



## INPUT

| parameter                 | conditions/description         | min | typ   | max  | units |
|---------------------------|--------------------------------|-----|-------|------|-------|
| voltage <sup>4</sup>      | ac input                       | 85  |       | 305  | Vac   |
|                           | dc input                       | 100 |       | 430  | Vdc   |
| frequency                 |                                | 47  | 50~60 | 63   | Hz    |
| current                   | 115 Vac                        |     |       | 0.45 | A     |
|                           | 230 Vac                        |     |       | 0.3  | A     |
| inrush current            | 115 Vac                        |     | 30    |      | A     |
|                           | 230 Vac                        |     | 60    |      | A     |
| external input fuse       | 2 A/300 V, slow-blow, required |     |       |      |       |
| leakage current           | 230 Vac/50 Hz                  |     |       | 0.1  | mA    |
| no load power consumption | at 230 Vac                     |     | 0.05  | 0.12 | W     |

Notes: 4. The input voltage should not exceed the specified range value to prevent permanent and irreparable damage.

## OUTPUT

| parameter               | conditions/description | min | typ   | max   | units |
|-------------------------|------------------------|-----|-------|-------|-------|
| capacitive load         | 3.3 Vdc output model   |     |       | 6,600 | μF    |
|                         | 5 Vdc output model     |     |       | 5,000 | μF    |
|                         | 9 Vdc output model     |     |       | 3,000 | μF    |
|                         | 12 Vdc output model    |     |       | 2,000 | μF    |
|                         | 15 Vdc output model    |     |       | 1,500 | μF    |
|                         | 24 Vdc output model    |     |       | 680   | μF    |
| output voltage accuracy |                        |     | ±2    |       | %     |
| line regulation         |                        |     | ±0.5  |       | %     |
| load regulation         | 0% ~ 100% load         |     | ±1.0  |       | %     |
| hold-up time            | at 230 Vac             |     | 56    |       | ms    |
| temperature coefficient |                        |     | ±0.02 |       | %/°C  |

## PROTECTIONS

| parameter                | conditions/description    | min | typ | max | units |
|--------------------------|---------------------------|-----|-----|-----|-------|
| over current protection  |                           | 110 |     |     | %     |
| short circuit protection | continuous, auto recovery |     |     |     |       |

## SAFETY & COMPLIANCE

| parameter          | conditions/description                                                                        | min       | typ | max | units |
|--------------------|-----------------------------------------------------------------------------------------------|-----------|-----|-----|-------|
| isolation voltage  | input to output, for 1 minute, 5mA max                                                        | 4,000     |     |     | Vac   |
| safety approvals   | certified to 62368-1: IEC, EN, UL<br>designed to meet 61558: EN<br>designed to meet 60335: EN |           |     |     |       |
| safety class       | Class II                                                                                      |           |     |     |       |
| EMI/EMC            | CISPR32/EN55032 CLASS B (see recommended circuit Fig. 2)                                      |           |     |     |       |
| ESD                | IEC/EN61000-4-2 Contact ±6 kV/Air ±8 kV, perf. Criteria B                                     |           |     |     |       |
| radiated immunity  | IEC/EN61000-4-3 10 V/m, perf. Criteria A                                                      |           |     |     |       |
| EFT/burst          | IEC/EN61000-4-4 ±4 kV (see recommended circuit Fig. 2 ), perf. Criteria A                     |           |     |     |       |
| surge              | IEC/EN61000-4-5 line to line ±1 kV, perf. Criteria B                                          |           |     |     |       |
|                    | IEC/EN61000-4-5 line to line ±2 kV, (see recommended circuit Fig. 2 ), perf. Criteria A       |           |     |     |       |
| conducted immunity | IEC/EN61000-4-6 10 Vrms, perf. Criteria A                                                     |           |     |     |       |
| MTBF               | MIL-HDBK-217F at 25°C                                                                         | 3,200,000 |     |     | hours |
| RoHS               | yes                                                                                           |           |     |     |       |

ENVIRONMENTAL

| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature |                        | -40 |     | 85  | °C    |
| storage temperature   |                        | -40 |     | 85  | °C    |
| storage humidity      | non-condensing         | 0   |     | 95  | %     |

SOLDERABILITY

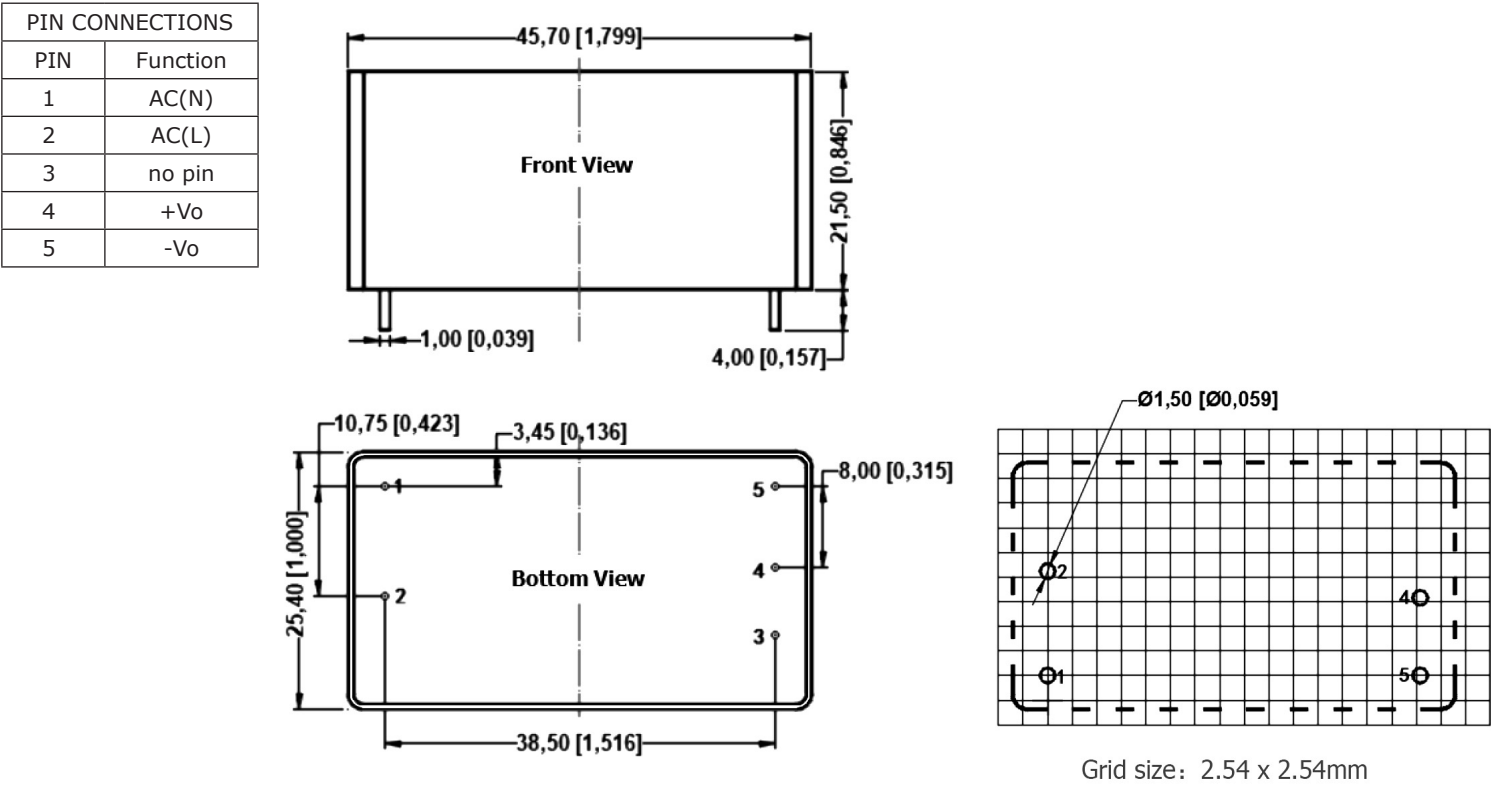
| parameter      | conditions/description | min | typ | max | units |
|----------------|------------------------|-----|-----|-----|-------|
| wave soldering | 5~10 seconds max       | 255 | 260 | 265 | °C    |
| hand soldering | 5~10 seconds max       | 355 | 360 | 365 | °C    |

MECHANICAL

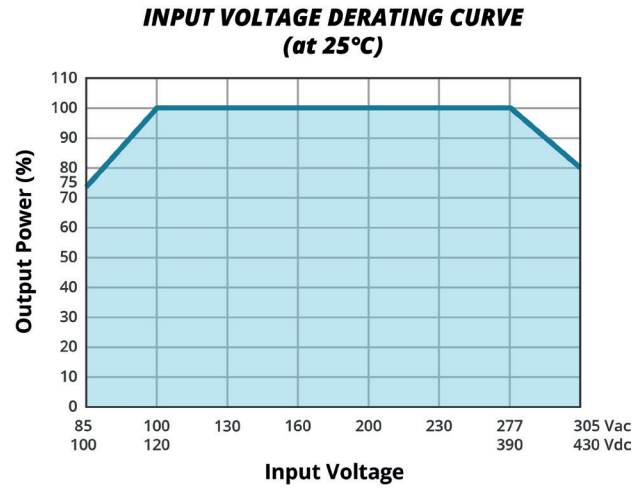
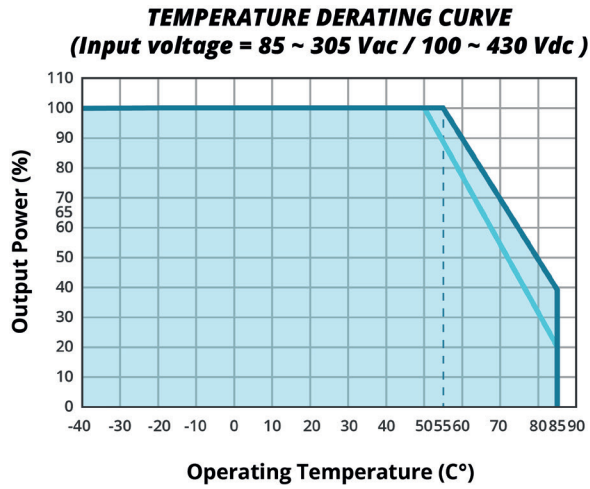
| parameter     | conditions/description                                      | min | typ  | max | units |
|---------------|-------------------------------------------------------------|-----|------|-----|-------|
| dimensions    | 45.70 x 25.40 x 21.50 [1.799 x 1.000 x 0.846 inch]          |     |      |     | mm    |
| weight        |                                                             |     | 39.6 |     | g     |
| case material | black plastic, flame-retardant and heat-resistant (UL94V-0) |     |      |     |       |
| cooling       | natural convection                                          |     |      |     |       |

MECHANICAL DRAWING

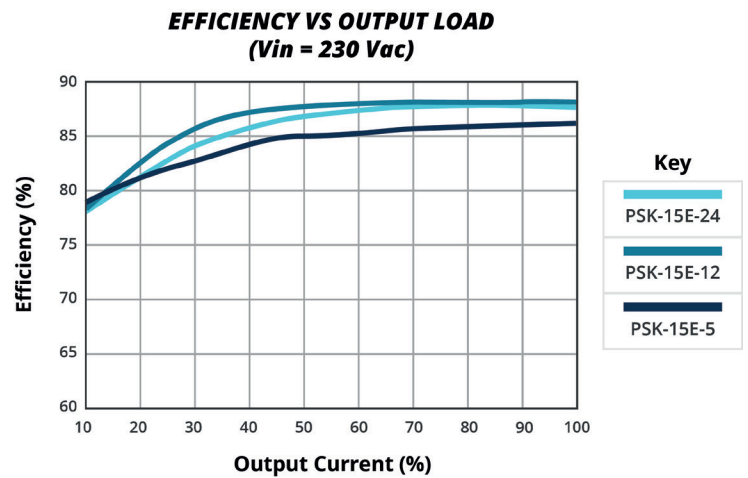
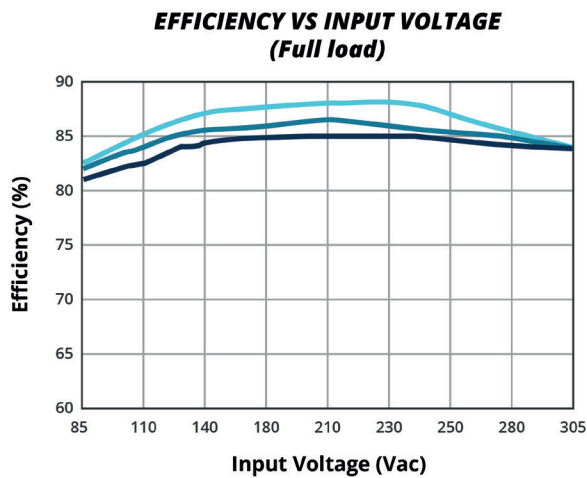
units: mm [inch]  
pin diameter tolerance: ±0.10 [±0.004]  
tolerance: ±0.50 [±0.020]



## DERATING CURVE



## EFFICIENCY CURVES



APPLICATION DESIGN REFERENCE

Figure 1

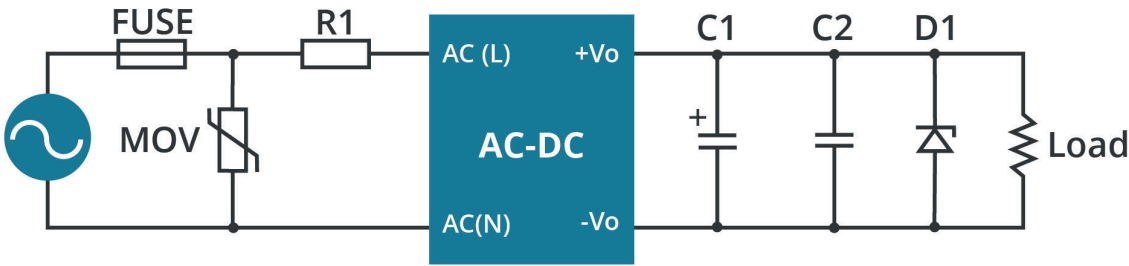


Table 1

| Vout (Vdc) | FUSE                         | MOV     | R1                                      | C1 (μF/V)   | C2 (μF/V) | D1         |
|------------|------------------------------|---------|-----------------------------------------|-------------|-----------|------------|
| 5          | 2A/300V, slow-blow, required | 10D561K | 6.8Ω/3W (wire-wound resistor, required) | 220 μF/16 V | 1 μF/25 V | see note 2 |
| 9, 12      |                              |         |                                         | 100 μF/25 V | 1 μF/25 V |            |
| 15, 24     |                              |         |                                         | 100 μF/35 V | 1 μF/50 V |            |

Notes: 1. Fuse and MOV should be selected based on application requirements and performance criteria.  
2. D1 is a TVS transistor that can protect the downstream circuit in case of module abnormalities. It is recommended to choose a model that is 1.2 times the output voltage.

EMC RECOMMENDED CIRCUIT

Figure 2

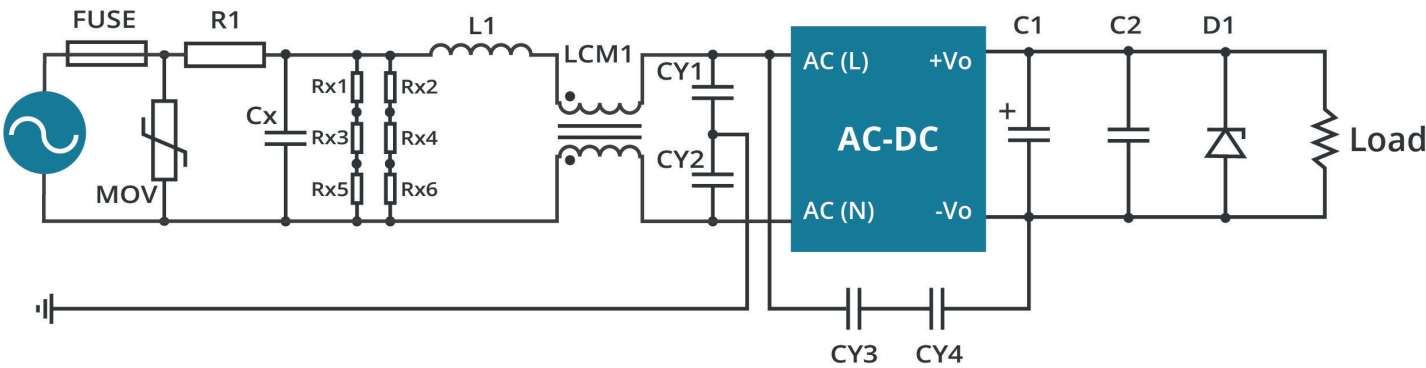


Table 2

| Components                   | Recommended Value                       |
|------------------------------|-----------------------------------------|
| FUSE                         | 2A/300V, slow-blow, required            |
| MOV                          | 10D561K                                 |
| R1                           | 6.8Ω/3W (wire wound resistor, required) |
| Cx                           | 0.33 μF/305 Vac                         |
| L1                           | 1.2 mH/0.5 A                            |
| CY1, CY2                     | 2.2 nF/400 Vac                          |
| CY3, CY4                     | 1.0 nF/400 Vac                          |
| LCM                          | 20 mH Common mode inductance            |
| Rx1, Rx2, Rx3, Rx4, Rx5, Rx6 | 1.5 MΩ/1206                             |

REVISION HISTORY

| rev. | description     | date       |
|------|-----------------|------------|
| 1.0  | initial release | 05/21/2025 |

The revision history provided is for informational purposes only and is believed to be accurate.



15575 SW Sequoia Pkwy #100  
Portland, OR 97224  
800.275.4899

Fax 503.612.2383  
**Belfuse.com**  
Tech.Support@psbel.com

CUI offers a two (2) year limited warranty. Complete warranty information is listed on our website.

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.