

250W, 9-40V Input Non-isolated DC-DC Converter

Features

- ◆ 250W 14A Output
- ◆ 1/16th brick Footprint
- ◆ Wide Output Adjustment 3.3 to 24V
- ◆ Minimal External Components Needed
- ◆ Constant Switching Frequency

*For applications requiring a constant current output, contact Technical Support



Key Market Segments & Applications



Specifications		
Model	i6A	
DC Output Voltage	V	3.3 - 24V. Note - Output voltage cannot exceed input voltage (see graph on page 2).
DC Input Voltage	V	9 - 40 (Turn on at 10V or greater)
Efficiency	%	92.5 - 98
Output Voltage Tolerance	%	±4
Switching Frequency	kHz	400
Line Regulation	%	0.3
Load Regulation	%	1
External Load Capacitance	uF	0 - 2000
Output Ripple and Noise	mVpp	20
Overcurrent Protection	A	22A typical
Remote On / Off	-	Negative Logic (For Positive Logic Contact Factory)
Remote Sense	-	(+) Sense, compensating up to 5% of output voltage
Power Good	-	Optional (Full Feature Version)
Sync & Sequencing	-	Optional (Full Feature Version)
Operating Temperature	°C	-40 to 125 (see thermal data on website)
Storage Temperature	°C	-55 to 125
Safety Agency Certifications	-	UL/EN/IEC 60950-1, CE Mark
Weight	g / oz	15g / 0.53 oz
Size (LxWxH)	mm / in.	33 x 22.9 x 12.1 / 1.3 x 0.9 x 0.47
Warranty	yrs	3 years

Note: (1) Consult the Full Datasheet for additional product information.

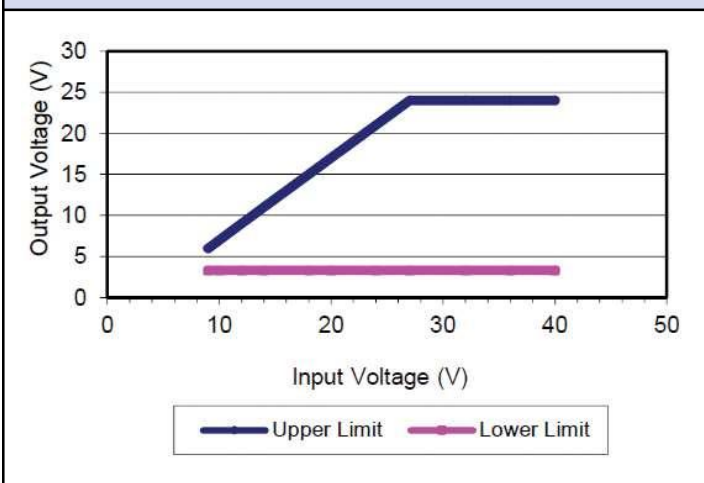
Model Selector

Input Model	Input Voltage (V)	Output Current (A)	Output Voltage (V)	Positive Logic On/Off	Negative Logic On/Off	Full Feature
i6A24014A033V-000-R	9 - 40	14	3.3 - 24	Yes	-	-
i6A24014A033V-001-R	9 - 40	14	3.3 - 24	-	Yes	-
i6A24014A033V-002-R	9 - 40	14	3.3 - 24	Yes	-	Yes
i6A24014A033V-003-R	9 - 40	14	3.3 - 24	-	Yes	Yes

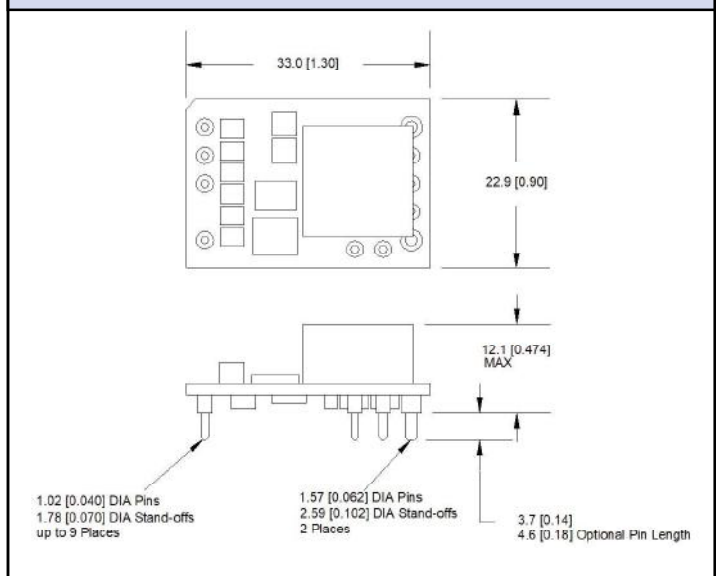
Preferred

Note: Output voltage cannot exceed input voltage (see graph below).

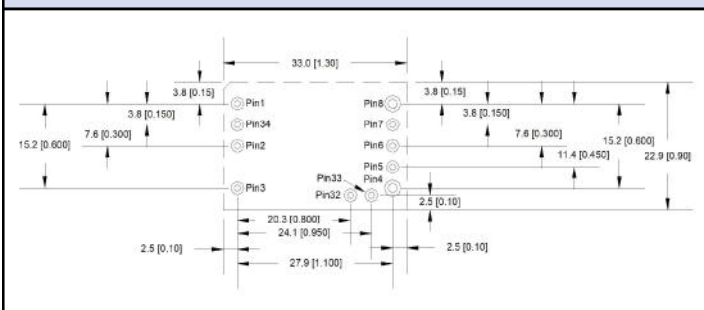
Output Voltage vs Input Voltage Operating Range



Mechanical Specification



Recommended Hole Pattern (top view)



Pinout

PIN	Function	PIN	Function
1	VIN (+)	7	SENSE (+)
2	ON / OFF	8	VOUT (+)
3	VIN (-)	32	Sync (Option)
4	VOUT (-)	33	MS (Option)
5	PWR GOOD (Option)	34	SEQ (Option)
6	TRIM		

Evaluation Board

Evaluation kit part #	Contents
i6A14A-001-EVK-S1PX	Populated with one piece of I6A24014A033V-001-R
I6A14A-001-EVK-D2PN	Populated with I6A24014A033V-001-R & I6A24008A033V-N01-R for dual ± outputs

User manual available at I6A series technical files in our website

Other Industrial Products

CC-E, CCG	1.5 - 30W 5, 12, 24 or 48V input isolated DC-DC converters
PX	10 - 60W 12, 24 or 48V input isolated DC-DC converters
iAH, iBF, iBH, iCF, iCH, iCG	3 - 40A DOSA2 non isolated DC-DC converters
iJA, iJB, iJC	35 - 100A non isolated DC-DC converters with PMBus

For Additional Information, please visit
<https://product.tdk.com/info/en/products/power/index.html>

