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America

CERTIFICATE

No. U8V 17 01 21433 502

Holder of Certificate: **Vicor Corporation**
25 Frontage Road
Andover MA 01810
USA

Production Facility(ies): 67768

Certification Mark:

Product:
Converter
DC to DC Converter

Model(s):
Half PRM Model: VIP0101THJ
(See certificate attachment for model nomenclature and License Conditions)

Parameters:

Rated Input Voltage:	45 V DC
Rated Output Voltage:	48 V DC
Rated Output Power:	270 W
Protection Class:	III

Tested according to:
CAN/CSA C22.2 No.60950-1:2007/A2:2014
UL 60950-1:2007/A2:2014
EN 60950-1:2006/A2:2013

The product was voluntarily tested according to the relevant safety requirements noted above. It can be marked with the certification mark above. The mark must not be altered in any way. This product certification system operated by TÜV SÜD America Inc. most closely resembles system 3 as defined in ISO/IEC 17067. Certification is based on the TÜV SÜD "Testing and Certification Regulations". TÜV SÜD America Inc. is an OSHA recognized NRTL and a Standards Council of Canada accredited certification body.

Test report no.: DI1405893-100

Date, 2017-01-12

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Vicor Corporation
25 Frontage Road
Andover, MA 01810

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VI Chip Half PRM model matrix: ViP01wwxHy

Example #1, VIP0101THJ

V = Constant

I =	PRM Type
I	Standard PRM
M	MIL-COTS PRM

P01 = Constant

ww = defines electrical ratings				
Model	Vin Nom (range)	Vout	Pout	Feedback Style
00	45 Vdc (38-55)	0-55 Vdc	200 W	Remote Sense
01	45 Vdc (38-55)	0-55 Vdc	200 W	Remote Sense
02	45 Vdc (38-55)	0-55 Vdc	200 W	Adaptive Loop

x =	Product Grade	Temp Range
T	Telecom	-40 - 100 C
M	MIL-COTS	-55 - 100 C

H = Constant for Half VIC Package Size

y =	Lead Designator
J	J-Lead
T	Through-Hole

Customer Special Models

Customer Special Model Numbers	Equivalent Standard Model Numbers
VIZ0050, VIZ0050x (see license conditions)	VIP0101THJ
x = revision, any letter A through Z, non-safety related	

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VI Chip Half PRM2 model matrix: PRMbbbcdddefffxzz

Example: PRM48BH480T200A00

PRM = Constant

PRM series (Pre-regulator Module)	
PRM	Standard version
MPRM	MIL-COTS version

bbb = 48B

Input Voltage	Nominal (range)
48A	48 Vdc (36-75)
48B	48 Vdc (38-55)
48D	48 Vdc (38-60)

Input Voltage	Nominal (range)
48J	48 Vdc (42-55)
48N	48 Vdc (38-55)

c = H

Package Size and Lead Designator	
H	Half VI Chip J-Lead

ddd = 480

Output Voltage Designator (range)	
480	48.0 Vdc (5-55)

e = T

Product Grade	
T	-40 to 125°C
M	-55 to 125°C

fff = 200

Output Power Designator (can be any three digits up to 270 max) non-inclusive list of examples below				
100	100W		250	250W
200	200W		270	270W

x = A

Revision (non-safety related)	
x	Any alphanumeric character

zz = 00

Customer reference (non-safety related)	
zz	Any alphanumeric character

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PEABODY TÜV SÜD PRODUCT SERVICE

TÜV®

Vicor Corporation
25 Frontage Road
Andover, MA 01810

America

Half Size Customer Configured PRM2 Model Number: PRMxyaa-zzzzzz
Example: PRM2A03-123456

PRM = Constant

PRM Series (Pre-regulator Module)

x = 2

Controller Revision, 0 through 9 (non-safety related)

y = A

Product Revision, A through Z (non-safety related)

aa = 03

Hardware Configuration, max ratings, actual ratings may be less			
HW Configuration	**Vin (Vdc)**	**Vout (Vdc)**	**Pout (W)**
03 = Half size narrow voltage range	**48Vdc (38-55)**	**48 Vdc (20-55)**	**270W**
04 = Half size wide voltage range	**48Vdc (36-75)**	**48 Vdc (20-55)**	**200W**

zzzzzz = 123456

Any 6 digit numeric combination, customer specific configuration, non-safety related, J-Lead or Through-Hole, T or M grade, and Feedback Style

Special Considerations – The following are considerations that were used when evaluating these products. The Half PRM series of DC-DC converters is designed for building-in.

License conditions – When installed in the end use equipment, the following are among considerations to be made:

1. **Input Voltage:** Both a nominal input voltage and an input voltage range are specified. Operation over the entire range was evaluated.
2. The input to the half PRM is intended to be supplied from a TNV-2, SELV, or other non-hazardous secondary circuit
3. The half PRM is a non-isolating device. The output of the PRM can be considered SELV when the input is SELV with the exception of the VIZ0050. The output of the VIZ0050 can exceed the SELV limits under a fault condition but it does not exceed the limits of TNV-2 circuits.
4. The output of the VIZ0050 may be considered TNV-2 or external circuitry may be added and evaluated in the end product in order to provide output over voltage protection and compliance with the limits of SELV circuits.
5. **Max Temperature:** Keep the maximum case temperature of the VI Chip at 100°C or less
6. **Fusing Requirements:** The half size PRM Chips were evaluated with a Littelfuse Nano² fuse rated 10A or less.
7. **Basic Insulation is provided by the molding compound from Input / Output to the top of the case with a dielectric withstand rating of 2250 Vdc.**

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