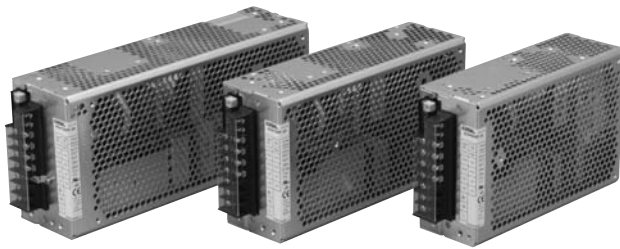


## ADA600/750/1000 Series



- Universal Input
- Single Output
- Convection-cooled
- Level B Conducted Emissions
- Fan-cooled Option
- Low Earth Leakage Current Option
- DIN Rail Mount Option

## Specification

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### Input

Input Voltage	• 85-264 VAC (120-350 VDC) (output power derates at low line input, see table)
Input Frequency	• 47 - 63 Hz
Input Current	• 600 W: 5.9 A typical at 100 VAC 750 W: 6.9 A typical at 100 VAC 1000 W: 9.5 A typical at 100 VAC
Inrush Current	• 20 A typical at 100 VAC, 40 A typical at 200 VAC
Power Factor	• 0.98 typical
Earth Leakage Current	• 0.75 mA max at 240 VAC 60Hz
Input Protection	• 600 W unit: 12 A internal fuse 750 W unit: 20 A internal fuse 1000 W unit: 25 A internal fuse

### Output

Output Voltage	• See tables
Output Voltage Trim	• See tables
Initial Set Accuracy	• $\pm 2\%$ max
Minimum Load	• No minimum load required
Start Up Time	• 500 ms max
Hold Up Time	• 20 ms typical
Drift	• 0.4% max
Line Regulation	• 0.4% max
Load Regulation	• See tables
Transient Response	• 1% max. deviation, recovery to within 0.5% in 10 ms for a 50% load change
Ripple & Noise	• See tables
Overtemperature Protection	• See tables, recycle mains to reset
Overtemperature Protection	• Fitted, recycle mains to reset
Overload Protection	• 101% of peak current, constant current until voltage drops to 50% then trip and restart (Hiccup mode), auto recovery
Short Circuit Protection	• Trip and Restart (Hiccup mode)
Temperature Coefficient	• 0.5 %/°C
Remote On/Off	• Optional
Current Share	• Fitted

### General

Efficiency	• See tables
Isolation	• 3000 VAC Input to Output 2000 VAC Input to Ground 500 VAC Output to Ground
Switching Frequency	• 85 kHz PFC, 130 kHz PWM
Power Density	• 6.2 W/In <sup>3</sup>
Signals	• Optional. - R: Remote On/Off, -W: DC OK, PF signals and redundant operation
MTBF	• 600 W: >177 kHrs per EIAJ RCR-9102 750 W: >138 kHrs per EIAJ RCR-9102 1000 W: >120 kHrs per EIAJ RCR-9102

### Environmental

Operating Temperature	• Convection-cooled: -10 °C to +65 °C (see derating curve). Forced air-cooled: -10 °C to +71 °C (-F option, adds fan enclosure on top of cover)
Cooling	• Convection-cooled
Operating Humidity	• 20-90% RH, non-condensing
Storage Temperature	• -20 °C to +75 °C
Operating Altitude	• 3000 m max
Shock	• 20 g once on each axis
Vibration	• 10-55 Hz, 2 g 3 minute period, 60 minutes along each axis

### EMC & Safety

Emissions	• EN55022 (CISPR22), level B conducted
Harmonic Currents	• EN61000-3-2, class A
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, level 4 Perf Criteria A
Radiated Immunity	• EN61000-4-3, level 3 Perf Criteria A
EFT/Burst	• EN61000-4-4, level 4 Perf Criteria A
Surge	• EN61000-4-5, level 4 Perf Criteria A
Conducted Immunity	• EN61000-4-6, level 3 Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 30 % 10 ms, 60 % 100 ms, 100 % 5000 ms Perf Criteria A, B, B
Safety Approvals	• UL60950-1, C-UL(CSA60950-1), EN60950-1, EN50178

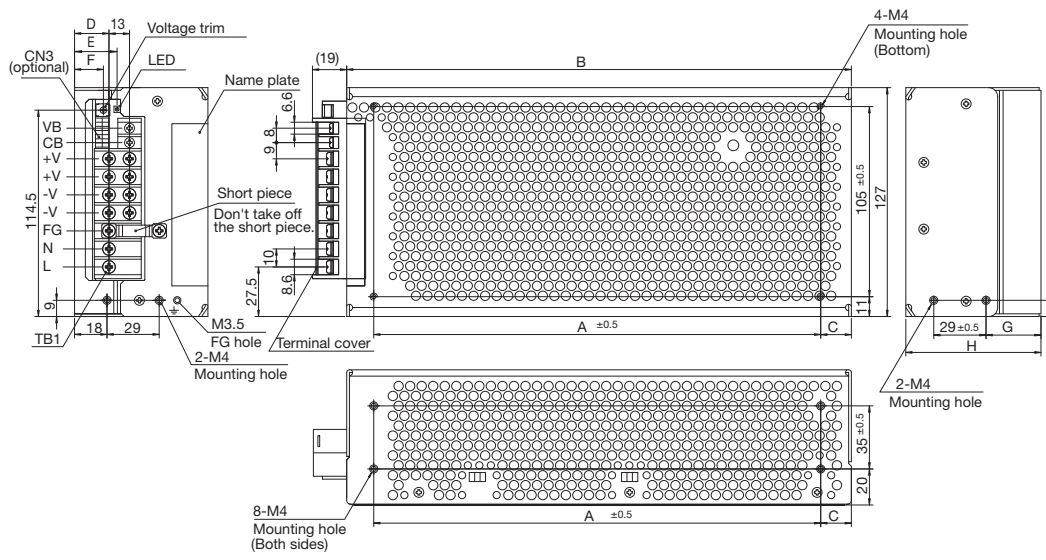
**Models and Ratings**

Output voltage	Output Current 100 Vin <sup>(3)</sup>		Output Current 200 Vin <sup>(3)</sup>		Output Voltage Trim (VDC)	Overvoltage Protection (VDC)	Ripple & Noise <sup>(2)</sup> (pk-pk max)	Load Regulation max	Efficiency <sup>(1)</sup> (typ)	Model Number
	Convection (pk)	Force-cooled (pk)	Convection (pk)	Force-cooled (pk)						
24 V	14A (25A)	21A (25A)	15A (31A)	25A (31A)	21.6-27.0	31.0-34.5	180mV	150mV	86%	ADA600F-24
30 V	11A (20A)	16.5A (20A)	12A (24.5A)	20A (24.5A)	27.0-33.0	40.0-48.0	250mV	180mV	87%	ADA600F-30
36 V	9A (16.5A)	14A (16.5A)	10A (20.5A)	16.5A (20.5A)	33.0-41.0	51.0-60.0	280mV	240mV	87%	ADA600F-36
48 V	6.5A (12.5A)	10.5A (12.5A)	7A (15.5A)	12.5A (15.5A)	41.0-52.8	64.0-76.0	400mV	300mV	89%	ADA600F-48
24 V	17A (42A)	25A (42A)	19A (63A)	31.5A (63A)	21.6-27.0	31.0-34.5	180mV	150mV	88%	ADA750F-24
30 V	13.5A (33.5A)	20A (33.5A)	15A (50A)	24.5A (50A)	27.0-33.0	40.0-48.0	250mV	180mV	88%	ADA750F-30
36 V	11A (28A)	16.5A (28A)	12.5A (42A)	20.5A (42A)	33.0-41.0	51.0-60.0	280mV	240mV	89%	ADA750F-36
48 V	8A (21A)	12.5A (21A)	9A (31.5A)	15.5A (31.5A)	41.0-52.8	64.0-76.0	400mV	300mV	89%	ADA750F-48
24 V	21A (63A)	33A (63A)	25A (83A)	42A (83A)	21.6-27.0	31.0-34.5	180mV	150mV	88%	ADA1000F-24
30 V	16.5A (50A)	26A (50A)	20A (66A)	33.5A (66A)	27.0-33.0	40.0-48.0	250mV	180mV	88%	ADA1000F-30
36 V	14A (42A)	22A (42A)	16.5A (55A)	28A (55A)	33.0-41.0	51.0-60.0	280mV	240mV	89%	ADA1000F-36
48 V	10.5A (31.5A)	16.5A (31.5A)	11.5A (41.5A)	21A (41.5A)	41.0-52.8	64.0-76.0	400mV	300mV	89%	ADA1000F-48

**Notes**

- Efficiency measured at 200 VAC and full load.
- Ripple & noise measured at 20 MHz bandwidth.
- Peak current 10 seconds max, 35% duty cycle.

**Mechanical Details**



Pin Connections - CN3	
Pin	Function
1	RC+: Remote On/Off *(-R)
2	RC-: Remote On/Off Return*(-R)
3 - 8	N.C.
9	LV+: DC OK *(-W)
10	LV-: DC OK Return*(-W)
11-12	N.C.
13	PF+: PF *(-W)
14	PF-: PF Return*(-W)

\* Optional

Dimensions (mm)								
Model	A	B	C	D	E	F	G	H
ADA600	130.5	195.0	48.0	18.1	22.6	16.2	26.5	65.0
ADA750	175.5	230.0	38.0	18.1	22.6	16.2	30.5	70.0
ADA1000	248.0	280.0	17.0	19.1	23.6	17.2	30.5	75.0

**Options**

- C : Conformal Coating
- E : Low Leakage current & EMI class A
- F : With fan (adds 31mm to dimension H)
- G : Low Leakage current
- J : AMP Connectors
- N1: Din Rail mountable
- T : Vertical terminal block
- R : Remote On/Off
- W : Alarms and redundant operation

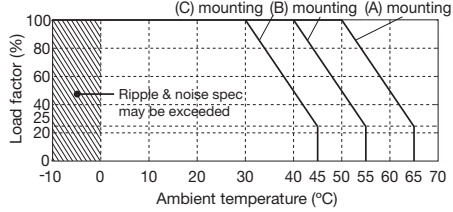
Contact sales for option details

**Notes**

- All measurements are in mm.
- Weight: ADA600: 1.5 kg max, ADA750: 1.9 kg max, ADA1000: 2.5 kg max
- Mounting torque: 1.2 Nm
- Screw tightening torque: M4: 1.6 Nm, M3: 0.8 Nm
- Connectors: CN3: S14B-PHDSS. Housing: CN3: PHDR14VS. Terminal: Reel: SPHD-002T-P0.5, Loose: BPHD-001T-P0.5M4: 1.6 Nm Manufacturer: J.S.T.
- For information regarding '-J' & '-T' connectors, contact sales.

**Derating Curve**

**ADA600 - Convection-cooled**



**ADA750-1000 - Convection-cooled**

