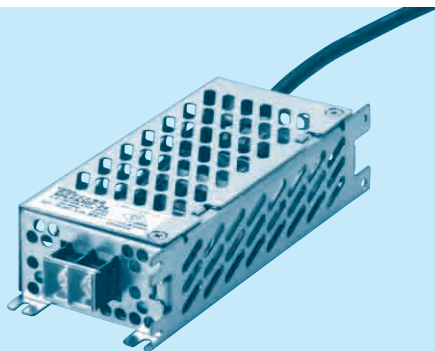


## SPLFA30F

SPLF A 30 F - -

① ② ③ ④ ⑤ ⑥



- ① Series name  
② Single output  
③ Output wattage  
④ Universal input  
⑤ Output voltage  
⑥ Optional  
C : with Coating

| MODEL                 | SPLFA30F-5 | SPLFA30F-12 | SPLFA30F-24 |
|-----------------------|------------|-------------|-------------|
| MAX OUTPUT WATTAGE[W] | 30.0       | 30.0        | 31.2        |
| DC OUTPUT             | 5V 6A      | 12V 2.5A    | 24V 1.3A    |

## SPECIFICATIONS

|                                     | MODEL                                | SPLFA30F-5  | SPLFA30F-12   | SPLFA30F-24    |                |
|-------------------------------------|--------------------------------------|---|---|----------------|----------------|
| INPUT                               | VOLTAGE[V]                           |   | AC85 - 264 1 $\phi$ (Refer to Instruction Manual 1.1 and 3.1) *3                                |                |                |
|                                     | CURRENT[A]                           | ACIN 100V   | 0.65typ (Io=100%)   |                |                |
|                                     |                                      | ACIN 200V   | 0.35typ (Io=100%)   |                |                |
|                                     | FREQUENCY[Hz]                        |   | 50 / 60 (47 - 440)  |                |                |
|                                     | EFFICIENCY[%]                        | ACIN 100V   | 75.0typ   | 78.0typ        | 81.0typ        |
|                                     |                                      | ACIN 200V   | 77.0typ   | 80.0typ        | 83.0typ        |
|                                     | INRUSH CURRENT[A]                    | ACIN 100V   | 15typ (Io=100%) (At cold start) (Ta=25°C)   |                |                |
| ACIN 200V                           |                                      | 30typ (Io=100%) (At cold start) (Ta=25°C)   |   |                |                |
| LEAKAGE CURRENT[mA]                 |                                      | 0.30 / 0.65max (ACIN 100V / 240V 60Hz, Io=100%, According to IEC60950-1 and DEN-AN) |   |                |                |
| OUTPUT                              | VOLTAGE[V]                           |   | 5   | 12             | 24             |
|                                     | CURRENT[A]                           |   | 6.0   | 2.5            | 1.3            |
|                                     | LINE REGULATION[mV] *5               |   | 20max   | 48max          | 96max          |
|                                     | LOAD REGULATION[mV] *5               |   | 100max  | 100max         | 150max         |
|                                     | RIPPLE[mVp-p]                        | 0 to +50°C *1   | 100max  | 120max         | 120max         |
|                                     |                                      | -10 - 0°C *1  | 140max  | 160max         | 160max         |
|                                     | RIPPLE NOISE[mVp-p]                  | 0 to +50°C *1   | 250max  | 250max         | 250max         |
|                                     |                                      | -10 - 0°C *1  | 300max  | 300max         | 300max         |
|                                     | TEMPERATURE REGULATION[mV]           | 0 to +50°C  | 50max   | 120max         | 240max         |
|                                     |                                      | -10 to +50°C  | 60max   | 150max         | 290max         |
|                                     | DRIFT[mV] *2                         |   | 20max   | 48max          | 96max          |
|                                     | START-UP TIME[ms]                    |   | 150typ (ACIN 100V, Io=100%)   |                |                |
|                                     | HOLD-UP TIME[ms]                     |   | 20typ (ACIN 100V, Io=100%)  |                |                |
| OUTPUT VOLTAGE SETTING[V]           |                                      | 4.90 to 5.30  | 11.50 to 12.50  | 23.00 to 25.00 |                |
| PROTECTION<br>CIRCUIT AND<br>OTHERS | OVERCURRENT PROTECTION               |   | Works over 105% of rating and recovers automatically  |                |                |
|                                     | OVERVOLTAGE PROTECTION[V]            |   | 5.75 to 7.00  | 13.80 to 16.80 | 27.60 to 33.60 |
|                                     | OPERATING INDICATION                 |   | LED (Green)   |                |                |
|                                     | REMOTE SENSING                       |   | Not provided  |                |                |
|                                     | REMOTE ON/OFF                        |   | Not provided  |                |                |
| ISOLATION                           | INPUT-OUTPUT                         |   | AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)          |                |                |
|                                     | INPUT-FG                             |   | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)          |                |                |
|                                     | OUTPUT-FG                            |   | AC500V 1minute, Cutoff current = 25mA, DC500V 50M $\Omega$ min (At Room Temperature)            |                |                |
| ENVIRONMENT                         | OPERATING TEMP., HUMID. AND ALTITUDE |   | -10 to +60°C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max *3 |                |                |
|                                     | STORAGE TEMP., HUMID. AND ALTITUDE   |   | -20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max                              |                |                |
|                                     | VIBRATION                            |   | 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis     |                |                |
|                                     | IMPACT                               |   | 196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis                                    |                |                |
| SAFETY AND<br>NOISE<br>REGULATIONS  | AGENCY APPROVALS                     |   | DEN-AN  |                |                |
|                                     | CONDUCTED NOISE/POWER                |   | Complies with DEN-AN  |                |                |
|                                     | HARMONIC ATTENUATOR *4               |   | Complies with IEC61000-3-2 class A (Not built-in to active filter)                              |                |                |
| OTHERS                              | CASE SIZE/WEIGHT                     |   | 61 X 36 X 150mm [2.40 X 1.42 X 5.91 inches] (W X H X D) / 370g max                              |                |                |
|                                     | COOLING METHOD                       |   | Convection  |                |                |

\*1 Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).

\*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

\*3 Derating is required.

\*4 When two or more units are operating it may not comply with the IEC61000-3-2. Please contact us about another class.

\*5 Please contact us about dynamic load and input response.

\* To meet the specifications. Do not operate over-loaded condition.

\* Parallel operation is not possible.

\* Derating is required when operated with chassis and cover.

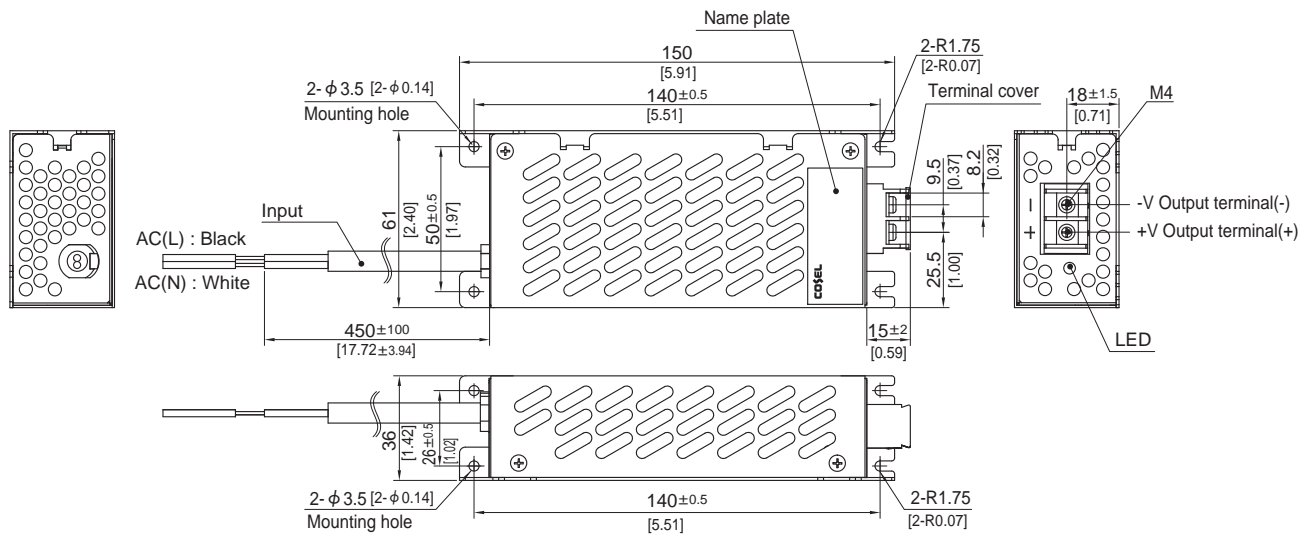
\* Sound noise may be generated by power supply in case of pulse load.

## Block diagram



SPLFA

## External view

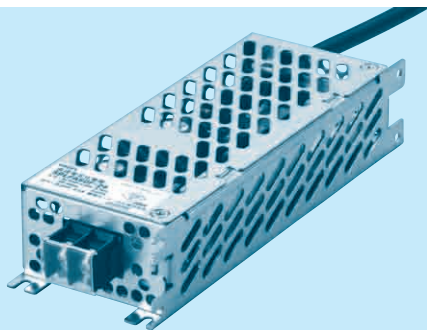


- ※ Tolerance :  $\pm 1$  [ $\pm 0.04$ ]
- ※ Weight : 370g max
- ※ PCB material/thickness : CEM3 / 1.6mm [0.06]
- ※ Chassis and cover material : Electric galvanizing steel board
- ※ Dimensions in mm, [ ]=inches
- ※ Mounting torque : M4 : 1.6N · m (16.9kgf · cm) max
- ※ Input wire : VCTF 0.75sq X2C

## SPLFA50F

SPLF A 50 F -□ -□

① ② ③ ④ ⑤ ⑥



- ① Series name  
② Single output  
③ Output wattage  
④ Universal input  
⑤ Output voltage  
⑥ Optional  
C : with Coating

| MODEL                 | SPLFA50F-5 | SPLFA50F-12 | SPLFA50F-24 |
|-----------------------|------------|-------------|-------------|
| MAX OUTPUT WATTAGE[W] | 50         | 51.6        | 50.4        |
| DC OUTPUT             | 5V 10A     | 12V 4.3A    | 24V 2.1A    |

## SPECIFICATIONS

|                               | MODEL                               | SPLFA50F-5  | SPLFA50F-12  | SPLFA50F-24    |                |
|-------------------------------|-------------------------------------|---|--|----------------|----------------|
| INPUT                         | VOLTAGE[V]                          |   | AC85 - 264 1 φ (Refer to Instruction Manual 1.1 and 3.1) *3                                    |                |                |
|                               | CURRENT[A]                          | ACIN 100V   | 0.67typ (Io=100%)  |                |                |
|                               |                                     | ACIN 200V   | 0.36typ (Io=100%)  |                |                |
|                               | FREQUENCY[Hz]                       |   | 50 / 60 (47 - 63)  |                |                |
|                               | EFFICIENCY[%]                       | ACIN 100V   | 76.5typ  | 79.0typ        | 80.5typ        |
|                               |                                     | ACIN 200V   | 78.0typ  | 80.5typ        | 82.0typ        |
|                               | POWER FACTOR (Io=100%)              | ACIN 100V   | 0.97typ  |                |                |
|                               |                                     | ACIN 200V   | 0.90typ  |                |                |
| INRUSH CURRENT[A]             | ACIN 100V                           | 15typ (Io=100%) (At cold start) (Ta=25℃)  |  |                |                |
|                               | ACIN 200V                           | 30typ (Io=100%) (At cold start) (Ta=25℃)  |  |                |                |
| LEAKAGE CURRENT[ma]           |                                     | 0.40 / 0.75max (ACIN 100V / 240V 60Hz, Io=100%, According to IEC60950-1 and DEN-AN) |  |                |                |
| OUTPUT                        | VOLTAGE[V]                          |   | 5  | 12             | 24             |
|                               | CURRENT[A]                          |   | 10.0   | 4.3            | 2.1            |
|                               | LINE REGULATION[mV] *4              |   | 20max  | 48max          | 96max          |
|                               | LOAD REGULATION[mV] *4              |   | 150max   | 150max         | 150max         |
|                               | RIPPLE[mVp-p]                       | 0 to +50℃ *1  | 100max   | 120max         | 120max         |
|                               |                                     | -10 - 0℃ *1   | 140max   | 160max         | 160max         |
|                               | RIPPLE NOISE[mVp-p]                 | 0 to +50℃ *1  | 250max   | 250max         | 250max         |
|                               |                                     | -10 - 0℃ *1   | 300max   | 300max         | 300max         |
|                               | TEMPERATURE REGULATION[mV]          | 0 to +50℃   | 50max  | 120max         | 240max         |
|                               |                                     | -10 to +50℃   | 60max  | 150max         | 290max         |
|                               | DRIFT[mV] *2                        |   | 20max  | 48max          | 96max          |
|                               | START-UP TIME[ms]                   |   | 350typ (ACIN 100V, Io=100%)  |                |                |
|                               | HOLD-UP TIME[ms]                    |   | 20typ (ACIN 100V, Io=100%)   |                |                |
| OUTPUT VOLTAGE SETTING[V]     |                                     | 4.90 to 5.30  | 11.50 to 12.50   | 23.00 to 25.00 |                |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION              |   | Works over 105% of rating and recovers automatically   |                |                |
|                               | OVERVOLTAGE PROTECTION[V]           |   | 5.75 to 7.00   | 13.80 to 16.80 | 27.60 to 33.60 |
|                               | OPERATING INDICATION                |   | LED (Green)  |                |                |
|                               | REMOTE SENSING                      |   | Not provided   |                |                |
|                               | REMOTE ON/OFF                       |   | Not provided   |                |                |
| ISOLATION                     | INPUT-OUTPUT                        |   | AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)                 |                |                |
|                               | INPUT-FG                            |   | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)                 |                |                |
|                               | OUTPUT-FG                           |   | AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature)                   |                |                |
| ENVIRONMENT                   | OPERATING TEMP., HUMID.AND ALTITUDE |   | -10 to +50℃, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max *3 |                |                |
|                               | STORAGE TEMP., HUMID.AND ALTITUDE   |   | -20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max                              |                |                |
|                               | VIBRATION                           |   | 10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis                |                |                |
|                               | IMPACT                              |   | 196.1m/s² (20G), 11ms, once each X, Y and Z axis   |                |                |
| SAFETY AND NOISE REGULATIONS  | AGENCY APPROVALS                    |   | DEN-AN   |                |                |
|                               | CONDUCTED NOISE/POWER               |   | Complies with DEN-AN   |                |                |
|                               | HARMONIC ATTENUATOR *5              |   | Complies with IEC61000-3-2 (class A)   |                |                |
| OTHERS                        | CASE SIZE/WEIGHT                    |   | 61 X 36 X 174mm [2.40 X 1.42 X 6.85 inches] (W X H X D) / 440g max                             |                |                |
|                               | COOLING METHOD                      |   | Convection   |                |                |

\*1 Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).

\*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

\*3 Derating is required.

\*4 Please contact us about dynamic load and input response.

\*5 When two or more units are operating it may not comply with the IEC61000-3-2. Please contact us about another class.

\* To meet the specifications. Do not operate over-loaded condition.

\* Parallel operation is not possible.

\* Derating is required when operated with chassis and cover.

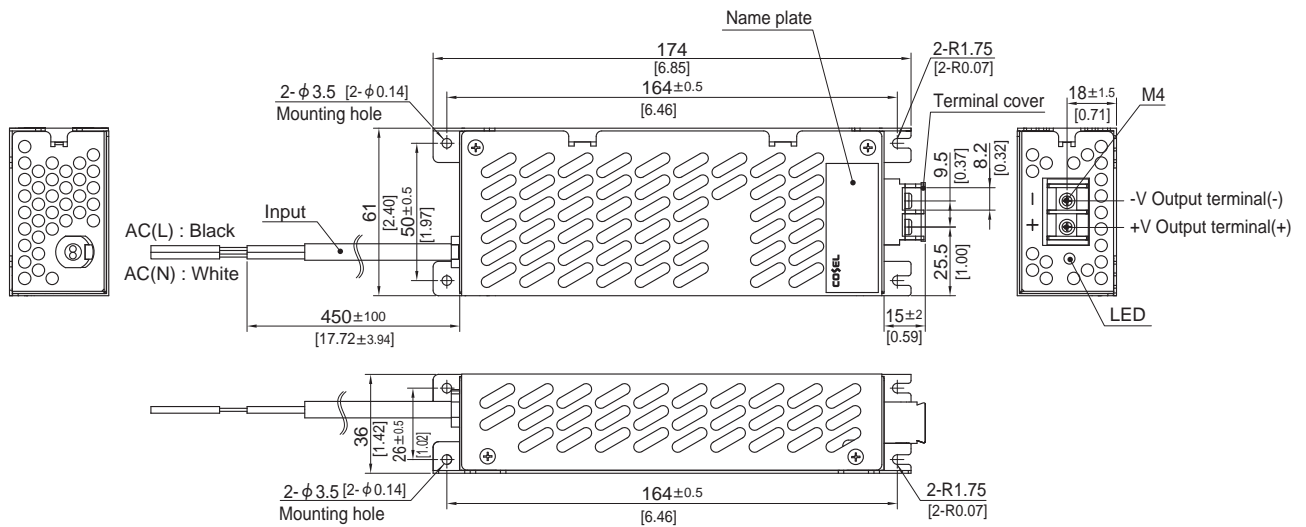
\* Sound noise may be generated by power supply in case of pulse load.

## Block diagram



SPLFA

## External view

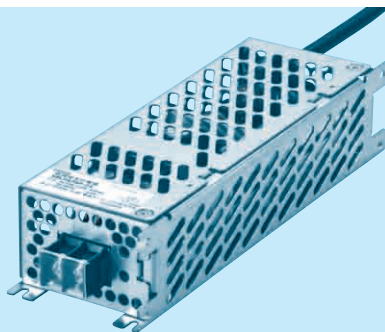


- ※ Tolerance :  $\pm 1$  [ $\pm 0.04$ ]
- ※ Weight : 440g max
- ※ PCB material/thickness : CEM3 / 1.6mm [0.06]
- ※ Chassis and cover material : Electric galvanizing steel board
- ※ Dimensions in mm, [ ]=inches
- ※ Mounting torque : M4 : 1.6N · m (16.9kgf · cm) max
- ※ Input wire : VCTF 0.75sq X2C

## SPLFA75F

SPLF A 75 F -□ -□

① ② ③ ④ ⑤ ⑥



- ① Series name  
② Single output  
③ Output wattage  
④ Universal input  
⑤ Output voltage  
⑥ Optional  
C : with Coating

| MODEL                 | SPLFA75F-5 | SPLFA75F-12 | SPLFA75F-24 |
|-----------------------|------------|-------------|-------------|
| MAX OUTPUT WATTAGE[W] | 75         | 75.6        | 76.8        |
| DC OUTPUT             | 5V 15A     | 12V 6.3A    | 24V 3.2A    |

## SPECIFICATIONS

|                               | MODEL                                | SPLFA75F-5  | SPLFA75F-12  | SPLFA75F-24    |                |
|-------------------------------|--------------------------------------|---|--|----------------|----------------|
| INPUT                         | VOLTAGE[V]                           |   | AC85 - 264 1 φ (Refer to Instruction Manual 1.1 and 3.1) *3                                    |                |                |
|                               | CURRENT[A]                           | ACIN 100V   | 1.00typ (Io=100%)  |                |                |
|                               |                                      | ACIN 200V   | 0.50typ (Io=100%)  |                |                |
|                               | FREQUENCY[Hz]                        |   | 50 / 60 (47 - 63)  |                |                |
|                               | EFFICIENCY[%]                        | ACIN 100V   | 75.0typ  | 80.0typ        | 81.5typ        |
|                               |                                      | ACIN 200V   | 77.0typ  | 82.0typ        | 83.5typ        |
|                               | POWER FACTOR (Io=100%)               | ACIN 100V   | 0.97typ  |                |                |
|                               |                                      | ACIN 200V   | 0.90typ  |                |                |
| INRUSH CURRENT[A]             | ACIN 100V                            | 15typ (Io=100%) (At cold start) (Ta=25℃)  |  |                |                |
|                               | ACIN 200V                            | 30typ (Io=100%) (At cold start) (Ta=25℃)  |  |                |                |
| LEAKAGE CURRENT[mA]           |                                      | 0.40 / 0.75max (ACIN 100V / 240V 60Hz, Io=100%, According to IEC60950-1 and DEN-AN) |  |                |                |
| OUTPUT                        | VOLTAGE[V]                           |   | 5  | 12             | 24             |
|                               | CURRENT[A]                           |   | 15.0   | 6.3            | 3.2            |
|                               | LINE REGULATION[mV] *4               |   | 20max  | 48max          | 96max          |
|                               | LOAD REGULATION[mV] *4               |   | 150max   | 150max         | 150max         |
|                               | RIPPLE[mVp-p]                        | 0 to +50℃ *1  | 100max   | 120max         | 120max         |
|                               |                                      | -10 - 0℃ *1   | 140max   | 160max         | 160max         |
|                               | RIPPLE NOISE[mVp-p]                  | 0 to +50℃ *1  | 250max   | 250max         | 250max         |
|                               |                                      | -10 - 0℃ *1   | 300max   | 300max         | 300max         |
|                               | TEMPERATURE REGULATION[mV]           | 0 to +50℃   | 50max  | 120max         | 240max         |
|                               |                                      | -10 to +50℃   | 60max  | 150max         | 290max         |
|                               | DRIFT[mV] *2                         |   | 20max  | 48max          | 96max          |
|                               | START-UP TIME[ms]                    |   | 350typ (ACIN 100V, Io=100%)  |                |                |
|                               | HOLD-UP TIME[ms]                     |   | 20typ (ACIN 100V, Io=100%)   |                |                |
| OUTPUT VOLTAGE SETTING[V]     |                                      | 4.90 to 5.30  | 11.50 to 12.50   | 23.00 to 25.00 |                |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION               |   | Works over 105% of rating and recovers automatically   |                |                |
|                               | OVERVOLTAGE PROTECTION[V]            |   | 5.75 to 7.00   | 13.80 to 16.80 | 27.60 to 33.60 |
|                               | OPERATING INDICATION                 |   | LED (Green)  |                |                |
|                               | REMOTE SENSING                       |   | Not provided   |                |                |
|                               | REMOTE ON/OFF                        |   | Not provided   |                |                |
| ISOLATION                     | INPUT-OUTPUT                         |   | AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)                 |                |                |
|                               | INPUT-FG                             |   | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)                 |                |                |
|                               | OUTPUT-FG                            |   | AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature)                   |                |                |
| ENVIRONMENT                   | OPERATING TEMP., HUMID. AND ALTITUDE |   | -10 to +50℃, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max *3 |                |                |
|                               | STORAGE TEMP., HUMID. AND ALTITUDE   |   | -20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max                              |                |                |
|                               | VIBRATION                            |   | 10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis                |                |                |
|                               | IMPACT                               |   | 196.1m/s² (20G), 11ms, once each X, Y and Z axis   |                |                |
| SAFETY AND NOISE REGULATIONS  | AGENCY APPROVALS                     |   | DEN-AN   |                |                |
|                               | CONDUCTED NOISE/POWER                |   | Complies with DEN-AN   |                |                |
|                               | HARMONIC ATTENUATOR *5               |   | Complies with IEC61000-3-2 (class A)   |                |                |
| OTHERS                        | CASE SIZE/WEIGHT                     |   | 61 X 42 X 192mm [2.40 X 1.65 X 7.56 inches] (W X H X D) / 540g max                             |                |                |
|                               | COOLING METHOD                       |   | Convection   |                |                |

\*1 Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).

\*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

\*3 Derating is required.

\*4 Please contact us about dynamic load and input response.

\*5 When two or more units are operating it may not comply with the IEC61000-3-2. Please contact us about another class.

\* To meet the specifications. Do not operate over-loaded condition.

\* Parallel operation is not possible.

\* Derating is required when operated with chassis and cover.

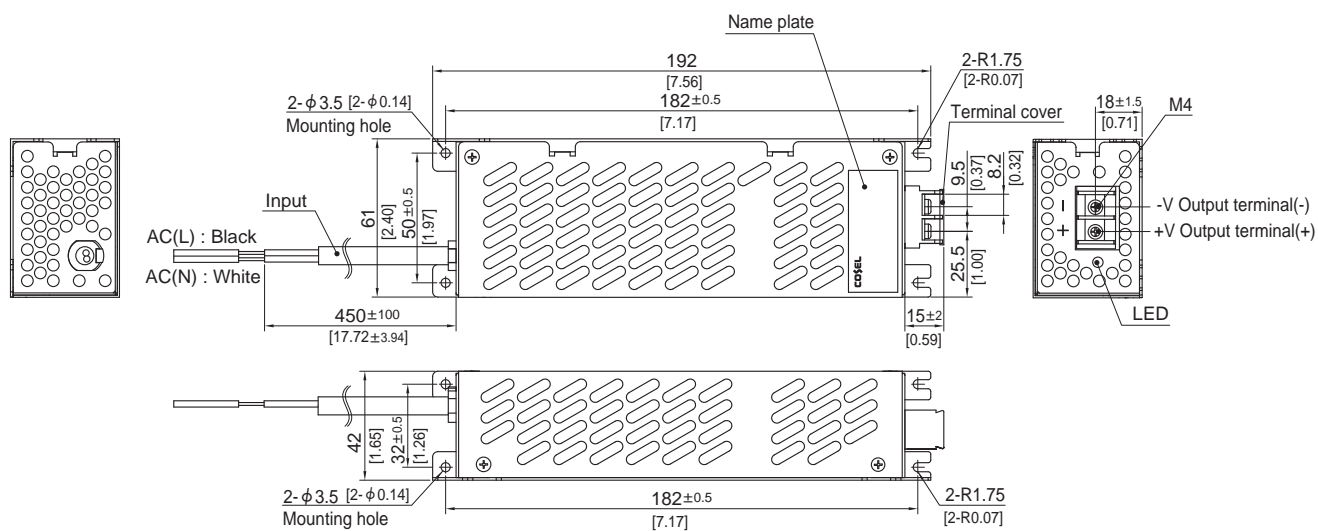
\* Sound noise may be generated by power supply in case of pulse load.

## Block diagram



**SPLFA**

### External view

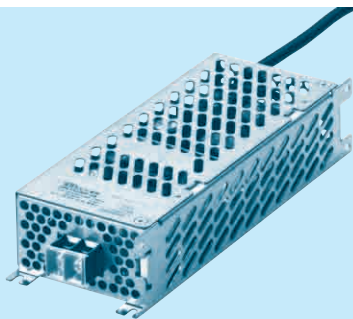


- ※ Tolerance :  $\pm 1$  [ $\pm 0.04$ ]
- ※ Weight : 540g max
- ※ PCB material/thickness : CEM3 / 1.6mm [0.06]
- ※ Chassis and cover material : Electric galvanizing steel board
- ※ Dimensions in mm, [ ]=inches
- ※ Mounting torque : M4 : 1.6N · m (16.9kgf · cm) max
- ※ Input wire : VCTF 0.75sq X2C

## SPLFA100F

SPLF A 100 F -□ -□

① ② ③ ④ ⑤ ⑥



- ① Series name  
 ② Single output  
 ③ Output wattage  
 ④ Universal input  
 ⑤ Output voltage  
 ⑥ Optional  
 C : with Coating

|                       |              |              |
|-----------------------|--------------|--------------|
| MODEL                 | SPLFA100F-12 | SPLFA100F-24 |
| MAX OUTPUT WATTAGE[W] | 102.0        | 103.2        |
| DC OUTPUT             | 12V 8.5A     | 24V 4.3A     |

## SPECIFICATIONS

|                                     | MODEL                                | SPLFA100F-12  | SPLFA100F-24   |
|-------------------------------------|--------------------------------------|---|--|
| INPUT                               | VOLTAGE[V]                           |   | AC85 - 264 1 φ (Refer to Instruction Manual 1.1 and 3.1) *3                                    |
|                                     | CURRENT[A]                           | ACIN 100V   | 1.3typ (Io=100%)   |
|                                     |                                      | ACIN 200V   | 0.7typ (Io=100%)   |
|                                     | FREQUENCY[Hz]                        |   | 50 / 60 (47 - 63)  |
|                                     | EFFICIENCY[%]                        | ACIN 100V   | 80.5typ  |
|                                     |                                      | ACIN 200V   | 83.5typ  |
|                                     | POWER FACTOR (Io=100%)               | ACIN 100V   | 0.97typ  |
|                                     |                                      | ACIN 200V   | 0.90typ  |
| INRUSH CURRENT[A]                   | ACIN 100V                            | 15typ (Io=100%) (At cold start) (Ta=25℃)  |  |
|                                     | ACIN 200V                            | 30typ (Io=100%) (At cold start) (Ta=25℃)  |  |
| LEAKAGE CURRENT[ma]                 |                                      | 0.40 / 0.75max (ACIN 100V / 240V 60Hz, Io=100%, According to IEC60950-1 and DEN-AN) |  |
| OUTPUT                              | VOLTAGE[V]                           |   | 12   |
|                                     | CURRENT[A]                           |   | 8.5  |
|                                     | LINE REGULATION[mV] *4               |   | 48max  |
|                                     | LOAD REGULATION[mV] *4               |   | 150max   |
|                                     | RIPPLE[mVp-p]                        | 0 to +50℃ *1  | 120max   |
|                                     |                                      | -10 - 0℃ *1   | 160max   |
|                                     | RIPPLE NOISE[mVp-p]                  | 0 to +50℃ *1  | 250max   |
|                                     |                                      | -10 - 0℃ *1   | 300max   |
|                                     | TEMPERATURE REGULATION[mV]           | 0 to +50℃   | 120max   |
|                                     |                                      | -10 to +50℃   | 150max   |
|                                     | DRIFT[mV] *2                         |   | 48max  |
|                                     | START-UP TIME[ms]                    |   | 350typ (ACIN 100V, Io=100%)  |
|                                     | HOLD-UP TIME[ms]                     |   | 20typ (ACIN 100V, Io=100%)   |
| OUTPUT VOLTAGE SETTING[V]           |                                      | 11.50 to 12.50  |  |
| PROTECTION<br>CIRCUIT AND<br>OTHERS | OVERCURRENT PROTECTION               |   | Works over 105% of rating and recovers automatically   |
|                                     | OVERVOLTAGE PROTECTION[V]            |   | 13.80 to 16.80   |
|                                     | OPERATING INDICATION                 |   | LED (Green)  |
|                                     | REMOTE SENSING                       |   | Not provided   |
|                                     | REMOTE ON/OFF                        |   | Not provided   |
| ISOLATION                           | INPUT-OUTPUT                         |   | AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)                 |
|                                     | INPUT-FG                             |   | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)                 |
|                                     | OUTPUT-FG                            |   | AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature)                   |
| ENVIRONMENT                         | OPERATING TEMP., HUMID. AND ALTITUDE |   | -10 to +50℃, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max *3 |
|                                     | STORAGE TEMP., HUMID. AND ALTITUDE   |   | -20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max                              |
|                                     | VIBRATION                            |   | 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis    |
|                                     | IMPACT                               |   | 196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis                                   |
| SAFETY AND<br>NOISE<br>REGULATIONS  | AGENCY APPROVALS                     |   | DEN-AN   |
|                                     | CONDUCTED NOISE/POWER                |   | Complies with DEN-AN   |
|                                     | HARMONIC ATTENUATOR *5               |   | Complies with IEC61000-3-2 (class A)   |
| OTHERS                              | CASE SIZE/WEIGHT                     |   | 73 X 42 X 197mm [2.87 X 1.65 X 7.76 inches] (W X H X D) / 670g max                             |
|                                     | COOLING METHOD                       |   | Convection   |

\*1 Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).

\*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

\*3 Derating is required.

\*4 Please contact us about dynamic load and input response.

\*5 When two or more units are operating it may not comply with the IEC61000-3-2. Please contact us about another class.

\* To meet the specifications. Do not operate over-loaded condition.

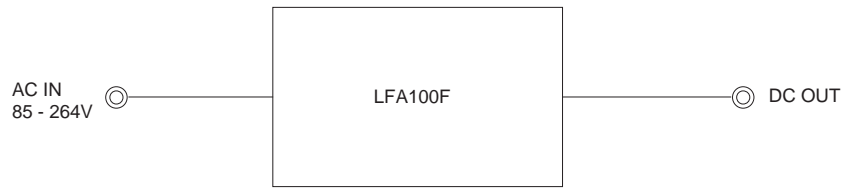
\* Parallel operation is not possible.

\* Derating is required when operated with chassis and cover.

\* Sound noise may be generated by power supply in case of pulse load.

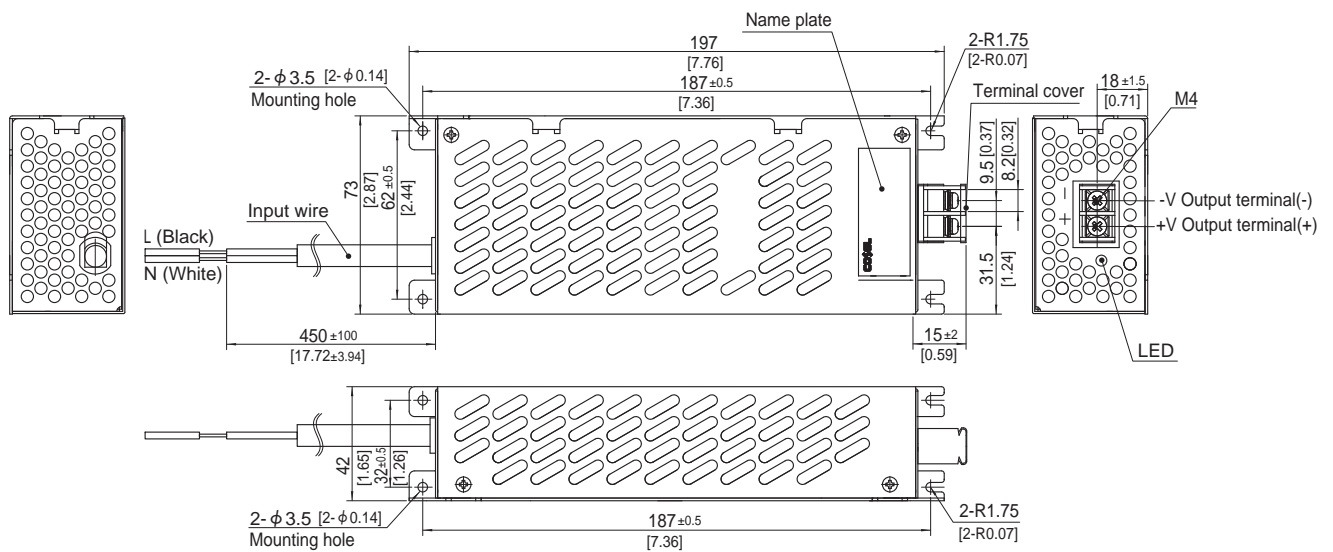


## Block diagram



SPLFA

## External view



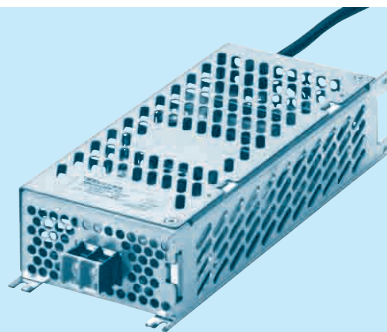
- ※ Tolerance :  $\pm 1$  [ $\pm 0.04$ ]
- ※ Weight : 670g max
- ※ Dimensions in mm, [ ]=inches
- ※ Chassis material : Galvanized Steel board
- ※ Screw tightening torque : M4 : 1.6N · m (16.9kgf · cm) max
- ※ Input wire : VCTF 0.75sq X 2C



# SPLFA150F

SPLF A 150 F - -

① ② ③ ④ ⑤ ⑥



- ① Series name
- ② Single output
- ③ Output wattage
- ④ Universal input
- ⑤ Output voltage
- ⑥ Optional
- C : with Coating

|                       |              |              |
|-----------------------|--------------|--------------|
| MODEL                 | SPLFA150F-12 | SPLFA150F-24 |
| MAX OUTPUT WATTAGE[W] | 150          | 151.2        |
| DC OUTPUT             | 12V 12.5A    | 24V 6.3A     |

## SPECIFICATIONS

|                                     | MODEL                                | SPLFA150F-12  | SPLFA150F-24   |                |
|-------------------------------------|--------------------------------------|---|--|----------------|
| INPUT                               | VOLTAGE[V]                           |   | AC85 - 264 1 φ (Refer to Instruction Manual 1.1 and 3.1) *3                                    |                |
|                                     | CURRENT[A]                           | ACIN 100V   | 2.0typ (Io=100%)   |                |
|                                     |                                      | ACIN 200V   | 1.0typ (Io=100%)   |                |
|                                     | FREQUENCY[Hz]                        |   | 50 / 60 (47 - 63)  |                |
|                                     | EFFICIENCY[%]                        | ACIN 100V   | 81.0typ  |                |
|                                     |                                      | ACIN 200V   | 84.0typ  |                |
|                                     | POWER FACTOR (Io=100%)               | ACIN 100V   | 0.97typ  |                |
|                                     |                                      | ACIN 200V   | 0.90typ  |                |
| INRUSH CURRENT[A]                   | ACIN 100V                            | 15typ (Io=100%) (At cold start) (Ta=25℃)  |  |                |
|                                     | ACIN 200V                            | 30typ (Io=100%) (At cold start) (Ta=25℃)  |  |                |
| LEAKAGE CURRENT[ma]                 |                                      | 0.40 / 0.75max (ACIN 100V / 240V 60Hz, Io=100%, According to IEC60950-1 and DEN-AN) |  |                |
| OUTPUT                              | VOLTAGE[V]                           |   | 12   | 24             |
|                                     | CURRENT[A]                           |   | 12.5   | 6.3            |
|                                     | LINE REGULATION[mV] *4               |   | 48max  | 96max          |
|                                     | LOAD REGULATION[mV] *4               |   | 150max   | 150max         |
|                                     | RIPPLE[mVp-p]                        | 0 to +50℃ *1  | 120max   | 120max         |
|                                     |                                      | -10 - 0℃ *1   | 160max   | 160max         |
|                                     | RIPPLE NOISE[mVp-p]                  | 0 to +50℃ *1  | 250max   | 250max         |
|                                     |                                      | -10 - 0℃ *1   | 300max   | 300max         |
|                                     | TEMPERATURE REGULATION[mV]           | 0 to +50℃   | 120max   | 240max         |
|                                     |                                      | -10 to +50℃   | 150max   | 290max         |
|                                     | DRIFT[mV] *2                         |   | 48max  | 96max          |
|                                     | START-UP TIME[ms]                    |   | 350typ (ACIN 100V, Io=100%)  |                |
|                                     | HOLD-UP TIME[ms]                     |   | 20typ (ACIN 100V, Io=100%)   |                |
|                                     | OUTPUT VOLTAGE SETTING[V]            |   | 11.50 to 12.50   | 23.00 to 25.00 |
| PROTECTION<br>CIRCUIT AND<br>OTHERS | OVERCURRENT PROTECTION               |   | Works over 105% of rating and recovers automatically   |                |
|                                     | OVERVOLTAGE PROTECTION[V]            |   | 13.80 to 16.80   | 27.60 to 33.60 |
|                                     | OPERATING INDICATION                 |   | LED (Green)  |                |
|                                     | REMOTE SENSING                       |   | Not provided   |                |
|                                     | REMOTE ON/OFF                        |   | Not provided   |                |
| ISOLATION                           | INPUT-OUTPUT                         |   | AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)                 |                |
|                                     | INPUT-FG                             |   | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)                 |                |
|                                     | OUTPUT-FG                            |   | AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature)                   |                |
| ENVIRONMENT                         | OPERATING TEMP., HUMID. AND ALTITUDE |   | -10 to +50℃, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max *3 |                |
|                                     | STORAGE TEMP., HUMID. AND ALTITUDE   |   | -20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max                              |                |
|                                     | VIBRATION                            |   | 10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis                |                |
|                                     | IMPACT                               |   | 196.1m/s² (20G), 11ms, once each X, Y and Z axis   |                |
| SAFETY AND<br>NOISE<br>REGULATIONS  | AGENCY APPROVALS                     |   | DEN-AN   |                |
|                                     | CONDUCTED NOISE/POWER                |   | Complies with DEN-AN   |                |
|                                     | HARMONIC ATTENUATOR *5               |   | Complies with IEC61000-3-2 (class A)   |                |
| OTHERS                              | CASE SIZE/WEIGHT                     |   | 86 X 47 X 202mm [3.39 X 1.85 X 7.95 inches] (W X H X D) / 850g max                             |                |
|                                     | COOLING METHOD                       |   | Convection   |                |

\*1 Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).

\*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

\*3 Derating is required.

\*4 Please contact us about dynamic load and input response.

\*5 When two or more units are operating it may not comply with the IEC61000-3-2. Please contact us about another class.

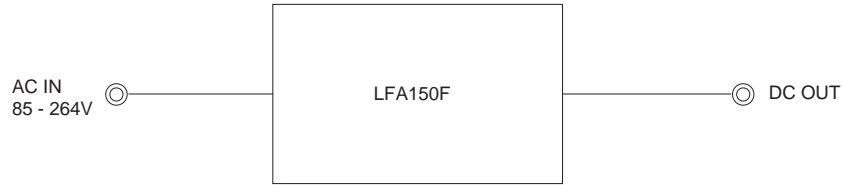
\* To meet the specifications. Do not operate over-loaded condition.

\* Parallel operation is not possible.

\* Derating is required when operated with chassis and cover.

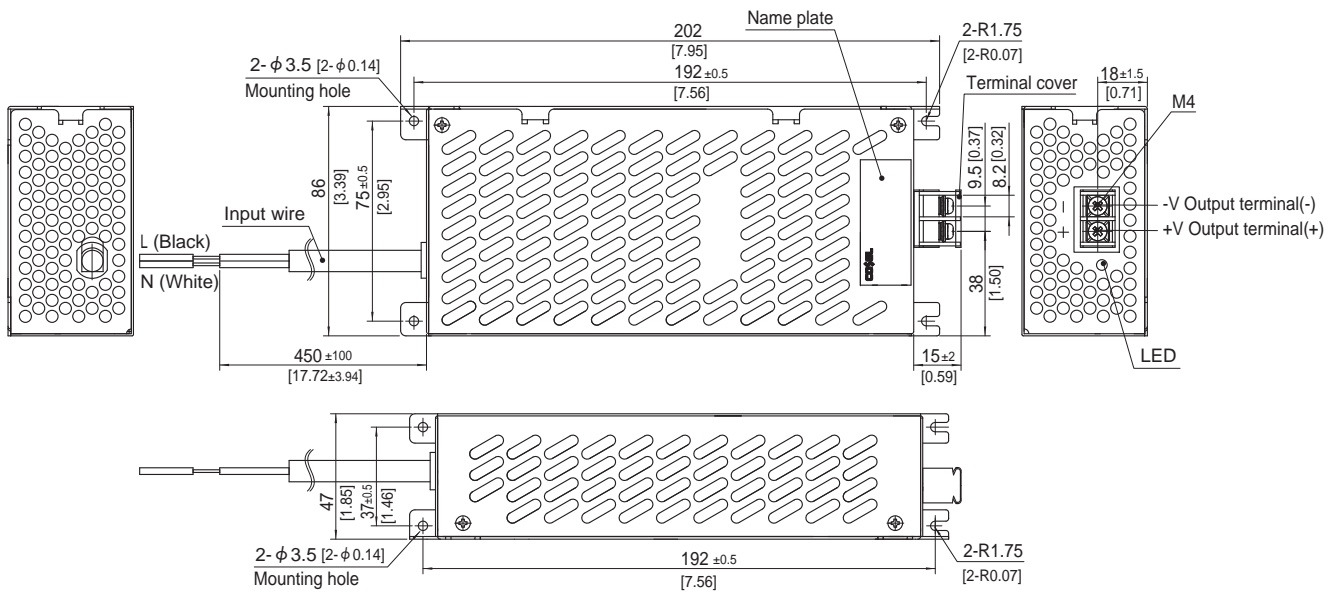
\* Sound noise may be generated by power supply in case of pulse load.

## Block diagram



SPLFA

## External view



- ※ Tolerance :  $\pm 1$  [ $\pm 0.04$ ]
- ※ Weight : 850g max
- ※ Dimensions in mm, [ ]=inches
- ※ Chassis material : Galvanized Steel board
- ※ Screw tightening torque : M4 : 1.6N · m (16.9kgf · cm) max
- ※ Input wire : VCTF 0.75sq X 2C

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