

# APPLELEC LED SLIMLINE POWER SUPPLY



## Product description:

This LED power supply is highly efficient up to 92% with a power factor of 0.95, making it the most efficient power supply that Applelec has to offer.

## Key features:

- High efficiency, Up to 92%
- Indoor rated
- Can be used with inline dimmers
- Independent constant voltage LED power supply
- Terminal block for quick connection
- Driver can be secured with slot for screws
- Ultra-thin design, the height is 16.5mm
- Full protection functions with automatic recovery feature
- Fast start-up time  $\leq 0.5s$
- Protection class II, SELV output
- Compliance to ERP directive: COMMISSION REGULATION (EU) 2019/2020

## Dimensions

- 30W - 216mm(w) x 30mm(h) x 16mm(d)
- 60W - 246mm(w) x 30mm(h) x 16.5mm(d)
- 100W - 284mm(w) x 30mm(h) x 16.5mm(d)
- 160W - 332mm(w) x 44mm(h) x 18mm(d)
- 200W - 332mm(w) x 44mm(h) x 18mm(d)

## Safety & EMC Standard

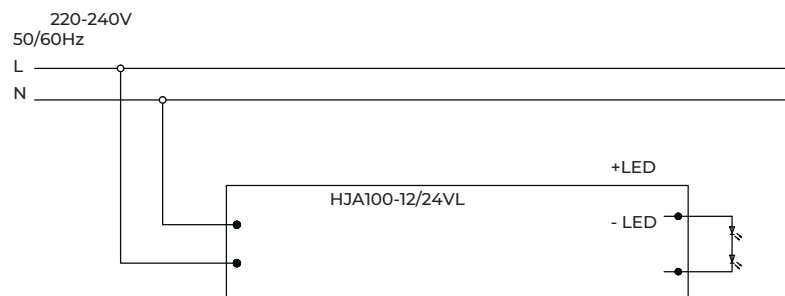
- EN 55015
- EN 60598-1
- EN 61000-3-2
- EN 61000-3-3
- EN 61347-2-13
- EN 61547
- EN 62384

## Applications

- Lightbox backlighting
- Applelec LED Light Sheet
- Ribbon Tape
- Cabinet lighting
- Strip lighting



## Wiring Diagram



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# APPLELEC LED POWER SUPPLY - 30W

| Model            |                                                      | HJA30-24-APP                  |
|------------------|------------------------------------------------------|-------------------------------|
| Input            | Rated supply voltage (VAC)                           | 220-240                       |
|                  | Volatge range (VAC)                                  | 198-264                       |
|                  | Line Frequency (Hz)                                  | 50/60                         |
|                  | Input current (mA)                                   | 180                           |
|                  | Efficiency with full load                            | 85%                           |
|                  | Power factor (at 230v, 50Hz, full load)              | 0.95                          |
|                  | Displacement factor (DF) (at 230V, 50Hz, full load)  | 0.95                          |
|                  | Total harmonic distortion (at 230V, 50Hz, full load) | <20%                          |
|                  | No load power consumption (W)                        | <0.5                          |
|                  | Inrush current (peak/duration)                       | 7.2A 550us                    |
| Output           | Turn on time(s)                                      | <0.5                          |
|                  | Output power (W)                                     | 60                            |
|                  | Output voltage (V)                                   | 24                            |
|                  | Output voltage tolerance                             | ± 5%                          |
|                  | Ripple voltage (mV)                                  | 450                           |
|                  | Output current range (A)                             | 0-1.25                        |
|                  | Max. output voltage (V)                              | 25                            |
|                  | Isolation output to input                            | SELV                          |
|                  | Dimming interface                                    | N/A                           |
|                  | Dimming range                                        | N/A                           |
| Protection       | Over load protection                                 | Y                             |
|                  | Over temperature protection                          | Y                             |
|                  | Short circuit protection                             | Y                             |
|                  | Open circuit protection                              | Y                             |
|                  | Automatic restart after restore                      | Y                             |
| Ambient and life | Ambient temperature in normal working Ta(°C)         | -20...+45                     |
|                  | Max. casing temperature Tc(°C)                       | 85                            |
|                  | Normal life-time (hrs)                               | 50'000@TC=85°C                |
|                  | Failure rate                                         | 0.1%/1000h                    |
|                  | Guarantee (Years)                                    | 5                             |
|                  | Storage temperature (°C)                             | -30...+80°C                   |
|                  | Ambient humidity range                               | 5%...85%RH,<br>Not condensing |
| Others           | Weight (gram)                                        | 140                           |
|                  | Housing material                                     | PC                            |
|                  | Housing colour                                       | White                         |
|                  | Waterproof rating                                    | IP20                          |

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# APPLELEC LED POWER SUPPLY - 60W

| Model            |                                                      | HJA60-24-APP                  |
|------------------|------------------------------------------------------|-------------------------------|
| Input            | Rated supply voltage (VAC)                           | 220-240                       |
|                  | Volatge range (VAC)                                  | 198-264                       |
|                  | Line Frequency (Hz)                                  | 50/60                         |
|                  | Input current (mA)                                   | 330                           |
|                  | Efficiency with full load                            | 92%                           |
|                  | Power factor (at 230v, 50Hz, full load)              | 0.95                          |
|                  | Displacement factor (DF) (at 230V, 50Hz, full load)  | 0.95                          |
|                  | Total harmonic distortion (at 230V, 50Hz, full load) | <20%                          |
|                  | No load power consumption (W)                        | <0.5                          |
|                  | Inrush current (peak/duration)                       | 6A 500us                      |
| Output           | Turn on time(s)                                      | <0.5                          |
|                  | Output power (W)                                     | 60                            |
|                  | Output voltage (V)                                   | 24                            |
|                  | Output voltage tolerance                             | ± 5%                          |
|                  | Ripple voltage (mV)                                  | 900                           |
|                  | Output current range (A)                             | 0-2.5                         |
|                  | Max. output voltage (V)                              | 28                            |
|                  | Isolation output to input                            | SELV                          |
|                  | Dimming interface                                    | N/A                           |
|                  | Dimming range                                        | N/A                           |
| Protection       | Over load protection                                 | Y                             |
|                  | Over temperature protection                          | Y                             |
|                  | Short circuit protection                             | Y                             |
|                  | Open circuit protection                              | Y                             |
|                  | Automatic restart after restore                      | Y                             |
| Ambient and life | Ambient temperature in normal working Ta(°C)         | -20...+50                     |
|                  | Max. casing temperature Tc(°C)                       | 90                            |
|                  | Normal life-time (hrs)                               | 50'000@TC=85°C                |
|                  | Failure rate                                         | 0.1%/1000h                    |
|                  | Guarantee (Years)                                    | 5                             |
|                  | Storage temperature (°C)                             | -30...+80°C                   |
|                  | Ambient humidity range                               | 5%...85%RH,<br>Not condensing |
| Others           | Weight (gram)                                        | 170                           |
|                  | Housing material                                     | PC                            |
|                  | Housing colour                                       | White                         |
|                  | Waterproof rating                                    | IP20                          |

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# APPLELEC LED POWER SUPPLY - 100W

| Model            |                                                      | HJA100-24-APP                 |
|------------------|------------------------------------------------------|-------------------------------|
| Input            | Rated supply voltage (VAC)                           | 220-240                       |
|                  | Voltage range (VAC)                                  | 198-264                       |
|                  | Line Frequency (Hz)                                  | 50/60                         |
|                  | Input current (mA)                                   | 550                           |
|                  | Efficiency with full load                            | 92%                           |
|                  | Power factor (at 230V, 50Hz, full load)              | 0.95                          |
|                  | Displacement factor (DF) (at 230V, 50Hz, full load)  | 0.95                          |
|                  | Total harmonic distortion (at 230V, 50Hz, full load) | <20%                          |
|                  | No load power consumption (W)                        | <0.5                          |
|                  | Inrush current (peak/duration)                       | 20A 1mS                       |
| Output           | Turn on time(s)                                      | <0.5                          |
|                  | Output power (W)                                     | 100                           |
|                  | Output voltage (V)                                   | 24                            |
|                  | Output voltage tolerance                             | ± 5%                          |
|                  | Ripple voltage (mV)                                  | 1000                          |
|                  | Output current range (A)                             | 0-4.16                        |
|                  | Max. output voltage (V)                              | 28                            |
|                  | Isolation output to input                            | SELV                          |
|                  | Dimming interface                                    | N/A                           |
|                  | Dimming range                                        | N/A                           |
| Protection       | Over load protection                                 | none                          |
|                  | Over temperature protection                          | Y                             |
|                  | Short circuit protection                             | Y                             |
|                  | Open circuit protection                              | Y                             |
|                  | Automatic restart after restore                      | Y                             |
| Ambient and life | Ambient temperature in normal working Ta(°C)         | -20...+45                     |
|                  | Max. casing temperature Tc(°C)                       | 90                            |
|                  | Normal life-time (hrs)                               | 50'000@TC=80°C                |
|                  | Failure rate                                         | 0.1%/1000h                    |
|                  | Guarantee (Years)                                    | 5                             |
|                  | Storage temperature (°C)                             | -30...+80°C                   |
|                  | Ambient humidity range                               | 5%...85%RH,<br>Not condensing |
| Others           | Weight (gram)                                        | 200                           |
|                  | Housing material                                     | PC                            |
|                  | Housing colour                                       | White                         |
|                  | Waterproof rating                                    | IP20                          |

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# APPLELEC LED POWER SUPPLY - 160W

| Model            |                                                      | HJA160-24-APP                 |
|------------------|------------------------------------------------------|-------------------------------|
| Input            | Rated supply voltage (VAC)                           | 220-240                       |
|                  | Volatge range (VAC)                                  | 198-264                       |
|                  | Line Frequency (Hz)                                  | 50/60                         |
|                  | Input current (mA)                                   | 810                           |
|                  | Efficiency with full load                            | 94%                           |
|                  | Power factor (at 230v, 50Hz, full load)              | 0.95                          |
|                  | Displacement factor (DF) (at 230V, 50Hz, full load)  | 0.95                          |
|                  | Total harmonic distortion (at 230V, 50Hz, full load) | <15%                          |
|                  | No load power consumption (W)                        | <0.5                          |
|                  | Inrush current (peak/duration)                       | 20A 2mS                       |
| Output           | Turn on time(s)                                      | <0.5                          |
|                  | Output power (W)                                     | 160                           |
|                  | Output voltage (V)                                   | 24                            |
|                  | Output voltage tolerance                             | ± 3%                          |
|                  | Ripple voltage (mV)                                  | 180                           |
|                  | Output current range (A)                             | 0-6.67                        |
|                  | Max. output voltage (V)                              | 29                            |
|                  | Isolation output to input                            | SELV                          |
|                  | Dimming interface                                    | N/A                           |
|                  | Dimming range                                        | N/A                           |
| Protection       | Over load protection                                 | Y                             |
|                  | Over temperature protection                          | Y                             |
|                  | Short circuit protection                             | Y                             |
|                  | Open circuit protection                              | Y                             |
|                  | Automatic restart after restore                      | Y                             |
| Ambient and life | Ambient temperature in normal working Ta(°C)         | -20...+45                     |
|                  | Max. casing temperature Tc(°C)                       | 90                            |
|                  | Normal life-time (hrs)                               | 50'000@TC=80°C                |
|                  | Failure rate                                         | 0.1%/1000h                    |
|                  | Guarantee (Years)                                    | 5                             |
|                  | Storage temperature (°C)                             | -30...+80°C                   |
|                  | Ambient humidity range                               | 5%...85%RH,<br>Not condensing |
| Others           | Weight (gram)                                        | 370                           |
|                  | Housing material                                     | PC                            |
|                  | Housing colour                                       | White                         |
|                  | Waterproof rating                                    | IP20                          |

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# APPLELEC LED POWER SUPPLY - 200W

| Model            |                                                      | HJA200-24-APP                 |
|------------------|------------------------------------------------------|-------------------------------|
| Input            | Rated supply voltage (VAC)                           | 220-240                       |
|                  | Volatge range (VAC)                                  | 198-264                       |
|                  | Line Frequency (Hz)                                  | 50/60                         |
|                  | Input current (mA)                                   | 1000                          |
|                  | Efficiency with full load                            | 95%                           |
|                  | Power factor (at 230v, 50Hz, full load)              | 0.95                          |
|                  | Displacement factor (DF) (at 230V, 50Hz, full load)  | 0.95                          |
|                  | Total harmonic distortion (at 230V, 50Hz, full load) | <15%                          |
|                  | No load power consumption (W)                        | <0.5                          |
|                  | Inrush current (peak/duration)                       | 20A 1mS                       |
| Output           | Turn on time(s)                                      | <0.5                          |
|                  | Output power (W)                                     | 200                           |
|                  | Output voltage (V)                                   | 48                            |
|                  | Output voltage tolerance                             | ± 3%                          |
|                  | Ripple voltage (mV)                                  | 700                           |
|                  | Output current range (A)                             | 0-4.17                        |
|                  | Output current (mA)                                  | N/A                           |
|                  | Isolation output to input                            | SELV                          |
|                  | Dimming interface                                    | N/A                           |
|                  | Dimming range                                        | N/A                           |
| Protection       | Over load protection                                 | Y                             |
|                  | Over temperature protection                          | Y                             |
|                  | Short circuit protection                             | Y                             |
|                  | Open circuit protection                              | Y                             |
|                  | Automatic restart after restore                      | Y                             |
| Ambient and life | Ambient temperature in normal working Ta(°C)         | -20...+45                     |
|                  | Max. casing temperature Tc(°C)                       | 90                            |
|                  | Normal life-time (hrs)                               | 50'000@TC=80°C                |
|                  | Failure rate                                         | 0.1%/1000h                    |
|                  | Guarantee (Years)                                    | 5                             |
|                  | Storage temperature (°C)                             | -30...+80°C                   |
|                  | Ambient humidity range                               | 5%...85%RH,<br>Not condensing |
| Others           | Weight (gram)                                        | 400                           |
|                  | Housing material                                     | PC                            |
|                  | Housing colour                                       | White                         |
|                  | Waterproof rating                                    | IP20                          |

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