



- ① Series name  
② Output wattage  
③ Universal input  
④ Output voltage  
⑤ Optional  
G : Low leakage current  
E : Low leakage current and EMI class A  
F : with Fan unit (only -24)  
T : Vertical terminal block  
J : Connector type  
C : with Coating  
R : Remote ON/OFF  
N1 : DIN rail  
W : Alarms and Redundant operation  
Specification is changed at option, refer to Instruction Manual.

Please refer to derating curve, because the rated load current depends on cooling method that is convection cooling or forced air.

## SPECIFICATIONS

|                                    | MODEL  | ADA600F-24  | ADA600F-30              | ADA600F-36                | ADA600F-48                  |                             |
|------------------------------------|--|---|-------------------------|---------------------------|-----------------------------|-----------------------------|
| INPUT                              | VOLTAGE[V]   | AC85 - 264 1 φ or DC 120 - 350 (AC64 or DC90 optionally available *6)   |                         |                           |                             |                             |
|                                    | FREQUENCY[Hz]  | 50/60 (47 - 63) or DC   |                         |                           |                             |                             |
|                                    | EFFICIENCY[%]  | ACIN 100V   | 84typ (Io=100%)         | 86typ (Io=100%)           | 86typ (Io=100%)             | 86typ (Io=100%)             |
|                                    |  | ACIN 200V   | 86typ (Io=100%)         | 87typ (Io=100%)           | 87typ (Io=100%)             | 89typ (Io=100%)             |
|                                    | POWER FACTOR   | ACIN 100V   | 0.99typ (Io=100%)       |                           |                             |                             |
|                                    |  | ACIN 200V   | 0.98typ (Io=100%)       |                           |                             |                             |
| INRUSH CURRENT[A]                  | ACIN 100V *1   | 20typ (Io=100%) (More than 3sec.to re-start)  |                         |                           |                             |                             |
|                                    | ACIN 200V *1   | 40typ (Io=100%) (More than 3sec.to re-start)  |                         |                           |                             |                             |
| LEAKAGE CURRENT[ma]                | 0.75max (60Hz, According to IEC60950 and DEN-AN) (Io=100%)                   |   |                         |                           |                             |                             |
| OUTPUT                             | VOLTAGE[V]   | 24  | 30                      | 36                        | 48                          |                             |
|                                    | CURRENT[A]   | ACIN 100V *2  | 14 (Peak 25) convection | 11 (Peak 20) convection   | 9 (Peak 16.5) convection    | 6.5 (Peak 12.5) convection  |
|                                    |  | ACIN 100V *2  | 21 (Peak 25) forced air | 16.5 (Peak 20) forced air | 14 (Peak 16.5) forced air   | 10.5 (Peak 12.5) forced air |
|                                    |  | ACIN 200V *2  | 15 (Peak 31) convection | 12 (Peak 24.5) convection | 10 (Peak 20.5) convection   | 7 (Peak 15.5) convection    |
|                                    |  | ACIN 200V *2  | 25 (Peak 31) forced air | 20 (Peak 24.5) forced air | 16.5 (Peak 20.5) forced air | 12.5 (Peak 15.5) forced air |
|                                    | LINE REGULATION[mV]  | 96max   |                         |                           |                             |                             |
|                                    | LOAD REGULATION[mV]  | 150max  |                         |                           |                             |                             |
|                                    | RIPPLE[mVp-p]  | 0 to +50°C *3   | 120max                  | 160max                    | 200max                      | 200max                      |
|                                    |  | -10 - 0°C *3  | 160max                  | 230max                    | 260max                      | 300max                      |
|                                    | RIPPLE NOISE[mVp-p]  | 0 to +50°C *3   | 150max                  | 190max                    | 230max                      | 250max                      |
| -10 - 0°C *3                       |  | 180max  | 250max                  | 280max                    | 400max                      |                             |
| TEMPERATURE REGULATION[mV]         | 0 to +50°C   | 240max  | 300max                  | 360max                    | 480max                      |                             |
| DRIFT[mV]                          | *4   | 96max   | 120max                  | 144max                    | 192max                      |                             |
| START-UP TIME[ms]                  | 500max (ACIN 100V, Io=100%)  |   |                         |                           |                             |                             |
| HOLD-UP TIME[ms]                   | 20typ (ACIN 100V, Io=100%)   |   |                         |                           |                             |                             |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | 21.6 - 27.0  |   | 27.0 - 33.0             | 33.0 - 41.0               | 41.0 - 52.8                 |                             |
| OUTPUT VOLTAGE SETTING[V]          | 23.5 - 24.5  |   | 29.0 - 31.0             | 35.0 - 37.0               | 47.0 - 49.0                 |                             |
| PROTECTION CIRCUIT AND OTHERS      | OVERCURRENT PROTECTION   | Works over 101% of peak current and recovers automatically  |                         |                           |                             |                             |
|                                    | OVERVOLTAGE PROTECTION[V]  | 31 - 34.5   | 40 - 48                 | 51 - 60                   | 64 - 76                     |                             |
|                                    | OPERATING INDICATION   | LED (Green)   |                         |                           |                             |                             |
|                                    | ALARM OUTPUT   | Detecting low input voltage(PF), detecting low output voltage(LV). (Optional : -W, refer to Instruction Manual 5) |                         |                           |                             |                             |
| REMOTE ON/OFF(RC)                  | Requirement for external source (Option : -R, refer to Instruction Manual 5) |   |                         |                           |                             |                             |
| ISOLATION                          | INPUT-OUTPUT · RC  | *5 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 · RC-FG   | *5 AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)                                  |                         |                           |                             |                             |
| ENVIRONMENT                        | OPERATING TEMP., HUMID. AND ALTITUDE   | -10 to +71°C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max                      |                         |                           |                             |                             |
|                                    | 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                       |                         |                           |                             |                             |
| SAFETY AND NOISE REGULATIONS       | IMPACT   | 196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis  |                         |                           |                             |                             |
|                                    | AGENCY APPROVALS   | UL60950-1, C-UL(CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN and IEC60950-1 (At only AC input)            |                         |                           |                             |                             |
|                                    | CONDUCTED NOISE  | Complies with FCC-B, CISPR22-B, EN55022-B, VCCI-B   |                         |                           |                             |                             |
|                                    | CE MARKING   | Low Voltage Directive, EMC Directive  |                         |                           |                             |                             |
| OTHERS                             | HARMONIC ATTENUATOR  | Complies with IEC61000-3-2  |                         |                           |                             |                             |
|                                    | CASE SIZE/WEIGHT   | 65 X 127 X 195mm (W X H X D) (without terminal block) /1.5kg max  |                         |                           |                             |                             |
|                                    | COOLING METHOD   | Convection/Forced air   |                         |                           |                             |                             |

\*1 The value is primary surge. The current of input surge to a built-in noise filter (0.2ms or less) is excluded.

\*2 Peak loading for 10sec. And Duty 35% max. Refer to Instruction Manual 4. Forced air is shown in Instruction Manual 2.3.

\*3 This is the value that measured on measuring board with capacitor of 22 μF within 150mm from output terminal. Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to

KEISOKU-GIKEN: RM101).

\*4 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.

\*5 Applicable when remote control (optional) is added.

\*6 Derating is required. Consult us for details.

\* A sound may occur from power supply at pulse loading.

## Block diagram



## External view



### ※ Pin assign

| Symbol | Function           | Screw type |
|--------|--------------------|------------|
| VB     | Voltage balance    | M3         |
| CB     | Current balance    |            |
| +V     | Output terminal(+) | M4         |
| +V     | Output terminal(+) |            |
| -V     | Output terminal(-) |            |
| -V     | Output terminal(-) |            |
| FG     | Frame ground       |            |
| N      | AC(N)              |            |
| L      | AC(L)              |            |

Average 21A max per pin for TB1

- ※ Tolerance : ±1
- ※ Weight : 1.5kg max
- ※ PCB material / thickness : FR-4 / 1.6mm
- ※ Chassis and cover material : aluminium
- ※ Dimensions in mm
- ※ Mounting torque : 1.2N · m (12.8kgf · cm) max
- ※ Screw tightening torque
- ※ M4 : 1.6N · m (16.9kgf · cm) max , M3 : 0.8N · m (8.5kgf · cm) max
- ※ I/O terminal for option-J and -T is shown in Instruction Manual 5.

### CN3(Optional)

| Pin No. | Function                  |
|---------|---------------------------|
| 1       | RC+ : Remote ON/OFF+(+R)  |
| 2       | RC- : Remote ON/OFF(-R)   |
| 3-8     | NC : N.C.                 |
| 9       | LV+ : LV Alarm(-W)        |
| 10      | LV- : LV Alarm ground(-W) |
| 11-12   | NC : N.C.                 |
| 13      | PF+ : PF Alarm(-W)        |
| 14      | PF- : PF Alarm ground(-W) |

| Connector | Mating connector | Terminal  | Mfr.  |
|-----------|------------------|-----------|---|
| CN3       | S14B-PHDSS       | PHDR-14VS | Chain:SPHD-002T-P0.5<br>Loose:BPHD-001T-P0.5<br>BPHD-002T-P0.5 *1 |

\*1 Ratchet Hand is nothing

## Distribution:

RSG Electronic Components GmbH ▪ Spremlinger Landstr. 115 ▪ D-63069 Offenbach/Germany  
 Tel. +49 69 984047-0 ▪ Fax +49 69 984047-77 ▪ info@rsg-electronic.de ▪ www.rsg-electronic.de  
 Änderungen vorbehalten / subject to change without notice



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

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.