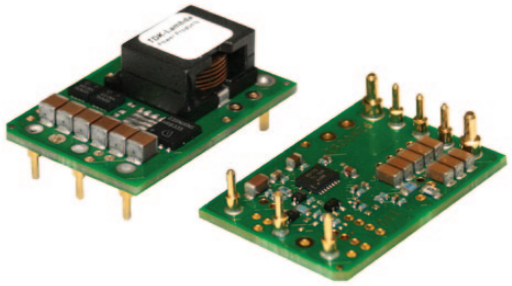
Test Industrial Broadcast Comm

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



Features	Benefits
• Up to 250W in a 1/16th brick package	• Very High Power Density
• Very high Efficiency up to 97%	• Easier Thermal Management
• Wide Output Adjustment 3.3 to 15V & 3.3 to 40V	• Address Multiple Applications
• Minimal External Components Needed	• Less Board Area Required

Specification

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 °C to 125 °C (see thermal data on website)	
Storage Temperature	°C	-55 °C to 125 °C	
Safety Agency Certifications	-	UL/EN60950-1, CE Mark	
Weight	g	15	
Size (LxWxH)	mm	33 x 22.9 x 12.7	
Warranty	yrs	3	

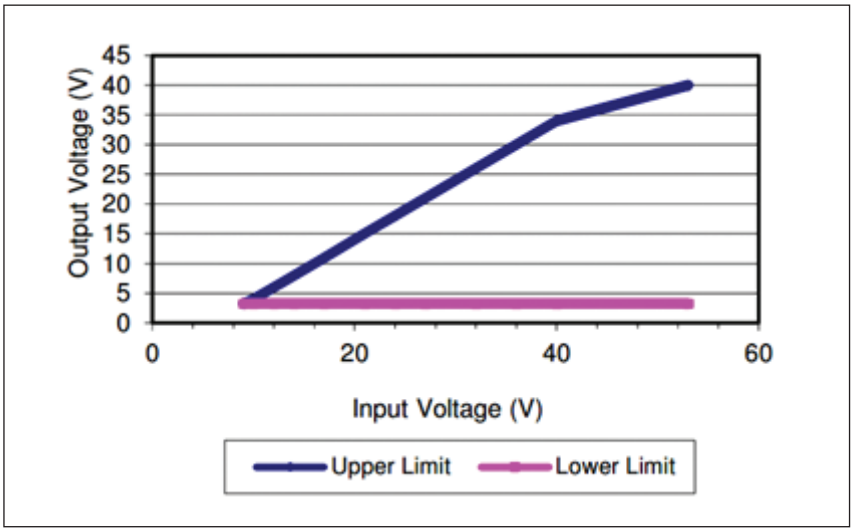
Model Selector

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

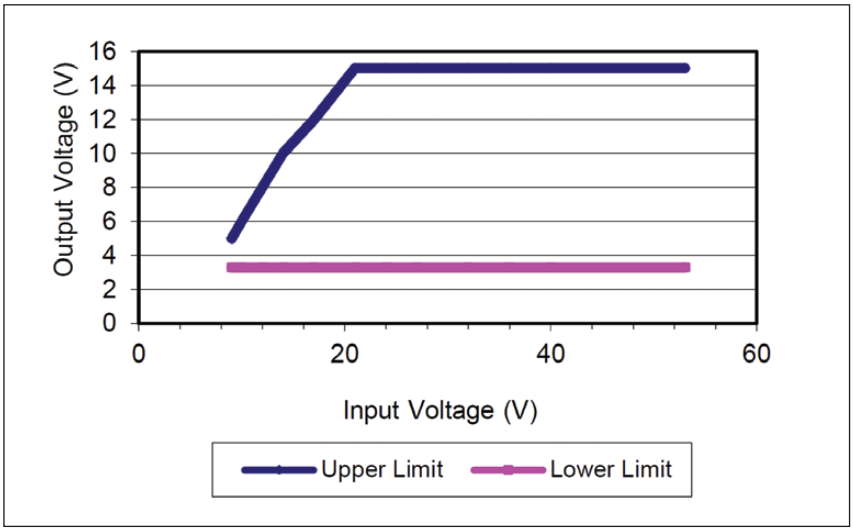
Preferred

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

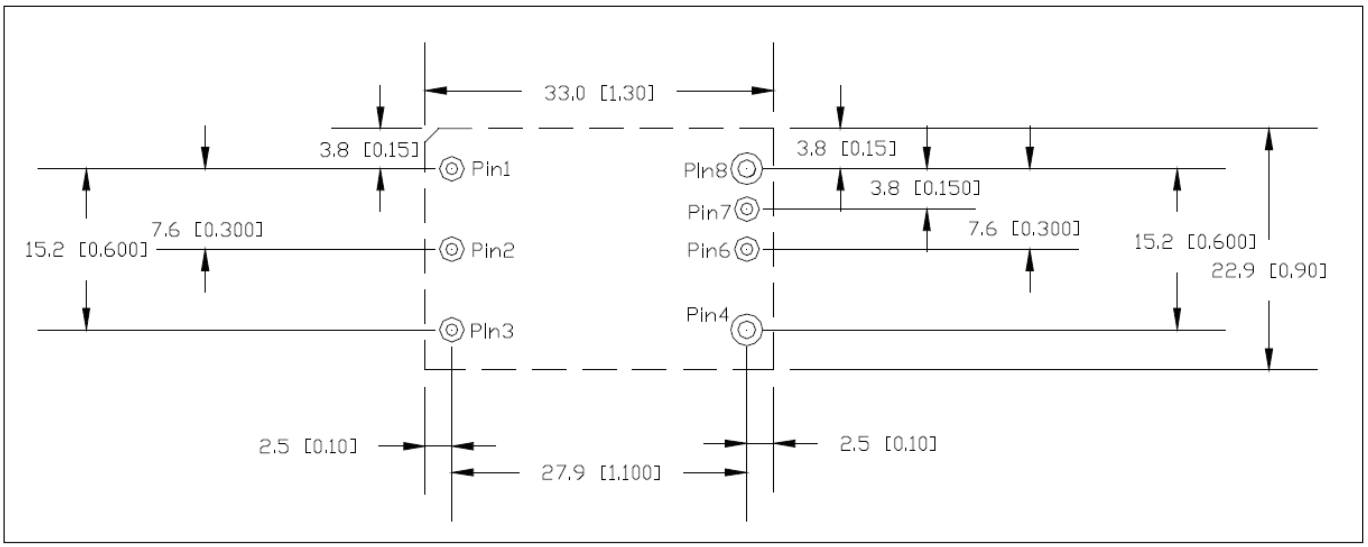
i6A4W10A Output Voltage vs Input Voltage Operating Range



i6A4W20A Output Voltage vs Input Voltage Operating Range



Outline Drawing i6A4W



Pin Assignment

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.

TDK-Lambda France SAS
3 Avenue du Canada
Parc Technopolis
Bâtiment Sigma
91940 les Ulis
France
Tel: +33 1 60 12 71 65
Fax: +33 1 60 12 71 66
france@fr.tdk-lambda.com
www.fr.tdk-lambda.com

Italy Sales Office
Via dei Lavoratori 128/130
20092 Cinisello Balsamo (MI)
Italy
Tel: +39 02 61 29 38 63
Fax: +39 02 61 29 09 00
info.italia@it.tdk-lambda.com
www.it.tdk-lambda.com

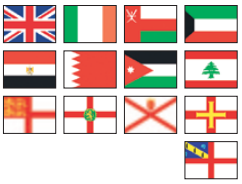
Netherlands
info@nl.tdk-lambda.com
www.nl.tdk-lambda.com

TDK-Lambda Germany GmbH
Karl-Bold-Strasse 40
77855 Achern
Germany
Tel: +49 7841 666 0
Fax: +49 7841 5000
info.germany@de.tdk-lambda.com
www.de.tdk-lambda.com

Austria Sales Office
Aredstrasse 22
2544 Leobersdorf
Austria
Tel: +43 2256 655 84
Fax: +43 2256 645 12
info@at.tdk-lambda.com
www.de.tdk-lambda.com

Switzerland Sales Office
Bahnhofstrasse 50
8305 Dietlikon
Switzerland
Tel: +41 44 850 53 53
Fax: +41 44 850 53 50
info@ch.tdk-lambda.com
www.de.tdk-lambda.com

Nordic Sales Office
Haderslevvej 36B
DK-6000 Kolding
Denmark
Tel: +45 2911 9556
info@dk.tdk-lambda.com



TDK-Lambda UK Ltd.
Kingsley Avenue
Ilfracombe
Devon EX34 8ES
United Kingdom
Tel: +44 (0) 12 71 85 66 66
Fax: +44 (0) 12 71 86 48 94
powersolutions@uk.tdk-lambda.com
www.uk.tdk-lambda.com

TDK-Lambda Ltd.
Kibbutz
Givat Hashlosha 48800
Israel
Tel: +9 723 902 4333
Fax: +9 723 902 4777
info@tdk-lambda.co.il
www.tdk-lambda.co.il

C.I.S.
Commercial Support:
Tel: +7 (495) 665 2627
Technical Support:
Tel: +7 (812) 658 0463
info@tdk-lambda.ru
www.tdk-lambda.ru

Local Distribution

www.emea.tdk-lambda.com