

# PLA15F

① **PL** ② **A** ③ **15** ④ **F** ⑤ **-□** ⑥ **-□**



Recommended EMI/EMC Filter  
NAC-04-472



High voltage pulse noise type : NAP series  
Low leakage current type : NAM series

\*The EMI/EMC Filter is recommended to connect with several devices.

- ① Series name
- ② Single output
- ③ Output wattage
- ④ Universal input
- ⑤ Output voltage
- ⑥ Optional \*7
- C : with Coating
- J : Connector interface
- T : Vertical terminal block
- N1 : with DIN rail

See 5.1 in Instruction Manual.

Information the Home page is the latest.

## SPECIFICATIONS

|                                    | MODEL   | PLA15F-5   | PLA15F-12  | PLA15F-15         | PLA15F-24         |                   |
|------------------------------------|---|--|--|-------------------|-------------------|-------------------|
| INPUT                              | VOLTAGE[V]  | AC85 - 264 1 φ (Output derating is required at AC85V - 115V. See 1.1 and 3.2 in Instruction Manual) *3 |  |                   |                   |                   |
|                                    | CURRENT[A]  | ACIN 100V  | 0.4typ (Io=90%)  |                   |                   |                   |
|                                    |   | ACIN 115V  | 0.4typ (Io=100%)   |                   |                   |                   |
|                                    |   | ACIN 230V  | 0.25typ (Io=100%)  |                   |                   |                   |
|                                    | FREQUENCY[Hz]   | 50 / 60 (47 - 63)  |  |                   |                   |                   |
|                                    | EFFICIENCY[%]   | ACIN 100V  | 72.5typ (Io=90%)   | 75.5typ (Io=90%)  | 77.0typ (Io=90%)  | 78.0typ (Io=90%)  |
|                                    |   | ACIN 115V  | 73.5typ (Io=100%)  | 77.0typ (Io=100%) | 78.5typ (Io=100%) | 79.0typ (Io=100%) |
|                                    |   | ACIN 230V  | 75.5typ (Io=100%)  | 78.5typ (Io=100%) | 79.5typ (Io=100%) | 80.0typ (Io=100%) |
|                                    | INRUSH CURRENT[A]   | ACIN 100V  | 16typ (Io=90%) Ta=25°C at cold start   |                   |                   |                   |
|                                    |   | ACIN 115V  | 16typ (Io=100%) Ta=25°C at cold start  |                   |                   |                   |
| ACIN 230V                          |   | 32typ (Io=100%) Ta=25°C at cold start  |  |                   |                   |                   |
| LEAKAGE CURRENT[ma]                | 0.30max (ACIN 115V / 240V, 60Hz, Io=100%, According to IEC60950-1 and DEN-AN)   |  |  |                   |                   |                   |
| OUTPUT                             | VOLTAGE[V]  | 5  | 12   | 15                | 24                |                   |
|                                    | CURRENT[A]  | 3  | 1.3  | 1                 | 0.7               |                   |
|                                    | WATTAGE[W]  | ACIN 85-115V   | Output derating is required at ACIN 115V or less (refer to instruction manual 3.2) |                   |                   |                   |
|                                    |   | ACIN 115V-264V   | 15.0   | 15.6              | 15.0              | 16.8              |
|                                    | LINE REGULATION[mV] *4  | 20max  | 48max  | 60max             | 96max             |                   |
|                                    | LOAD REGULATION[mV] *4  | 40max  | 100max   | 120max            | 150max            |                   |
|                                    | RIPPLE[mVp-p] *1  | 0 to +50°C   | 80max  | 120max            | 120max            | 120max            |
|                                    |   | -10 to 0°C   | 140max   | 160max            | 160max            | 160max            |
|                                    |   | Io=0 to 35%  | 160max   | 240max            | 240max            | 280max            |
|                                    | RIPPLE NOISE[mVp-p] *1  | 0 to +50°C   | 120max   | 150max            | 150max            | 150max            |
|                                    |   | -10 to 0°C   | 160max   | 180max            | 180max            | 180max            |
|                                    |   | Io=0 to 35%  | 240max   | 300max            | 300max            | 320max            |
|                                    | TEMPERATURE REGULATION[mV]  | 0 to +50°C   | 50max  | 120max            | 150max            | 240max            |
|                                    |   | -10 to +50°C   | 60max  | 150max            | 180max            | 290max            |
|                                    | DRIFT[mV] *2  | 20max  | 48max  | 60max             | 96max             |                   |
| START-UP TIME[ms]                  | 200typ (ACIN 115V, Io=100%) *Start-up time is 700 ms typ for less than 1 minute of applying input again from turning off the input voltage. |  |  |                   |                   |                   |
| HOLD-UP TIME[ms]                   | 20typ (ACIN 115V, Io=100%)  |  |  |                   |                   |                   |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | 4.50 to 5.50  | 10.80 to 13.20   | 13.50 to 16.50   | 21.60 to 26.40    |                   |                   |
| OUTPUT VOLTAGE SETTING[V]          | 5.00 to 5.15  | 12.00 to 12.48   | 15.00 to 15.60   | 24.00 to 24.96    |                   |                   |
| 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   | 17.25 to 21.00    | 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 *5   | -20 to +70°C, 20 - 90%RH (Non condensing), 3,000m (10,000 feet) max                                    |  |                   |                   |                   |
|                                    | STORAGE TEMP., HUMID. AND ALTITUDE  | -20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000 feet) max                                    |  |                   |                   |                   |
|                                    | VIBRATION   | 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axes            |  |                   |                   |                   |
|                                    | IMPACT  | 196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axes   |  |                   |                   |                   |
| SAFETY AND NOISE REGULATIONS       | AGENCY APPROVALS  | UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178, UL508 (Except option -J) Complies with DEN-AN        |  |                   |                   |                   |
|                                    | CONDUCTED NOISE   | Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B   |  |                   |                   |                   |
|                                    | HARMONIC ATTENUATOR *8  | Complies with IEC61000-3-2 class A   |  |                   |                   |                   |

## SPECIFICATIONS

|          |                  |  |
|----------|------------------|--|
| OTHERS   | CASE SIZE/WEIGHT | 38 X 80 X 73mm [1.50 X 3.15 X 2.87 inches] (Excluding terminal block and screw) (W X H X D) / 250g max |
|          | COOLING METHOD   | Convection   |
| WARRANTY | WARRANTY         | *6 5 years (subject to the operating conditions)   |

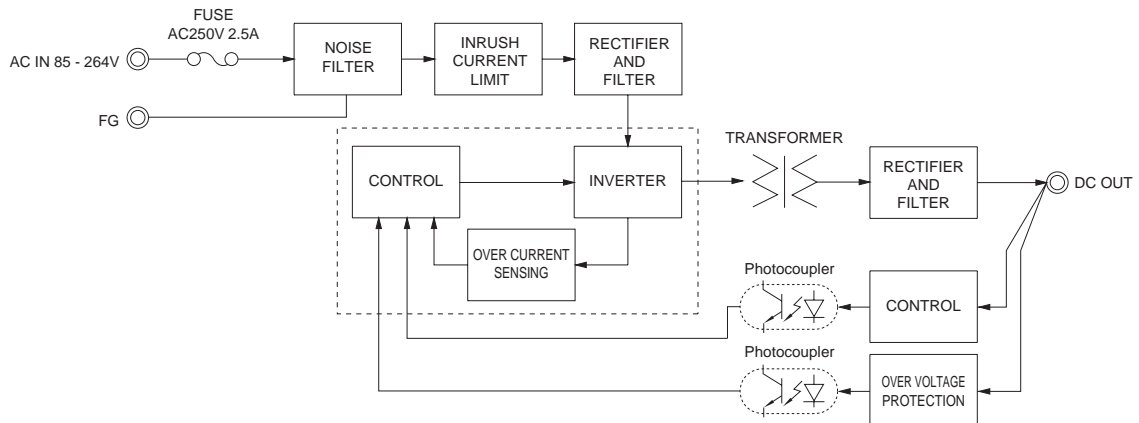
- \*1 This is the result of measurement of the testing board with capacitors of 22  $\mu$ F and 0.1  $\mu$ F placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103. See 1.6 of Instruction Manual for more details. When the load factor is 0 - 35%, the switching power loss is reduced by burst operation, which will cause ripple and ripple noise to go beyond the specifications.
- \*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.
- \*3 Output power derating is required. As for DC input, consult us for advice.
- \*4 Consult us about dynamic load and input response. Measure the output voltage by using the average mode of the tester to deal with the burst operation at 35% load or less.

- \*5 Output power derating is required. See 3.2 in Instruction Manual.
- \*6 See 3.3 in Instruction Manual for more details.
- \*7 Consult us about safety agency approvals for the models with optional functions.
- \*8 Consult us about other classes.
- \* Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged.
- \* Parallel operation is not possible with this mode.
- \* Sound noise may be heard from the power supply when used for pulse load.

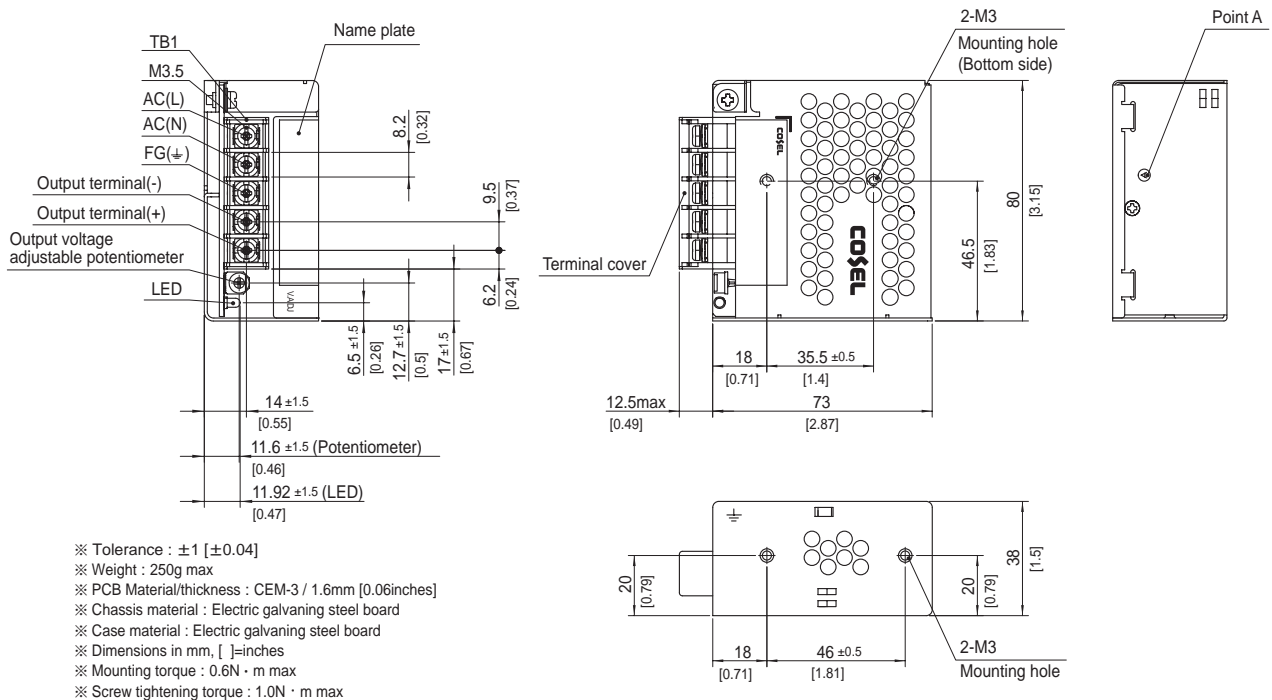
## Features

- Compact design (Depth: 73mm 2.87inches)
- Low power consumption (1.0W typ AC240Vin, no load at standard model)
- UL508 approved (Except option -J), and complies with SEMI F47
- Various connection interface options (vertical terminal [-T], AMP connector [-J])

## Block diagram



## External view



# PLA30F

① **PL**    ② **A**    ③ **30**    ④ **F**    ⑤ **-□**    ⑥ **-□**



Recommended EMI/EMC Filter  
NAC-04-472



High voltage pulse noise type : NAP series  
Low leakage current type : NAM series

\*The EMI/EMC Filter is recommended to connect with several devices.

- ① Series name
- ② Single output
- ③ Output wattage
- ④ Universal input
- ⑤ Output voltage
- ⑥ Optional \*7
- C : with Coating
- J : Connector interface
- T : Vertical terminal block
- N1 : with DIN rail

See 5.1 in Instruction Manual.

Information the Home page is the latest.

## SPECIFICATIONS

| MODEL                              |   | PLA30F-5   | PLA30F-12  | PLA30F-15         | PLA30F-24         |                   |        |
|------------------------------------|---|--|--|-------------------|-------------------|-------------------|--------|
| INPUT                              | VOLTAGE[V]  | AC85 - 264 1 φ (Output derating is required at AC85V - 115V. See 1.1 and 3.2 in Instruction Manual) *3 |  |                   |                   |                   |        |
|                                    | CURRENT[A]  | ACIN 100V  | 0.7typ (Io=90%)  |                   |                   |                   |        |
|                                    |   | ACIN 115V  | 0.7typ (Io=100%)   |                   |                   |                   |        |
|                                    |   | ACIN 230V  | 0.4typ (Io=100%)   |                   |                   |                   |        |
|                                    | FREQUENCY[Hz]   | 50 / 60 (47 - 63)  |  |                   |                   |                   |        |
|                                    | EFFICIENCY[%]   | ACIN 100V  | 73.0typ (Io=90%)   | 80.0typ (Io=90%)  | 81.0typ (Io=90%)  | 82.5typ (Io=90%)  |        |
|                                    |   | ACIN 115V  | 74.0typ (Io=100%)  | 80.5typ (Io=100%) | 81.5typ (Io=100%) | 83.0typ (Io=100%) |        |
| ACIN 230V                          |   | 77.0typ (Io=100%)  | 81.0typ (Io=100%)  | 82.0typ (Io=100%) | 83.5typ (Io=100%) |                   |        |
| INRUSH CURRENT[A]                  | ACIN 100V   | 16typ (Io=90%) Ta=25°C at cold start   |  |                   |                   |                   |        |
|                                    | ACIN 115V   | 16typ (Io=100%) Ta=25°C at cold start  |  |                   |                   |                   |        |
|                                    | ACIN 230V   | 32typ (Io=100%) Ta=25°C at cold start  |  |                   |                   |                   |        |
| LEAKAGE CURRENT[ma]                | 0.65max (ACIN 115V / 240V, 60Hz, Io=100%, According to IEC60950-1 and DEN-AN) |  |  |                   |                   |                   |        |
| OUTPUT                             | VOLTAGE[V]  | 5  | 12   | 15                | 24                |                   |        |
|                                    | CURRENT[A]  | 6  | 2.5  | 2                 | 1.3               |                   |        |
|                                    | WATTAGE[W]  | ACIN 85-115V   | Output derating is required at ACIN 115V or less (refer to instruction manual 3.2) |                   |                   |                   |        |
|                                    |   | ACIN 115V-264V   | 30.0   | 30.0              | 30.0              | 31.2              |        |
|                                    | LINE REGULATION[mV]   | *4   | 20max  | 48max             | 60max             | 96max             |        |
|                                    | LOAD REGULATION[mV]   | *4   | 40max  | 100max            | 120max            | 150max            |        |
|                                    | RIPPLE[mVp-p]   | *1   | 0 to +50°C   | 80max             | 120max            | 120max            | 120max |
|                                    |   | -10 to 0°C   | 140max   | 160max            | 160max            | 160max            |        |
|                                    | RIPPLE NOISE[mVp-p]   | *1   | 0 to +50°C   | 120max            | 150max            | 150max            | 150max |
|                                    |   | -10 to 0°C   | 160max   | 180max            | 180max            | 180max            |        |
|                                    | TEMPERATURE REGULATION[mV]  | 0 to +50°C   | 50max  | 120max            | 150max            | 240max            |        |
|                                    |   | -10 to +50°C   | 60max  | 150max            | 180max            | 290max            |        |
|                                    | DRIFT[mV]   | *2   | 20max  | 48max             | 60max             | 96max             |        |
|                                    | START-UP TIME[ms]   | 150typ (ACIN 115V, Io=100%)  |  |                   |                   |                   |        |
| HOLD-UP TIME[ms]                   | 20typ (ACIN 115V, Io=100%)  |  |  |                   |                   |                   |        |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | 4.50 to 5.50  |  | 10.80 to 13.20   | 13.50 to 16.50    | 21.60 to 26.40    |                   |        |
| OUTPUT VOLTAGE SETTING[V]          | 5.00 to 5.15  |  | 12.00 to 12.48   | 15.00 to 15.60    | 24.00 to 24.96    |                   |        |
| 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   | 17.25 to 21.00    | 27.60 to 33.60    |                   |        |
|                                    | OPERATING INDICATION  | LED (Green)  |  |                   |                   |                   |        |
|                                    | REMOTE SENSING  | Not provided   |  |                   |                   |                   |        |
| ISOLATION                          | REMOTE ON/OFF   | Not provided   |  |                   |                   |                   |        |
|                                    | 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 *5                                       | -20 to +70°C, 20 - 90%RH (Non condensing), 3,000m (10,000 feet) max                                    |  |                   |                   |                   |        |
|                                    | STORAGE TEMP., HUMID. AND ALTITUDE  | -20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000 feet) max                                    |  |                   |                   |                   |        |
|                                    | VIBRATION   | 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axes            |  |                   |                   |                   |        |
|                                    | IMPACT  | 196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axes   |  |                   |                   |                   |        |
| SAFETY AND NOISE REGULATIONS       | AGENCY APPROVALS  | UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178, UL508 (Except option -J) Complies with DEN-AN        |  |                   |                   |                   |        |
|                                    | CONDUCTED NOISE   | Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B   |  |                   |                   |                   |        |
|                                    | HARMONIC ATTENUATOR *8  | Complies with IEC61000-3-2 class A   |  |                   |                   |                   |        |

## SPECIFICATIONS

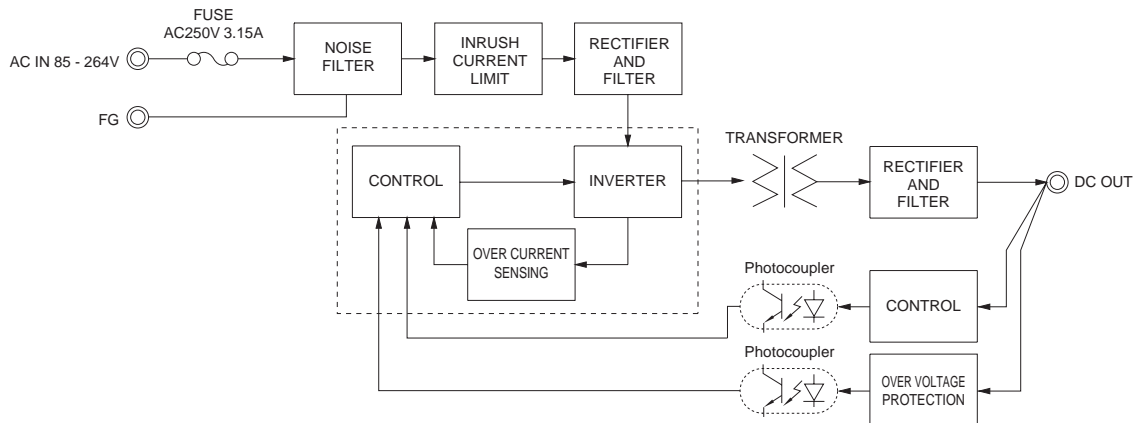
|          |                  |  |
|----------|------------------|--|
| OTHERS   | CASE SIZE/WEIGHT | 38 X 80 X 88mm [1.50 X 3.15 X 3.46 inches] (Excluding terminal block and screw) (W X H X D) / 330g max |
|          | COOLING METHOD   | Convection   |
| WARRANTY | WARRANTY         | *6 5 years (subject to the operating conditions)   |

- \*1 This is the result of measurement of the testing board with capacitors of 22  $\mu$ F and 0.1  $\mu$ F placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103.  
See 1.6 of Instruction Manual for more details.
- \*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.
- \*3 Output power derating is required. As for DC input, consult us for advice.
- \*4 Consult us about dynamic load and input response.
- \*5 Output power derating is required. See 3.2 in Instruction Manual.
- \*6 See 3.3 in Instruction Manual for more details.
- \*7 Consult us about safety agency approvals for the models with optional functions.
- \*8 Consult us about other classes.
- \* Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged.
- \* Parallel operation is not possible with this mode.
- \* Sound noise may be heard from the power supply when used for pulse load.

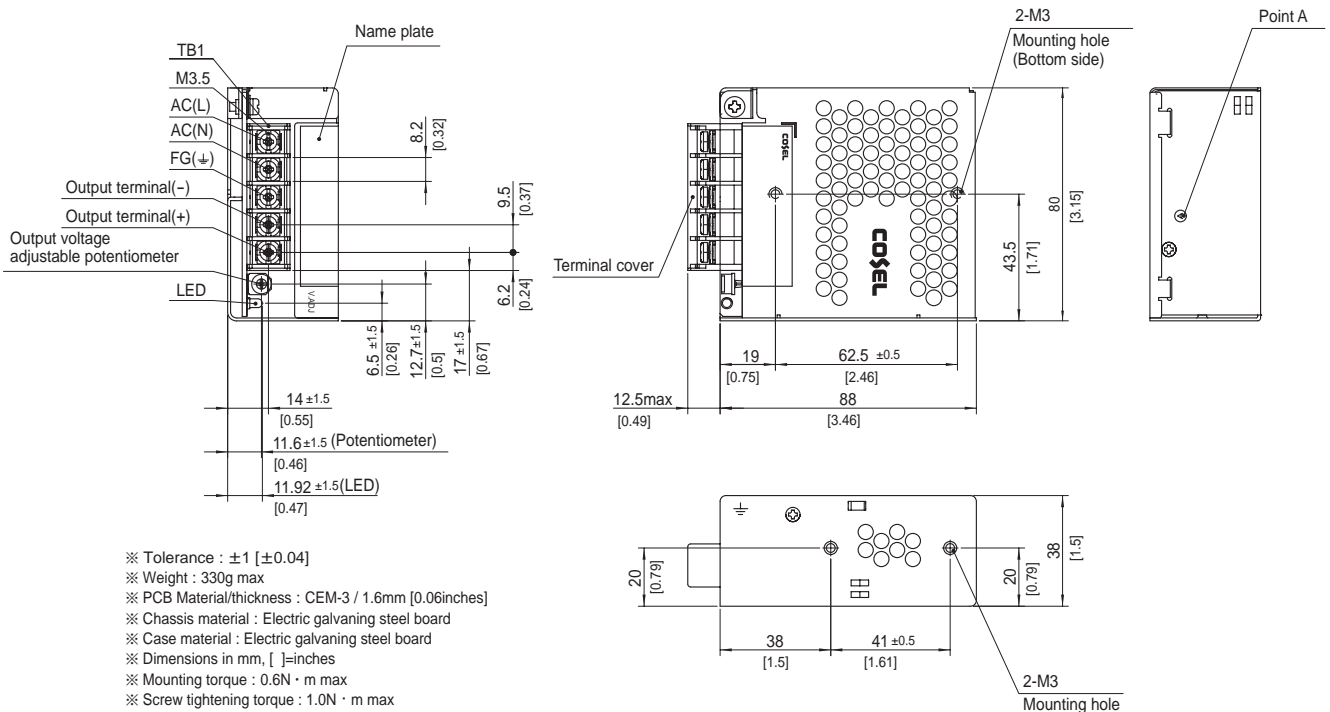
## Features

- Compact design (Depth: 88mm 3.46inches)
- UL508 approved (Except option -J), and complies with SEMI F47
- Various connection interface options (vertical terminal [-T], AMP connector [-J])

## Block diagram



## External view



# PLA50F

① **PL** ② **A** ③ **50** ④ **F** ⑤ **-□** ⑥ **-□**



Recommended EMI/EMC Filter  
**NAC-04-472**



High voltage pulse noise type : NAP series  
Low leakage current type : NAM series

\*The EMI/EMC Filter is recommended to connect with several devices.

- ① Series name
- ② Single output
- ③ Output wattage
- ④ Universal input
- ⑤ Output voltage
- ⑥ Optional \*7
- C : with Coating
- J : Connector interface
- T : Vertical terminal block
- N1 : with DIN rail

See 5.1 in Instruction Manual.

Information the Home page is the latest.

## SPECIFICATIONS

|                                    | MODEL   | PLA50F-5   | PLA50F-12  | PLA50F-15         | PLA50F-24         |                   |
|------------------------------------|---|--|--|-------------------|-------------------|-------------------|
| INPUT                              | VOLTAGE[V]  | AC85 - 264 1 φ (Output derating is required at AC85V - 115V. See 1.1 and 3.2 in Instruction Manual) *3 |  |                   |                   |                   |
|                                    | CURRENT[A]  | ACIN 100V  | 0.6typ (Io=90%)  | 0.7typ (Io=90%)   |                   |                   |
|                                    |   | ACIN 115V  | 0.6typ (Io=100%)   | 0.7typ (Io=100%)  |                   |                   |
|                                    |   | ACIN 230V  | 0.3typ (Io=100%)   | 0.4typ (Io=100%)  |                   |                   |
|                                    | FREQUENCY[Hz]   | 50 / 60 (47 - 63)  |  |                   |                   |                   |
|                                    | EFFICIENCY[%]   | ACIN 100V  | 74.5typ (Io=90%)   | 80.0typ (Io=90%)  | 80.0typ (Io=90%)  | 81.5typ (Io=90%)  |
|                                    |   | ACIN 115V  | 75.0typ (Io=100%)  | 80.5typ (Io=100%) | 80.5typ (Io=100%) | 82.0typ (Io=100%) |
|                                    |   | ACIN 230V  | 76.5typ (Io=100%)  | 82.0typ (Io=100%) | 82.0typ (Io=100%) | 84.0typ (Io=100%) |
|                                    | POWER FACTOR  | ACIN 100V  | 0.97typ (Io=90%)   | 0.98typ (Io=90%)  |                   |                   |
|                                    |   | ACIN 115V  | 0.97typ (Io=100%)  | 0.98typ (Io=100%) |                   |                   |
| ACIN 230V                          |   | 0.85typ (Io=100%)  | 0.87typ (Io=100%)  |                   |                   |                   |
| INRUSH CURRENT[A]                  | ACIN 100V   | 16typ (Io=90%) Ta=25°C at cold start   |  |                   |                   |                   |
|                                    | ACIN 115V   | 16typ (Io=100%) Ta=25°C at cold start  |  |                   |                   |                   |
|                                    | ACIN 230V   | 32typ (Io=100%) Ta=25°C at cold start  |  |                   |                   |                   |
| LEAKAGE CURRENT[ma]                | 0.75max (ACIN 115V / 240V, 60Hz, Io=100%, According to IEC60950-1 and DEN-AN) |  |  |                   |                   |                   |
| OUTPUT                             | VOLTAGE[V]  | 5  | 12   | 15                | 24                |                   |
|                                    | CURRENT[A]  | 8  | 4.3  | 3.5               | 2.2               |                   |
|                                    | WATTAGE[W]  | ACIN 85-115V   | Output derating is required at ACIN 115V or less (refer to instruction manual 3.2) |                   |                   |                   |
|                                    |   | ACIN 115V-264V   | 40.0   | 51.6              | 52.5              | 52.8              |
|                                    | LINE REGULATION[mV] *4  | 20max  | 48max  | 60max             | 96max             |                   |
|                                    | LOAD REGULATION[mV] *4  | 40max  | 100max   | 120max            | 150max            |                   |
|                                    | RIPPLE[mVp-p] *1  | 0 to +45°C   | 80max  | 120max            | 120max            | 120max            |
|                                    |   | -10 to 0°C   | 140max   | 160max            | 160max            | 160max            |
|                                    | RIPPLE NOISE[mVp-p] *1  | 0 to +45°C   | 120max   | 150max            | 150max            | 150max            |
|                                    |   | -10 to 0°C   | 160max   | 180max            | 180max            | 180max            |
|                                    | TEMPERATURE REGULATION[mV]  | 0 to +45°C   | 50max  | 120max            | 150max            | 240max            |
|                                    |   | -10 to +45°C   | 60max  | 150max            | 180max            | 290max            |
|                                    | DRIFT[mV] *2  | 20max  | 48max  | 60max             | 96max             |                   |
|                                    | START-UP TIME[ms]   | 350typ (ACIN 115V, Io=100%)  |  |                   |                   |                   |
|                                    | HOLD-UP TIME[ms]  | 20typ (ACIN 115V, Io=100%)   |  |                   |                   |                   |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | 4.50 to 5.50  | 10.80 to 13.20   | 13.50 to 16.50   | 21.60 to 26.40    |                   |                   |
| OUTPUT VOLTAGE SETTING[V]          | 5.00 to 5.15  | 12.00 to 12.48   | 15.00 to 15.60   | 24.00 to 24.96    |                   |                   |
| 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   | 17.25 to 21.00    | 27.60 to 33.60    |                   |
|                                    | OPERATING INDICATION  | LED (Green)  |  |                   |                   |                   |
|                                    | REMOTE SENSING  | Not provided   |  |                   |                   |                   |
| ISOLATION                          | REMOTE ON/OFF   | Not provided   |  |                   |                   |                   |
|                                    | 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)                         |  |                   |                   |                   |
| ENVIRONMENT                        | OUTPUT-FG   | AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At room temperature)                           |  |                   |                   |                   |
|                                    | OPERATING TEMP., HUMID. AND ALTITUDE *5                                       | -20 to +70°C, 20 - 90%RH (Non condensing), 3,000m (10,000 feet) max                                    |  |                   |                   |                   |
|                                    | STORAGE TEMP., HUMID. AND ALTITUDE  | -20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000 feet) max                                    |  |                   |                   |                   |
|                                    | VIBRATION   | 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axes            |  |                   |                   |                   |
| SAFETY AND NOISE REGULATIONS       | IMPACT  | 196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axes   |  |                   |                   |                   |
|                                    | AGENCY APPROVALS  | UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178, UL508 (Except option -J) Complies with DEN-AN        |  |                   |                   |                   |
|                                    | CONDUCTED NOISE   | Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B   |  |                   |                   |                   |
| HARMONIC ATTENUATOR *8             | Complies with IEC61000-3-2 class A  |  |  |                   |                   |                   |

## SPECIFICATIONS

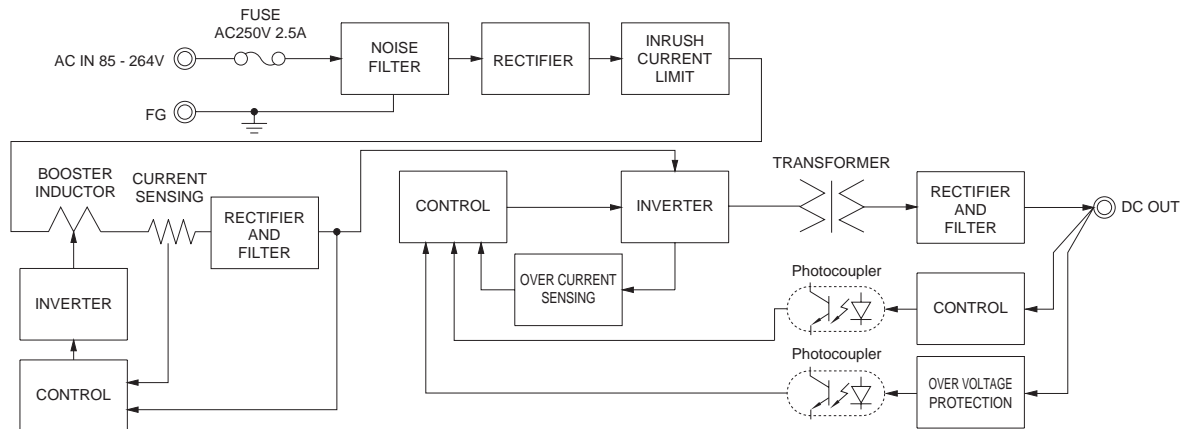
|          |                  |  |
|----------|------------------|--|
| OTHERS   | CASE SIZE/WEIGHT | 38 X 80 X 99mm [1.50 X 3.15 X 3.90 inches] (Excluding terminal block and screw) (W X H X D) / 400g max |
|          | COOLING METHOD   | Convection   |
| WARRANTY | WARRANTY         | *6 5 years (subject to the operating conditions)   |

- \*1 This is the result of measurement of the testing board with capacitors of 22 μF and 0.1 μF placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103.  
See 1.6 of Instruction Manual for more details.
- \*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.
- \*3 Output power derating is required. As for DC input, consult us for advice.
- \*4 Consult us about dynamic load and input response.
- \*5 Output power derating is required. See 3.2 in Instruction Manual.
- \*6 See 3.3 in Instruction Manual for more details.
- \*7 Consult us about safety agency approvals for the models with optional functions.
- \*8 Consult us about other classes.
- \* Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged.
- \* Parallel operation is not possible with this mode.
- \* Sound noise may be heard from the power supply when used for pulse load.

## Features

- Compact design (Depth: 99mm 3.90inches)
- UL508 approved (Except option -J), and complies with SEMI F47
- Various connection interface options (vertical terminal [-T], AMP connector [-J])

## Block diagram



## External view

