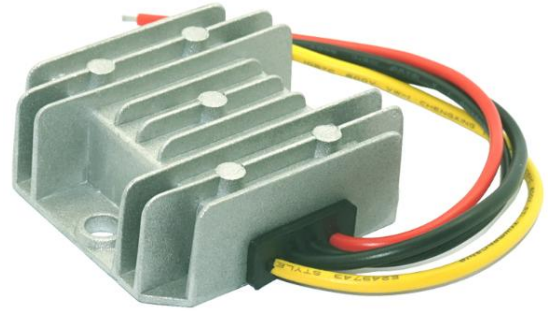


## Step-Down 24V to 12V 8A DC-DC Converters 96W

### Features:

1. 100% full power & stable current output
2. 100% Imported components
3. Wide input voltage from 18-35Vdc
4. 100% waterproof & anti-shock protection, Ultra compact size, light weight
5. Industry grade step-down converter, efficiency up to 97%
6. Waterproof level: IP68
7. According CE(EN61000) / RoHS design
8. Die-cast aluminum shell, epoxy potting, Cooling by free air convection,
9. Protections: Over-current, Over-temperature, and Short-circuit, Auto-recovery when device is back to normal operating
10. Non-Isolated Module
11. 1 year warranty

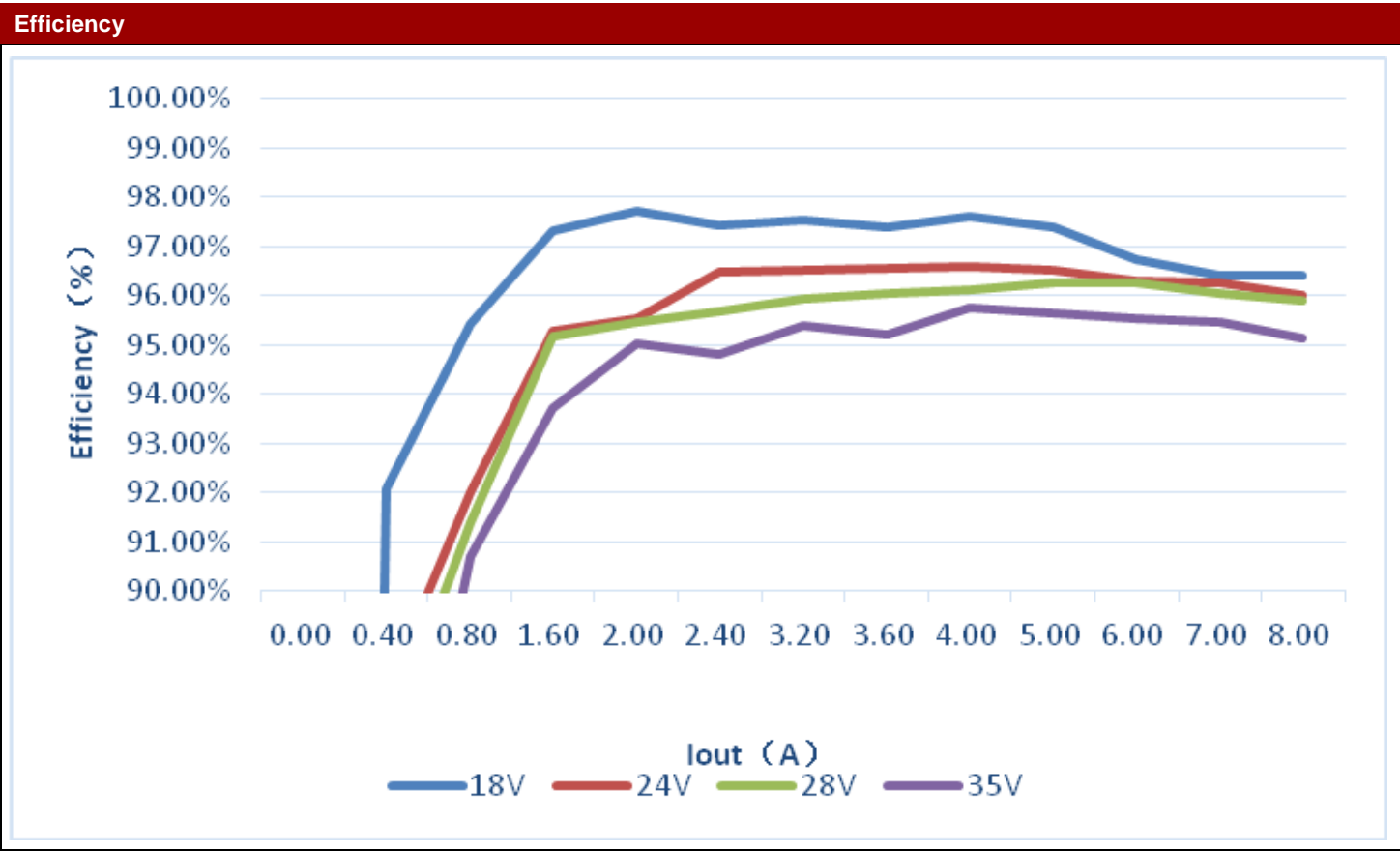


### Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Input voltage range	--	18	24	35	VDC
Input current	--	5.58	4.23	2.96	A
No-load loss	--	0.37	0.49	0.7	W
Input filter	--	Without capacitances			
Hot plug	--	Unavailable			
Recommended input fuse	--	External connect 8A fuse			

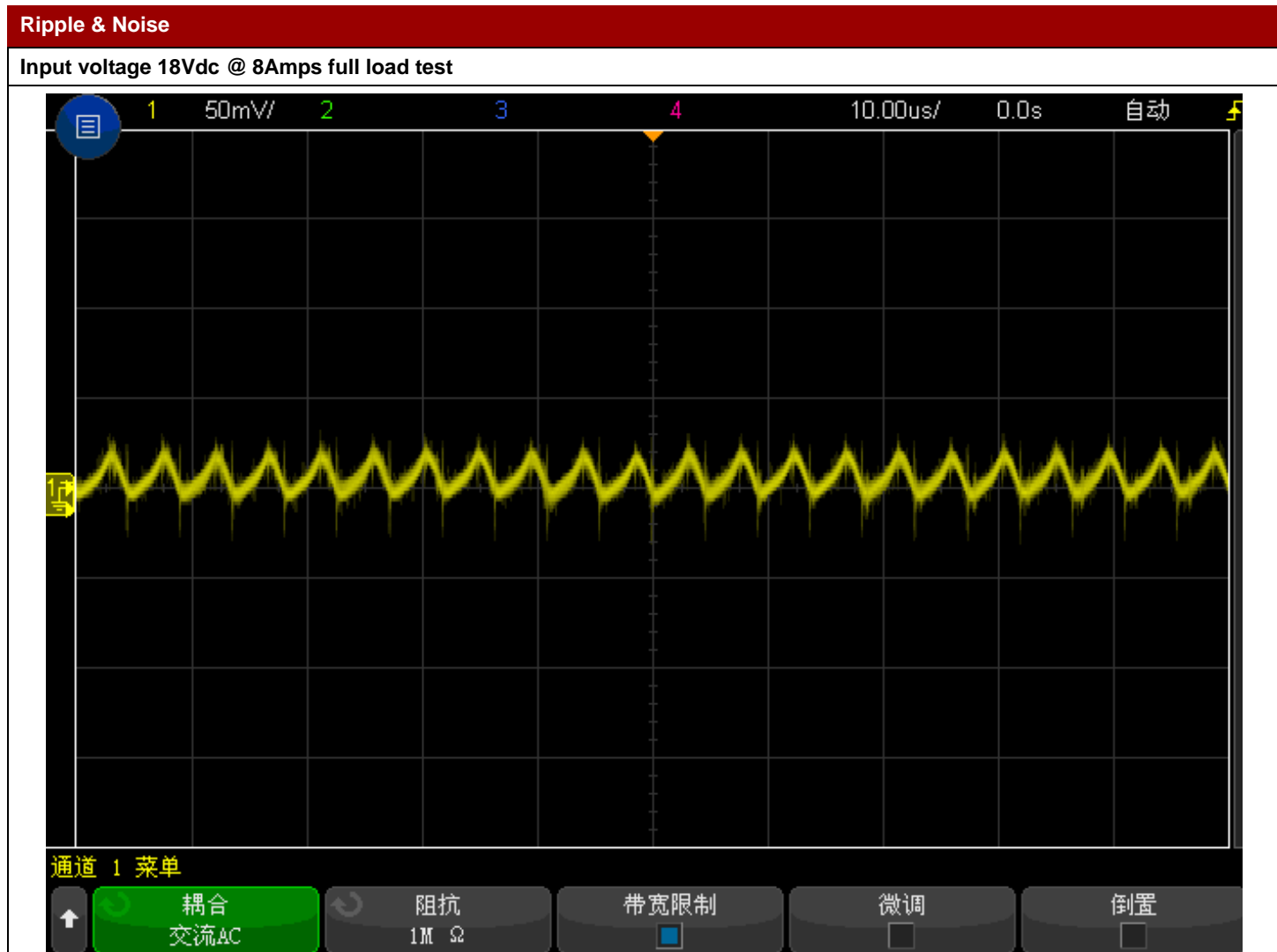
### Output Specifications

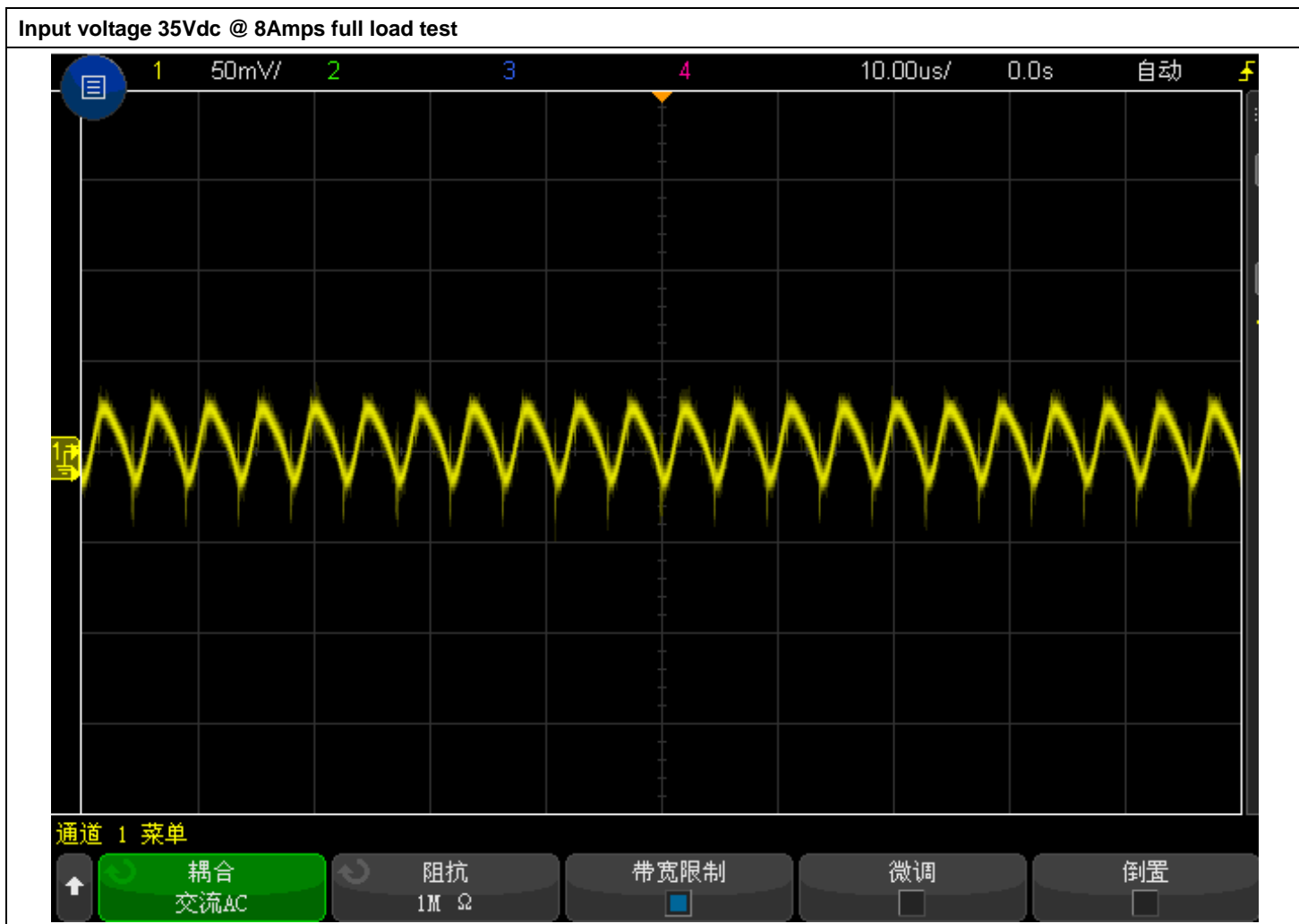
Item	Operating Conditions	Min.	Typ.	Max.	Unit
Output voltage accuracy	Full load test, input volt range	--	±1	±2	%
Line regulation	Full load	--	±0.5	±1	%
Load regulation	10%~100% load	--	±0.5	±1	%
Ripple & Noise*	20 MHz bandwidth	55	--	90	mVp-p
Temperature coefficient	-40°C ~ +80°C	--	--	±0.03	%/°C
Over temperature protection	Chip (built-in protection)	--	130	--	°C
Short-circuit protection	--	Self-recovery, when device is back to normal operating			
Over current protection	--	≥140% load, self-recovery			
Transient response deviation	Input 24V, 25-50% load step	--	60	64	mV
Transient recovery time	Input 24V, 25-50% load step	--	0.4	0.5	mS
Thermal impedance	--	--	5	--	°C/W



Vin (V)	Iin (A)	Iout (A)	Vout (V)	Pout (W)	Losses (W)	Efficiency (%)
18.47	0.02	0.00	12.32	0.00	0.37	0.00%
18.47	0.29	0.40	12.33	4.93	0.42	92.08%
18.46	0.56	0.80	12.33	9.86	0.47	95.42%
18.43	1.1	1.6	12.33	19.73	0.54	97.31%
18.42	1.37	2	12.33	24.66	0.58	97.72%
18.41	1.65	2.4	12.33	29.59	0.78	97.42%
18.39	2.2	3.2	12.33	39.46	1.00	97.52%
18.38	2.48	3.6	12.33	44.39	1.19	97.38%
18.37	2.75	4	12.33	49.32	1.20	97.63%
18.35	3.45	5	12.33	61.65	1.66	97.38%
18.34	4.17	6.00	12.33	73.98	2.50	96.73%
18.33	4.88	7.00	12.32	86.24	3.21	96.41%
18.32	5.58	8.00	12.32	98.56	3.67	96.41%
24.37	0.02	0	12.33	0.00	0.49	0.00%
24.36	0.23	0.4	12.32	4.93	0.67	87.96%
24.35	0.44	0.8	12.32	9.86	0.86	91.99%
24.34	0.85	1.6	12.32	19.71	0.98	95.28%
24.33	1.06	2	12.32	24.64	1.15	95.54%
24.32	1.26	2.4	12.32	29.57	1.08	96.49%
24.31	1.68	3.2	12.32	39.42	1.42	96.53%
24.3	1.89	3.6	12.32	44.35	1.58	96.57%
24.29	2.1	4	12.32	49.28	1.73	96.61%
24.27	2.63	5	12.32	61.60	2.23	96.51%
24.29	3.16	6.00	12.32	73.92	2.84	96.30%
24.28	3.69	7.00	12.32	86.24	3.35	96.26%
24.27	4.23	8.00	12.32	98.56	4.10	96.00%

Vin (V)	Iin (A)	Iout (A)	Vout (V)	Pout (W)	Losses (W)	Efficiency (%)	Vin (V)	Iin (A)	Iout (A)	Vout (V)	Pout (W)	Losses (W)	Efficiency (%)
28.39	0.02	0	12.32	0.00	0.57	0.00%	35.07	0.02	0	12.32	0.00	0.70	0.00%
28.39	0.2	0.4	12.32	4.93	0.75	86.79%	35.06	0.17	0.4	12.32	4.93	1.03	82.68%
28.38	0.38	0.8	12.32	9.86	0.93	91.39%	35.06	0.31	0.8	12.32	9.86	1.01	90.68%
28.37	0.73	1.6	12.32	19.71	1.00	95.18%	35.05	0.6	1.6	12.32	19.71	1.32	93.73%
28.36	0.91	2	12.32	24.64	1.17	95.48%	35.04	0.74	2	12.32	24.64	1.29	95.03%
28.35	1.09	2.4	12.32	29.57	1.33	95.68%	35.04	0.89	2.4	12.32	29.57	1.62	94.81%
28.34	1.45	3.2	12.32	39.42	1.67	95.94%	35.03	1.18	3.2	12.32	39.42	1.91	95.38%
28.33	1.63	3.6	12.32	44.35	1.83	96.05%	35.02	1.33	3.6	12.32	44.35	2.22	95.22%
28.33	1.81	4	12.32	49.28	2.00	96.10%	35.01	1.47	4	12.32	49.28	2.18	95.75%
28.31	2.26	5	12.32	61.60	2.38	96.28%	35	1.84	5	12.32	61.60	2.80	95.65%
28.33	2.71	6.00	12.32	73.92	2.85	96.28%	35.01	2.21	6.00	12.32	73.92	3.45	95.54%
28.32	3.17	7.00	12.32	86.24	3.53	96.06%	35.01	2.58	7.00	12.32	86.24	4.09	95.48%
28.31	3.63	8.00	12.32	98.56	4.21	95.91%	35	2.96	8.00	12.32	98.56	5.04	95.14%





General Specifications					
Item	Operating Conditions	Min.	Typ.	Max.	Unit
Working temperature	--	-40	--	80	℃
Storage temperature	--	-55	--	125	℃
Storage humidity	--	--	--	95	%RH
Switching frequency	100% load, input voltage range	195	200	205	KHz
Lifetime		--	--	100,000	Hours

Physical Specifications	
Casing material	Die-cast aluminum shell
Input cable ( positive "+" )	Red ; 18AWG; 16.5cm length
Input cable ( negative "-" )	Black ; 18AWG; 16.5cm length
Output cable ( positive "+" )	Yellow ; 16AWG; 16.5cm length
Output cable ( negative "-" )	Black ; 16AWG; 16.5cm length
Weight	108g
Cooling method	Free convection
Packing	White box

Dimensions (64\*57\*22mm)

Shell installation diagram

