

FEATURES

1. Wide input voltage range: 36-75 VDC
2. High efficiency up to 91.5%
3. I/O isolation test voltage 1.5k VDC
4. Input under-voltage protection, output short-circuit, over-current, over-voltage, over-temperature protection
5. Operating ambient temperature range -40°C to +85°C
6. International standard pin mode
7. International standard 1/8 brick


**3 years
Warranty**

Selection Guide

Product Model	Input Voltage (Range) VDC	Output Voltage VDC	Output Current @Full Load mA	Output Efficiency Min/Typ %	Capacitive Load (Max) μF
GT4801EBO-150WR3	48 (36~75VDC)	1	30000	83.5	1000
GT4801EBO-150WIR3		1	30000	83.5	1000
GT4802EBO-150WR3		1.2	30000	85	10000
GT4802EBO-150WIR3		1.2	30000	85	10000
GT4803EBO-150WR3		3.3	30000	91	10000
GT4803EBO-150WIR3		3.3	30000	91	10000
GT4805EBO-150WR3		5	30000	91.5	10000
GT4805EBO-150WIR3		5	30000	91.5	10000

Input Specifications

Parameter	Condition	Min	Typ	Max	Unit	
Surge Voltage	36 to 75VDC Input series	-	-	80	VDC	
Start-up Voltage	36 to 75VDC Input series	-	-	36		
Under-voltage Protection	Close output (self-recovery)	1.0V/1.2V output	32	34		35
		3.3V output	31	33	34	
		5V output	32	34	35	
Start-up Time	Nominal input voltage and constant resistance load	1.0V/1.2V output	-	4	20	ms
		3.3V output	-	12	20	
		5V output	-	12	30	
CNT logic control	Low level	1.0V/1.2V output	-0.7	-	1.2	VDC
		3.3V/5V output	-0.7	-	1.5	
	High level	3.5	-	20		
	Remote control current	-	-	2	mA	

Output Specifications

Parameter	Condition	Min	Typ	Max	Unit	
Voltage Accuracy	Full load range	1.0V output	-	-	±1.5	%
		1.2V/3.3V output	-	-	±1.7	
		5V output	-	-	±1.2	
Line Regulation	Rated load	-	±0.2	±0.5	%	
Load Regulation	Vin=48V; Io=0~Inom; TA = 25 °C	1.0V/1.2V output	-	±0.5	±1.5	%
		3.3V/5V output	-	±0.5	±1	
Transient Recovery Time	25% load step change, nominal input voltage	1.0V/1.2V output	-	150	200	µs
		3.3V/5V output	-	100	200	
Transient Response Deviation	25% load step change, nominal input voltage	1.0V/1.2V output	-	±4	±10	%
		3.3V/5V output	-	±3	±5	
Temperature Coefficient	Full load	-	-	±0.02	%/°C	
Ripple & Noise①	The output is connected with 10µF tantalum capacitor and 1µF ceramic capacitor; Output capacitance from the module pin 50 mm to 70 mm.	1.0V output	-	20	50	mVp-p
		1.2V output	-	40	100	
		3.3V output	-	50	80	
		5V output	-	55	80	
Trim	Input voltage range	-20	-	+10	%	
Over-current Protection	Input voltage range	1.0V output	110	-	150	%Io
		1.2V output	-	117	-	
		3.3V output	110	120	140	
		5V output	110	127	150	
Over-voltage Protection	Input voltage range	1.0V output	120	140	150	%Vo
		1.2V output	117	125	142	
		3.3V output	115	118	121	
		5V output	115	118	123	
Short-circuit Protection	Short-circuit fault removal is self-restoring	Sustainable, self-healing				
Over-temperature protection	Close output (self-recovery)	1.0V output	112	120	130	°C
		1.2V output	-	115	-	
		3.3V output	110	118	130	
		5V output	110	120	130	
	Return difference		-	20	-	

General Specifications

Parameter	Condition	Min	Typ	Max	Unit
Isolation Voltage	Input-output, leakage current less than 1mA, test time 1 minute	1500	-	-	VDC
Operating Temperature		-40	-	+85	°C
Storage Temperature		-55	-	+125	
Storage Humidity	Non-condensing	5	-	95	%RH
MTBF	Ta=25°C, Telcordia SR-332	-	2000	-	K hours

Mechanical Specifications

Size	No heat sink	57.94mm × 22.81mm × 9.80mm
	With type I heat sink	57.94mm × 22.81mm × 12.70mm
Weight	No heat sink	20.0g(Typ.)
	With type I heat sink	40.0g(Typ.)

Characteristic Curves

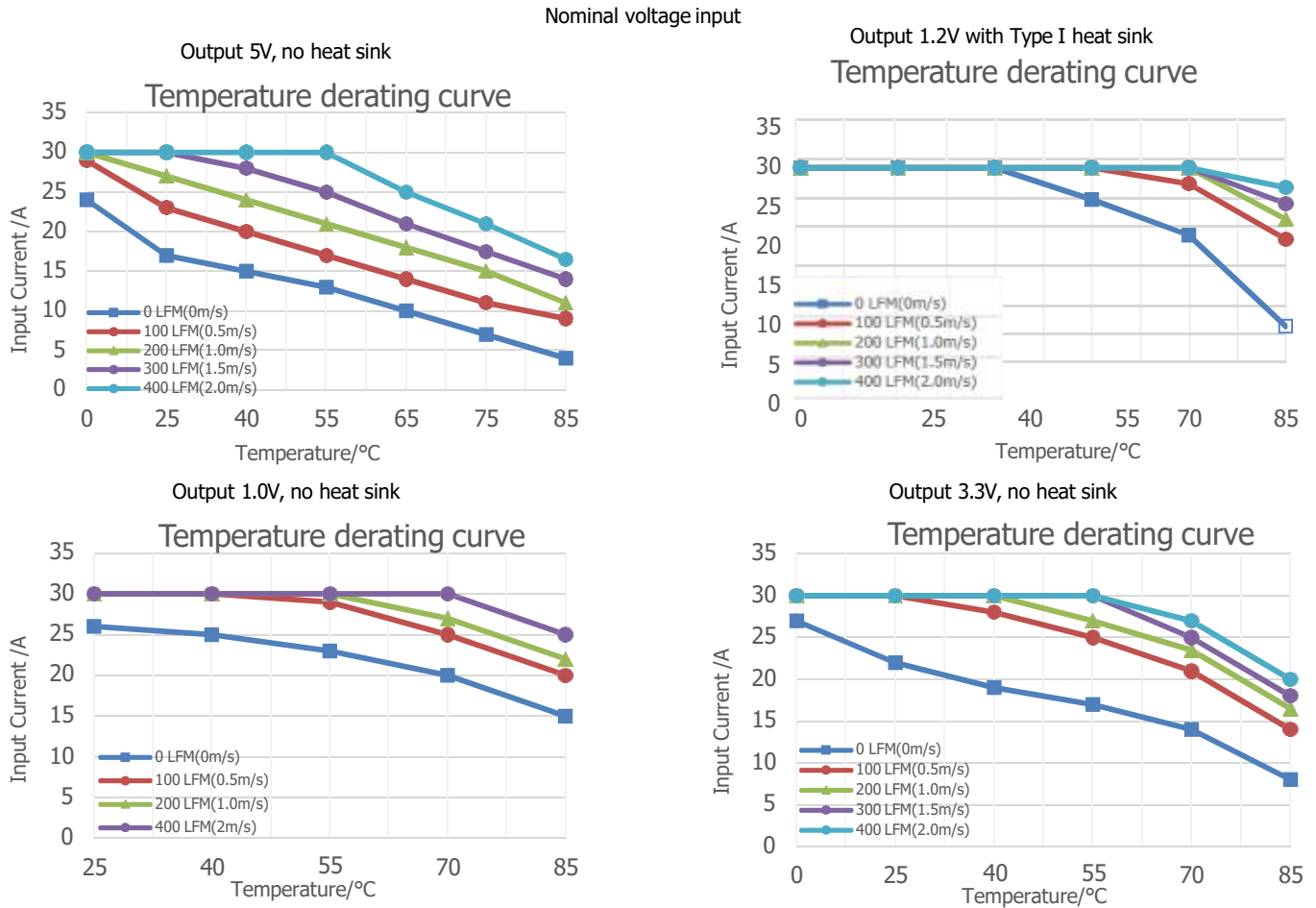


Figure 1

Design References

Application circuit

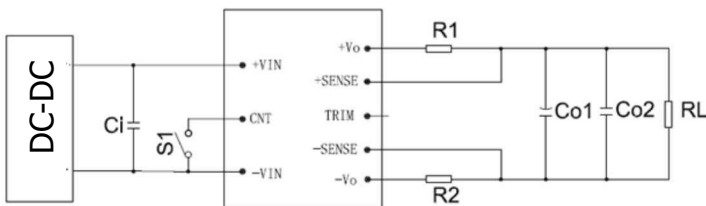


Figure 2

- Note:
- The output can be connected to the appropriate amount of electrolytic capacitors according to customer demand, but the maximum capacity of each can not exceed 10000uF
 - This model is negative logic control, that is, S1 switch short-circuited for normal power output, S1 switch off for output off.

Vout (VDC)	Ci	Co1	Co2
1.0/1.2	100μF/100V	1000μF/10V	1μF/10V
3.3	150μF/100V	220μF/10V	1μF/25V
5	300μF/100V	100μF/16V	1μF/25V

Dimensions and Recommended Layout

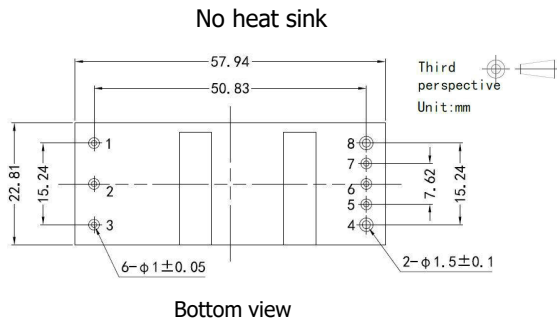


Figure 3

Note:

Size unit: mm

Terminal diameter tolerance: $\pm 0.10\text{mm}$

Unmarked tolerance: $\pm 0.50\text{mm}$

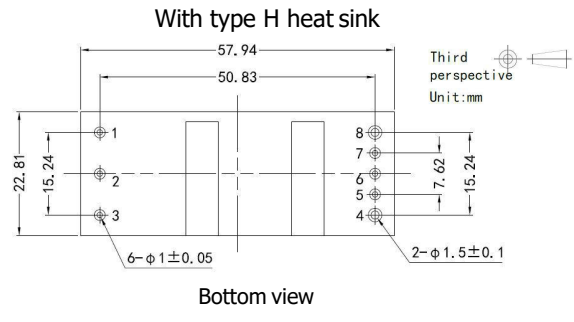


Figure 4

Pin definition

Pin	Mark	Implication
1	-Vin	Input negative
2	CNT	Remote control foot
3	+Vin	Input positive
4	+Vo	Output positive
5	+SENSE	Positive remote control terminal
6	Trim	Voltage regulating terminal
7	-SENSE	Negative remote control terminal
8	-Vo	Output minus

Note:

1. If the product works under the minimum required load, it cannot guarantee that the performance of the product complies with all the performance indicators in this manual;
2. The maximum capacitive load is tested under the input voltage range and full load condition;
3. Unless otherwise stated, all indexes in this manual are measured at $T_a=25^\circ\text{C}$, humidity $<75\%\text{RH}$, nominal input voltage and rated output load;
4. All index testing methods in this manual are based on the enterprise standards of the company;
5. Our company can provide product customization, specific needs can directly contact our technical staff;