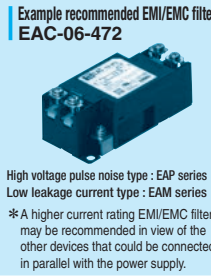
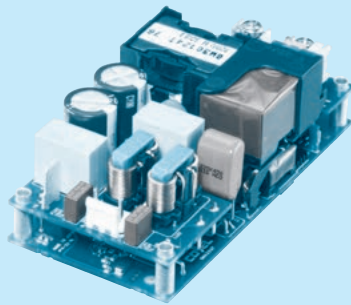


GMA300F

GM A 300 F -□□ -□
 ① ② ③ ④ ⑤ ⑥



- ① Series name
 - ② Single output
 - ③ Output wattage
 - ④ Universal input
 - ⑤ Output voltage
 - ⑥ Optional *6
 - C : with Coating
 - J1 : Input connector
 VH (J.S.T.) connector type
 - R3 : with Subfeatures
 (5VAUX, 12VAUX, Remote)
- Specification is changed at option, refer to Instruction manual.

This power supply is manufactured by SMD technology. The stress to P.C.B like twisting or bending causes the defect of the unit, please handle the unit with care.
 *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	GMA300F-12	GMA300F-24
MAX OUTPUT WATTAGE[W]	300	300
DC OUTPUT	12V25A	24V12.5A

SPECIFICATIONS

	MODEL	GMA300F-12	GMA300F-24	
INPUT	VOLTAGE[V]	AC85 - 264 1φ (Output derating is required at AC85V - 115V. See 3.1 in Instruction Manual)		
	CURRENT[A]	ACIN 115V	3.3typ	
		ACIN 230V	1.8typ	
	FREQUENCY[Hz]	50 / 60 (45 - 66)		
	EFFICIENCY[%]	ACIN 115V	90typ	
		ACIN 230V	92typ	
	POWER FACTOR (Io=100%)	ACIN 115V	0.95typ	
		ACIN 230V	0.90typ	
	INRUSH CURRENT[A]	ACIN 115V	30typ (Io=100%) (At cold start, Ta=25°C)	
		ACIN 230V	60typ (Io=100%) (At cold start, Ta=25°C)	
LEAKAGE CURRENT[ma]	0.13 / 0.30max (ACIN 100/240V 60Hz, Io=100%, According to IEC60601-1)			
OUTPUT	VOLTAGE[V]	12	24	
	CURRENT[A]	25	12.5	
	LINE REGULATION[mV]	48max	96max	
	LOAD REGULATION[mV]	100max	150max	
	RIPPLE[mVp-p]	0 to +50°C	240max	240max
		-20 to 0°C	320max	320max
	RIPPLE NOISE[mVp-p]*1	0 to +50°C	300max	300max
		-20 to 0°C	360max	360max
	TEMPERATURE REGULATION[mV]	0 to +50°C	120max	240max
		-20 to +50°C	150max	290max
	DRIFT[mV]	48max	96max	
	START-UP TIME[ms]	400typ (ACIN 115V, Io=100%) *Start-up time is 900ms typ for less than 1minute of applying input again from turning off the input voltage.		
	HOLD-UP TIME[ms]	16typ (ACIN 115V, Io=85%) / 12typ (ACIN 115V, Io=100%)		
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	11.40 ~ 13.20		22.80 ~ 26.40	
OUTPUT VOLTAGE SETTING[V]	12.00 ~ 12.48		24.00 ~ 24.96	
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically		
	OVERVOLTAGE PROTECTION[V]	13.80 to 16.80		
	AUX1 (12V1A)	Optional		
	AUX2 (5V1A)	Optional		
REMOTE ON/OFF	Optional			
ISOLATION	INPUT-OUTPUT · RC · AUX *7	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 *7	AC1,500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) 1MOPP		
	OUTPUT-RC · AUX *7	AC100V 1minute, Cutoff current = 25mA, DC100V 10MΩ min (At Room Temperature)		
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-20 to +70°C, 20 - 90%RH (Non condensing), 3,000m (10,000feet) max		
	STORAGE TEMP., HUMID. AND ALTITUDE	-30 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max		
	VIBRATION	10 - 55Hz, 19.6m/s ² (2G), 3minutes period, 60minutes each along X, Y and Z axis		
	IMPACT	196.1m/s ² (20G), 11ms, once each X, Y and Z axis		
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL62368-1, ANSI/AAMI ES60601-1, C-UL, EN62368-1, EN60601-1 3rd, Complies with IEC60601-1-2 4th Ed.		
	CONDUCTED NOISE	Complies with FCC Part15 classB, VCCI-B, CISPR32-B, EN55011-B, EN55032-B		
OTHERS	HARMONIC ATTENUATOR *5	Complies with IEC61000-3-2 (class A)		
	CASE SIZE/WEIGHT	50.8×37×101.6mm [2.0×1.5×4.0 inches] (W×H×D) / 230g max		
	COOLING METHOD	*3 Forced air (Require external fan)		

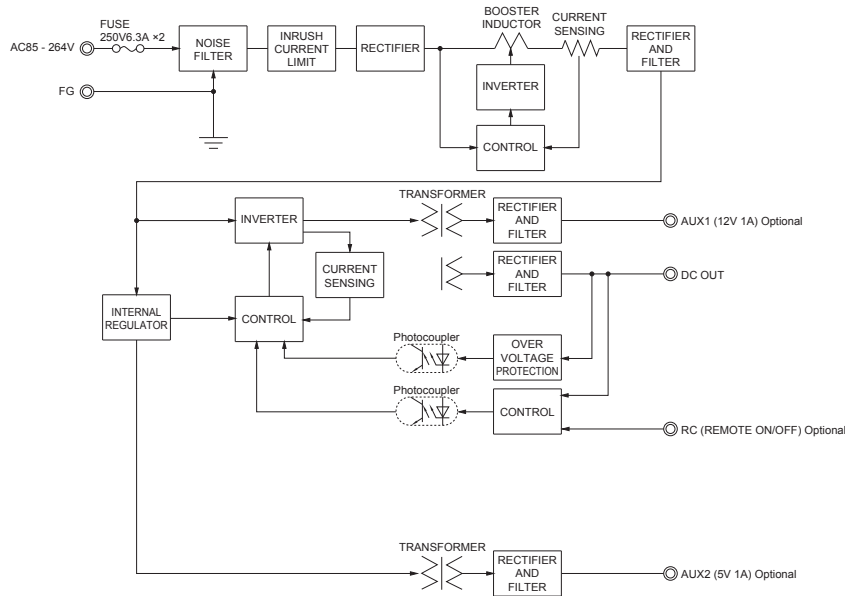
*1 This is the value that measured on measuring board with capacitor of 22μF at 150mm from output terminal.
 Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).
 *2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with 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 Applicable when AUX and remote control (optional) is added.
 * To meet the specifications. Do not operate over-loaded condition.
 * Parallel operation is not possible.
 * Sound noise may be generated by power supply in case of pulse load.
 * Substrate bottom has a Electric potential. Insulation is required.

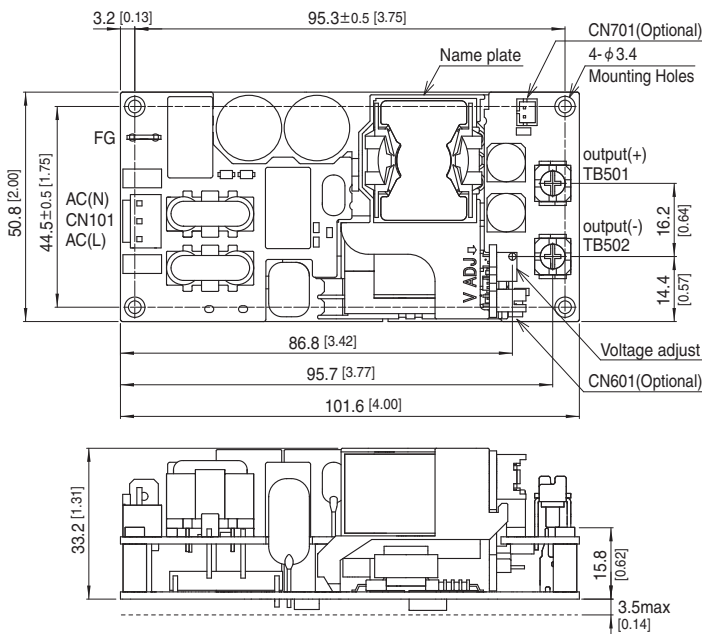
Features

- High electric power density : 25.7W/inch³
- High efficiency : 93% typ (Input Voltage 230V, Output Voltage 24V)
- For medical electric equipment (ANSI/AAMI ES60601-1, EN60601-1 3rd, IEC60601-1-2 4th Ed.)
- Design for BF application (Output-FG : 1MOPP, Input-Output : 2MOPP)
- 2" × 4" standard footprint
- With Remote (Optional)
- With AUX1 (12V), AUX2 (5V) (Optional)

Block diagram



External view



I/O Connector		Mating connector	Terminal	Mfr
Standard	CN101	1-1123724-2	1123721-1	Tyco Electronics
	CN101	1-1123722-3	1318912-1	
R3	CN601	B8B-PHDSS	PHDR-08VS	J.S.T.
	CN701	B2B-PH	PHR-2	
J1	CN101	B2P3-VH	VHR-3N	J.S.T.
	CN101	B2P3-VH	SVH-21T-P1.1	
J1R3	CN601	B8B-PHDSS	PHDR-08VS	J.S.T.
	CN701	B2B-PH	PHR-2	

FG	Mating connector	Terminal	Mfr
250 (62409-1)	-	170603-2	Tyco Electronics

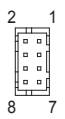
<Pin Assignments>

<CN101>

Pin No.	Input
1	AC(L)
2	
3	AC(N)

<CN601(Optional)>

Pin No.	Function
1	RC : REMOTE ON/OFF
2	RCG : REMOTE ON/OFF(GND)
3	N.C. : No connection
4	N.C. : No connection
5	N.C. : No connection
6	N.C. : No connection
7	AUX2 : AUX2 (5V 1A)
8	AUX2G : AUX2 (GND)



CN601

<CN701(Optional)>

Pin No.	Function
1	AUX1G : AUX1 (GND)
2	AUX1 : AUX1 (12V 1A)



CN701

- * Tolerance ±1 [±0.04]
- * Weight : 230g max
- * There is a total of four attachment holes.
- * Dimensions in mm, []=inches
- * Screw tightening torque : (TB501, 502) : 1.25N · m max
- * Mounting torque : 0.6N · m max
- * Avoid contact between TB501 and 502 wiring with mounting parts.