

Features

- Wide voltage input 4:1
- DIP, Din-rail series
- Operating temperature range: -40°C~+85°C
- Isolation voltage 1500VDC 0.5mA 1Minute
- Internal SMD design
- Metal shell
- Heat dissipation mode: natural air cooling
- It has good shielding anti-interference performance and electromagnetic compatibility, lightning protection, output overcurrent, short circuit protection, overheat protection, self-recovery and other functions

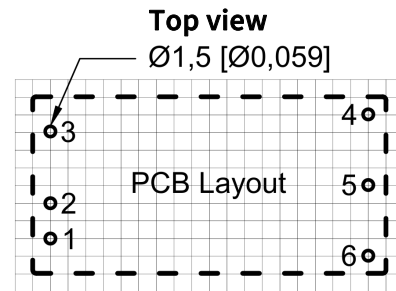
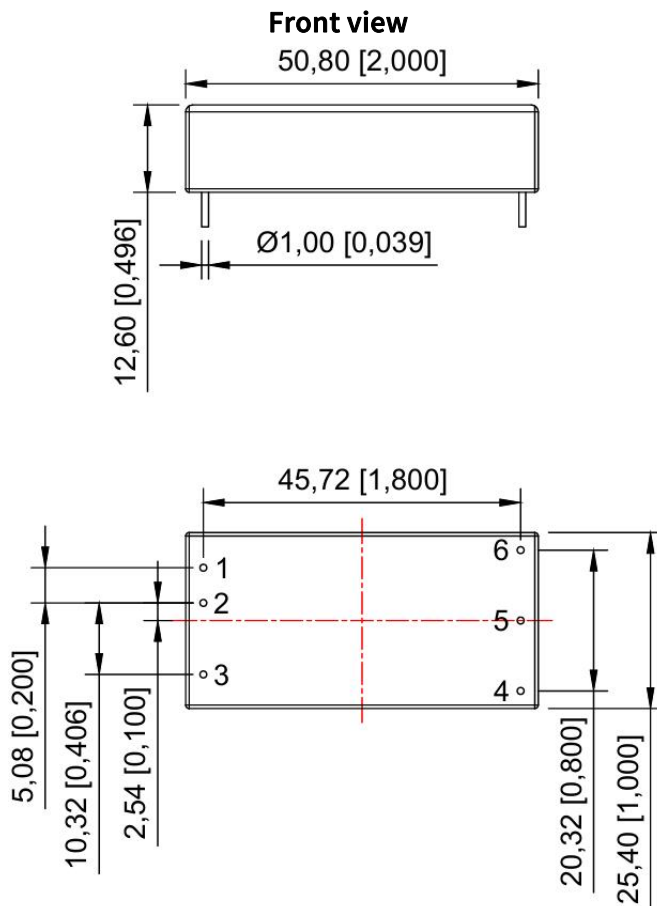
Product Picture



EMC-EN55032
EN55035
LVD-EN62368

Dimensions

URD_S(D)_(ZD)(K)-30WH2 Series Dimensions



Note: The grid distance is 2.54*2.54mm

Pin mode		
Pin	Single	Dual
1	Vin	Vin
2	GND	GND
3	CNT	CNT
4	0V	-XXVDC
5	TRM	COM
6	+XXVDC	+XXVDC

Bottom view

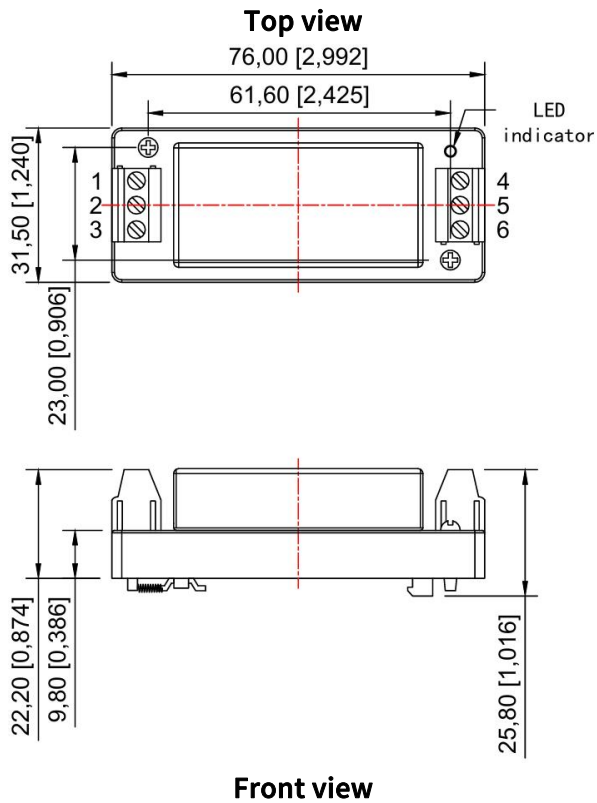
Note:

Size unit: mm[inch] Pin section tolerance: ± 0.1 [± 0.004]

Unmarked tolerance: ± 0.25 [± 0.01]

The device layout is for reference only.

URD_S(D)_ZDK-30WH2 Series Dimensions



Pin mode		
Pin	Single	Dual
1	CNT	CNT
2	GND	GND
3	Vin	Vin
4	0V	-XXVDC
5	TRM	COM
6	+XXVDC	+XXVDC

Note:

Size unit: mm[inch]

Unmarked tolerance: ± 0.25 [± 0.01]

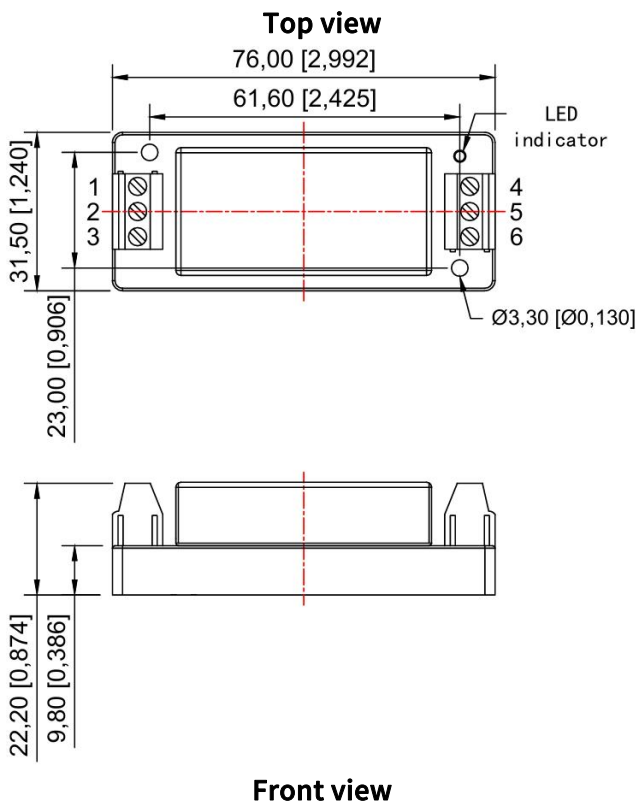
Wiring strength: 24-12 AWG

Tightening torque: Max 0.4N-m

Din-rail type: TS35

The device layout is for reference only.

URD_S(D)_ZD-30WH2 Series Dimensions



Pin mode		
Pin	Single	Dual
1	CNT	CNT
2	GND	GND
3	Vin	Vin
4	0V	-XXVDC
5	TRM	COM
6	+XXVDC	+XXVDC

Note:

Size unit: mm[inch]

Unmarked tolerance: ± 0.25 [± 0.01]

Wiring strength: 24-12 AWG

Tightening torque: Max 0.4N-m

The device layout is for reference only.

Application

Railway communication, display, monitoring equipment, petrochemical, industrial control, remote DC power supply system, switching system and other communication equipment.

Selection Guide

Model	Vin (VDC)	Vout (Vo±2%)	Current (mA)	Efficiency (%)	Isolation (VDC)	Weight (g±0.5)	Certification
URD_S3.3-30WH2	12(9-36) 24(18-72) 110(40-160)	3.3	9091	≥84	1500		
URD_S05-30WH2		5	6000	≥85	1500		
URD_S12-30WH2		12	2500	≥85	1500		
URD_S15-30WH2		15	2000	≥85	1500		
URD_S18-30WH2		18	1667	≥85	1500		
URD_S24-30WH2		24	1250	≥86	1500		
URD_S28-30WH2		28	1071	≥86	1500		
URD_S36-30WH2		36	833	≥86	1500		
URD_S48-30WH2		48	625	≥87	1500		
URD_D05-30WH2		±5	±3000	≥85	1500		
URD_D12-30WH2		±12	±1250	≥85	1500		
URD_D15-30WH2		±15	±1000	≥85	1500		
URD_D18-30WH2		±18	±833	≥85	1500		
URD_S3.3ZD(K)-30WH2		3.3	9091	≥84	1500		
URD_S05ZD(K)-30WH2		5	6000	≥85	1500		
URD_S12ZD(K)-30WH2		12	2500	≥85	1500		
URD_S15ZD(K)-30WH2		15	2000	≥85	1500		
URD_S18ZD(K)-30WH2		18	1667	≥85	1500		
URD_S24ZD(K)-30WH2		24	1250	≥86	1500		
URD_S28ZD(K)-30WH2		28	1071	≥86	1500		
URD_S36ZD(K)-30WH2		36	833	≥86	1500		
URD_S48ZD(K)-30WH2		48	625	≥87	1500		
URD_D05ZD(K)-30WH2		±5	±3000	≥85	1500		
URD_D12ZD(K)-30WH2		±12	±1250	≥85	1500		
URD_D15ZD(K)-30WH2		±15	±1000	≥85	1500		
URD_D18ZD(K)-30WH2		±18	±833	≥85	1500		

Note: The company for customers to customize any input and output module power supply, if you have special needs, please call our company, unless otherwise specified, input =Vi, the characteristics of the module power supply should meet the requirements of Table 1, and applicable to the full temperature range (-40℃≤Tc≤85℃)

Mechanical Specifications

Size	50.80 x 25.40 x 12.60 mm, ZD(K): 76.00 x 31.5 mm
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Electrical Specifications

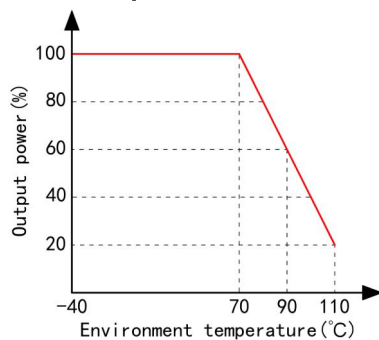
Specifications	Symbol	Conditions $V_i, -40^{\circ}\text{C} \leq T_c \leq 85$ (Unless otherwise specified)	Min	Max	Unit
Output Voltage	V_o	Full Load	$V_o - 2\%$	$V_o + 2\%$	V
Output Current	$I_{o\max}$	—	—	$P(\text{Power}) / U(\text{Output voltage})$	A
Output Ripple Voltage	V_{p-p}	Full Load, V_i , BW=20MHz, Normal Temperature	80	240	mV
Output Noise Voltage	V_{p-p}	Full Load, V_i , BW=20MHz, Normal Temperature	100	300	mV
Voltage Regulation	S_v	$V_{\min}$, V_i , $V_{\max}$, Full Load	—	$< 2\%$	%
Load Adjustment	S_i	V_i , $I_o = (10\% \sim 100\%) I_{o\max}$	—	$< 1\%$	%
Efficiency	η	V_i , Full Load, Normal Temperature	84	—	%
Insulation Resistance	R_i	Input-output, Insulation Voltage 500VDC	1000	—	M Ω

General Specifications

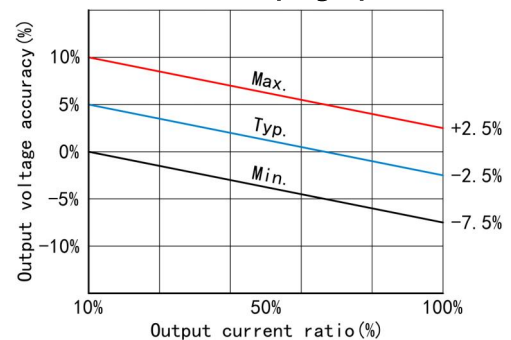
EMC Specifications	Magnetic Field Sensitivity Test	GB-4943
	Electrostatic Discharge Sensitivity Test	GB-4943
	Radiation Sensitivity Test	GB-4943
	Conduction Sensitivity Test	GB-4943
Temperature Drift	$\leq 0.02\%/^{\circ}\text{C}$	
Storage Temperature	$-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$	
Input Frequency	270KHz~400KHz	
Humidity	10%~90%RH	
MTBF	$> 500000\text{H}$	

Typical Specifications Curves

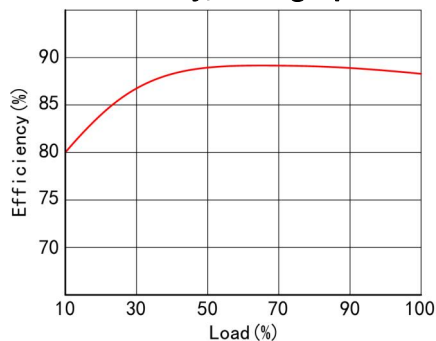
Temperature chart



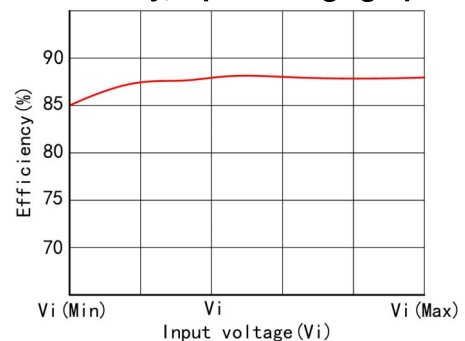
Error envelope graph



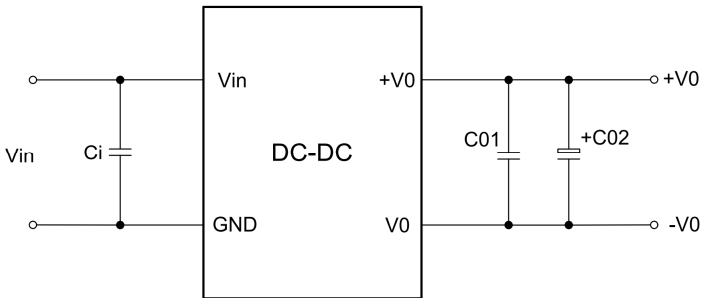
Efficiency/Load graph



Efficiency/Input voltage graph



Typical Application
Design Reference



Recommendation Test

Filter: In some circuits that are sensitive to noise and ripple, an external filter capacitor can be connected to the DC/DC input and output terminals to reduce the impact of ripple on the system, but the value of the filter capacitor should be appropriate, if the capacitor is too large, it is likely to cause startup problems, for each output, under the condition of ensuring safe and reliable operation, the maximum capacitance of the filter capacitor can be referred to the external capacitance table. In order to obtain very low ripple, an "LC" filter network can be connected to the input and output end of the DC/DC converter, so that the filtering effect will be better, and it should be noted that the size of the inductance value and the frequency of the "LC" filter network should be staggered from the frequency of the DC/DC module power supply to avoid mutual interference. For each output, under safe and reliable working conditions, the recommended capacitive load value is shown in (Table 1).

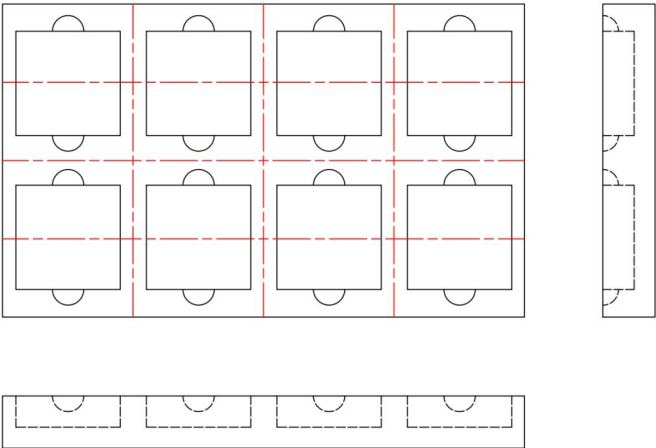
SingleVout	Cout	Dual Vout	Cout
5-12VDC	22-68uF	$\pm 5\text{-}\pm 12\text{VDC}$	4.7-22uF
24-48VDC	10-47uF	$\pm 24\text{-}\pm 48\text{VDC}$	4.7-10uF

Recommended output maximum capacitive load value table (Table 1)

Precautions

Package

This series of modules are packed in shockproof and anti-static foam.



Transport

The package containing the module is allowed to be transported by any means of transport, which should avoid direct rain and snow and mechanical damage.

Storage

The module should be stored in a warehouse where the ambient temperature is -40 degrees ~ 125 degrees, the relative humidity is 10%~90%, and the surrounding environment is free from acidic, alkaline and other harmful gases.

Note: The above are the performance indicators of the product series listed in this manual. Some indicators of non-standard products may exceed the above requirements, so if there is any inconsistency between the manual and the product specification documents, please refer to the specification documents. If you have special needs, please contact us directly.