

150W, 40A Non-isolated SMT Point of Load

Features

- ◆ DOSA Compatible Footprint
- ◆ Surface Mountable
- ◆ Constant Switching Frequency
- ◆ No external loop tuning components needed
- ◆ Excellent Transient Response



Key Market Segments & Applications



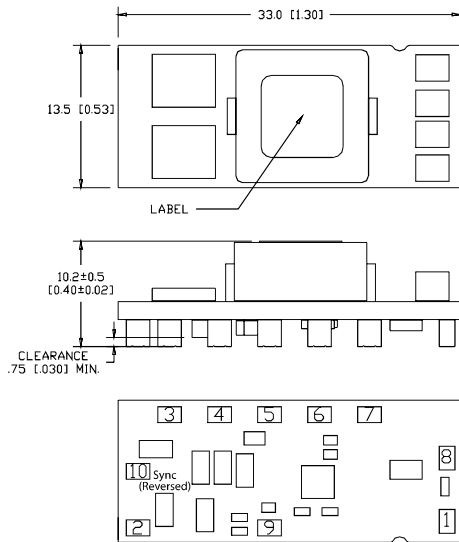
Specifications		
Model		iAH12
DC Output Voltage	V	0.7 - 5.5
DC Output Current	A	Vo.set <= 2.5V and Vin > 4.5V, 40A max. Observe max. power limit Vo. set > 2.5V or Vin < 4.5V, 30A max. As Vout increases, current must decrease in order to observe max. power limit
DC Output Power (max)	W	150
DC Input Voltage	V	3.5 - 17
Efficiency	%	84 - 96
Output Voltage Tolerance	%	±3
Switching Frequency	kHz	600
Line Regulation	mV	4
Load Regulation	mV	7
External Load Capacitance	uF	200 - 2000
Output Ripple and Noise	mVpp	20
Overcurrent Protection	A	50A typical
Remote On / Off	-	Yes, see model selector table
Remote Sense	-	(+) Sense, compensating up to 0.5V
Power Good	-	Yes, Low on fail
Operating Temperature	°C	-40 to 115 (see thermal data on website)
Storage Temperature	°C	-55 to 125
Safety Agency Certifications	-	Pending
Weight	g/oz	12g / 0.42 oz
Size (LxWxH)	mm/in.	33 x 13.5 x 10.2 / 1.3 x 0.53 x 0.4
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	Sequencing
iAH12040A007V-006-R	3.5 - 17	40	0.7 - 5.5	yes	-	-
iAH12040A007V-007-R	3.5 - 17	40	0.7 - 5.5	-	yes	-

Preferred

Outline Drawing



Pinout

PIN	Function	PIN	Function
1	ON / OFF	6	TRIM
2	VIN	7	SENSE (+)
3	Sequencing	8	Reserved
4	GND	9	PWR GOOD
5	VOUT	10	Sync (Reserved)

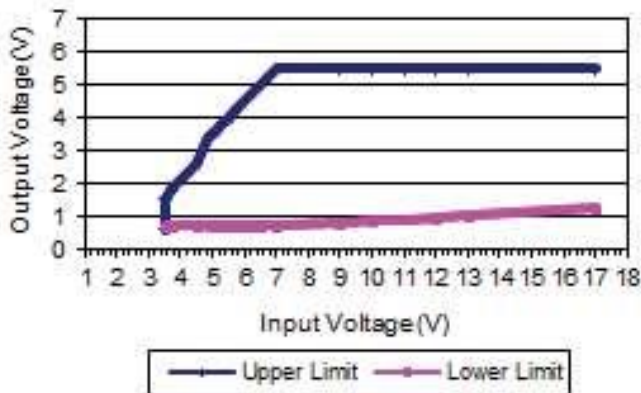
Other Industrial Products

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
iBF, iBH, iCF, iCH, iCG	3 - 20A 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>



Voltage Operating Range



Output voltage vs. Input Voltage Operating Range