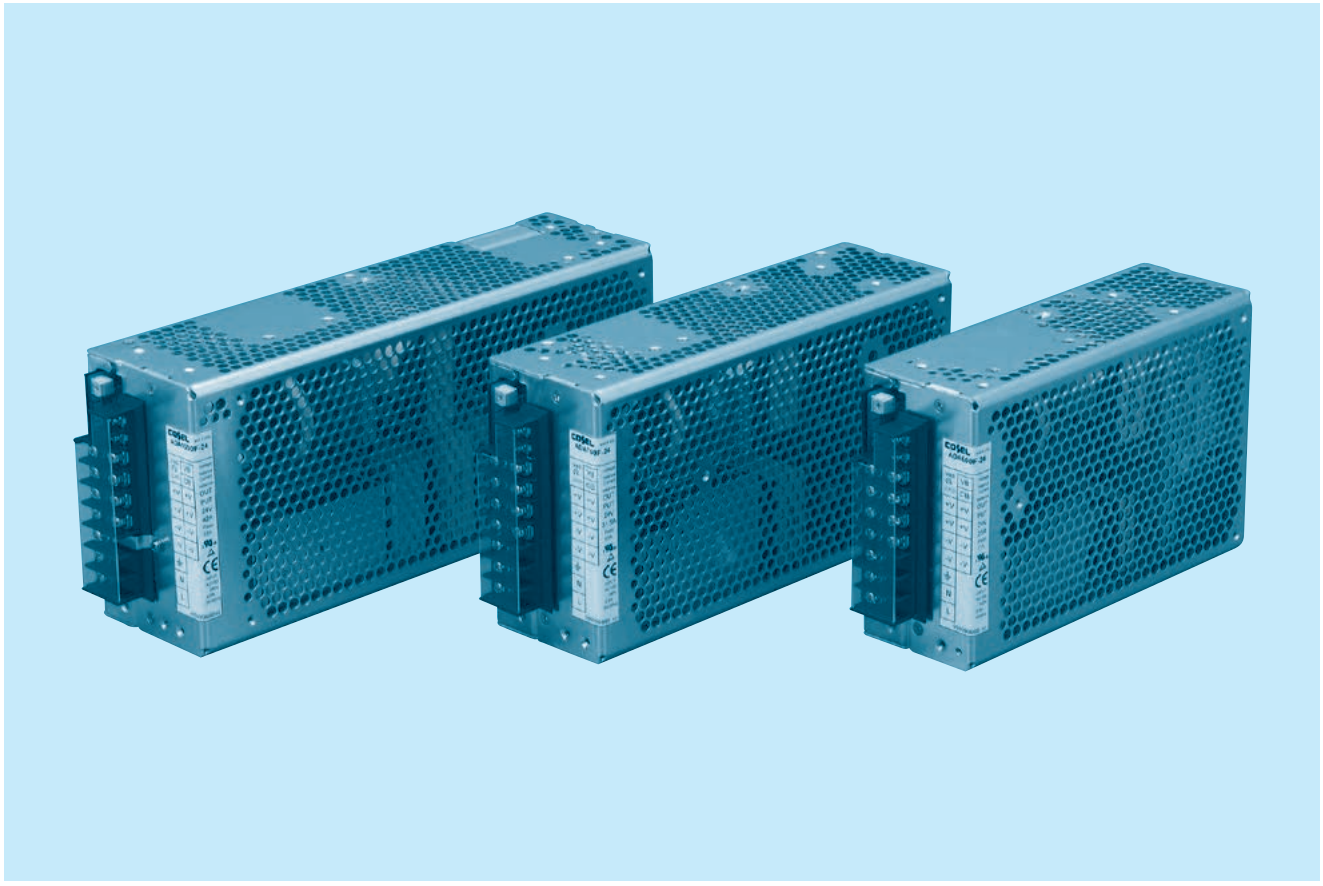
AC-DC Power Supplies Enclosed Type

Power Factor Correction | World wide | Safety Approvals | EMI | Inrush current limiting | OCP | OVP | Remote ON/OFF | Pulse Load | Parallel Operation

ADA-series



Feature

High power & peak power
Power up with fan (optional)
Parallel operation / master-slave operation / N+1 redundant (optional)
Harmonic attenuator (Complies with IEC61000-3-2)
Universal input voltage (AC85 - 264V)
Optional : remote ON/OFF, alarms
Current monitor
DIN rail (35mm) optional

Safety agency approvals

UL60950-1, C-UL(CSA60950-1), EN62368-1
Complies with DEN-AN

EMI

Complies with FCC-B, CISPR22-B, EN55022-B, VCCI-B

5-year warranty (refer to Instruction Manual)

Optional parts

Harness
Fan unit
Attachment

CE marking

Low Voltage Directive
RoHS Directive

UKCA marking

Electrical Equipment Safety Regulations
RoHS Regulations

EMS Compliance : EN61204-3, EN61000-6-2

EN55022-B
EN61000-3-2
EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

COSEL AC-DC Power Supplies Enclosed Type

ADA600F

Ordering information

ADA 600 F -24 -□

① ② ③ ④ ⑤

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
②Output wattage
③Universal input
④Output voltage
⑤Optional ＊7
G :Low leakage current
E :Low leakage current and EMI class A
F :with Fan unit
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.

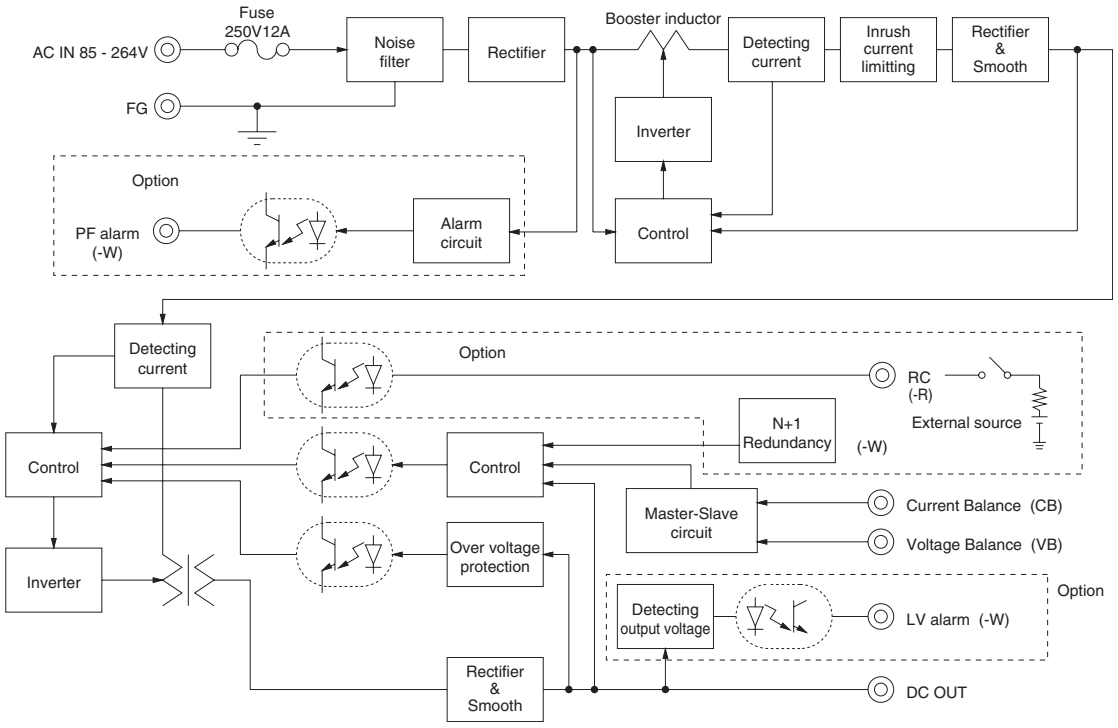
Please refer to derating curve, because the rated load current depends on cooling method that is convection cooling or forced air.
＊Make sure necessary tests will be carried out on your end equipment with the power supply installed in accordance with any required EMC/EMI regulations.

SPECIFICATIONS

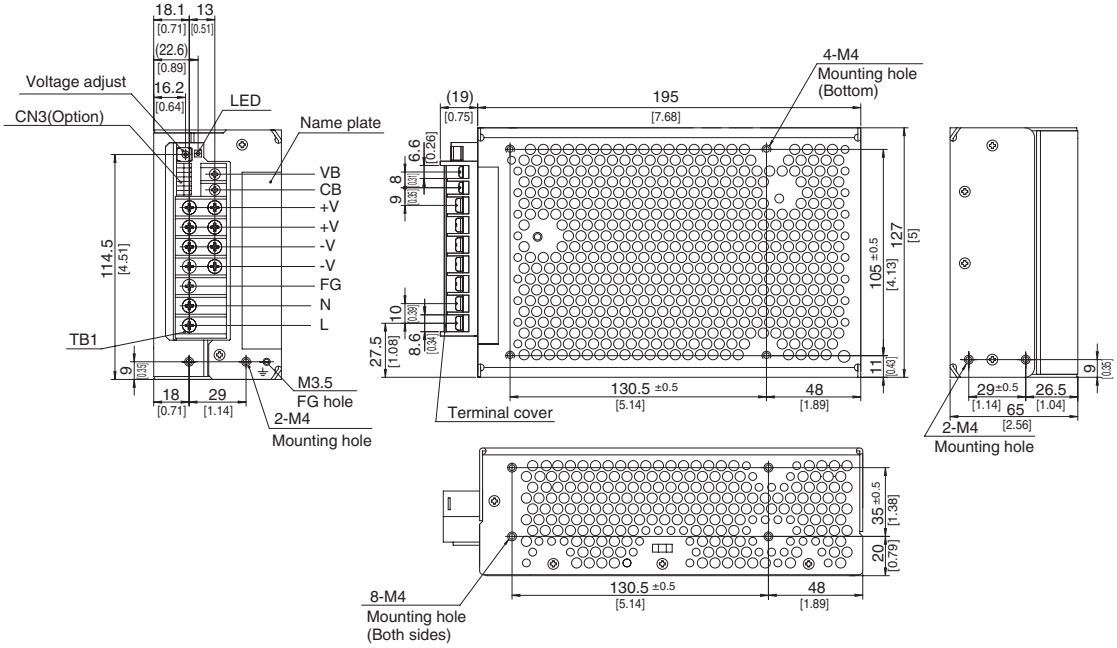
	MODEL		ADA600F-24	ADA600F-30	ADA600F-36	ADA600F-48
INPUT	VOLTAGE[V]		AC85 - 264 1φ or DC 120 - 350 (AC64 or DC90 optionally available ＊6)			
	FREQUENCY[Hz]		50/60 (47 - 63) or DC			
	EFFICIENCY[%]	ACIN 100V	84typ (Io=100%)	86typ (Io=100%)	86typ (Io=100%)	86typ (Io=100%)
		ACIN 200V	86typ (Io=100%)	87typ (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 IEC62368-1 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	120max	144max	192max
	LOAD REGULATION[mV]		150max	180max	240max	300max
	RIPPLE[mVp-p]	0 to +50℃ ＊3	120max	160max	200max	200max
		-10 - 0℃ ＊3	160max	230max	260max	300max
	RIPPLE NOISE[mVp-p]	0 to +50℃ ＊3	150max	190max	230max	250max
		-10 - 0℃ ＊3	180max	250max	280max	400max
	TEMPERATURE REGULATION[mV]	0 to +50℃	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 6)			
	REMOTE ON/OFF(RC)		Requirement for external source (Option : -R, refer to Instruction Manual 6)			
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℃, 20 - 90%RH (Non condensing) (Refer to "Derating"), 3,000m (10,000feet) max			
	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		UL60950-1, C-UL(CSA60950-1), EN62368-1 Complies with DEN-AN			
	CONDUCTED NOISE		Complies with FCC-B, CISPR22-B, EN55022-B, VCCI-B			
	HARMONIC ATTENUATOR		Complies with IEC61000-3-2 ＊8			
OTHERS	CASE SIZE/WEIGHT		65×127×195mm [2.56×5×7.68 inches] (W×H×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 EMI/EMC 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 "Derating".
＊3 This is the value that measured on measuring board with capacitor of 22μF 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℃, 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.
＊7 Please contact us about safety approvals for the model with option.
＊8 Please contact us about class C.
＊ 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

CN3(Option)

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 Loose:BPHD-001T-P0.5 BPHD-002T-P0.5 *1	J.S.T

*1 Ratchet Hand is nothing

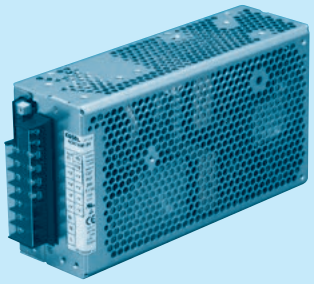
※ Tolerance : ±1 [±0.04]
※ Weight : 1.5kg max
※ PCB material / thickness : FR-4 / 1.6mm [0.06]
※ Chassis and cover material : aluminium
※ Dimensions in mm, [ ]= inches
※ Mounting torque : 1.2N • m(12.8kgf • cm) max
※ Screw tighting torque
M4 : 1.6N • m(16.9kgf • cm) max , M3 : 0.8N • m(8.5kgf • cm) max
※ I/0 terminal for option-J and -T is shown in Instruction Manual 6.

COSEL AC-DC Power Supplies Enclosed Type

ADA750F

Ordering information

ADA ① 750 ② F ③ -24 ④ -□ ⑤



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
②Output wattage
③Universal input
④Output voltage
⑤Optional ＊7
G :Low leakage current
E :Low leakage current and EMI class A
F :with Fan unit
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.

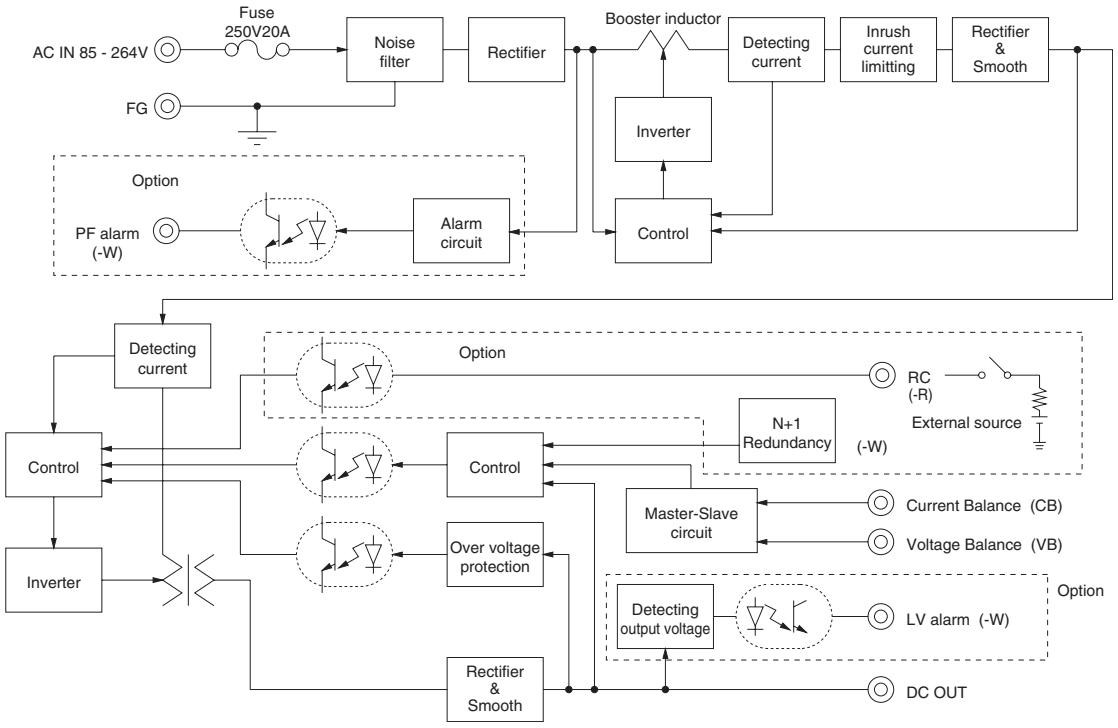
Please refer to derating curve, because the rated load current depends on cooling method that is convection cooling or forced air.
＊Make sure necessary tests will be carried out on your end equipment with the power supply installed in accordance with any required EMC/EMI regulations.

SPECIFICATIONS

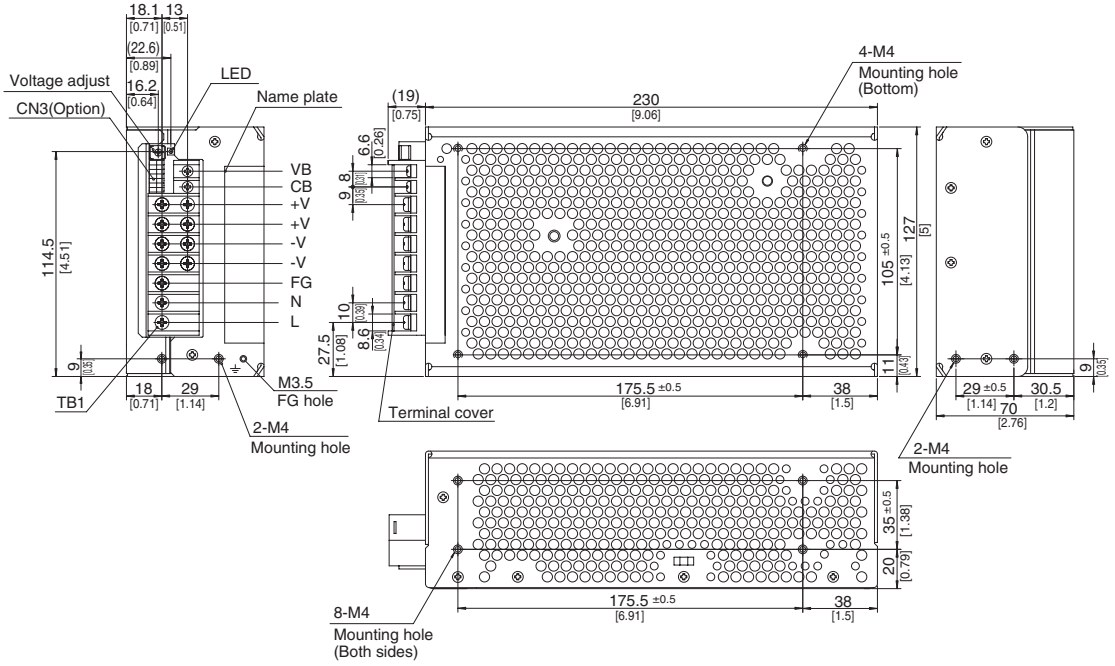
	MODEL		ADA750F-24	ADA750F-30	ADA750F-36	ADA750F-48
INPUT	VOLTAGE[V]		AC85 - 264 1φ or DC 120 - 350 (AC64 or DC90 optionally available ＊6)			
	FREQUENCY[Hz]		50/60 (47 - 63) or DC			
	EFFICIENCY[%]	ACIN 100V	86typ (Io=100%)	86typ (Io=100%)	87typ (Io=100%)	87typ (Io=100%)
		ACIN 200V	88typ (Io=100%)	88typ (Io=100%)	89typ (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 IEC62368-1 and DEN-AN) (Io=100%)			
OUTPUT	VOLTAGE[V]		24	30	36	48
	CURRENT[A]	ACIN 100V ＊2	17 (Peak 42) convection	13.5 (Peak 33.5) convection	11 (Peak 28) convection	8 (Peak 21) convection
		ACIN 100V ＊2	25 (Peak 42) forced air	20 (Peak 33.5) forced air	16.5 (Peak 28) forced air	12.5 (Peak 21) forced air
		ACIN 200V ＊2	19 (Peak 63) convection	15 (Peak 50) convection	12.5 (Peak 42) convection	9 (Peak 31.5) convection
		ACIN 200V ＊2	31.5 (Peak 63) forced air	24.5 (Peak 50) forced air	20.5 (Peak 42) forced air	15.5 (Peak 31.5) forced air
	LINE REGULATION[mV]		96max	120max	144max	192max
	LOAD REGULATION[mV]		150max	180max	240max	300max
	RIPPLE[mVp-p]	0 to +50℃ ＊3	120max	160max	200max	200max
		-10 - 0℃ ＊3	160max	230max	260max	300max
	RIPPLE NOISE[mVp-p]	0 to +50℃ ＊3	150max	190max	230max	250max
		-10 - 0℃ ＊3	180max	250max	280max	400max
	TEMPERATURE REGULATION[mV]	0 to +50℃	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 6)			
	REMOTE ON/OFF(RC)		Requirement for external source (Option : -R, refer to Instruction Manual 6)			
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℃, 20 - 90%RH (Non condensing) (Refer to "Derating"), 3,000m (10,000feet) max			
	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		UL60950-1, C-UL(CSA60950-1), EN62368-1 Complies with DEN-AN			
	CONDUCTED NOISE		Complies with FCC-B, CISPR22-B, EN55022-B, VCCI-B			
	HARMONIC ATTENUATOR		Complies with IEC61000-3-2 ＊8			
OTHERS	CASE SIZE/WEIGHT		70×127×230mm [2.76×5×9.06 inches] (W×H×D) (without terminal block) /1.9kg max			
	COOLING METHOD		Convection/Forced air			

＊1 The value is primary surge.The current of input surge to a built-in EMI/EMC 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 "Derating".
＊3 This is the value that measured on measuring board with capacitor of 22μF 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℃, 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.
＊7 Please contact us about safety approvals for the model with option.
＊8 Please contact us about class C.
＊ 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

CN3(Option)

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 Loose:BPHD-001T-P0.5 BPHD-002T-P0.5 *1	J.S.T

*1 Ratchet Hand is nothing

※ Tolerance : ±1 [±0.04]
※ Weight : 1.9kg max
※ PCB material / thickness : FR-4 / 1.6mm [0.06]
※ Chassis and cover material : aluminium
※ Dimensions in mm, [ ]= inches
※ Mounting torque : 1.2N • m(12.8kgf • cm) max
※ Screw tighting torque
M4 : 1.6N • m(16.9kgf • cm) max , M3 : 0.8N • m(8.5kgf • cm) max
※ I/0 terminal for option-J and -T is shown in Instruction Manual 6.

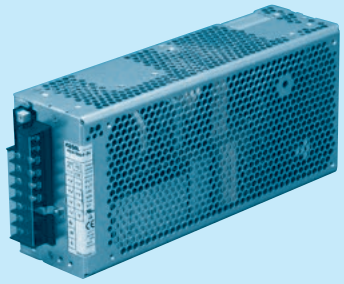
COSEL AC-DC Power Supplies Enclosed Type

ADA1000F

Ordering information

ADA 1000 F -24 -□

① ② ③ ④ ⑤



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
②Output wattage
③Universal input
④Output voltage
⑤Optional ＊7
G :Low leakage current
E :Low leakage current and EMI class A
F :with Fan unit
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.

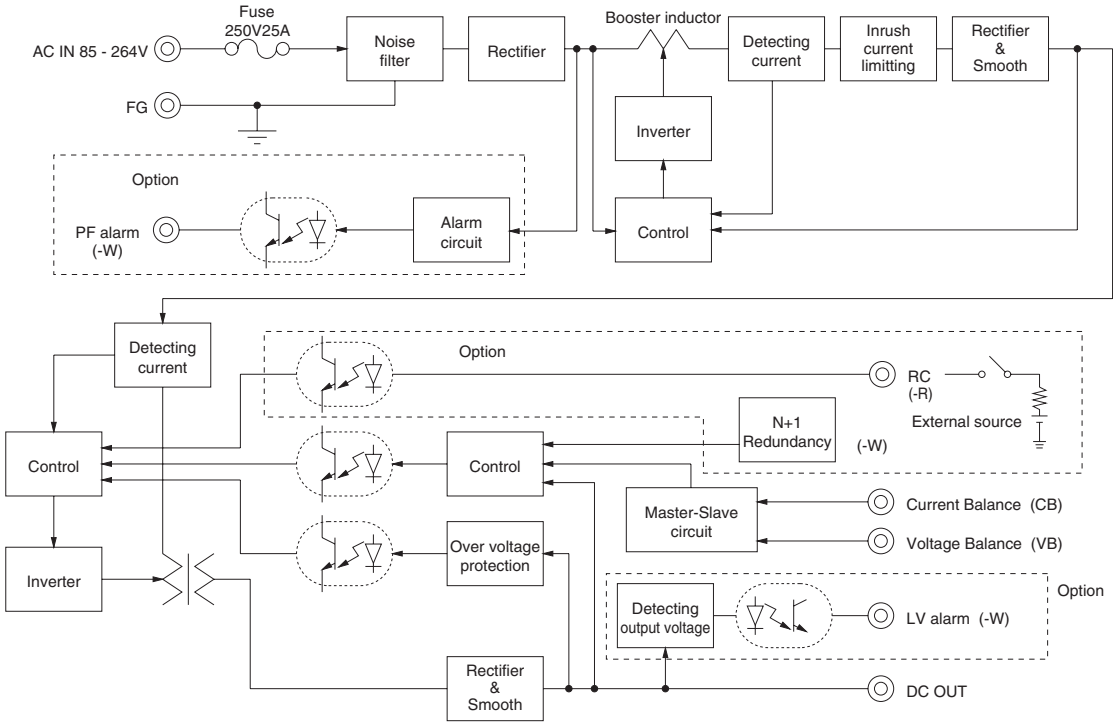
Please refer to derating curve, because the rated load current depends on cooling method that is convection cooling or forced air.
＊Make sure necessary tests will be carried out on your end equipment with the power supply installed in accordance with any required EMC/EMI regulations.

SPECIFICATIONS

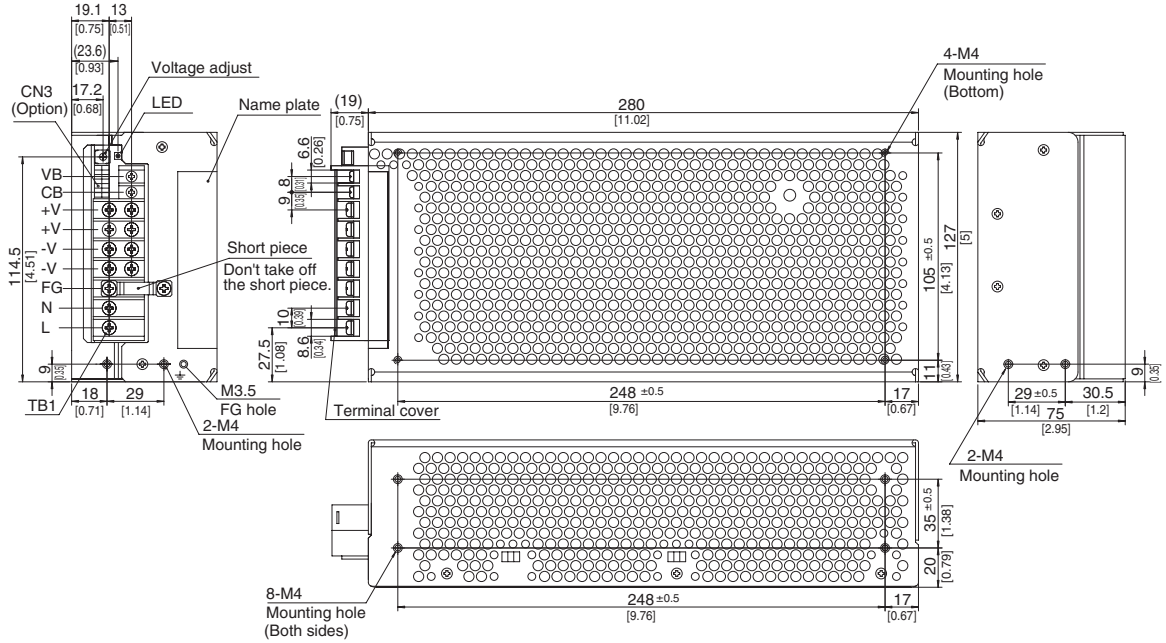
	MODEL		ADA1000F-24	ADA1000F-30	ADA1000F-36	ADA1000F-48
INPUT	VOLTAGE[V]		AC85 - 264 1φ or DC 120 - 350 (AC64 or DC90 optionally available ＊6)			
	FREQUENCY[Hz]		50/60 (47 - 63) or DC			
	EFFICIENCY[%]	ACIN 100V	86typ (Io=100%)	86typ (Io=100%)	87typ (Io=100%)	87typ (Io=100%)
		ACIN 200V	88typ (Io=100%)	88typ (Io=100%)	89typ (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 IEC62368-1 and DEN-AN) (Io=100%)			
OUTPUT	VOLTAGE[V]		24	30	36	48
	CURRENT[A]	ACIN 100V ＊2	21 (Peak 63) convection	16.5 (Peak 50) convection	14 (Peak 42) convection	10.5 (Peak 31.5) convection
		ACIN 100V ＊2	33 (Peak 63) forced air	26 (Peak 50) forced air	22 (Peak 42) forced air	16.5 (Peak 31.5) forced air
		ACIN 200V ＊2	25 (Peak 83) convection	20 (Peak 66) convection	16.5 (Peak 55) convection	11.5 (Peak 41.5) convection
		ACIN 200V ＊2	42 (Peak 83) forced air	33.5 (Peak 66) forced air	28 (Peak 55) forced air	21 (Peak 41.5) forced air
	LINE REGULATION[mV]		96max	120max	144max	192max
	LOAD REGULATION[mV]		150max	180max	240max	300max
	RIPPLE[mVp-p]	0 to +50℃ ＊3	120max	160max	200max	200max
		-10 - 0℃ ＊3	160max	230max	260max	300max
	RIPPLE NOISE[mVp-p]	0 to +50℃ ＊3	150max	190max	230max	250max
		-10 - 0℃ ＊3	180max	250max	280max	400max
	TEMPERATURE REGULATION[mV]	0 to +50℃	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 - 49
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 6)			
	REMOTE ON/OFF(RC)		Requirement for external source (Option : -R, refer to Instruction Manual 6)			
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℃, 20 - 90%RH (Non condensing) (Refer to "Derating"), 3,000m (10,000feet) max			
	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		UL60950-1, C-UL(CSA60950-1), EN62368-1 Complies with DEN-AN			
	CONDUCTED NOISE		Complies with FCC-B, CISPR22-B, EN55022-B, VCCI-B			
	HARMONIC ATTENUATOR		Complies with IEC61000-3-2 ＊8			
OTHERS	CASE SIZE/WEIGHT		75×127×280mm [2.95×5×11.02 inches] (W×H×D) (without terminal block) /2.5kg max			
	COOLING METHOD		Convection/Forced air			

＊1 The value is primary surge.The current of input surge to a built-in EMI/EMC 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 "Derating".
＊3 This is the value that measured on measuring board with capacitor of 22μF 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℃, 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.
＊7 Please contact us about safety approvals for the model with option.
＊8 Please contact us about class C.
＊ A sound may occur from power supply at pulse loading.

Block diagram



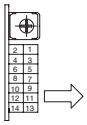
External view



※ 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



CN3(Option)

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	J.S.T
			Loose:BPHD-001T-P0.5	
			BPHD-002T-P0.5 *1	

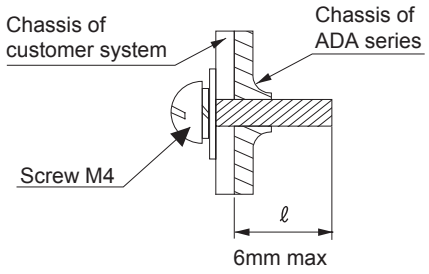
*1 Ratchet Hand is nothing

※ Tolerance : ±1 [±0.04]
※ Weight : 2.5kg max
※ PCB material / thickness : FR-4 / 1.6mm [0.06]
※ Chassis and cover material : aluminium
※ Dimensions in mm, [ ]= inches
※ Mounting torque : 1.2N • m(12.8kgf • cm) max
※ Screw tighting torque
M4 : 1.6N • m(16.9kgf • cm) max , M3 : 0.8N • m(8.5kgf • cm) max
※ I/0 terminal for option-J and -T is shown in Instruction Manual 6.

Assembling and Installation Method

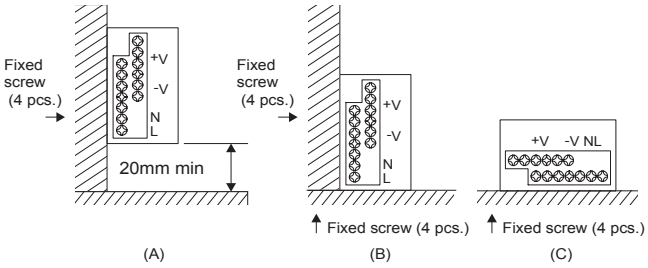
Installation method

■The screw should be inserted up to 6mm max from outside of the power supply to keep a distance between inside parts and an isolation.



■When two or more power supplies are used side by side, position them with proper intervals to allow enough air ventilation. Ambient temperature around each power supply should not exceed thetemperature range shown in “derating”.

■Fix firmly, considering weight, though it can be used by the installation method shown in right figure.



Derating

■Derating by ambient temperature

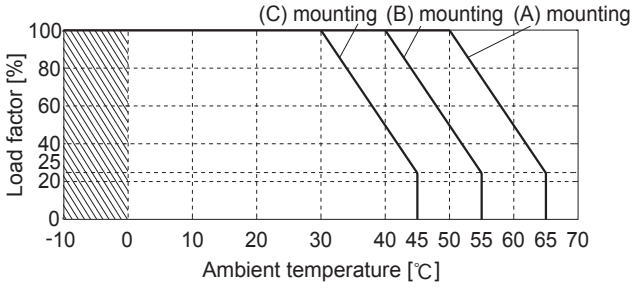
Load factor 100% in each derating curve means rating current in Specifications. Please note load factor 100% depends on input voltage and cooling method.In the hatched area the specification of Ripple, Ripple Noise is different from other area.

■Convection cooling

①Install the unit to apply enough convection as shown in “Installation method”.

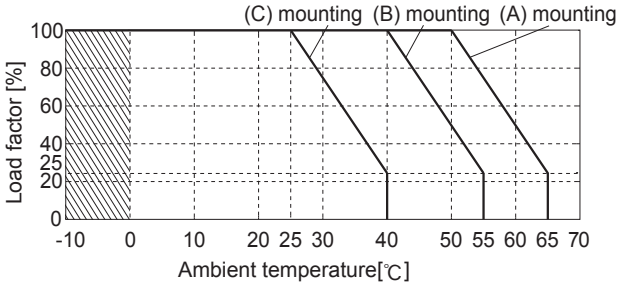
②Do not block the ventilation hole.

● ADA600F Ambient temperature Derating Curve (convection cooling)



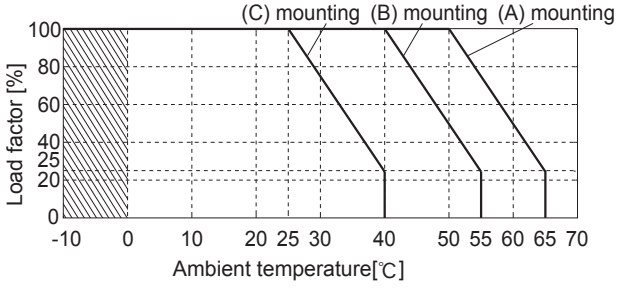
∗In case of ADA600F-24, load factor 100% means output 24V, 14A at ACIN100V, 24V, 15A at ACIN200V.

● ADA750F Ambient temperature Derating Curve (convection cooling)



∗In case of ADA750F-24, load factor 100% means output 24V, 17A at ACIN100V, 24V, 19A at ACIN200V.

● ADA1000F Ambient temperature Derating Curve (convection cooling)



∗In case of ADA1000F-24, load factor 100% means output 24V, 21A at ACIN100V, 24V, 25A at ACIN200V.

Derating

■Forced air cooling

①Please give the entire power supply in ventilation so that the temperature of point A and B in right figure is made below a specified temperature. Point A and B are displayed in chassis.

・Point A 60C or less and point B 65C or less at Ta = 50C

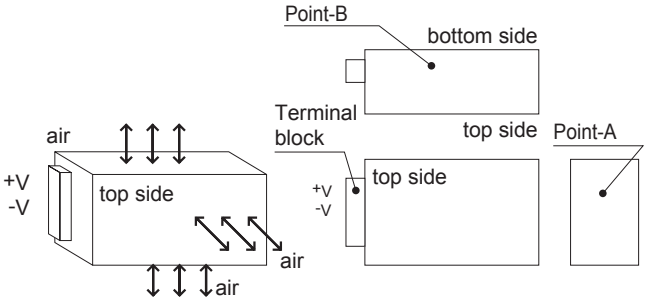
・Point A 80C or less and point B 80C or less at Ta = 71C

Remarks : Please avoid cooling only bottom chassis.

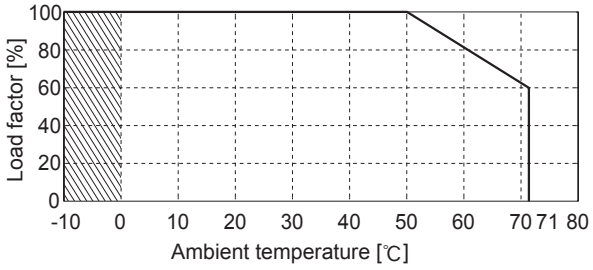
②Ventilation is done evenly and do not block the ventilation hole.

③The confirmation of point A and B in unnecessary when optional fun unit is used. Refer to instraction manual 6. Option.

*The derating curve at forced air is common in ADA600F to ADA1000F.



● AD600F-1000F Ambient temperature Derating Curve (forced air)



*In case of ADA600F-24, load factor 100% means output 24V, 21A at ACIN100V, 24V, 25A at ACIN200V.

*In case of ADA750F-24, load factor 100% means output 24V, 25A at ACIN100V, 24V, 31.5A at ACIN200V.

*In case of ADA1000F-24, load factor 100% means output 24V, 33A at ACIN100V, 24V, 42A at ACIN200V.

Instruction Manual

◆ It is neccessary to read the “Instruction Manual” and “Before using our product” before you use our product.

Instruction Manual	https://www.cosel.co.jp/redirect/catalog/en/ADA/
Before using our product	https://en.cosel.co.jp/technical/caution/index.html

ADA NOTICE

Basic Characteristics Data

Model	Circuit method	Switching frequency [kHz]	Input current [A]	Rated input fuse	Inrush current protection	PCB/Pattern			Series/Parallel operation availability	
						Material	Single sided	Double sided	Series operation	Parallel operation
ADA600F	Active filter	85	5.9 (Peak 7.0)	250V 12A	SCR	FR-4		Yes	Yes	Yes
	Forward converter	130								
ADA750F	Active filter	85	6.9 (Peak11.8)	250V 20A	SCR	FR-4		Yes	Yes	Yes
	Forward converter	130								
ADA1000F	Active filter	85	9.5 (Peak18.2)	250V 25A	SCR	FR-4		Yes	Yes	Yes
	Forward converter	130								

※ Refer to Instruction Manual.
※ The value of input current is at ACIN 100V and rated load (peak).