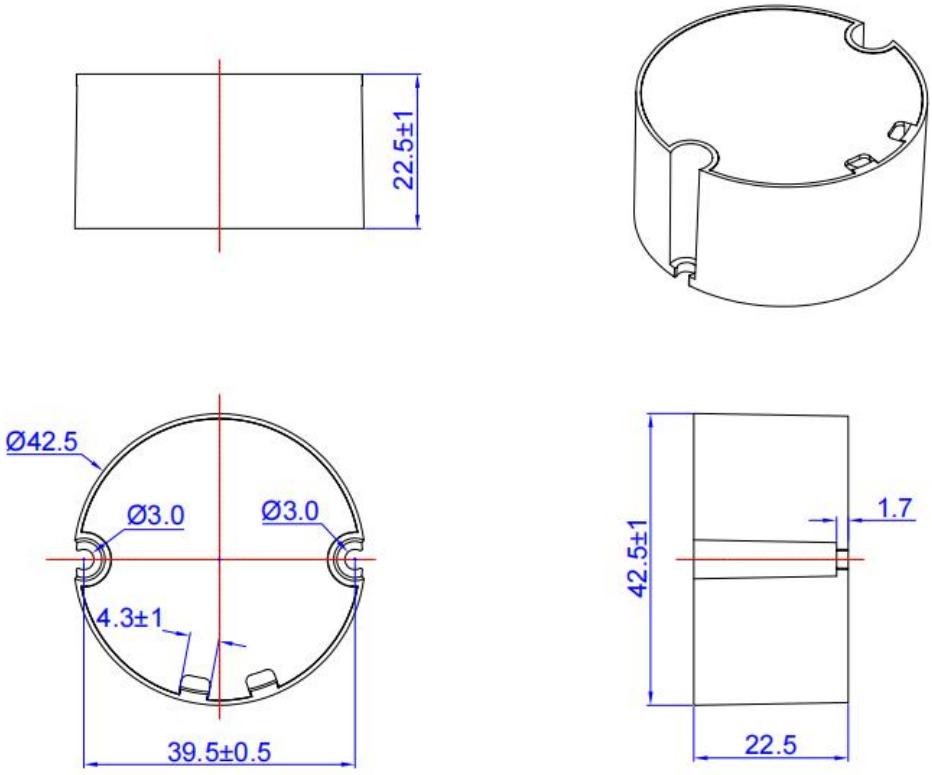

THD vs. Load



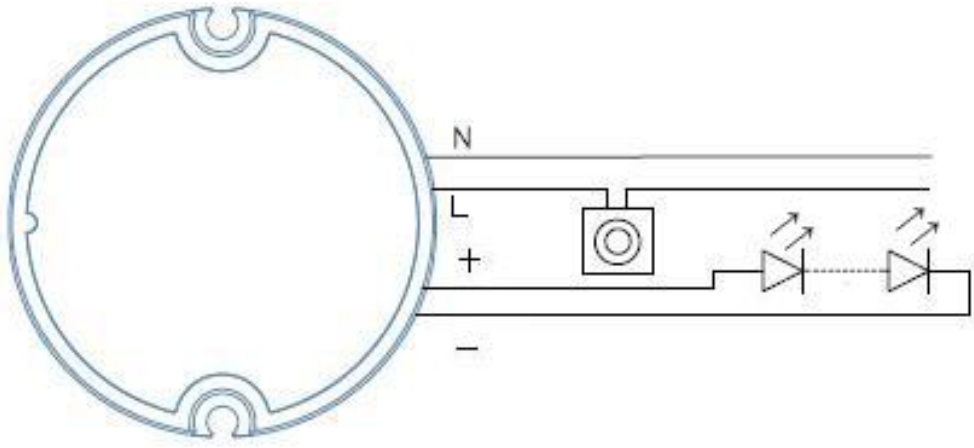

Efficiency vs. Load



## 7. Dimension（Unit：mm）




## 8. Wiring Diagram




Wiring type and cross section
Input: Brown-blue wire, 200mm ,0.5mm²
Output: Red-black wire, 200mm. 0.3mm²

## 9. Packing information

| Packing way | Model | Carton L*W*H(mm) | Pcs/ Carton | Net weight/ Pcs(kg) | Net weight/ Carton(kg) | Gross weight/ Carton(kg) |
|---|---|---|---|---|---|---|
| Industrial | RC3W300G1 Triac | 410*270*160 | 180 | 0.0555 | 9.99 | 10.49 |
| | RC6W150G1 Triac | | | | | |
| | RC7W350G1 Triac | | | | | |
| | RC8W200G1 Triac | | | | | |

## 10. Wiring instructions

• All connections must be kept as short as possible to ensure good EMI behaviour
• Mains leads should be kept apart from LED Driver and other leads (ideally 5 – 10 cm distance)
• Advice the maximum length of output wires is 0.5 m
• Secondary switching is not permitted（Except for constant voltage）
• Incorrect wiring can damage LED modules.
• The wiring must be protected against short circuits to earth (sharp edged metals parts, metal cable clips, louver, etc.)
• Hot plug-in is not supported due to residual output voltage of > 0 V up to mains voltage. Danger to life.
• When connecting an LED load, restart the device to activate the LED output.
• This can be done via mains reset or via interface (DALI, DSI, switch DIM).

## 11. Replace LED module

•Mains off
•Remove LED module
•Wait for 30 seconds
•Connect LED module again
•Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs

## 12. REVISION HISTORY

| DATE | REV | REMARK |
|---|---|---|
| 2025-02-26 | V1.0 | Initial release. |
| | | |
| | | |
| | | |
| | | |