

SYL-YLN68V22A72D

20~74Vdc INPUT 0~24A OUTPUT

Linear constant current step-down module power supply

The module is a linear constant current step-down power supply, the typical input voltage is 20~74Vdc, and the module output current is 0~24A.

The power supply has output over-current protection and over-temperature protection functions.

Specification:

- Dimension: 91mm×43mm×16mm
- Input: 20-74Vdc
- Output: 0~24A
- Output overcurrent protection
- High power density, high reliability modular design
- Current: 15us (24A)



System Parameters:

Typical conditions: $T_A=25^{\circ}\text{C}$ Water-cooled 0-35 $^{\circ}\text{C}$.

Parameter	Condition	Min	Typical	Max	Unit
Absolute					
Operating Temperature*		-10		45	$^{\circ}\text{C}$
Plate Temp.*				100	$^{\circ}\text{C}$
Storage Temperature*		-25		65	$^{\circ}\text{C}$
Input Parameter:					
Input Voltage	continuous	20	72	74	Vdc
Unload input current*	$V_{in}=72\text{V}, I_{out}=0\text{A}$		50		mA
Output parameter:					
Max. Loss*	Constant current load work: $P=(V_{in}-V_{out}) * I_{out}$			72	W
Output Voltage	$V_{in}=74\text{V}$		68	72	V
Output Current	$V_{in}=20-72\text{V}$	0		24	A
Linewidth*	$V_{in}=20-72\text{V}$			20	kHz
Output constant current accuracy		-400		+400	mA
Output current ripple *	(20MHz bandwidth)		500	1000	mA
Output current raise time (0~21.6A)	0 μF capacitive load, $V_{in}=72\text{V}$		15	20	μS
Output current decreases time (24~2.4A)	0 μF capacitive load, $V_{in}=72\text{V}$		10	20	μS
Output Capacitive Load*	full load range			0	μF
Power-on logic level ON/OFF	Power on (high level)	3		5	Vdc
	Power-on source current*			10	mA
	Shutdown (low level)	0		0.8	Vdc
	Shutdown sink current *			10	mA
Fault Signal Status	normal (low level)	0		0.8	Vdc
	source current			10	mA
	Fault (high level)	3	5	5.5	Vdc
	Sink current			10	mA

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Output current analog signal D/A*	Corresponding output current range 0~24A	0		2.4	Vdc
	source current			2	mA
Protection:					
Output overcurrent protection	Output overcurrent protection lockout		26	29	A
Overheat Protection*	Shutdown temperature (Max)		125		°C
	hysteresis		15		°C

Safety regulations and insulation characteristics:

Parameter	Condition	Min	Typical	Max	Unit
isolation impedance *	Input and output to protection ground (test voltage is 500Vdc)		10		MOhm

Environmental and Reliability Testing:

Parameter	Condition	Min	Typical	Max	Unit
Vibrate*	GJB340B Method 213 条件 (100g/6mS)				G
冲击*	GJB 548B Method 2007 条件 A				G
MTBF*	Calculated	40000			h
Weight			66	80	g

Remark:

For the design assurance project, the detailed test in the design verification stage will not be tested separately when the finished product is shipped.

Switch control

The module controls the power on/off of the module through the ON/OFF pin, high level power on, low level power off.

Output current control

The module controls the output current of the module through the D/A pin. When the D/A pin voltage is 0V-2.4V, the output current of the corresponding module is 0-24A.

Fault report

The module reports the fault status to the host computer through the STATUS pin, the high level is faulty, and the low level is normal.

Pin function definition:

The module input and output pin type and functions are defined as follows:

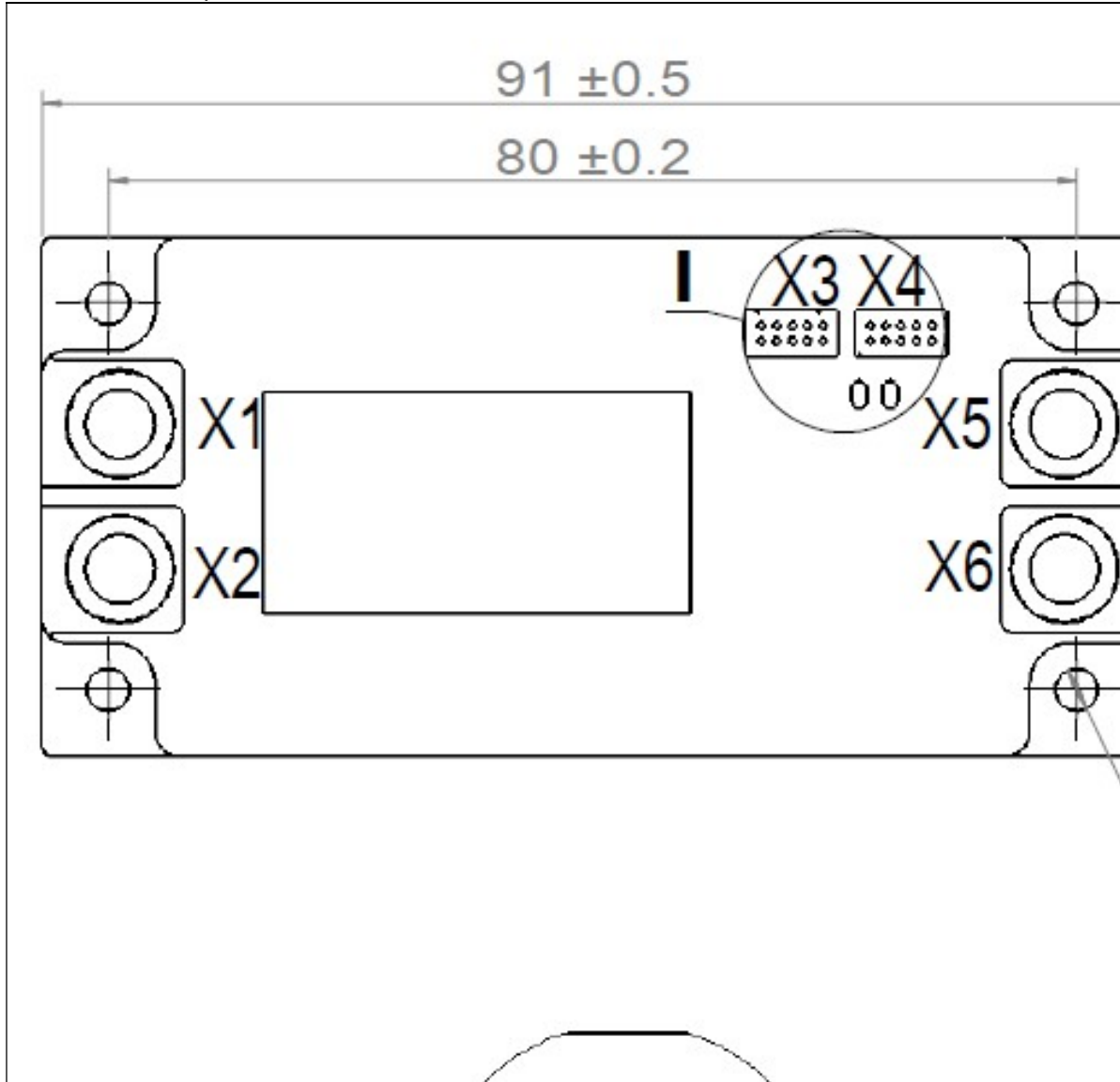
Bit no.	Pin	Type	Function
X1	/	Vin(+)	Positive Input voltage
X2	/	Vin(-)	Negative Input voltage
X3、X4	1、2	ON/OFF	Input Console
	3、4	D/A	Output current analog
	5、6	STATUS	status signal
	7、8 9、10	GND	Ground
X5	/	Vout(+)	Positive output voltage
X6	/	Vout(-)	Negative output voltage

Mechanical Specifications

Module view pin position and size (actual products are divided into packages with plastic shells and packages without plastic shells, the two packages have the same size and are shipped according to customer needs):

Unit: mm, ± 0.5 mm for unmarked tolerances.

Dimensions with plastic case:



Dimension without plastic case:

