Yuan Dean Scientific CO.,LTD

1Watt,Single Output,AC-DC Open Frame Converter

FEATURES:

- **Universal Input 85~305VAC**
- **Efficiency at 66% Typical**
- **Protection: Short Circuit / Over Load**
- **Ultra small size**
- **2 Years Warranty**
- **ROHS Compliant**

GS1 - S 05
A B C

A:Series
B:Single Output
C:Output Voltage

Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified						
Part Number	**Output Wattage**	**Output Voltage**	**Output Current**		**Efficiency**	**Max. Capacitive Load**
	(W)	**(V)**	**(mA)(min)**	**(mA)(max)**	**%(TYP)**	**(μF)**
GS1-S05C01	1	Vo=+5.0	0	200	66	600

Input Specifications

Parameters	**Conditions**		**Min**	**Typ**	**Max**	**Units**
Rated input voltage	Vo,Io nom			100~277		Vac
Voltage Range	Vo,Io nom	AC in	85		305	Vac
		DC in	70		430	Vdc
Line Frequency	Vi nom.Io nom		47		63	Hz
Input Current	Io nom	Vi:115VAC			0.06	A
		Vi:230VAC			0.03	A
Inrush Current	Io nom	Vi:115VAC		10		A
		Vi:230VAC		15		A

Output Specifications

Parameters	**Conditions**	**Min**	**Typ**	**Max**	**Units**
Output Voltage Accuracy	Vi nom,Io nom			±5	%
Minimum Load	Vi nom	0			%
Line Regulation	Io nom,Vi min…Vi max		±1.5		%
Load Regulation	5%~100% Load		±2.5		%
No Load				0.5	W
Ripple & Noise	Vi nom,Io nom, BW=20MHz		50	120	mVp-p
Protection	**Over Load**	Above 110% rated output power			
		Protection type: Recovers automatically after fault condition is removed			
	Short circuit	Recovers automatically after fault condition is removed			

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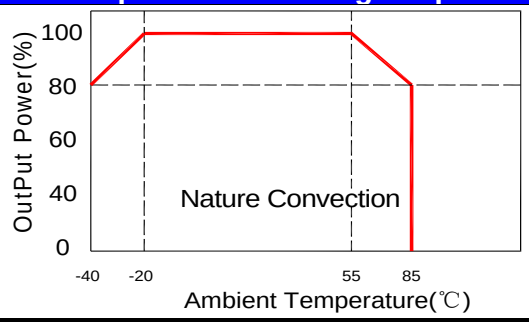
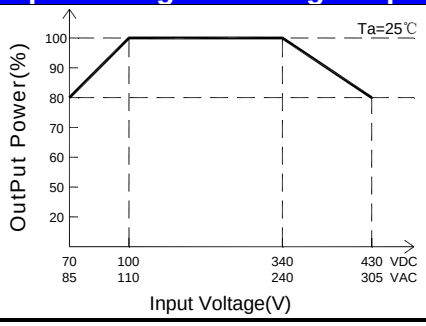
General Specifications					
Parameters	**Conditions**	**Min**	**Typ**	**Max**	**Units**
Switching Frequency	Vi nom,Io nom			60	KHz
Isolation Voltage	Input / Output		3KVac/ 5mA/5Secs		
Isolation Resistance	Input / Output,@500 Vdc	100			MΩ
Operating Temperature	Refer to Temperature Derating Graph	-40		+85	℃
Storage Temperature	Non Operational	-40		+105	℃
Relative Humidity	Vi nom,Io nom			85	% RH
Safety Standards	Design refer to UL62368-1,IEC62368-1				
EMI Conduction & Radiation	EN55032,CLASS B(See Fig. 1 for recommended circuit)				
EMS Immunity	EN61000 (See Fig. 1 for recommended circuit)				
Dimension	L35.0 x W11.0 x H18.0 mm				
Cooling	Free air convection				

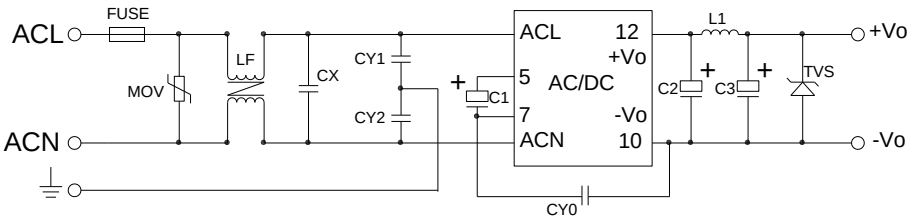
Temperature Derating Graph



Input Voltage Derating Graph



EMC Solution-Recommended Circuit



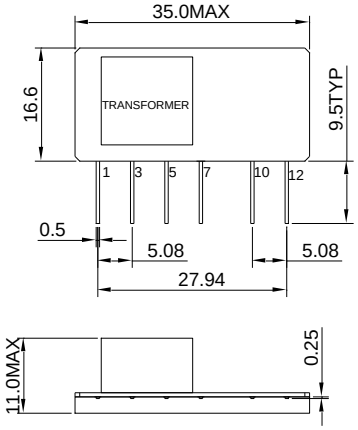
	3.3~24V
FUSE	250V/1A
MOV	07D561K
LF	UU9.8,30mH Min
CX	0.1uF/275V
CY1	470pF/250V
CY2	

	3.3~5V	9~15V	24V
C1	10uF/450V		
CY0	1000pF/250V		
C2	330uF/35V	220uF/35V	68uF/35V
C3	220uF/35V	68uF/35V	
L1	2.2uH		

	3.3~5V	9V	12V,15V	24V
TVS	SMBJ7.0A	SMBJ12A	SMBJ20A	SMBJ30A

Fig. 1

Markings and dimensions



	Model
PIN	Single
1	ACN
3	ACL
5	+V(cap)
7	-V(cap)
10	-Vo
12	+Vo

UNIT:mm Unless otherwise specified,all tolerances are ±0.5