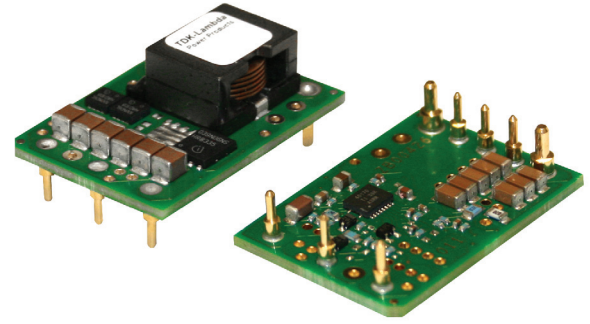


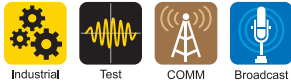
## 250W, 9-53V Input Non-isolated DC-DC Converter

### Features

- ◆ Up to 250W Output
- ◆ 1/16th brick Footprint
- ◆ Wide Output Adjustment 3.3 to 15V or 3.3 to 40V
- ◆ Minimal External Components Needed
- ◆ Constant Switching Frequency



### Key Market Segments & Applications



Specifications			
	Model	I6A4W010A033V	I6A4W020A033V
DC Output Voltage	V	3.3 to 40V	3.3 to 15V
DC Output Power (max)	W	250	
DC Input Voltage	V	9 to 53 (Turn on at 10V or greater)	
Efficiency	%	90 - 97	
Output Voltage Tolerance	%	±4	
Switching Frequency	kHz	400	
Line Regulation	%	0.4%	0.3%
Load Regulation	%	0.9%	1.2%
External Load Capacitance	uF	0 - 1500	
Output Ripple and Noise	mVpp	50	20
Overcurrent Protection	A	27	
Remote On / Off	-	See options table	
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/EN60950-1, CE Mark	
Weight	g / oz	15g / 0.53 oz	
Size (LxWxH)	mm / in.	33 x 22.9 x 12.7 / 1.3 x 0.9 x 0.5	
Warranty	yrs	3 years	

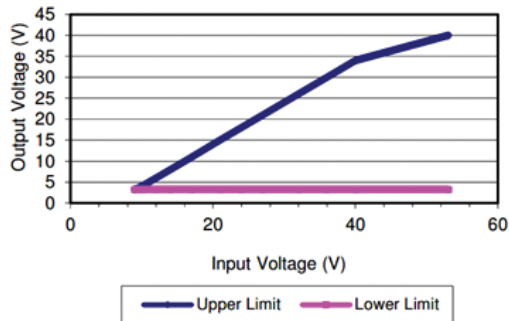
## Model Selector

Input Model	Input Voltage (V)	Output Current (A)	Output Voltage (V)	Positive Logic On/Off	Negative Logic On/Off	Full Feature
i6A4W010A033V-001-R	9 to 53	10	3.3 to 40	-	Yes	-
i6A4W020A033V-000-R	9 to 53	20	3.3 to 15	Yes	-	-
i6A4W020A033V-001-R	9 to 53	20	3.3 to 15	-	Yes	-
i6A4W020A033V-002-R	9 to 53	20	3.3 to 15	Yes	-	Yes
i6A4W020A033V-003-R	9 to 53	20	3.3 to 15	-	Yes	Yes

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

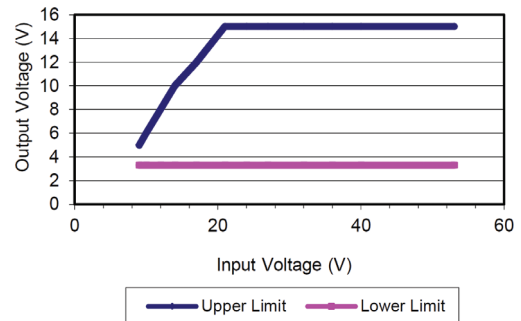
### Output Voltage vs Input Voltage Operating Range

#### i6A4W10A

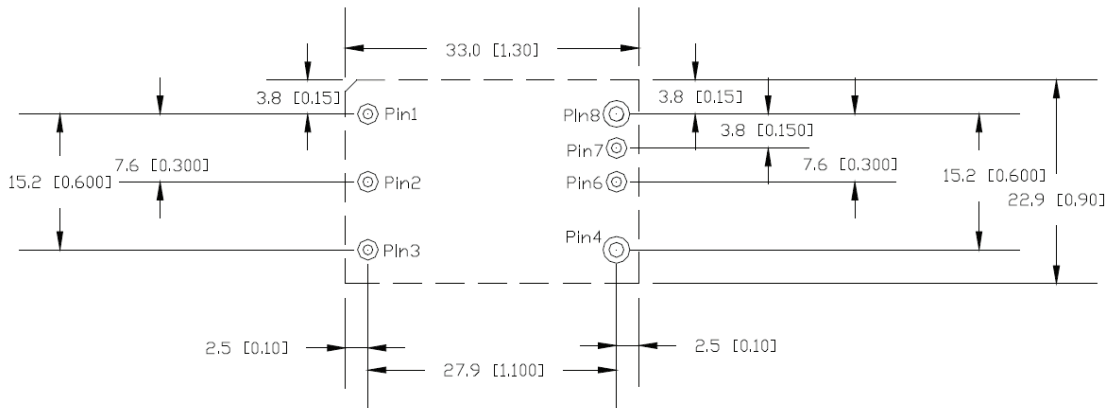


### Output Voltage vs Input Voltage Operating Range

#### i6A4W20A



## Outline Drawing



## 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
i6A20A-001-EVK-S1PX	Populated with one piece of i6A4W020A033V-001-R
i6A20A-001-EVK-S1CC	Populated with one piece of i6A4W020A033V-001-R to set for constant current operation

User manual available at i6A4W technical files in our website, contact technical support for more details on constant current version.

For Additional Information, please visit [us.tdk-lambda.com/lp/products/i6a-series.htm](http://us.tdk-lambda.com/lp/products/i6a-series.htm)

