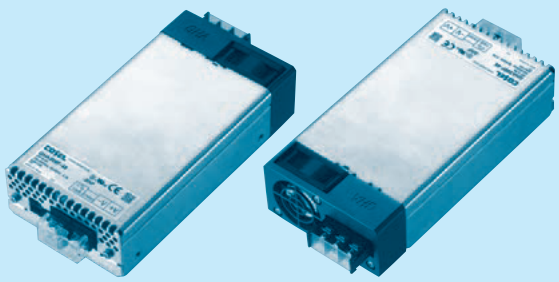
COSEL AC-DC Power Supplies Medical Type

GHA300F-SNF

Ordering information

GH ① A ② 300 ③ F ④ -□□ ⑤ -SNF□ ⑧



Example recommended EMI/EMC filter
EAC-10-472

High voltage pulse noise type : EAP series
Low leakage current type : EAM 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
⑧Optional ＊6
J1 : CN501
PH(J.S.T.)connector type

Refer to the instruction manual 5.1.

＊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			GHA300F-12-SNF	GHA300F-24-SNF	GHA300F-48-SNF
MAX OUTPUT WATTAGE[W]			300	300	302.4
DC OUTPUT	Forced air	+50℃	12V 25.0A	24V 12.5A	48V 6.3A

SPECIFICATIONS

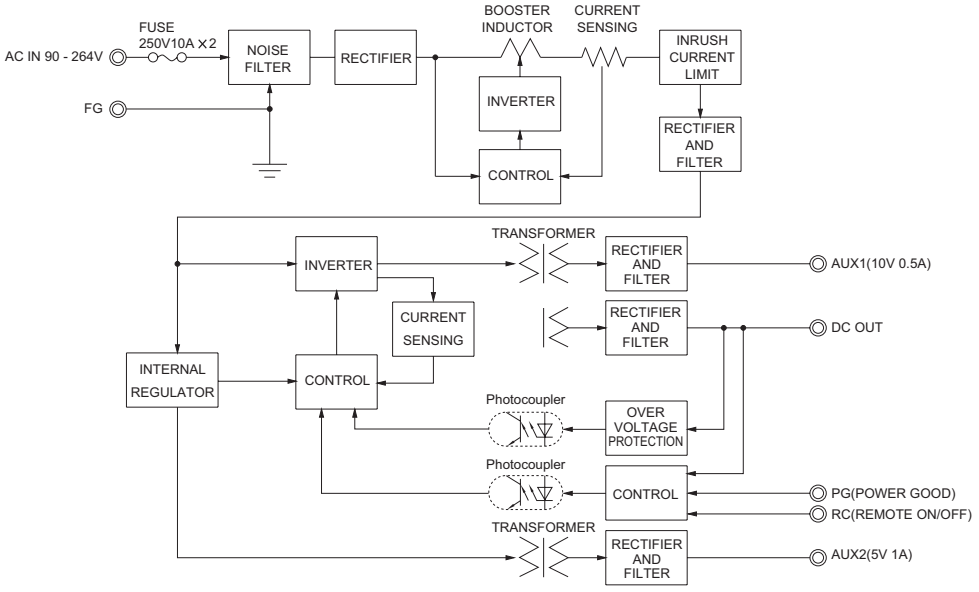
	MODEL		GHA300F-12-SNF	GHA300F-24-SNF	GHA300F-48-SNF
INPUT	VOLTAGE[V]		AC90 - 264 1φ (output derating is required at AC90V -115V ＊3)		
	CURRENT[A]	ACIN 120V	3.3typ		
		ACIN 230V	1.8typ		
	FREQUENCY[Hz]		50 / 60 (47 - 63)		
	EFFICIENCY[%]	ACIN 120V	88typ	89typ	89typ
		ACIN 230V	90typ	91typ	91typ
	POWER FACTOR (Io=100%)	ACIN 120V	0.95typ		
		ACIN 230V	0.90typ		
	INRUSH CURRENT[A]	ACIN 120V	20typ (Io=100%) (At cold start) (Ta=25℃)		
		ACIN 230V	40typ (Io=100%) (At cold start) (Ta=25℃)		
	LEAKAGE CURRENT[mA]		0.125/0.250max (ACIN 120V/240V 60Hz,Io=100%, According to IEC60601-1)		
OUTPUT	VOLTAGE[V]		12	24	48
	CURRENT[A]	Forced air	25.0	12.5	6.3
	LINE REGULATION[mV] ＊4		48max	96max	192max
	LOAD REGULATION[mV] ＊4		100max	150max	240max
	RIPPLE[mVp-p] ＊1	0 to +50℃	240max	240max	300max
		-20 - 0℃	320max	320max	400max
	RIPPLE NOISE[mVp-p] ＊1	0 to +50℃	300max	300max	480max
		-20 - 0℃	360max	360max	500max
	TEMPERATURE REGULATION[mV]	0 to +50℃	120max	240max	480max
		-20 to +50℃	150max	290max	600max
	DRIFT[mV] ＊2		48max	96max	192max
	START-UP TIME[ms]		500typ (ACIN 120V, Io=100%)		
	HOLD-UP TIME[ms]		16typ (ACIN 120V, Io=100%)		
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		10.80 to 13.20	21.60 to 26.40	43.20 to 52.80
	OUTPUT VOLTAGE SETTING[V]		12.00 to 12.48	24.00 to 24.96	48.00 to 49.92
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically ＊7		
	OVERVOLTAGE PROTECTION[V]		13.80 to 16.80	27.60 to 33.60	55.20 to 67.20
	AUX1		10V 0.5A		
	AUX2		5V 1A		
	REMOTE ON/OFF		Possible, AUX2 is available		
	PowerGood		Open corrector		
ISOLATION	INPUT-OUTPUT · RC · AUX		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 · RC · AUX-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature)		
	OUTPUT-RC · AUX		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature)		
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-20 to +70℃, 20 - 90%RH (Non condensing), 3,000m (10,000feet) max ＊3		
	STORAGE TEMP.,HUMID.AND ALTITUDE		-30 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, ANSI/AAMI ES60601-1, C-UL(CSA60950-1, CAN/CSA60601-1), EN60950-1, EN60601-1 3rd		
	CONDUCTED NOISE		Complies with FCC-B, VCCI-B, CISPR11-B, CISPR22-B, EN55011-B, EN55022-B		
	HARMONIC ATTENUATOR		Complies with IEC61000-3-2 (class A) ＊5		
OTHERS	CASE SIZE/WEIGHT		85.2×41×165.3mm [3.35×1.61×6.5 inches] (W×H×D) / 620g max		
	COOLING METHOD		Forced air		

＊1 This is the value that measured on measuring board with capacitor of 22μF at 150mm from output terminal.
Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).
＊2 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.
＊3 Derating is required.
＊4 Please contact us about dynamic load and input response.
＊5 Please contact us about another class.
＊6 Specification is changed at option, refer to Instruction Manual.
＊7 When output current more than rated, output will shut down after 5 seconds or more. Recycle input after 3 minutes to reset the protection.
＊ To meet the specifications. Do not operate over-loaded condition.
＊ Sound noise may be generated by power supply in case of pulse load.

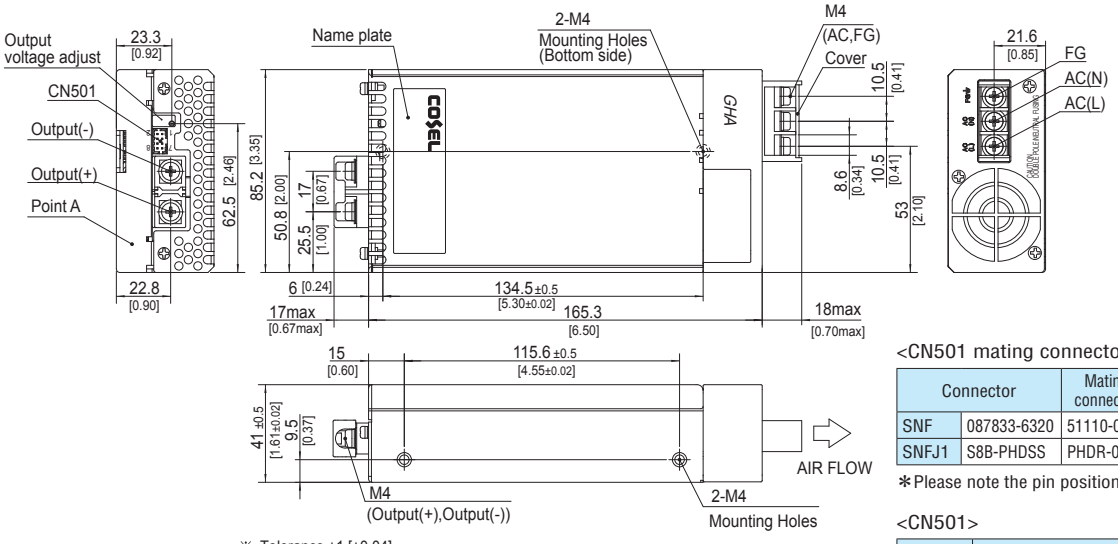
Features

- Full packaged desin united with GHA's features and addtional robastness..
- High efficiency 91% typ (Input voltage 230V,Output voltage 24V)
- Optical for 1U applications
- Medical and Industrial safety approvals
- Low leakage current
- Conformal coating
- Single remote ON/OFF control for DC output, AUX1 and Fan.
- Isolated dual AUX (AUX1 10V 0.5A, AUX2 5V 1A)

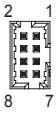
Block diagram



External view



※ Tolerance ±1 [±0.04]
※ Weight : 620g max
※ Upper PCB Material/thickness : FR-4/1.6mm
※ Lower PCB Material/thickness : FR-4/1.6mm
※ Chassis Material/thickness : Aluminum/1.5mm
※ Cover Material/thickness : Aluminum/1.2mm
※ Fan cover Material : PBT
※ Mounting torque : 1.5N · m (14.7kgf · cm) max
※ Screw tightening torque M4 : 1.6N · m (16.9kgf · cm) max
※ Dimensions in mm, [ ]=inches



CN501

<CN501 mating connector and terminal>

Connector		Mating connector	Terminal	Mfr
SNF	087833-6320	51110-0851	50394-8051	Molex ＊
SNFJ1	S8B-PHDSS	PHDR-08VS	SPHD-002T-P0.5	J.S.T.

＊Please note the pin position No.1 is different from Molex.

<CN501>

Pin No.	Function
1	AUX1 : AUX1 (10V0.5A)
2	AUX1G : AUX1 (GND)
3	RC : REMOTE ON/OFF
4	RCG : REMOTE ON/OFF (GND)
5	PG : Power good
6	PGG : Power good (GND)
7	AUX2 : AUX2 (5V1A)
8	AUX2G : AUX2 (GND)