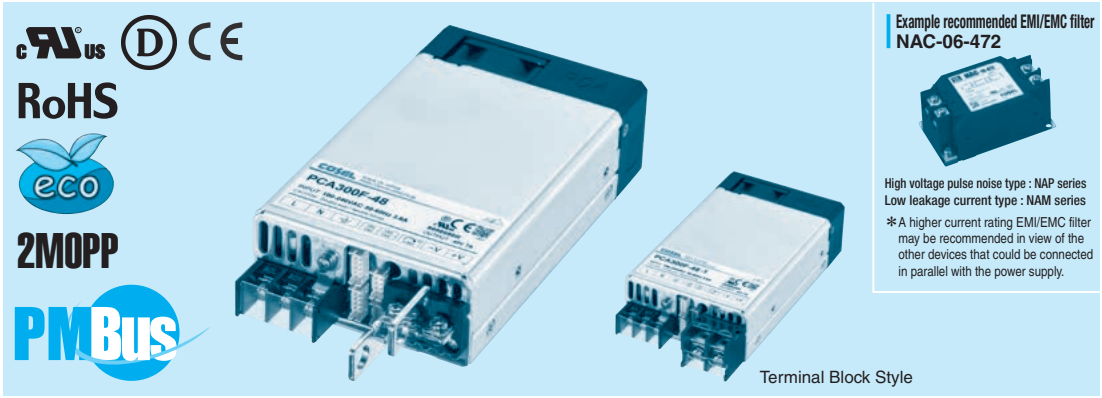
COSEL AC-DC Power Supplies Enclosed Type

# PCA300F

## Ordering information

| PC | A | 300 | F | -5 | -□ |
|---|---|---|---|---|---|
| ① | ② | ③ | ④ | ⑤ | ⑧ |




Example recommended EMI/EMC filter
NAC-06-472



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

＊A higher current rating EMI/EMC filter may be recommended in view of the other devices that could be connected in parallel with the power supply.

①Series name
②Single output
③Output wattage
④Universal input
⑤Output voltage
⑥Optional ＊7
C :with Coating
G :Low leakage current
T :Terminal Block Style
I :with PMBus interface
F2 :Reverse air exhaust type
P3 :Master-slave Operation
W1 :Alarm function

For option details, refer to instruction manual 7.1.

＊Make sure necessary tests will be carried out on your end equipment with the power supply installed in accordance with any required EMC/EMI regulations.

| MODEL | PCA300F-5 | PCA300F-12 | PCA300F-15 | PCA300F-24 | PCA300F-32 | PCA300F-48 |
|---|---|---|---|---|---|---|
| MAX OUTPUT WATTAGE[W] | 300 | 324 | 330 | 336 | 320 | 336 |
| DC OUTPUT | 5V 60A | 12V 27A | 15V 22A | 24V 14A | 32V 10A | 48V 7A |

## SPECIFICATIONS

| | MODEL | | | PCA300F-5 | PCA300F-12 | PCA300F-15 | PCA300F-24 | PCA300F-32 | PCA300F-48 |
|---|---|---|---|---|---|---|---|---|---|
| INPUT | VOLTAGE | | [VAC] | 85 - 264 1 ϕ | | | | | |
| | | | [VDC] ＊1 | 88 - 370 | | | | | |
| | CURRENT[A] | | ACIN 100V | 3.8typ | | | | | |
| | | | ACIN 230V | 1.6typ | | | | | |
| | FREQUENCY[Hz] | | | 50/60 (45 - 66) | | | | | |
| | EFFICIENCY[%] | ACIN 100V | (Io=50%) | 86typ | 87typ | 87typ | 88typ | 88typ | 88typ |
| | | | (Io=100%) | 87typ | 88typ | 88typ | 89typ | 89typ | 89typ |
| | | ACIN 230V | (Io=50%) | 87typ | 88typ | 88typ | 89typ | 89typ | 89typ |
| | | | (Io=100%) | 89typ | 90typ | 90typ | 91typ | 91typ | 91typ |
| | POWER FACTOR | | ACIN 100V | 0.98typ (Io=100%) | | | | | |
| | | | ACIN 230V | 0.95typ (Io=100%) | | | | | |
| | INRUSH CURRENT[A] | | ACIN 100V＊2 | 20/40 typ (Io=100%) (Primary inrush current / Secondary inrush current) (More than 3 sec. to re-start) | | | | | |
| | | | ACIN 230V＊2 | 40/40 typ (Io=100%) (Primary inrush current / Secondary inrush current) (More than 3 sec. to re-start) | | | | | |
| | LEAKAGE CURRENT[mA] | | | 0.5max (ACIN 240V 60Hz, Io=100%, According to IEC60601-1) | | | | | |
| OUTPUT | VOLTAGE[V] | | | 5 | 12 | 15 | 24 | 32 | 48 |
| | CURRENT[A] | | | 60 | 27 | 22 | 14 | 10 | 7 |
| | LINE REGULATION[mV] | | | 20max | 48max | 60max | 96max | 128max | 192max |
| | LOAD REGULATION[mV] | | | 40max | 100max | 120max | 150max | 150max | 480max |
| | RIPPLE[mVp-p] | 0 to +50℃ | ＊3＊4 | 160max | 240max | 240max | 240max | 320max | 480max |
| | | -20 to 0℃ | ＊3 | 280max | 320max | 320max | 320max | 420max | 640max |
| | RIPPLE NOISE[mVp-p] | 0 to +50℃ | ＊3＊4 | 240max | 300max | 300max | 300max | 400max | 600max |
| | | -20 to 0℃ | ＊3 | 320max | 360max | 360max | 360max | 480max | 720max |
| | TEMPERATURE REGULATION[mV] | 0 to +50℃ | ＊4 | 50max | 120max | 150max | 240max | 320max | 480max |
| | | -20 to +50℃ | ＊4 | 75max | 180max | 180max | 290max | 400max | 600max |
| | DRIFT[mV] | | ＊5 | 20max | 48max | 60max | 96max | 128max | 192max |
| | START-UP TIME[ms] | | | 700typ (ACIN 100/230V Io=100%) | | | | | |
| | HOLD-UP TIME[ms] | | | 20typ (ACIN 230V Io=80%) / 16typ (ACIN 230V Io=100%) | | | | | |
| | OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | | | 3.00 to 6.00 | 7.20 to 14.40 | 9.00 to 18.00 | 14.40 to 28.80 | 19.20 to 38.40 | 28.80 to 57.60 |
| | OUTPUT VOLTAGE SETTING[V] | | | 5.00 to 5.05 | 12.00 to 12.12 | 15.00 to 15.15 | 24.00 to 24.24 | 32.00 to 32.32 | 48.00 to 48.48 |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | | | Works over 105% of rating (Recovers automatically, Hiccup overcurrent) | | | | | |
| | OVERVOLTAGE PROTECTION[V] | | | 6.25 to 7.00 | 15.00 to 16.80 | 18.75 to 21.00 | 30.00 to 33.60 | 40.00 to 44.80 | 60.00 to 67.20 |
| | REMOTE SENSING | | | Provided | | | | | |
| | REMOTE ON/OFF (RC) | | | Provided | | | | | |
| | DC_OK LAMP | | | LED (Blue) | | | | | |
| | ALARM LAMP | | | LED (Orange) | | | | | |
| | COMMUNICATION FUNCTION | | | Provided (Extended UART) | | | | | |
| ISOLATION | INPUT-OUTPUT | | | AC4,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) 2MOPP | | | | | |
| | INPUT-FG | | | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) 1MOPP | | | | | |
| | OUTPUT-FG | | | AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature) | | | | | |
| | OUTPUT - AUX · RC · PG · INFO · DS · ADDR0 · ADDR1 · ADDR2 | | | AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature) | | | | | |
| ENVIRONMENT | OPERATING TEMP.,HUMIDITY.AND ALTITUDE | | | -20 to +70℃, 20 - 90%RH (Non condensing) | | | | | |
| | STORAGE TEMP.,HUMIDITY.AND ALTITUDE | | | -20 to +75℃, 20 - 90%RH (Non condensing) | | | | | |
| | 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 | | | UL62368-1, EN62368-1, C-UL (equivalent to CAN/CSA-C22.2 No.62368-1), ANSI/AAMI ES60601-1, EN60601-1 3rd, C-UL (equivalent to CAN/CSA-C22.2 No.60601-1), Complies with IEC60601-1-2 4th Ed. | | | | | |
| | CONDUCTED NOISE | | | Complies with FCC Part15 classB, VCCI-B, CISPR32-B, EN55011-B, EN55032-B | | | | | |
| | HARMONIC ATTENUATOR ＊6 | | | Complies with IEC61000-3-2 (class A) | | | | | |

## SPECIFICATIONS

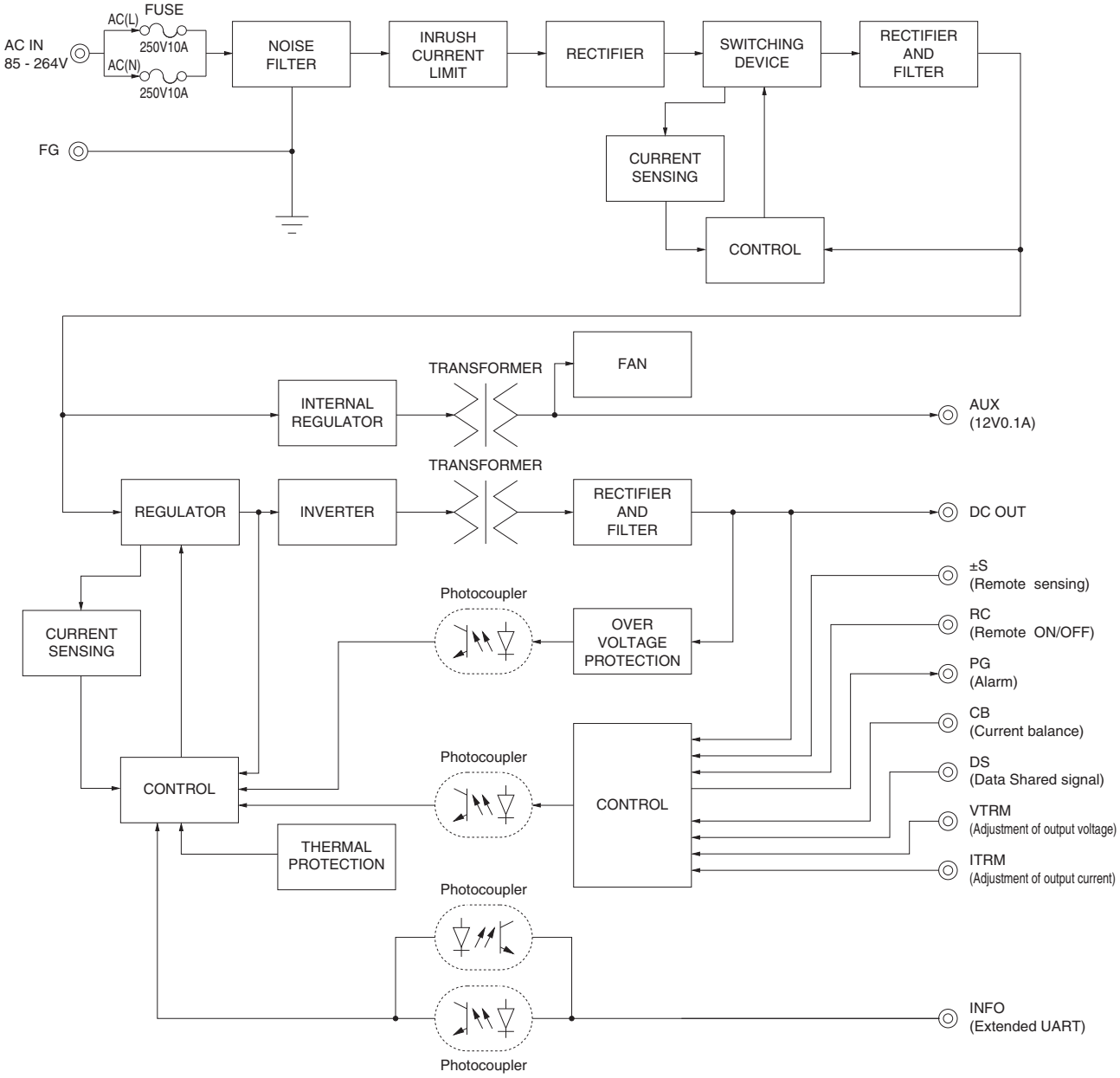
| | | |
|---|---|---|
| OTHERS | CASE SIZE/WEIGHT | 89×41×152mm [3.50×1.61×5.98 inches] (without terminal block and screw) (W×H×D) / 840g max |
| | COOLING METHOD | Forced cooling (internal fan) |

∗1 DC input safety agency approvals deleted.
∗2 The value is primary surge. The current of input surge to a built-in EMI/EMS Filter(0.2ms or less) is excluded.
∗3 Measured by 20MHz oscilloscope or Ripple-Noise meter (equivalent to KEISOKU-GIKEN:RM103). Please refer to the instruction manual 2.2.
∗4 5V output product, the maximum temperature of 40℃.
∗5 Drift is the change in DC output for an eight hours period after a half-hour warm-up at 25℃.
∗6 Please contact us about another class.
∗7 The listed options may affect the published standard specifications. Please contact us for detailed product specifications and safety approvals.
∗ A sound may occur from power supply at pulse loading.

## Features

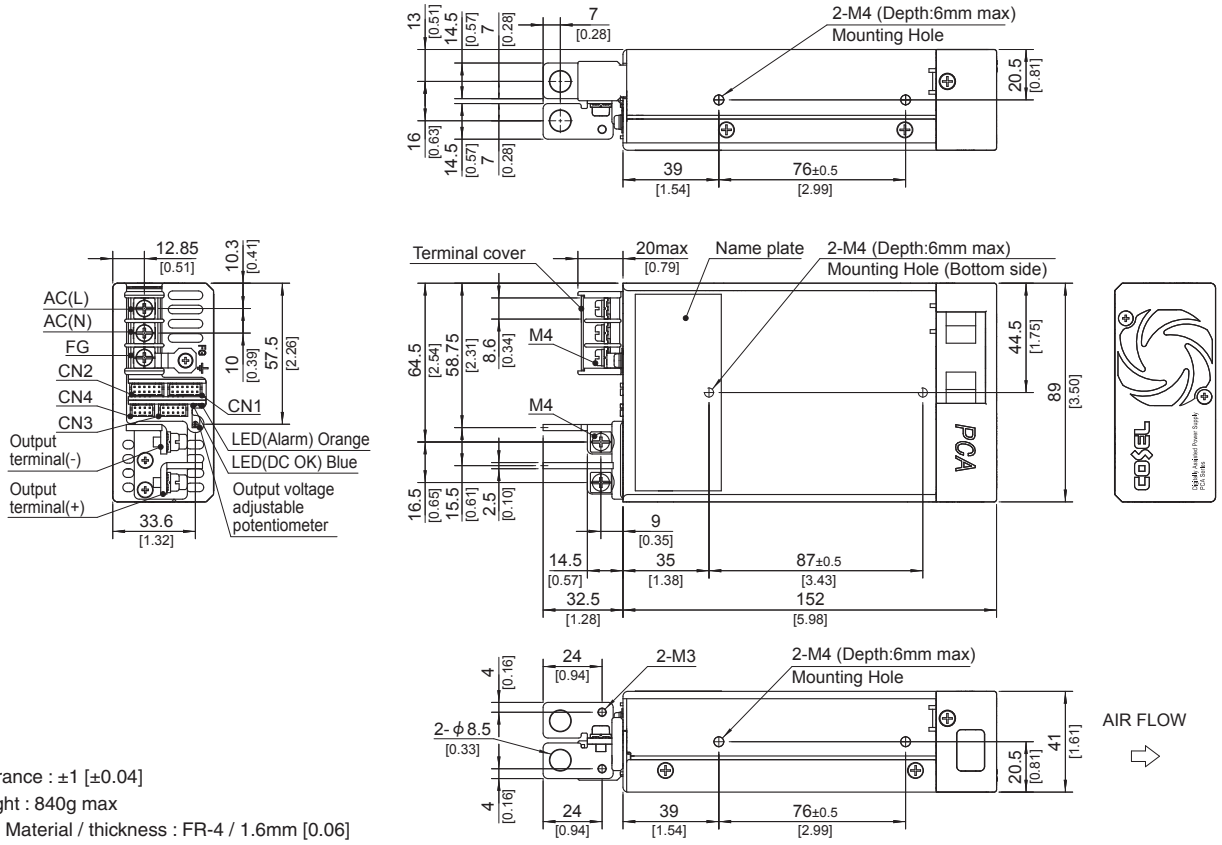
- Low profile (41mm, 1.61 inch = meet to 1U height)
- Universal input 85 - 264VAC
- DC input 88 - 370VDC possible
- For medical electric equipment (ANSI/AAMI ES60601-1, EN60601-1 3rd, IEC60601-1-2 4th Ed.)
- Medical Isolation Grade 2MOPP
- With AUX output 12V 0.1A (Voltage variable range 5 - 12V)
- Constant current regulation
- Output voltage can be varied to near 0V (Refer to item 3.6)
- With various alarms
- Parallel Operation / N+1 Parallel Redundancy Operation possible
- Monitoring function by communication and various setting values can be changed (Refer to item 3.11)

## Block diagram



## External view

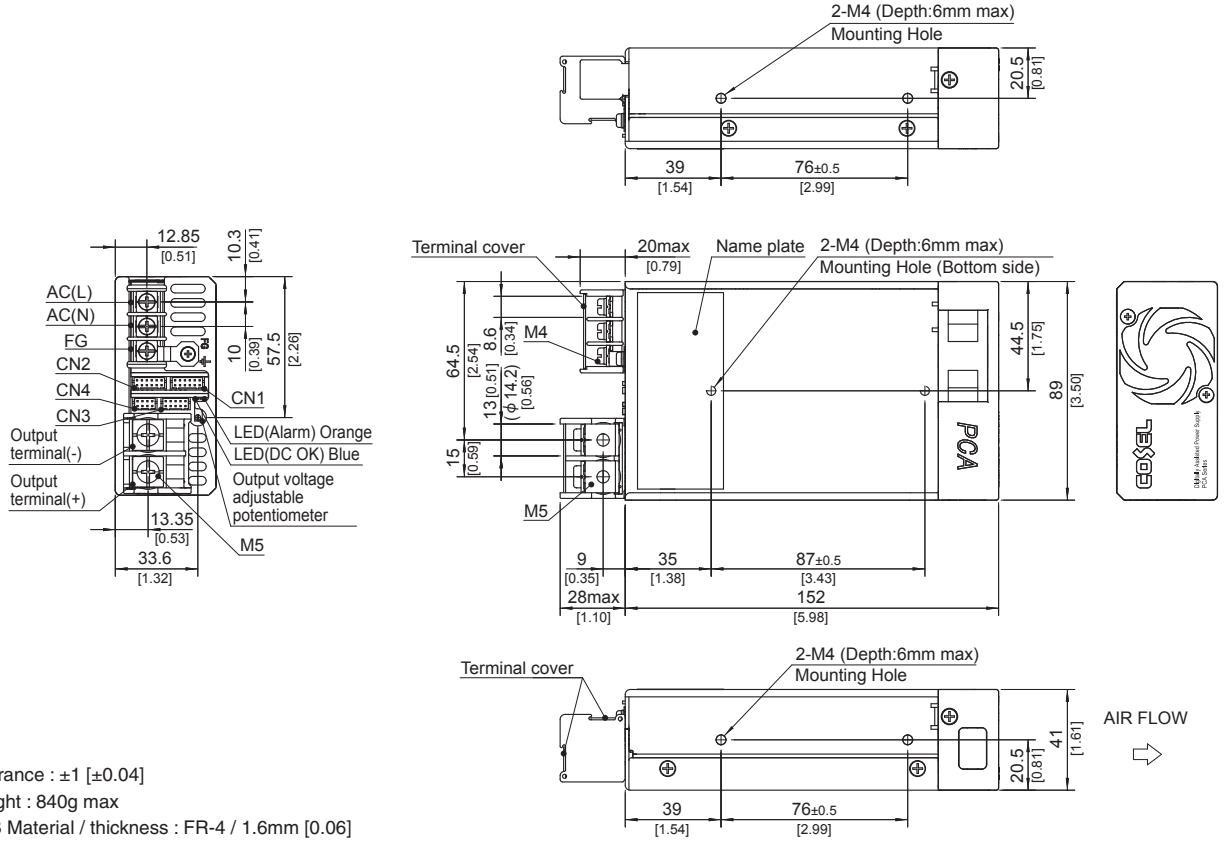
<PCA300F-□ (Bus Bar Style) >




※ Tolerance : ±1 [±0.04]
※ Weight : 840g max
※ PCB Material / thickness : FR-4 / 1.6mm [0.06]
※ Chassis Material : Aluminum
※ Fan cover Material : PBT
※ Dimensions in mm, [ ] = inches
※ Mounting torque : 1.2N·m max
※ Input and output terminal screw tightening torque
M3 0.6N·m max
M4 1.6N·m max
※ Please connect safety ground to FG terminal on the unit.

## External view

<PCA300F-□-T (Terminal Block Style) >




※ Tolerance : ±1 [±0.04]
※ Weight : 840g max
※ PCB Material / thickness : FR-4 / 1.6mm [0.06]
※ Chassis Material : Aluminum
※ Fan cover Material : PBT
※ Dimensions in mm, [ ] = inches
※ Mounting torque : 1.2N·m max
※ Input and output terminal screw tightening torque
M4 1.6N·m max
M5 2.5N·m max
※ Please connect safety ground to FG terminal on the unit.

COSEL AC-DC Power Supplies Enclosed Type

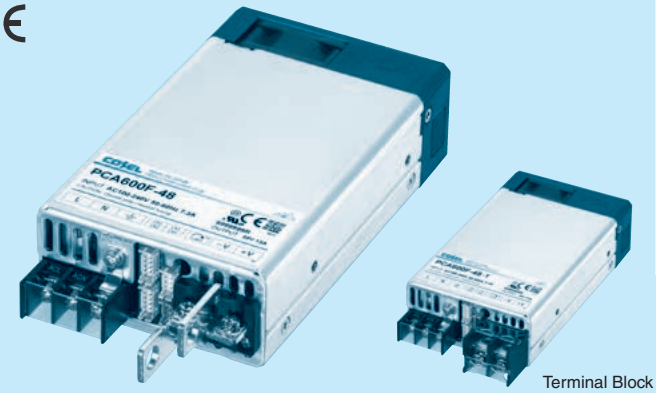
# PCA600F

## Ordering information

| PC | A | 600 | F | -5 | -□ |
|---|---|---|---|---|---|
| ① | ② | ③ | ④ | ⑤ | ⑧ |

RoHS

2MOPP



Terminal Block Style

Example recommended EMI/EMC filter
NAC-16-472

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

＊A higher current rating EMI/EMC filter may be recommended in view of the other devices that could be connected in parallel with the power supply.

①Series name
②Single output
③Output wattage
④Universal input
⑤Output voltage
⑥Optional ＊7
C :with Coating
G :Low leakage current
T :Terminal Block Style (Only 12V, 15V, 24V, 32V and 48V)
I :with PMBus interface
F2 :Reverse air exhaust type
P3 :Master-slave Operation
W1 :Alarm function

For option details, refer to instruction manual 7.1.

＊Make sure necessary tests will be carried out on your end equipment with the power supply installed in accordance with any required EMC/EMI regulations.

| MODEL | PCA600F-5 | PCA600F-12 | PCA600F-15 | PCA600F-24 | PCA600F-32 | PCA600F-48 |
|---|---|---|---|---|---|---|
| MAX OUTPUT WATTAGE[W] | 600 | 636 | 645 | 648 | 640 | 624 |
| DC OUTPUT | 5V 120A | 12V 53A | 15V 43A | 24V 27A | 32V 20A | 48V 13A |

## SPECIFICATIONS

| | MODEL | | | PCA600F-5 | PCA600F-12 | PCA600F-15 | PCA600F-24 | PCA600F-32 | PCA600F-48 |
|---|---|---|---|---|---|---|---|---|---|
| INPUT | VOLTAGE | | [VAC] | 85 - 264 1 ϕ (Output derating is required at less than 90V. Refer to instruction manual 5.2.) | | | | | |
| | | | [VDC] ＊1 | 88 - 370 (Output derating is required at less than 110V.Refer to instruction manual 5.2.) | | | | | |
| | CURRENT[A] | | ACIN 100V | 7.3typ | | | | | |
| | | | ACIN 230V | 3.2typ | | | | | |
| | FREQUENCY[Hz] | | | 50/60 (45 - 66) | | | | | |
| | EFFICIENCY[%] | ACIN 100V | (Io=50%) | 90typ | 91typ | 91typ | 91typ | 91typ | 91typ |
| | | | (Io=100%) | 89typ | 90typ | 90typ | 91typ | 91typ | 91typ |
| | | ACIN 230V | (Io=50%) | 92typ | 92typ | 92typ | 93typ | 93typ | 93typ |
| | | | (Io=100%) | 91typ | 92typ | 92typ | 93typ | 93typ | 93typ |
| | POWER FACTOR | | ACIN 100V | 0.98typ (Io=100%) | | | | | |
| | | | ACIN 230V | 0.95typ (Io=100%) | | | | | |
| | INRUSH CURRENT[A] | | ACIN 100V＊2 | 20/40 typ (Io=100%) (Primary inrush current / Secondary inrush current) (More than 3 sec. to re-start) | | | | | |
| | | | ACIN 230V＊2 | 40/40 typ (Io=100%) (Primary inrush current / Secondary inrush current) (More than 3 sec. to re-start) | | | | | |
| | LEAKAGE CURRENT[mA] | | | 0.5max (ACIN 240V 60Hz, Io=100%, According to IEC60601-1) | | | | | |
| OUTPUT | VOLTAGE[V] | | | 5 | 12 | 15 | 24 | 32 | 48 |
| | CURRENT[A] | | | 120 | 53 | 43 | 27 | 20 | 13 |
| | LINE REGULATION[mV] | | | 20max | 48max | 60max | 96max | 128max | 192max |
| | LOAD REGULATION[mV] | | | 40max | 100max | 120max | 150max | 150max | 480max |
| | RIPPLE[mVp-p] | 0 to +50℃ | ＊3＊4 | 160max | 240max | 240max | 240max | 320max | 480max |
| | | -20 to 0℃ | ＊3 | 280max | 320max | 320max | 320max | 420max | 640max |
| | RIPPLE NOISE[mVp-p] | 0 to +50℃ | ＊3＊4 | 240max | 300max | 300max | 300max | 400max | 600max |
| | | -20 to 0℃ | ＊3 | 320max | 360max | 360max | 360max | 480max | 720max |
| | TEMPERATURE REGULATION[mV] | 0 to +50℃ | ＊4 | 50max | 120max | 150max | 240max | 320max | 480max |
| | | -20 to +50℃ | ＊4 | 75max | 180max | 180max | 290max | 400max | 600max |
| | DRIFT[mV] | | ＊5 | 20max | 48max | 60max | 96max | 128max | 192max |
| | START-UP TIME[ms] | | | 700typ (ACIN 100/230V Io=100%) | | | | | |
| | HOLD-UP TIME[ms] | | | 20typ (ACIN 230V Io=80%) / 16typ (ACIN 230V Io=100%) | | | | | |
| | OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | | | 3.00 to 6.00 | 7.20 to 14.40 | 9.00 to 18.00 | 14.40 to 28.80 | 19.20 to 38.40 | 28.80 to 57.60 |
| | OUTPUT VOLTAGE SETTING[V] | | | 5.00 to 5.05 | 12.00 to 12.12 | 15.00 to 15.15 | 24.00 to 24.24 | 32.00 to 32.32 | 48.00 to 48.48 |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | | | Works over 105% of rating (Recovers automatically, Hiccup overcurrent) | | | | | |
| | OVERVOLTAGE PROTECTION[V] | | | 6.25 to 7.00 | 15.00 to 16.80 | 18.75 to 21.00 | 30.00 to 33.60 | 40.00 to 44.80 | 60.00 to 67.20 |
| | REMOTE SENSING | | | Provided | | | | | |
| | REMOTE ON/OFF (RC) | | | Provided | | | | | |
| | DC_OK LAMP | | | LED (Blue) | | | | | |
| | ALARM LAMP | | | LED (Orange) | | | | | |
| | COMMUNICATION FUNCTION | | | Provided (Extended UART) | | | | | |
| ISOLATION | INPUT-OUTPUT | | | AC4,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) 2MOPP | | | | | |
| | INPUT-FG | | | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) 1MOPP | | | | | |
| | OUTPUT-FG | | | AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature) | | | | | |
| | OUTPUT - AUX · RC · PG · INFO · DS · ADDR0 · ADDR1 · ADDR2 | | | AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature) | | | | | |
| ENVIRONMENT | OPERATING TEMP.,HUMIDITY.AND ALTITUDE | | | -20 to +70℃, 20 - 90%RH (Non condensing) | | | | | |
| | STORAGE TEMP.,HUMIDITY.AND ALTITUDE | | | -20 to +75℃, 20 - 90%RH (Non condensing) | | | | | |
| | 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 | | | UL62368-1, EN62368-1, C-UL (equivalent to CAN/CSA-C22.2 No.62368-1), ANSI/AAMI ES60601-1, EN60601-1 3rd, C-UL (equivalent to CAN/CSA-C22.2 No.60601-1), Complies with IEC60601-1-2 4th Ed. | | | | | |
| | CONDUCTED NOISE | | | Complies with FCC Part15 classB, VCCI-B, CISPR32-B, EN55011-B, EN55032-B | | | | | |
| | HARMONIC ATTENUATOR ＊6 | | | Complies with IEC61000-3-2 (class A) | | | | | |

## SPECIFICATIONS

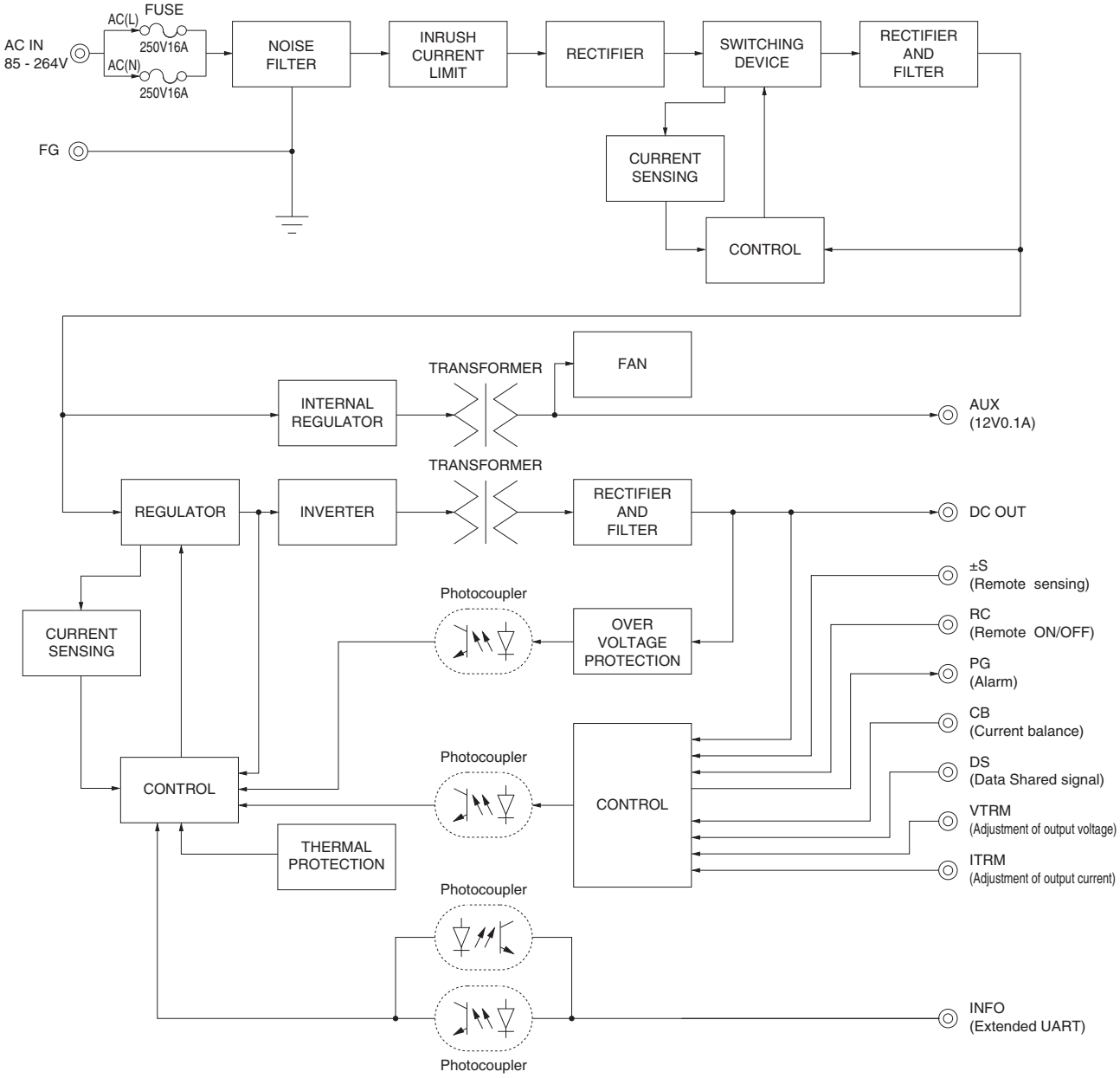
| | | |
|---|---|---|
| OTHERS | CASE SIZE/WEIGHT | 89×41×152mm [3.50×1.61×5.98 inches] (without terminal block and screw) (W×H×D) / 840g max |
| | COOLING METHOD | Forced cooling (internal fan) |

∗1 DC input safety agency approvals deleted.
∗2 The value is primary surge. The current of input surge to a built-in EMI/EMS Filter(0.2ms or less) is excluded.
∗3 Measured by 20MHz oscilloscope or Ripple-Noise meter (equivalent to KEISOKU-GIKEN:RM103). Please refer to the instruction manual 2.2.
∗4 5V output product, the maximum temperature of 40℃.
∗5 Drift is the change in DC output for an eight hours period after a half-hour warm-up at 25℃.
∗6 Please contact us about another class.
∗7 The listed options may affect the published standard specifications. Please contact us for detailed product specifications and safety approvals.
∗ A sound may occur from power supply at pulse loading.

## Features

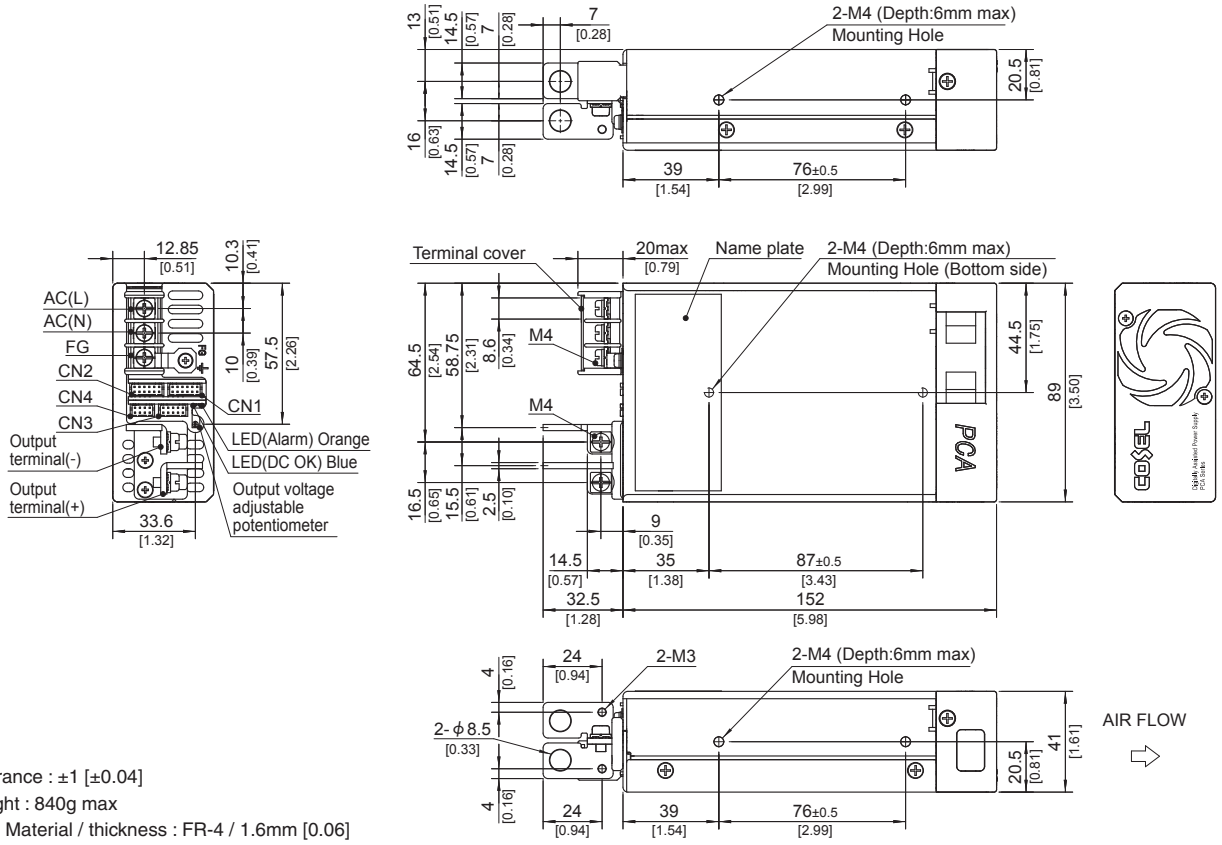
- Low profile (41mm, 1.61 inch = meet to 1U height)
- Universal input 85 - 264VAC (Refer to item 5.2, when using at 85 - 90VAC)
- DC input 88 - 370VDC possible (Refer to item 5.2, when using at 88 - 110VDC)
- For medical electric equipment (ANSI/AAMI ES60601-1, EN60601-1 3rd, IEC60601-1-2 4th Ed.)
- Medical Isolation Grade 2MOPP
- With AUX output 12V 0.1A (Voltage variable range 5 - 12V)
- Constant current regulation
- Output voltage can be varied to near 0V (Refer to item 3.6)
- With various alarms
- Parallel Operation / N+1 Parallel Redundancy Operation possible
- Monitoring function by communication and various setting values can be changed (Refer to item 3.11)

## Block diagram



## External view

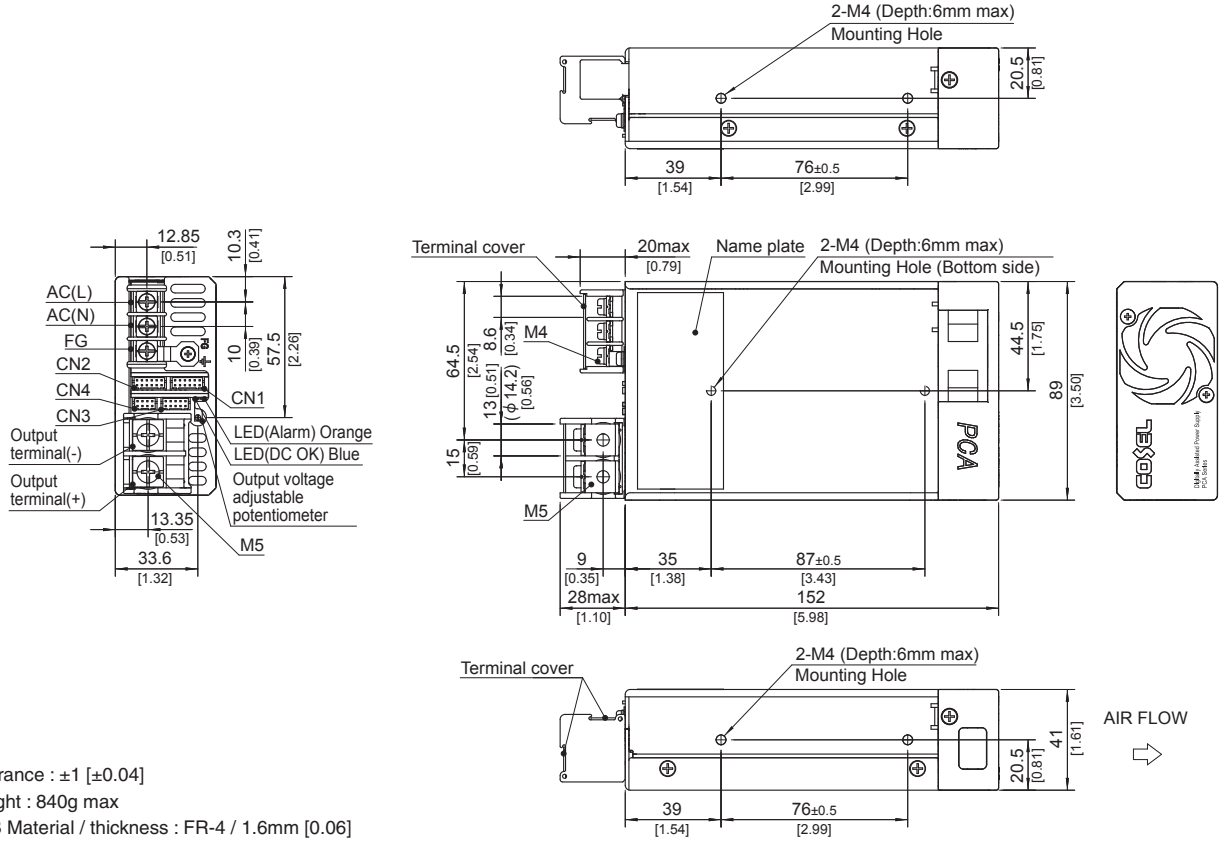
<PCA600F-□ (Bus Bar Style) >




※ Tolerance : ±1 [±0.04]
※ Weight : 840g max
※ PCB Material / thickness : FR-4 / 1.6mm [0.06]
※ Chassis Material : Aluminum
※ Fan cover Material : PBT
※ Dimensions in mm, [ ] = inches
※ Mounting torque : 1.2N·m max
※ Input and output terminal screw tightening torque
M3 0.6N·m max
M4 1.6N·m max
※ Please connect safety ground to FG terminal on the unit.

## External view

<PCA600F-□-T (Terminal Block Style) >



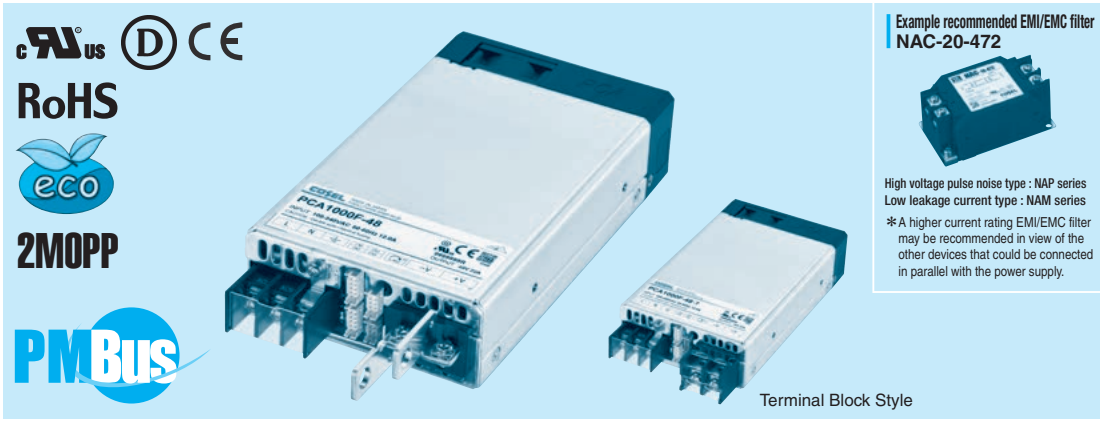

※ Tolerance : ±1 [±0.04]
※ Weight : 840g max
※ PCB Material / thickness : FR-4 / 1.6mm [0.06]
※ Chassis Material : Aluminum
※ Fan cover Material : PBT
※ Dimensions in mm, [ ] = inches
※ Mounting torque : 1.2N·m max
※ Input and output terminal screw tightening torque
M4 1.6N·m max
M5 2.5N·m max
※ Please connect safety ground to FG terminal on the unit.

COSEL AC-DC Power Supplies Enclosed Type

# PCA1000F

## Ordering information

| PC | A | 1000 | F | -5 | -□ |
|---|---|---|---|---|---|
| ① | ② | ③ | ④ | ⑤ | ⑧ |




Example recommended EMI/EMC filter
NAC-20-472



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

＊A higher current rating EMI/EMC filter may be recommended in view of the other devices that could be connected in parallel with the power supply.

①Series name
②Single output
③Output wattage
④Universal input
⑤Output voltage
⑥Optional ＊6
C :with Coating
G :Low leakage current
T :Terminal Block Style (Only 24V, 32V and 48V)
I :with PMBus interface
F2:Reverse air exhaust type
P3:Master-slave Operation
W1:Alarm function
E1:EMI classB (Only 24V, 32V and 48V)

For option details, refer to instruction manual 7.1.

＊Make sure necessary tests will be carried out on your end equipment with the power supply installed in accordance with any required EMC/EMI regulations.

| MODEL | PCA1000F-5 | PCA1000F-12 | PCA1000F-15 | PCA1000F-24 | PCA1000F-32 | PCA1000F-48 |
|---|---|---|---|---|---|---|
| MAX OUTPUT WATTAGE[W] | 1000 | 1056 | 1050 | 1056 | 1056 | 1056 |
| DC OUTPUT | 5V 200A | 12V 88A | 15V 70A | 24V 44A | 32V 33A | 48V 22A |

## SPECIFICATIONS

| | MODEL | | | PCA1000F-5 | PCA1000F-12 | PCA1000F-15 | PCA1000F-24 | PCA1000F-32 | PCA1000F-48 |
|---|---|---|---|---|---|---|---|---|---|
| INPUT | VOLTAGE | | [VAC] | 85 - 264 1 ϕ (Output derating is required at less than 90V. Refer to instruction manual 5.2.) | | | | | |
| | CURRENT[A] | | ACIN 100V | 12.0typ | | | | | |
| | | | ACIN 230V | 5.3typ | | | | | |
| | FREQUENCY[Hz] | | | 50/60 (45 - 66) | | | | | |
| | EFFICIENCY[%] | ACIN 100V | (Io=50%) | 90typ | 91typ | 91typ | 91typ | 91typ | 91typ |
| | | | (Io=100%) | 89typ | 90typ | 90typ | 91typ | 91typ | 91typ |
| | | ACIN 230V | (Io=50%) | 92typ | 92typ | 92typ | 93typ | 93typ | 93typ |
| | | | (Io=100%) | 91typ | 92typ | 92typ | 93typ | 93typ | 93typ |
| | POWER FACTOR | | ACIN 100V | 0.98typ (Io=100%) | | | | | |
| | | | ACIN 230V | 0.95typ (Io=100%) | | | | | |
| | INRUSH CURRENT[A] | | ACIN 100V＊1 | 20/40 typ (Io=100%) (Primary inrush current / Secondary inrush current) (More than 3 sec. to re-start) | | | | | |
| | | | ACIN 230V＊1 | 40/40 typ (Io=100%) (Primary inrush current / Secondary inrush current) (More than 3 sec. to re-start) | | | | | |
| | LEAKAGE CURRENT[mA] | | | 0.5max (ACIN 240V 60Hz, Io=100%, According to IEC60601-1) | | | | | |
| OUTPUT | VOLTAGE[V] | | | 5 | 12 | 15 | 24 | 32 | 48 |
| | CURRENT[A] | | | 200 | 88 | 70 | 44 | 33 | 22 |
| | LINE REGULATION[mV] | | | 20max | 48max | 60max | 96max | 128max | 192max |
| | LOAD REGULATION[mV] | | | 40max | 100max | 120max | 150max | 150max | 480max |
| | RIPPLE[mVp-p] | | 0 to +50℃ ＊2＊3 | 160max | 240max | 240max | 240max | 320max | 480max |
| | | | -20 to 0℃ ＊2 | 280max | 320max | 320max | 320max | 420max | 640max |
| | RIPPLE NOISE[mVp-p] | | 0 to +50℃ ＊2＊3 | 240max | 300max | 300max | 300max | 400max | 600max |
| | | | -20 to 0℃ ＊2 | 320max | 360max | 360max | 360max | 480max | 720max |
| | TEMPERATURE REGULATION[mV] | | 0 to +50℃ ＊3 | 50max | 120max | 150max | 240max | 320max | 480max |
| | | | -20 to +50℃ ＊3 | 75max | 180max | 180max | 290max | 400max | 600max |
| | DRIFT[mV] | | ＊4 | 20max | 48max | 60max | 96max | 128max | 192max |
| | START-UP TIME[ms] | | | 700typ (ACIN 100/230V Io=100%) | | | | | |
| | HOLD-UP TIME[ms] | | | 20typ (ACIN 230V Io=80%) / 16typ (ACIN 230V Io=100%) | | | | | |
| | OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | | | 3.00 to 6.00 | 7.20 to 14.40 | 9.00 to 18.00 | 14.40 to 28.80 | 19.20 to 38.40 | 28.80 to 57.60 |
| | OUTPUT VOLTAGE SETTING[V] | | | 5.00 to 5.05 | 12.00 to 12.12 | 15.00 to 15.15 | 24.00 to 24.24 | 32.00 to 32.32 | 48.00 to 48.48 |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | | | Works over 105% of rating (Recovers automatically, Hiccup overcurrent) | | | | | |
| | OVERVOLTAGE PROTECTION[V] | | | 6.25 to 7.00 | 15.00 to 16.80 | 18.75 to 21.00 | 30.00 to 33.60 | 40.00 to 44.80 | 60.00 to 67.20 |
| | REMOTE SENSING | | | Provided | | | | | |
| | REMOTE ON/OFF (RC) | | | Provided | | | | | |
| | DC_OK LAMP | | | LED (Blue) | | | | | |
| | ALARM LAMP | | | LED (Orange) | | | | | |
| | COMMUNICATION FUNCTION | | | Provided (Extended UART) | | | | | |
| ISOLATION | INPUT-OUTPUT | | | AC4,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) 2MOPP | | | | | |
| | INPUT-FG | | | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) 1MOPP | | | | | |
| | OUTPUT-FG | | | AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature) | | | | | |
| | OUTPUT - AUX · RC · PG · INFO · DS · ADDR0 · ADDR1 · ADDR2 | | | AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature) | | | | | |
| ENVIRONMENT | OPERATING TEMP.,HUMIDITY.AND ALTITUDE | | | -20 to +70℃, 20 - 90%RH (Non condensing) | | | | | |
| | STORAGE TEMP.,HUMIDITY.AND ALTITUDE | | | -20 to +75℃, 20 - 90%RH (Non condensing) | | | | | |
| | 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 | | | UL62368-1, EN62368-1, C-UL (equivalent to CAN/CSA-C22.2 No.62368-1), ANSI/AAMI ES60601-1, EN60601-1 3rd, C-UL (equivalent to CAN/CSA-C22.2 No.60601-1), Complies with IEC60601-1-2 4th Ed. | | | | | |
| | CONDUCTED NOISE | | | Complies with FCC Part15 classA, VCCI-A, CISPR32-A, EN55011-A, EN55032-A | | | | | |
| | HARMONIC ATTENUATOR ＊5 | | | Complies with IEC61000-3-2 (class A) | | | | | |

## SPECIFICATIONS

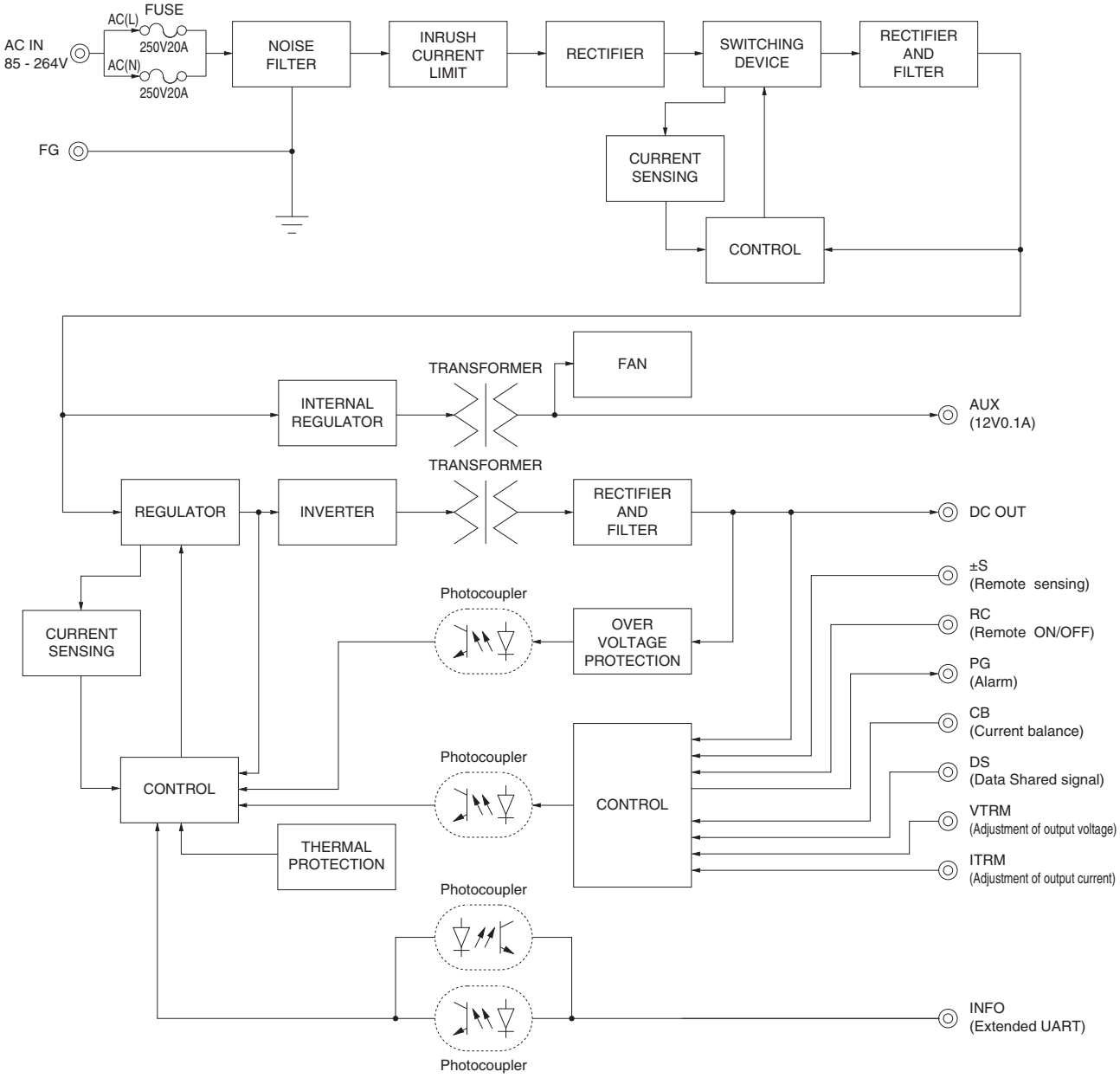
| | | |
|---|---|---|
| OTHERS | CASE SIZE/WEIGHT | 102×41×178mm [4.02×1.61×7.01 inches] (without terminal block and screw) (W×H×D) / 1.2kg max |
| | COOLING METHOD | Forced cooling (internal fan) |

∗1 The value is primary surge. The current of input surge to a built-in EMI/EMS Filter(0.2ms or less) is excluded.
∗2 Measured by 20MHz oscilloscope or Ripple-Noise meter (equivalent to KEISOKU-GIKEN:RM103). Please refer to the instruction manual 2.2.
∗3 5V, 12V, 15V output product, the maximum temperature of 40℃.
∗4 Drift is the change in DC output for an eight hours period after a half-hour warm-up at 25℃.
∗5 Please contact us about another class.
∗6 The listed options may affect the published standard specifications. Please contact us for detailed product specifications and safety approvals.
∗ A sound may occur from power supply at pulse loading.

## Features

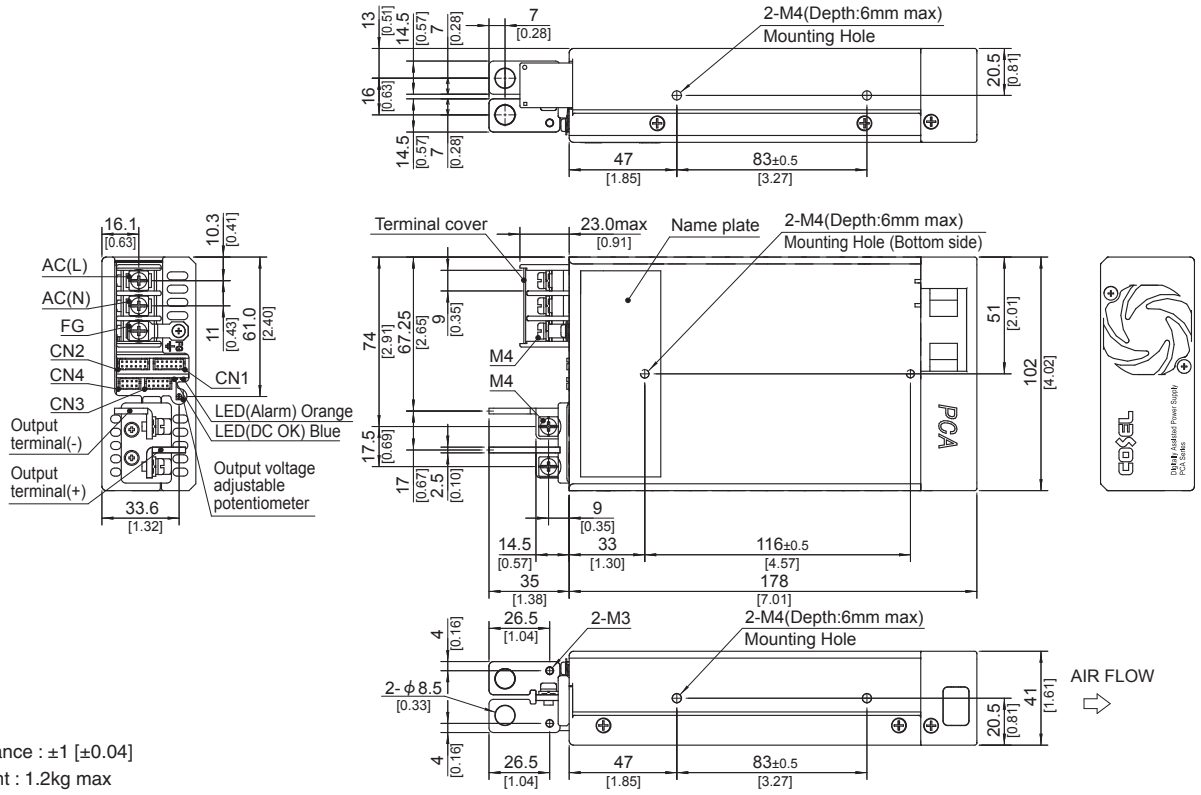
- Low profile (41mm, 1.61 inch = meet to 1U height)
- Universal input 85 - 264VAC (Refer to item 5.2, when using at 85 - 90VAC)
- For medical electric equipment (ANSI/AAMI ES60601-1, EN60601-1 3rd, IEC60601-1-2 4th Ed.)
- Medical Isolation Grade 2MOPP
- With AUX output 12V 0.1A (Voltage variable range 5 - 12V)
- Constant current regulation
- Output voltage can be varied to near 0V (Refer to item 3.6)
- With various alarms
- Parallel Operation / N+1 Parallel Redundancy Operation possible
- Monitoring function by communication and various setting values can be changed (Refer to item 3.11)

## Block diagram



## External view

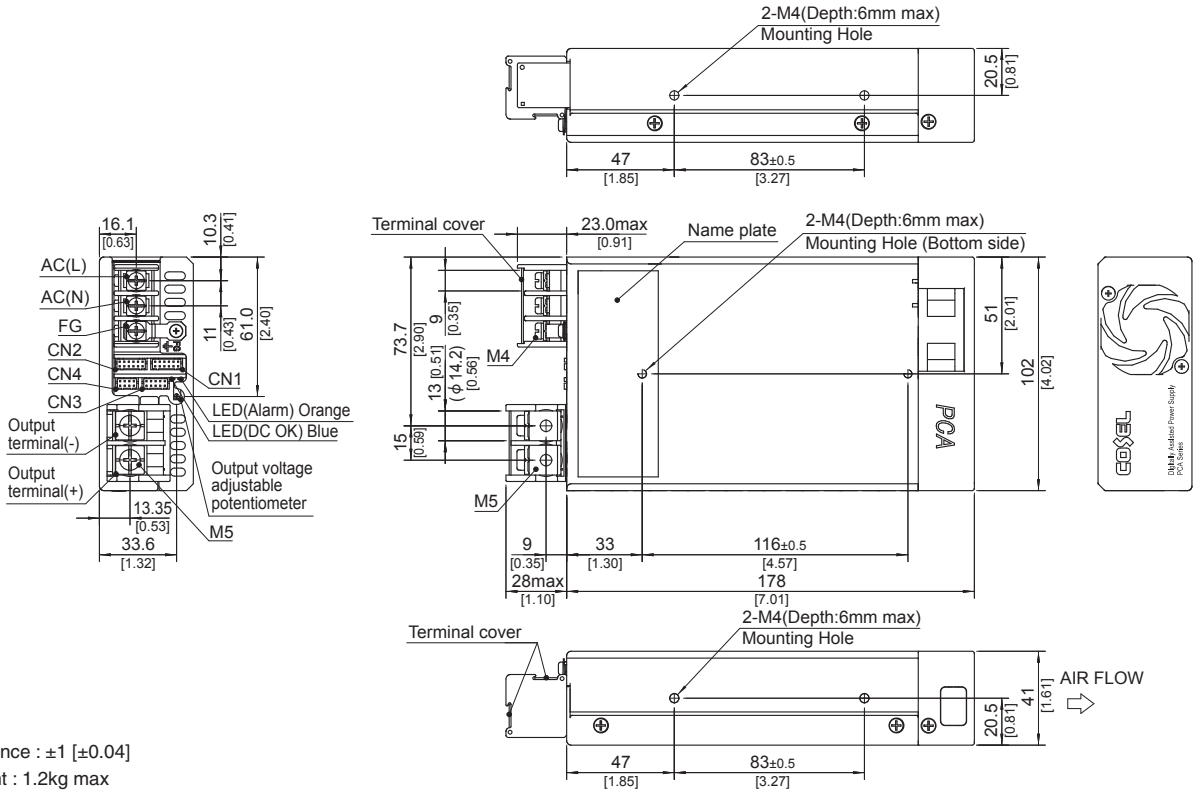
<PCA1000F-□ (Bus Bar Style) >




※ Tolerance : ±1 [±0.04]
※ Weight : 1.2kg max
※ PCB Material / thickness : FR-4 / 1.6mm [0.06]
※ Chassis Material : Aluminum
※ Fan cover Material : PBT
※ Dimensions in mm, [ ] = inches
※ Mounting torque : 1.2N·m max
※ Input and output terminal screw tightening torque
M3 0.6N·m max
M4 1.6N·m max
※ Please connect safety ground to FG terminal on the unit.

## External view

<PCA1000F-□-T (Terminal Block Style) >




※ Tolerance : ±1 [±0.04]
※ Weight : 1.2kg max
※ PCB Material / thickness : FR-4 / 1.6mm [0.06]
※ Chassis Material : Aluminum
※ Fan cover Material : PBT
※ Dimensions in mm, [ ] = inches
※ Mounting torque : 1.2N·m max
※ Input and output terminal screw tightening torque
M4 1.6N·m max
M5 2.5N·m max
※ Please connect safety ground to FG terminal on the unit.

# Mouser Electronics

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Cosel:

PCA600F-15-TP2 PCA600F-5-P2 PCA600F-12-TP2 PCA600F-12-P2 PCA600F-15-P2 PCA600F-24-P2 PCA600F-24-TP2 PCA600F-32-P2 PCA600F-32-TP2 PCA600F-48-TP2 PCA600F-48-P2 PCA600F-5-TP2 PCA600F-5 PCA600F-24-T PCA600F-32 PCA600F-24 PCA600F-12-T PCA600F-32-T PCA600F-15 PCA600F-15-T PCA600F-48 PCA600F-12 PCA600F-48-T PCA1000F-24 PCA1000F-32 PCA1000F-5 PCA1000F-48-T PCA1000F-32-T PCA1000F-24-T PCA1000F-48 PCA1000F-12 PCA1000F-15 PCA1000F-12-C PCA1000F-12-F2 PCA1000F-12-G PCA1000F-12-P3 PCA300F-5 PCA300F-5-T PCA300F-24 PCA300F-24-T PCA300F-32 PCA300F-32-T PCA300F-48 PCA300F-48-T PCA1000F-5-P3 PCA1000F-5-W1 PCA300F-12 PCA300F-12-T PCA300F-15 PCA300F-15-T PCA1000F-48-G PCA1000F-48-P3 PCA1000F-48-W1 PCA1000F-5-C PCA1000F-5-F2 PCA1000F-5-G PCA1000F-32-F2 PCA1000F-32-G PCA1000F-32-P3 PCA1000F-32-W1 PCA1000F-48-C PCA1000F-48-F2 PCA1000F-24-C PCA1000F-24-F2 PCA1000F-24-G PCA1000F-24-P3 PCA1000F-24-W1 PCA1000F-32-C PCA1000F-12-W1 PCA1000F-15-C PCA1000F-15-F2 PCA1000F-15-G PCA1000F-15-P3 PCA1000F-15-W1 PCA300F-24-F2 PCA300F-5-P3 PCA300F-5-W1 PCA300F-12-W1 PCA300F-48-G PCA300F-32-P3 PCA300F-5-G PCA300F-48-P3 PCA300F-15-W1 PCA300F-12-G PCA300F-15-F2 PCA300F-24-G PCA300F-15-G PCA300F-48-F2 PCA300F-12-F2 PCA300F-32-G PCA300F-32-W1 PCA300F-32-F2 PCA300F-15-P3 PCA300F-5-F2 PCA300F-24-W1 PCA300F-24-P3 PCA300F-12-P3 PCA300F-48-W1 PCA1000F-32-I PCA1000F-48-I

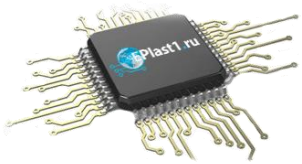
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.




**Как с нами связаться**

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