



# CERTIFICATE

No. U8V 06 03 21433 106

**Holder of Certificate:** Vicor Corporation

25 Frontage Road  
Andover, MA 01810  
USA

**Production Facility(ies):** 21433

**Certification Mark:**



**Product:** DC converter  
DC-DC Converter

**Model(s):** Viiisxxyzzzw  
2nd Gen FasTrak DC-DC Converters  
Maxi, Mini, and Micro Families  
(see attached Family Trees)

**Parameters:**

Max Rated Input Voltage:	375 V DC
Max Rated Output Voltage:	54 V DC
Max Rated Output Power:	600 W

**Tested according to:** CAN/CSA-C22.2 No. 60950-1-03  
UL 60950-1:2003  
EN 60950-1:2001

The product was voluntarily tested according to the relevant safety requirements and mentioned properties. It can be marked with the certification mark shown above. See also notes overleaf

**Test report no.:** 090-506511-000

**Date,** 2006-03-13

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Attachment to Certificate No. U8V 06 03 21433 106

Company: Vicor Corporation  
 25 Frontage Road  
 Andover, MA 01810 USA



Viiisxyzzw									
24V 2 <sup>nd</sup> Gen FasTrak DC-DC Modules; Maxi, Mini, Micro Families									
iii = Input (2 or 3 characters)	s = A, B or C Package Size	xx = Output Voltage (1 to 3 characters)							
Voltage (Range)		2	3V3	5	12	15	24	28	48
		zzz = Output Power (May be up to Three Characters)							
24 (18-36)	Maxi (A)	160	264	400	400	400	400	400	400
24 (18-36)	Mini (B)	100	132	200	200	200	200	200	200
24 (18-36)	Micro (C)	50	75,50	100,50	100,50	100,50	100,50	100,50	100,50

y = Product Grade:  
 C = Commercial -20C to 100C M = Military -55C to 100C T or H = Industrial -40C to 100C

w = Functionality: (up to 5 Characters, BP = Baseplate)  
 BFT, BSFT = RoHS / Short pins / slotted BP  
 B1FT, BS1FT = RoHS / Short pins / FinMOD  
 B2FT, BS2FT = RoHS / Short pins / threaded BP  
 B3FT, BS3FT = RoHS / Short pins / thru-hole BP  
 B4FT, BS4FT = RoHS / Short pins / SlimMOD

BLGT, BNGT = RoHS / Long pins / slotted BP  
 BL1GT, BN1GT = RoHS / Long pins / FinMOD  
 BL2GT, BN2GT = RoHS / Long pins / threaded BP  
 BL3GT, BN3GT = RoHS / Long pins / thru-hole BP  
 BL4GT, BN4GT = RoHS / Long pins / SlimMOD

T = (Optional) Thermoscreen

Example: Viiisxyzzw = V24C2C50BL2G

Input Voltage	Package Size	Output Voltage	Product Grade	Output Power	Functionality
iii = 24	s = C	xx = 2	y = C	zzz = 50	w = BL2G

Note: Viiisxyzzw maybe replace by VI-xxxxxx per customer request or VE-bxxxxx for RoHS Compliance

Specials: VI-xxxxxx  
 (Maxi) a = 9 representing Maxi series  
 (Mini) b = 8 representing Mini series  
 (Micro) c = 7 representing Micro series

x = 0-9 Denotes a unique customer number that represents a module that falls within the electrical parameters (Voltage, Current, Power) of the parent family module.

When a = 9 it represents a Maxi Series module. The combination "9xxxxx" represents a Maxi series module with 24Vdc In; 2-48Vdc Out, 400Watts Max.

When b = 8 it represents a Mini Series module. The combination "8xxxxx" represents a Mini series module with 24Vdc In; 2-48Vdc Out, 200Watts Max.

When a = 7 it represents a Micro Series module. The combination "7xxxxx" represents a Micro series module with 24Vdc In; 2-48Vdc Out, 100Watts Max

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 3/14/06



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 Andover, MA 01810 USA



<b>Viiiisxyzzzw</b>									
<b>48V 2<sup>nd</sup> Gen FasTrak DC-DC Modules; Maxi, Mini, Micro Families</b>									
iii = Input (2 or 3 characters)	s = A, B or C Package Size	xx = Output Voltage (1 to 3 characters)							
Voltage (Range)		2	3V3	5	12	15	24	28	48
		zzz = Output Power (up to 3 characters)							
48 (36-75)	Maxi (A)	160	264	400	500	500	500	500	500
48 (36-75)	Mini (B)	100	150	200	250	250	250	250	250
48 (36-75)	Micro (C)	50	75	100,75,50	150	150	150	150	150

y = Product Grade:  
 C = Commercial -20C to 100C      M = Military -55C to 100C      T or H = Industrial -40C to 100C

w = Functionality: (up to 5 characters, BP = Baseplate)  
 BFT, BSFT = RoHS / Short pins / slotted BP      BLGT, BNGT = RoHS / Long pins / slotted BP  
 B1FT, BS1FT = RoHS / Short pins / FinMOD      BL1GT, BN1GT = RoHS / Long pins / FinMOD  
 B2FT, BS2FT = RoHS / Short pins / threaded BP      BL2GT, BN2GT = RoHS / Long pins / threaded BP  
 B3FT, BS3FT = RoHS / Short pins / thru-hole BP      BL3GT, BN3GT = RoHS / Long pins / thru-hole BP  
 B4FT, BS4FT = RoHS / Short pins / SlimMOD      BL4GT, BN4GT = RoHS / Long pins / SlimMOD

T = (Optional) Thermiscreen

Example: **Viiiisxyzzzw = V48B12C250BL4GT**

Input Voltage	Package Size	Output Voltage	Product Grade	Output Power	Functionality
iii = 48	s = B	xx = 12	y = C	zzz = 250	w = BL4GT

Note: **Viiiisxyzzzw** maybe replace by **VI-bxxxxx** per customer request      or **VE-bxxxxx** for RoHS Compliance.

**Specials:**      **VI-bxxxxx**  
 (Maxi)      a = 9 representing Maxi series  
 (Mini)      b = 8 representing Mini series  
 (Micro)      c = 7 representing Micro series

x = 0-9 Denotes a unique customer number that represents a module that falls within the electrical parameters (Voltage, Current, Power) of the parent family module.

When b = 9 it represents a Maxi Series module. The combination "9xxxxx" represents a Maxi series module with 48Vdc In; 2-48Vdc Out, 500Watts Max.

When b = 8 it represents a Mini Series module. The combination "8xxxxx" represents a Mini series module with 48Vdc In; 2-48Vdc Out, 250Watts Max.

When b = 7 it represents a Micro Series module. The combination "7axxxx" represents a Micro series module with 48Vdc In; 2-48Vdc Out, 150Watts Max.

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**Company:** Vicor Corporation  
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<b>Viiiisxyzzzw</b>									
<b>300V 2<sup>nd</sup> Gen FasTrak DC-DC Modules; Maxi, Mini, Micro Families</b>									
iii = Input (3 characters)	s = A, B or C package size	xx = Output Voltage (up to 3 characters)							
Voltage (Range)		2	3V3	5	12	15	24	28	48
zzz = Output Power (May be up to Three Characters)									
300 (180-375)	Maxi (A)	160	264	400	500	500	500	500	500
300 (180-375)	Mini (B)	100	150	200	250	250	250	250	250
300 (180-375)	Micro (C)	50	75,50	100,50	150,75	150,75	150,75	150,75	150,75

y = Product Grade:  
 C = Commercial -20C to 100C M = Military -55C to 100C T or H = Industrial -40C to 100C

w = Functionality: (up to 5 characters, BP = Baseplate)  
 BFT, BSFT = RoHS / Short pins / slotted BP      BLGT, BNGT = RoHS / Long pins / slotted BP  
 B1FT, BS1FT = RoHS / Short pins / FinMOD      BL1GT, BN1GT = RoHS / Long pins / FinMOD  
 B2FT, BS2FT = RoHS / Short pins / threaded BP      BL2GT, BN2GT = RoHS / Long pins / threaded BP  
 B3FT, BS3FT = RoHS / Short pins / thru-hole BP      BL3GT, BN3GT = RoHS / Long pins / thru-hole BP  
 B4FT, BS4FT = RoHS / Short pins / SlimMOD      BL4GT, BN4GT = RoHS / Long pins / SlimMOD

T = (Optional) Thermiscreen

**Example:** Viiiisxyzzzw = V300C3V3C75BLGT

	Input Voltage	Package Size	Output Voltage	Product Grade	Output Power	Functionality
V	300	C	3V3	C	75	BLGT

Note: Viiiisxyzzzw maybe replace by VI-bxxxxx per customer request or VE-bxxxxx for RoHS Compliance

**Specials:** VI-bxxxxx  
 (Maxi)            u = 9 representing Maxi series  
 (Mini)            b = 8 representing Mini series  
 (Micro)           c = 7 representing Micro series

x = 0-9      Denotes a unique customer number that represents a module that falls within the electrical parameters (Voltage, Current, Power) of the parent family module.

When b = 9 it represents a Maxi Series module. The combination "9xxxxx" represents a Maxi series module with 300Vdc In; 2-48Vdc Out, 500Watts Max.

When b = 8 it represents a Mini Series module. The combination "8xxxxx" represents a Mini series module with 300Vdc In; 2-48Vdc Out, 250Watts Max.

When b = 7 it represents a Micro Series module. The combination "7xxxxx" represents a Micro series module with 300Vdc In; 2-48Vdc Out, 150Watts Max.

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 3/16/06



**Attachment to Certificate No. U8V 06 03 21433 106**

**Company:** Vicor Corporation  
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<u>Viiiisxyzzzw</u>											
<b>375V 2<sup>nd</sup> Gen FasTrak DC-DC Modules; Maxi, Mini, Micro Families</b>											
iii = Input (3 characters)	s = A, B or C	xx = Output Voltage (May be up to Three Characters)									
Voltage (Range)		2	3V3	5	12	15	24	28	36	48	54
		zzz = Output Power (May be up to Three Characters)									
375 (250-425)	Maxi (A)	160	264	400	600	600	600	600	600	600	600
375 (250-425)	Mini (B)	100	150	200	300	300	300	300		300	
375 (250-425)	Micro (C)	50	75	100	150	150	150	150		150	

y = Product Grade:

C = Commercial -20C to 100C    M = Military -55C to 100C    T or H = Industrial -40C to 100C

w = Functionality: (up to 5 characters)

BFT, BSFT = RoHS / Short pins / slotted BP    BLGT, BNGT = RoHS / Long pins / slotted BP  
 B1FT, BS1FT = RoHS / Short pins / FinMOD    BL1GT, BN1GT = RoHS / Long pins / FinMOD  
 B2FT, BS2FT = RoHS / Short pins / threaded BP    BL2GT, BN2GT = RoHS / Long pins / threaded BP  
 B3FT, BS3FT = RoHS / Short pins / thru-hole BP    BL3GT, BN3GT = RoHS / Long pins / thru-hole BP  
 B4FT, BS4FT = RoHS / Short pins / SlimMOD    BL4GT, BN4GT = RoHS / Long pins / SlimMOD

T = (Optional) ThermScreen

Example: **Viiiisxyzzzw = V375B48C600BLT**

Input Voltage	Package Size	Output Voltage	Product Grade	Output Power	Functionality
375	B	48	C	600	BLT

Note: **Viiiisxyzzzw** maybe replace by **VI-bxxxxx** per customer request    or **VE-bxxxxx** for RoHS Compliance

**Specials: VI-bxxxxx**  
 (Maxi)    a = 9 representing Maxi series  
 (Mini)    b = 8 representing Mini series  
 (Micro)    c = 7 representing Micro series

x = 0-9 Denotes a unique customer number that represents a module that falls within the electrical parameters (Voltage, Current, Power) of the parent family module.

When b = 9 it represents a Maxi Series module. The combination "9xxxxx" represents a Maxi series module with 375Vdc In; 2-48Vdc Out, 600Watts Max.

When b = 8 it represents a Mini Series module. The combination "8xxxxx" represents a Mini series module with 375Vdc In; 2-48Vdc Out, 300Watts Max.

When b = 7 it represents a Micro Series module. The combination "7xxxxx" represents a Micro series module with 375Vdc In; 2-48Vdc Out, 150Watts Max.

*Signature*  
 3/14/06



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2<sup>nd</sup> Gen FasTrak external fusing

Package Size	Input Voltage	Output Voltage	Output Power	Required Fuse
Maxi (A)	375	2	160	BUSS PC TRON 5A
Maxi (A)	375	3.3	264	BUSS PC TRON 5A
Maxi (A)	375	5	400	BUSS PC TRON 5A
Maxi (A)	375	12,15,24,28,48	600	BUSS PC TRON 5A
Mini (B)	375	2	100	BUSS PC TRON 5A
Mini (B)	375	3.3	150	BUSS PC TRON 5A
Mini (B)	375	5	200	BUSS PC TRON 5A
Mini (B)	375	12,15,24,28,48	300	BUSS PC TRON 5A
Micro (C)	375	2	50	BUSS PC TRON 3A
Micro (C)	375	3.3	75	BUSS PC TRON 3A
Micro (C)	375	5	100	BUSS PC TRON 3A
Micro (C)	375	12,15,24,28,48	150	BUSS PC TRON 3A
Maxi (A)	300	2	160	BUSS PC TRON 5A
Maxi (A)	300	3.3	264	BUSS PC TRON 5A
Maxi (A)	300	5	400	BUSS PC TRON 5A
Maxi (A)	300	12,15,24,28,48	500	BUSS PC TRON 5A
Mini (B)	300	2	100	BUSS PC TRON 5A
Mini (B)	300	3.3	150	BUSS PC TRON 5A
Mini (B)	300	5	200	BUSS PC TRON 5A
Mini (B)	300	12,15,24,28,48	250	BUSS PC TRON 5A
Micro (C)	300	2	50	BUSS PC TRON 3A
Micro (C)	300	3.3	75	BUSS PC TRON 3A
Micro (C)	300	5	100	BUSS PC TRON 3A
Micro (C)	300	12,15,24,28,48	150	BUSS PC TRON 3A
Maxi (A)	48	2	160	BUSS ABC-10
Maxi (A)	48	3.3	264	BUSS ABC-10
Maxi (A)	48	5	400	BUSS ABC-15
Maxi (A)	48	12,15,24,28,48	500	BUSS ABC-20
Mini (B)	48	2	100	BUSS ABC-8
Mini (B)	48	3.3	150	BUSS ABC-8
Mini (B)	48	5	200	BUSS ABC-10
Mini (B)	48	12,15,24,28,48	250	BUSS ABC-10
Micro (C)	48	2	50	BUSS PC TRON 5A
Micro (C)	48	3.3	75	BUSS PC TRON 5A
Micro (C)	48	5	100	BUSS ABC-8
Micro (C)	48	12,15,24,28,48	150	BUSS ABC-8
Maxi (A)	24	2	160	BUSS ABC-15
Maxi (A)	24	3.3	264	BUSS ABC-25
Maxi (A)	24	5,12,15,24,28,48	400	BUSS ABC-30
Mini (B)	24	2	100	BUSS ABC-10
Mini (B)	24	3.3	150	BUSS ABC-15
Mini (B)	24	5,12,15,24,28,48	200	BUSS ABC-15
Micro (C)	24	2	50	BUSS ABC-8
Micro (C)	24	3.3	75	BUSS ABC-8
Micro (C)	24	5,12,15,24,28,48	100	BUSS ABC-10

*[Handwritten Signature]*  
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**Attachment to Certificate No. U8V 06 03 21433 106**

Company: Vicor Corporation  
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Andover, MA 01810 USA

**License Conditions:**

1. **INPUT VOLTAGE:** Nameplate rating is a Nominal Input Voltage. Vicor guarantees continuous operation per specification.
2. **BASEPLATE GROUNDING:** When baseplate is accessible, ground baseplate to earth/chassis ground.
3. **MAXIMUM BASEPLATE TEMPERATURE:** Keep temperature of baseplate to 100°C or less, measured at the center of the baseplate. Check temperature at maximum load and worst case ambient temperature.
4. **TRIMMING:** Trim module to maximum of +110% of rated output voltage. Do not exceed maximum power output of the module. When module is trimmed down, maximum current remains constant.
5. **OVERTEMPERATURE SHUTDOWN:** If internal temperature of the module exceeds 105°C, the module may shut down. Cool down module and recycle input power to re-enable module.
6. **FUSING REQUIREMENTS:** To meet safety requirements, each module must be fused. See License Attachment page 6 for information on proper selection of fuses.
7. Refer to Vicor's Application Manual for Information on proper use of modules.
8. The DC-DC modules with output of 61-95V are not SELV according to EN 60950.

A handwritten signature in black ink, appearing to be 'D. M. S.', written over the date.

3/14/06

