

(APPROVAL SHEET)

	SMPS
	CSF75 - S
Rev. No.	A



(APPROVED)	Inspected by :
	Checked by :
	Approved by :
	Date :

2007 4 19

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(Handwritten signatures and initials)



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
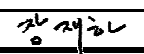
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Product.	SMPS	Date.	2007. 4. 19
Model.	CSF75-S	Rev.	A
Customer.	Standard	Page.	1

DWG	
CHK	
APPD	

No.	Date.				Rev.
1	2007.4.19			(All Pages)	A

전기적 특성 (Specifications)

Product.	SMPS	Date.	2007. 4. 19.
Model.	CSF75- S	Rev.	A
Customer.	STANDARD	Page.	1 / 2

MODEL/CHANNEL		Unit.	3R3	05	09	12
INPUT	Voltage , Frequency	[V]	AC100 - 240(AC 85 - 264), 50/60Hz(47 - 440)or DC125~370V(Universal Input)			
	Current	110V	1.0	1.3	1.3	1.3
	Typ.	220V	0.6	0.8	0.8	0.8
	Efficiency	110V	75	78	81	82
	Typ.	220V	75	78	81	82
	Power factor	110V	-	-		
	Typ.	220V	-	-		
Inrush Current	110V	[A]	20 (Ta=25℃ , Io=100% at cold Start)			
Typ.	220V		40 (Ta=25℃ , Io=100% at cold Start)			
Leakage Current	110V	[mA]	0.4			
Max.	220V		0.75			
OUTPUT	Norminal Voltage	[V]	3.3	5.0	9.0	12.0
	Setting Voltage Range	[V]	3.26 ~ 3.34	4.95 ~ 5.05	8.91 ~ 9.09	11.88 ~ 12.12
	current	[A]	15.0	15.0	8.3	6.3
	Line Regulations	[mV]	25	25	45	60
	Load Regulations	[mV]	50	50	90	120
	Cross Regulations	[mV]	-	-	-	-
	Temperature Drift	[mV]	50	75	135	180
	Ripple Max.	[mV]	50	50	90	120
	Ripple & Noise Max.	[mV]	120	120	140	170
	Turn- on Time Typ.	[ms]	200 (AC IN 100V, Io=100%)			
	Hold- up Time Typ.	[ms]	17 (AC IN 100V, Io=100%)			
Function	Over Voltage Protection	[V]	3.8 ~ 4.6	5.7 ~ 7.0	10.3 ~ 12.6	13.8 ~ 16.8
	Over Current Protection	[A]	16.5 ~ 21.7	16.5 ~ 21.7	9.13 ~ 12.1	6.93 ~ 9.14
	Remote ON.OFF	-	-	-	-	-
	Remote Sensing	-	-	-	-	-
	Power Fail Signal	-	-	-	-	-
	Parallel/Series Operation	-	Series operations is possible			
	Cooling / O.T.P	-	Convection cooling			
Electrical Isolation	(1) Input - Output	-	AC 3.0KV 1min, cut-off: 20mA / DC 500V 100MΩ			
	(2) Input - F.G	-	AC 2.0KV 1min, cut-off: 20mA / DC 500V 100MΩ			
	(3) Output - F.G	-	AC 0.5KV 1min, cut-off:100mA / DC 500V 100MΩ			
Environment	Operating temp. & Humidity	-	-10 ~ +70℃ (Required Derating) , 20 ~ 90% RH (Non Condensing)			
	Storage temp. & Humidity	-	-20 ~ +75℃ , 20 ~ 90% RH (Non Condensing)			
	Vibration	-	10~55Hz at 1G 3minutes period, 30minutes along X,Y and Z axis			
Dimension	Size(WxHxD) / Weight	mm / g	82 x 35.5 x 135 (149.1)		/ 380	
Safety	-	-	Approved by UL 60950-1,CSA C22.2 No.60950-01-03,CE (File No. E164582)			
Emission	Conducted Emission	-	Built to meet EN55022-A			

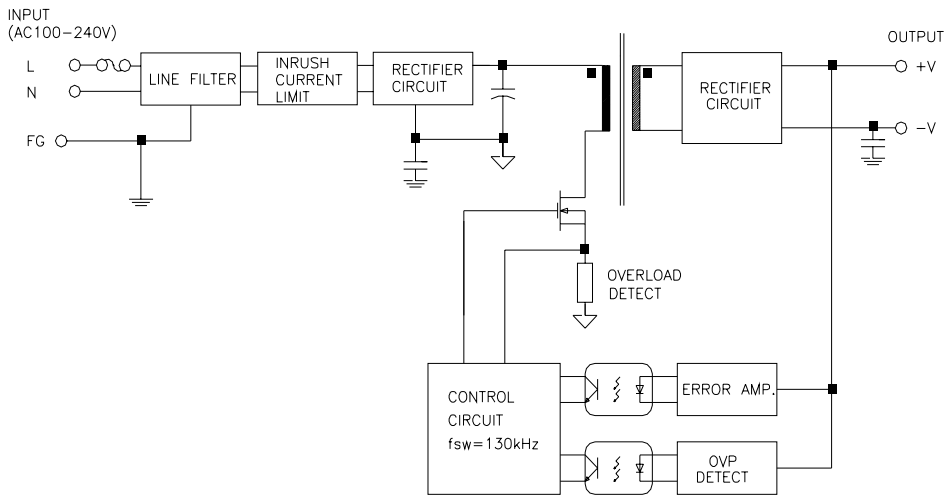
전기적 특성 (Specifications)

Product.	SMPS	Date.	2007. 4.19.
Model.	CSF75- S	Rev.	A
Customer.	STANDARD	Page.	2 / 2

MODEL/CHANNEL		Unit.	15	24	48		
INPUT	Voltage , Frequency	[V]	AC100 - 240(AC 85 - 264), 50/60Hz(47 - 440)or DC125~370V(Universal Input)				
	Current	110V	1.3	1.3	-	-	
	Typ.	220V	0.8	0.8	-	-	
	Efficiency	110V	81	84	-	-	
	Typ.	220V	80	82	-	-	
	Power factor	110V	-	-			
	Typ.	220V	-	-			
Inrush Current	110V	[A]	20 (Ta=25℃ , Io=100% at cold Start)				
Typ.	220V		40 (Ta=25℃ , Io=100% at cold Start)				
Leakage Current	110V	[mA]	0.4				
Max.	220V		0.75				
OUTPUT	Norminal Voltage	[V]	15	24	-	-	
	Setting Voltage Range	[V]	14.85 ~ 15.15	23.76 ~ 24.24	-	-	
	current	[A]	5.0	3.2	-	-	
	Line Regulations	[mV]	75	120	-	-	
	Load Regulations	[mV]	150	240	-	-	
	Cross Regulations	[mV]	-	-	-	-	
	Temperature Drift	[mV]	225	360	-	-	
	Ripple Max.	[mV]	150	240	-	-	
	Ripple & Noise Max.	[mV]	200	290	-	-	
	Turn- on Time Typ.	[ms]	200 (AC IN 100V, Io=100%)				
	Hold- up Time Typ.	[ms]	17 (AC IN 100V, Io=100%)				
Function	Over Voltage Protection	[V]	17.2 ~ 21.0	27.6 ~ 33.6	-	-	
	Over Current Protection	[A]	5.5 ~ 7.25	3.52 ~ 4.64	-	-	
	Remote ON.OFF	-	-	-	-	-	
	Remote Sensing	-	-	-	-	-	
	Power Fail Signal	-	-	-	-	-	
	Parallel/Series Operation	-	Series operations is possible				
	Cooling / O.T.P	-	Convection cooling				
Electrical Isolation	(1) Input - Output	-	AC 3.0KV 1min, cut-off: 20mA / DC 500V 100MΩ				
	(2) Input - F.G	-	AC 2.0KV 1min, cut-off: 20mA / DC 500V 100MΩ				
	(3) Output - F.G	-	AC 0.5KV 1min, cut-off:100mA / DC 500V 100MΩ				
Environment	Operating temp. & Humidity	-	-10 ~ +70℃ (Required Derating) , 20 ~ 90% RH (Non Condensing)				
	Storage temp. & Humidity	-	-20 ~ +75℃ , 20 ~ 90% RH (Non Condensing)				
	Vibration	-	10~55Hz at 1G 3minutes period, 30minutes along X,Y and Z axis				
Dimension	Size(WxHxD) / Weight	mm / g	82 x 35.5 x 135 (149.1)		/ 380		
Safety	-	-	Approved by UL 60950-1,CSA C22.2 No.60950-01-03,CE (File No. E164582)				
Emission	Conducted Emission	-	Built to meet EN55022-A				

User's guide

1. BLOCK DIAGRAM



2. Terminal Connection

Mark	Pin Connection	Function
L	AC L	SMPS AC Terminal (Fuse in Line)
N	AC N	SMPS AC Terminal
F.G	Frame ground	SMPS AC , CASE
+V	DC Output (+)	DC (+) Terminal
-V	DC Output (-)	DC (-) Terminal

3. Function

3-1. (Adjustable output voltage range)

○ 가 5%

3-2. (O.C.P : Over Current Protection)

○ SMPS 가 110%
○ short 가

3-3. (O.V.P : Over Voltage Protection)

○ 115% SMPS
○ 가 AC 3 A/S

User's guide

4. / (Series operation / Parallel operation)

4-1. A (Fig 1.) B (Fig 2.)

4-2. 가 가 , , SMPS (Fig 4.) 가

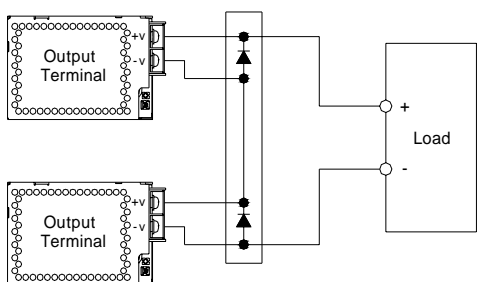


Fig 1. A

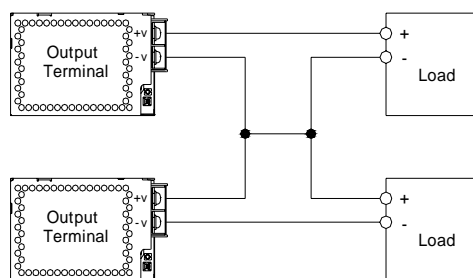


Fig 2. B

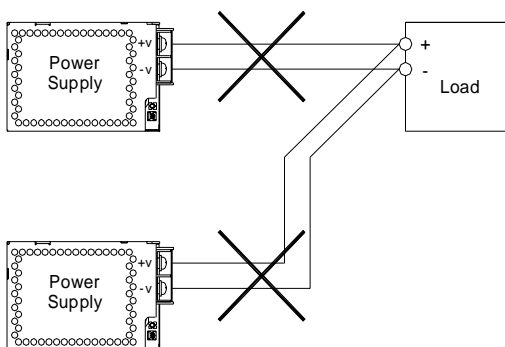


Fig 3. A (가)

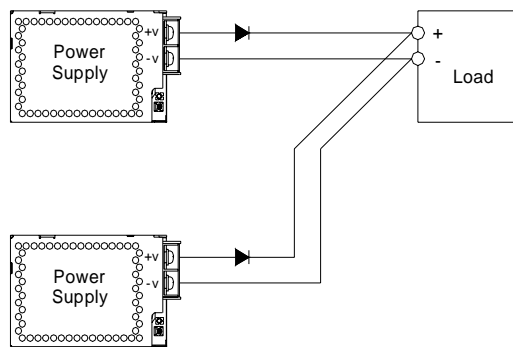


Fig 4. B (Back up)

User's guide

5. (Mounting method)

5-1.

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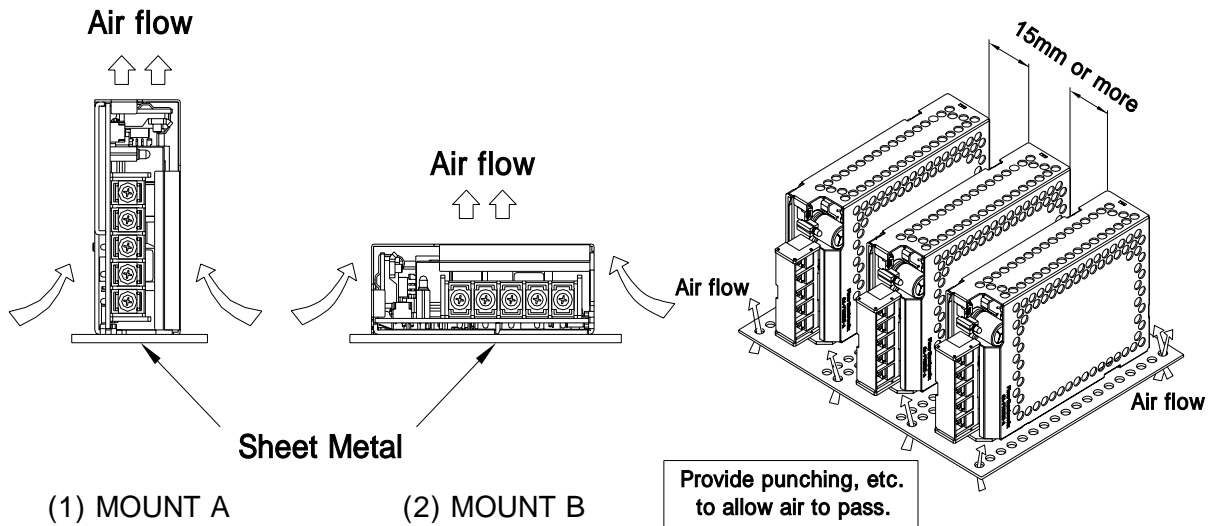


Fig 1.

Fig 2.

6. Output derating curve

6-1.

curve

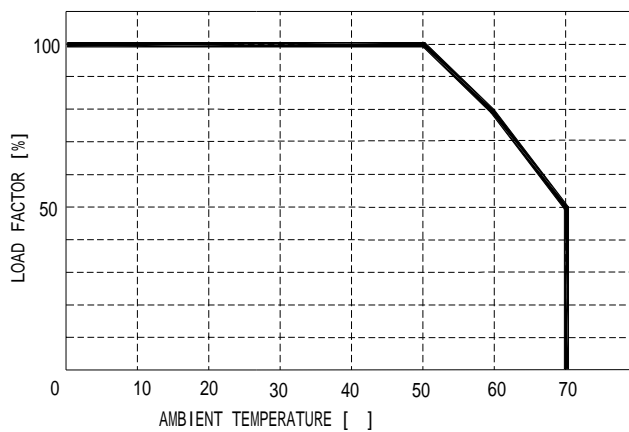
(Mount A, Mount B)

TOP CASE

output derating

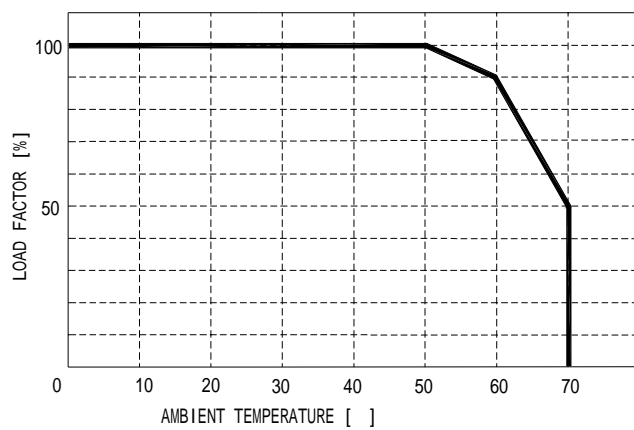
6-2. Output derating curve (Mount A with top case, Convection cooling)

6-2-1. CSF75-05

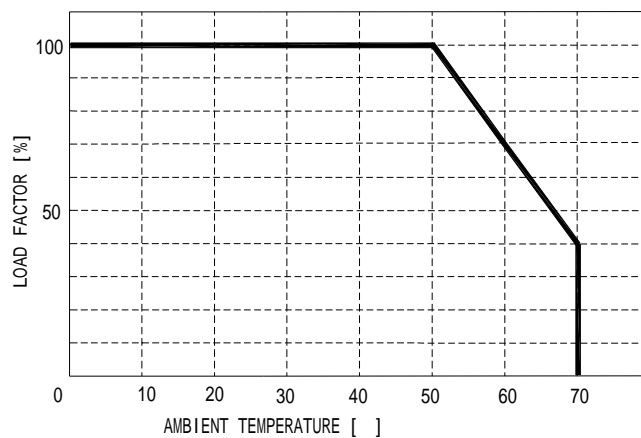


User's guide

6-2-2. CSF75-12



6-2-3. CSF75-24



User's guide

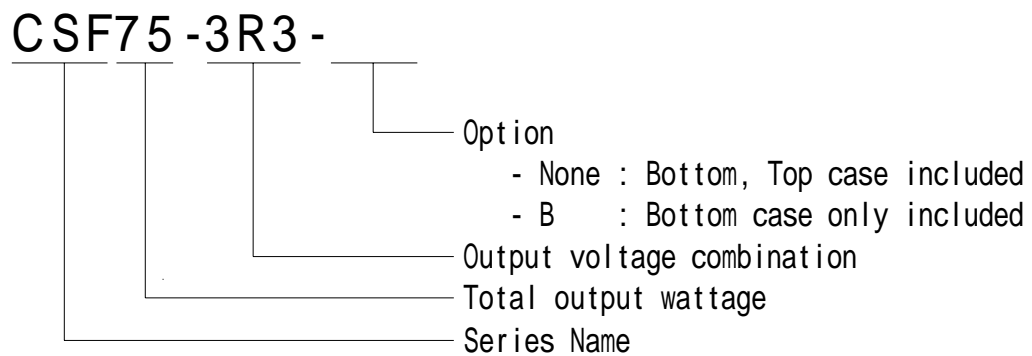
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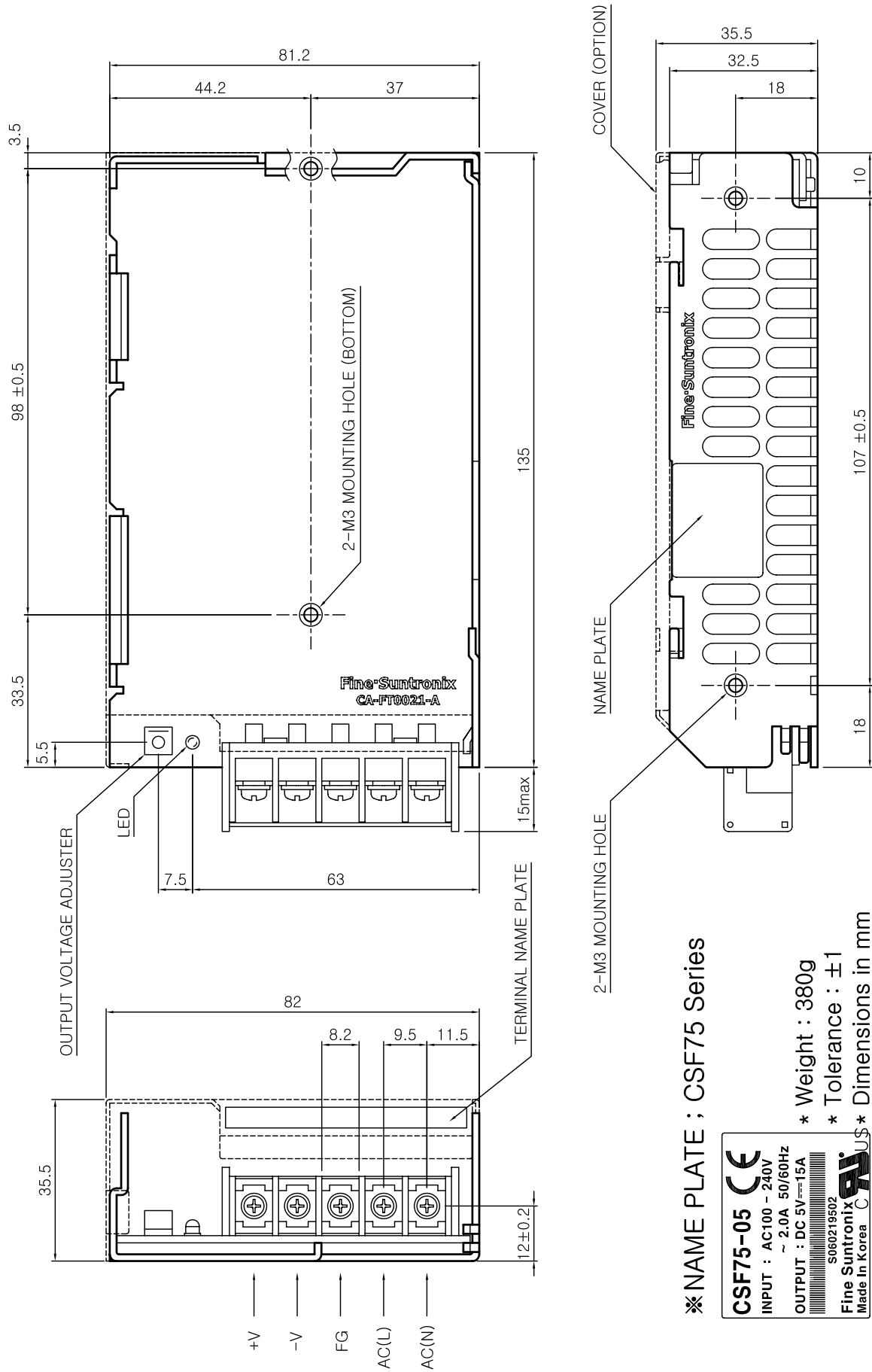
8.

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9. ORDERING INFORMATION



Dimension



※ NAME PLATE ; CSF75 Series

CSF75-05 

INPUT : AC100 - 240V
 ~ 2.0A 50/60Hz

OUTPUT : DC 5V = 15A

S060219502

Fine Suntronix
 Made In Korea



* Weight : 380g
 * Tolerance : ±1
 * Dimensions in mm

INPUT ()

- o Input Voltage () : AC() (110VAC, 220VAC) DC()
(5VDC, 12VDC)
- o Input Current () : 가
- o Input Wattage () : SMPS
- o Input Frequency () : AC() 50Hz, 60Hz(60Hz)
- o Input Efficiency () :
- o Inrush Current () :
- o Leakage Current () : 1 Capacitor
- o Power Factor () :

OUTPUT ()

- o Output Voltage () : DC()
- o Output Current () : DC()
- o Output Wattage () : SMPS가 DC (X)
- o Line Regulation () : (AC DC)
DC()
- o Load Regulation () : min~100% DC()
- o Cross Regulation () : SMPS min~100%
DC()
- o Temperature Drift () : SMPS DC()
- o Ripple & Noise () : DC()
- o Turn on Time () : DC() 90%
- o Hold up Time () : DC() 90%

FUNCTION ()

- o Over Current Protection (OCP,) : 가 SMPS
SMPS
- o Over Voltage Protection (OVP,) : SMPS가 DC()
SMPS가 DC()
- o Over Temperature Protection (OTP,) : SMPS 가
- o Remote ON/OFF (RC or CNT,) : SMPS ON/OFF
- o Remote Sensing (+S, -S,) : SMPS 가
- o Load Detect (LD,) :
- o Adjustable Output Voltage (VR,) : SMPS
가 TRM
- o Power Fail Signal (P.F,)
 - 1) P.F : 가
 - 2) P.F : SMPS
- o Low Voltage alarm (LV alarm,) : SMPS
- o Power alarm (PR alarm,) : SMPS AC , FAN
(P.F, LV alarm, FAN alarm)
- o Parallel / Series Operation (/) : SMPS
가
- o Voltage Balance (VB,) : 가
- o Current Balance (CB,) : 가
가
- o Frame Gnd(FG), AC Gnd(ACG) : Frame Ground, AC Ground

ELECTRICAL ISOLATION ()

o Electrically Isolated Input-Output (-) : AC()
DC() .

o Electrically Isolated Input-Case, FG (- ,) : AC()
,

o Electrically Isolated Output-Case, FG (- ,) : DC()
.

ENVIRONMENT ()

o Operating Temp and Humidity (&) : SMPS
.

o Storage Temp and Humidity (&) : SMPS ,
.

o Vibration () : SMPS가 .

ETC ()

o Safety () :

o Safety Regulation () :

o Line Conducted RF Voltage () :