

YAS50-5-N

AC/DC Converter Specification

(Ver1.0)

Model Numbering

YA S 50- 5-N

Series: YA
 Output Mode: Single
 Output Power: 50W
 Output Voltage: 5.1Vdc
 Input Voltage Range: 165 ~ 265Vac



Introduction

Small volume;
 Delivers up to 50 watts;
 Trim Functions;
 1500V_{ac} isolation voltage;
 Short-Circuit, auto-recovery;
 Case Temperature: -25~+85
 2-years warranty.
 CE Certification

Electrical Specification

Output	Min	Type	Max	Units	Notes
Power			50	W	
Output Current	0		10	A	
Output Voltage	5.05	5.10	5.15	Vdc	
Output Voltage Trim Range	4.6		5.6	Vdc	
Line Regulation			±0.2	%	Input Voltage: 165 ~ 265Vac
Load Regulation			±0.5	%	Input Voltage : 220Vac
Dynamic Response Recovery Time			400	μS	25% ~ 50% ~ 25% and 50% ~ 75% ~ 50% Step load changes StepDi/dt=0.1A/μS
Dynamic Response Overshoot Rate			±250	mV	
Ripple and Noise			50	mV	Measured by 20MHz
Capacitive Load	0		10000	μF	

Output	Min	Type	Max	Units	Notes
Temperature Coefficient			±0.1	%/	
Short-Circuit Protection	Continuous, Automatic Recovery				

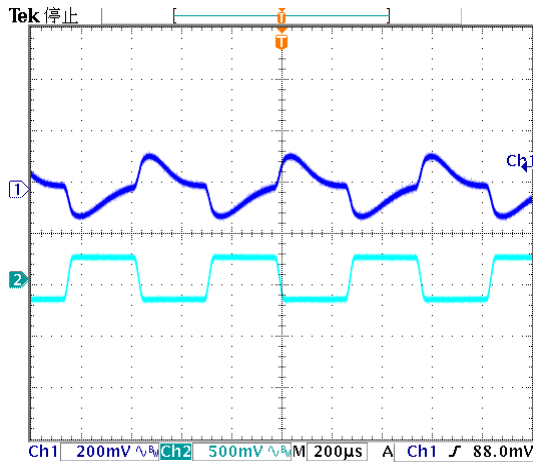
Input	Min	Type	Max	Units	Notes
AC Input Voltage Range	165	220	265	Vac	
DC Input Voltage Range	200	310	375	Vdc	
Input Voltage Frequency	45		65	Hz	
Setup Time		10		mS	
Start-up Delay Time		320		mS	

General	Min	Type	Max	Units	Notes
Isolation Voltage	1500			Vac	Input-Output
	1500			Vac	Input-Case
	500			Vac	Output-Case
Switching Frequency		65		KHz	
Efficiency	78	80		%	Input Voltage : 310Vdc
MTBF		3×10^5		h	Bellcore TR332, Tc=25
Pin Soldering Temp			260		Wave soldering time < 10S
Manual Soldering Time			5	S	Hand soldering temperature : 425
Case Temperature	-25		+85		
Storage Temperature	-40		+105		
Relative Humidity	10		90	%	
Weight		280		Gram	

Characteristic Curves at 25

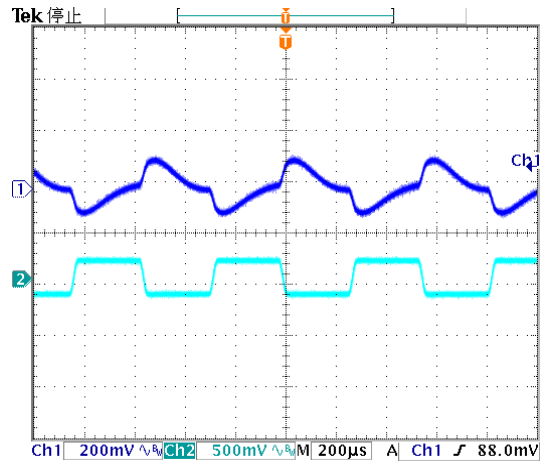
Typical Dynamic Response

Change From 25%~50%~25% $I_o(max)$

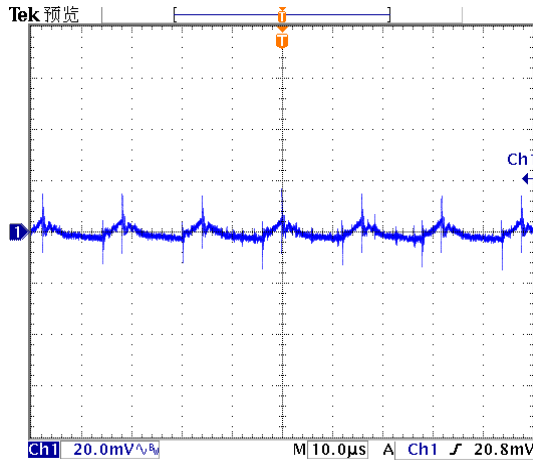


Typical Dynamic Response

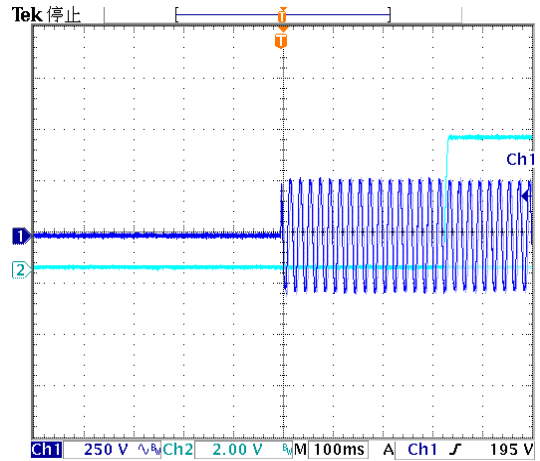
Change From 50%~75%~50% $I_o(max)$



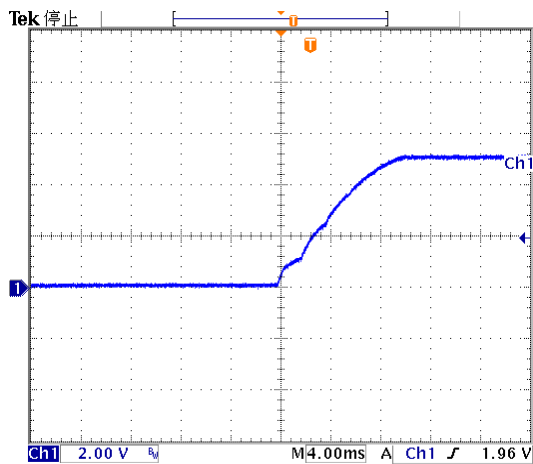
Typical Output Ripple Voltage



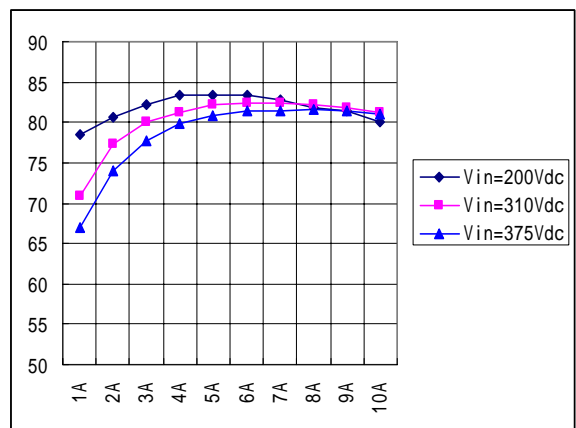
Typical Start-Up Delay



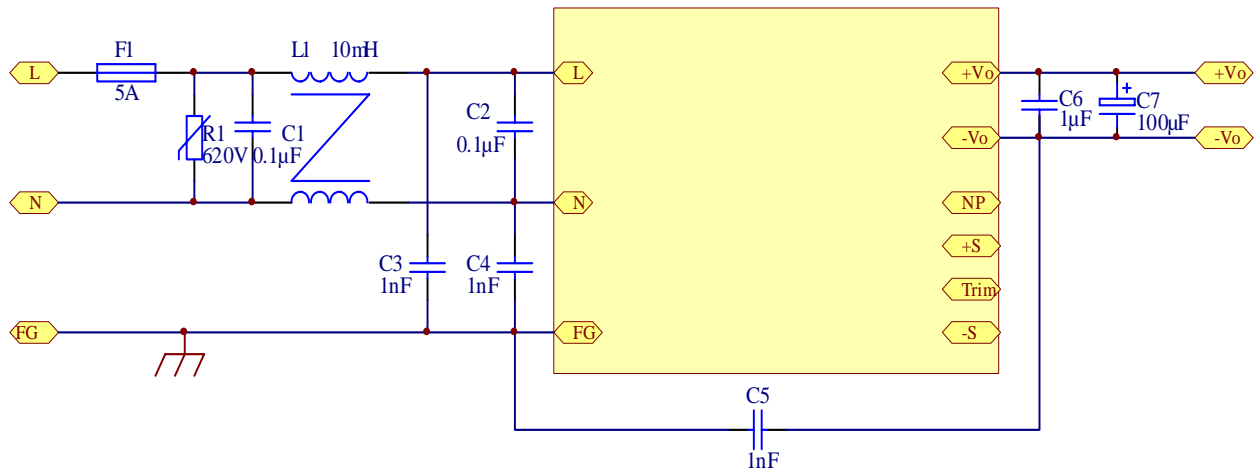
Typical Start Setup



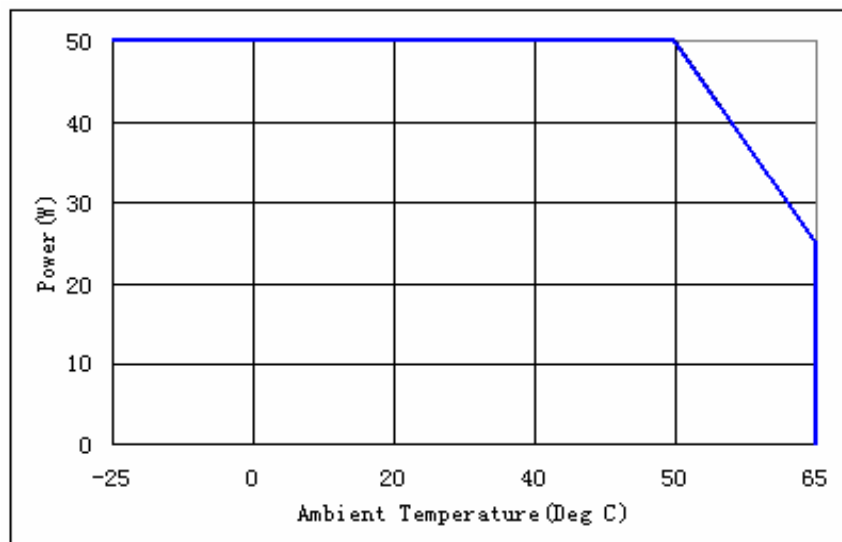
Typical Efficiency



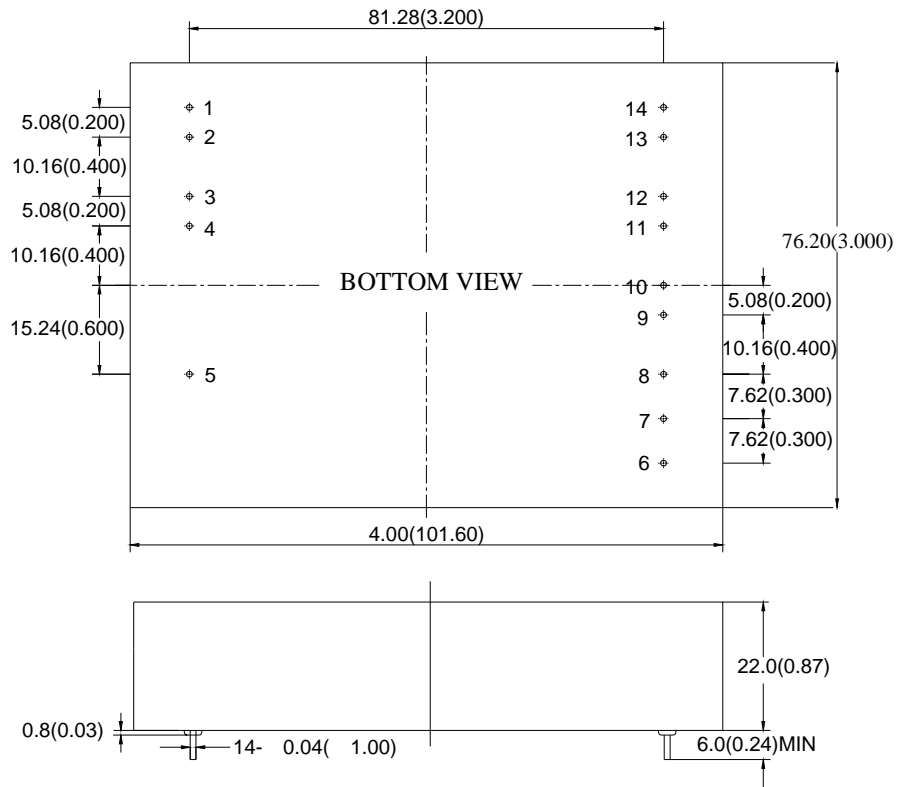
Typical Application



Derating Curve



Mechanical Diagram & Pins



Note : Units mm(inch)

Default tolerance: X.X±0.5mm(X.XX±0.02inch)

X.XX±0.25mm(X.XXX±0.010inch)

Pin	1、 2	3、 4	5	6	7	8	9、 10	11、 12	13、 14
Sign	L	N	FG	-S	TRIM	+S	NC	-Vo	+Vo