



# LED POWER SUPPLY DATASHEET

SP50-12VFT

**-DESCRIPTION**

High Cost Performance, SELV, short circuit, overload and over temperature protection. Compliance to ERP directive, lifetime 30,000hrs.



**-Input**

| Items           | Conditions                                              | Request                                        | Note |
|-----------------|---------------------------------------------------------|------------------------------------------------|------|
| Input voltage   | Ta                                                      | AC220-240V                                     | --   |
| Input frequency |                                                         | 50Hz                                           | --   |
| Input current   | 25°C, rated input voltage, output with max. rated power | < 0.3A                                         | --   |
| Input power     |                                                         | < 60W                                          | --   |
| Efficiency      |                                                         | ≥ 85 %                                         | --   |
| Standby         |                                                         | 25°C, rated input voltage, output without load | --   |
| Inrush current  | 25°C, rated input voltage                               | <75A                                           | peak |
| PF              | 25°C, rated input voltage, output max. rated power      | ≥ 0.9                                          | --   |

**-Temperate and others**

| Item              | Conditions                                                                                                             | Request  | Note |
|-------------------|------------------------------------------------------------------------------------------------------------------------|----------|------|
| Operation temp.   | --                                                                                                                     | -20-45°C | --   |
| Relative humidity | --                                                                                                                     | 15%-90%  | --   |
| Max. case temp.   | --                                                                                                                     | 85°C     | --   |
| Lifetime          | Max.Ta, rated input voltage, output with max.rated power                                                               | 30,000hr | --   |
| Working noise     | 25°C, rated input voltage, output with rated power, mute box background noise<35dB, pickup 10cm distance from products | yes      | --   |

**-Protection**

| Items            | Conditions                                                                              | Request | Note |
|------------------|-----------------------------------------------------------------------------------------|---------|------|
| Open circuit     | Ta, rated input voltage, no load                                                        | --      | --   |
| Over load        | Ta, 0.94-1.06 times of input voltage, 1.2 times of rated power                          | --      | --   |
| Short circuit    | Ta, 0.94-1.06 times of input voltage                                                    | yes     | --   |
| Over temperature | Ta, 0.94-1.06 times of input voltage, temperature detected pointed more than 115 degree | yes     | --   |
| Over voltage     | Ta, 0.94-1.06 times of input voltage, output voltage is 1.5 times of rated one          | yes     | --   |
| Auto recovery    | Over load, short circuit revocation                                                     | yes     | --   |
| Latch off        | Over voltage, over heat re-start after cut off                                          | yes     | --   |

**-Output**

| Items                        | Conditions                                              | Request   | Note |
|------------------------------|---------------------------------------------------------|-----------|------|
| Startup time                 | 25°C, rated input voltage, output with max. rated power | --        | --   |
| Output voltage and precision | Ta, rated input voltage, output with rated power        | 12V±5%    | --   |
| Output current range         | Ta, rated input voltage                                 | 0.5-4.16A |      |
| Output voltage wave          | 25°C, rated input voltage, output with max. rated power | --        | Vp-p |
| Output overload              | 25°C, rated input voltage, output with 2 times LED load | --        | --   |
| Output current and precision | Ta, rated input voltage, output with rated power        | --        | --   |
| Rated output voltage range   | Ta, rated input voltage                                 | --        | --   |
| Output current wave          | 25°C, rated input voltage, output with max. rated power | --        | Ip-p |
| Dimming mode                 | --                                                      | triac CV  | --   |
| Dimming range                | --                                                      | 20%-90%   | --   |

**-Mechanical, mounting**

| Items                   | Conditions                                     |
|-------------------------|------------------------------------------------|
| Case material and size  | Plastic, 177x57.8x21.8mm                       |
| Mounting ways           | Independent                                    |
| Insulation type         | Class II                                       |
| IP grade                | IP20                                           |
| Input cables dimension  | terminal block H03VVH2-F 2x0.75mm <sup>2</sup> |
| Output cables dimension | terminal block H03VVH2-F 2x0.75mm <sup>2</sup> |
| Output cables length    | 2m max                                         |

**-Standard**

| Items    | Conditions                     |
|----------|--------------------------------|
| Safety   | IEC61347-1、IEC61347-2-13       |
| Harmonic | EN61000-3-2 Class C            |
| EMI      | EN55015                        |
| EMS      | EN61000-4-2、3、4、5、6<br>EN61547 |

Dimensions(mm)

