





CERTIFICATE

No. U8V 021433 0608 Rev. 00

Holder of Certificate:

Vicor Corporation

25 Frontage Road Andover MA 01810 USA

Certification Mark:



Product:

Audio/Video, Information and Communication technology equipment High Voltage Panel Mold DCM DC to DC Converter

This product was voluntarily tested to the relevant safety requirements referenced on this certificate. 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.:

72159835-000

Date, 2020-08-27

Willington

(William J. Stinson)



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Model(s):

DCM290P138T600A41 Type: VICHIP DCM4623 Series

Brand Name:

VICHIP

067768

Tested according to:

CAN/CSA C22.2 No. 62368-1:2019 UL 62368-1:2019 EN 62368-1:2014/A11:2017

Production Facility(ies):

Parameters:

(Model: DCM290P138T600A41)

Rated Input Voltage:	290 V DC
Rated Output Voltage:	13.8 V DC
Rated Output Power:	600 W max

License Conditions:

Special Considerations – The following items are considerations that were used when evaluating these products.

The DCM4623 series of DC-DC converters are designed for building-in.

Conditions of Acceptability – When installed in the end use equipment, the following are among considerations to be made:

- 1. Maximum output power and case temperature. See attached thermal curves for maximum operating conditions
- 2. Max Output: The DCM has an MNL of 600W as a standalone device or up to 690W when used in an array
- 3. The Input is considered to be ES3. Operation over the entire input voltage range was evaluated
- 4. Output voltages less than or equal to 42.4V can be considered ES1. Output voltages greater than 42.4V may be considered ES2 due to hiccup mode during single fault conditions
- 5. The output is separated from the input by a Reinforced Safeguard
- 6. The DCMs must be mounted on minimum V-1 flame rated printed wiring board
- 7. The DCMs were evaluated with the following fuses EATON PC-Tron series fuse rated 5A or Littelfuse 487 series rated 8A max

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DCM4623 Model Matrix: DCMbbbwdddefffxyz

Example: DCM290P138T600A41

DCM = Constant

Down Constant				
DCM Series Converter Module				
DCM	Standard version			
MDCM	MIL-COTS version			

bbb = 290

¢

СЕРТИФИКАТ

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認證證書

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Nominal Input Voltage (Maximum Voltage Range)							
120	120V (90-150)	210	210V (140-310)	290	290V (160-420)	380	380V (340- 420)
175	200V (90-260)	270	270V (160-420)	300	300V (180-420)		
255	210V (90-420)	275	275V (120-420)	360	360V (300-420)		

w=P

VV = 1				
Package Type and Lead designator				
Р	Panel Mold Through-hole			
L/N	Panel Mold Lead-less			

ddd = 138

Output Voltage Designator, Vout = Designator / 10, any 3 digit number from 000 to 540. Non-inclusive list of examples below.					
033	3.3V	138	13V	280	28V
050	5V	150	15V	420	42V
090	9V	220	22V	480	48V
120	12V	240	24V	528	52.8V

<u>e = T</u>

Product Grade	
Т	-40 to 125C
Μ	-55 to 125C
С	0 to 85C

fff = 600

Output Power, any 3 digit number from 000 – 600. Non-inclusive list of examples below.							
100	100W	250	250W	400	400W	500	500W
150	150W	375	375W	450	450W	600	600W

x = A

Revision (non-safety related)			
х	Any alphanumeric character		

<u>y = 4</u>

Package Size		
4	4623	

z = 1

Functionality (non-safety related), any alphanumeric character, non-inclusive list of examples below.		
0	No communication	
1	Communication enabled	
R	Reversible	

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Alternate DCM4623 Model Matrix: DCM4623cddewwxxyzz Example: DCM4623TD2B53E0M00

DCM = Constant									
Product Function									
DCM	DC-DC Converte	DC-DC Converter Module							
4623 = Constant									
Package Size (mm	າ)								
4623	46 x 23								
				_					
c = T									-
Lead Designator				•					
Т	Through-Hole			L/N		Leadless			
dd = D2									
		and characte	r (aaa tabla balaw, nat	to overed 420\/)					
			I (See lable below, Hol	IU exceed 420V)	ond				
1°° Ch		0	0)	/	2	character	0.1/	0	80.1/
A	2001/	0	10 \		4	4		0	00 V
	2007		20.1	V	5	5		9	90 V
	400V	3	30	V	7	7			
Examples: D2 = 4	20V (400V+20V), B1	= 210 (200V+	10V), A2 = 120V (100)	/+20V)	1	1			
	,								
e = G									
Range Ratio (Vin h	high / Vin low defines	low line)							
Trange Tratio (VIII)	iigit / viit low, deinies				-				
A	1.10	G	1.95	N		3.45	U	6.12	
В	1.21	н	2.14	Р		3.80	<u>V</u>	6.73	
С	1.33	J	2.36	Q		4.18		7.40	
D	1.46	<u> </u>	2.59	R		4.60	<u>X</u>	8.14	
	1.01	L	2.00	<u>з</u> т		5.05	7	0.95	
F	1.77	IVI	3.14			5.00	L	9.65	
ww = 53									
Maximum Output \	/oltage including trim	(any 2 digits ι	p to 60), non-inclusive	list of examples					
04	4Vdc (3.3V n	ominal +10%	trim)	26	26 26Vdc (24V nominal +10% trim)				
06	6Vdc (5V nor	ninal +10% tri	m)	31	31 31Vdc (28V nominal +10% trim)		trim)		
13	13Vdc (12V no	ominal +10% t	rim)	53	53 53Vdc (48V nominal +10% trim)		trim)		
17	17Vdc (15V no	ominal + 10 tri	m)						
		and i i							
Maximum Output H	Power = 1st character -	+ 2 nd characte	er (see table below, not	to exceed 600W)					
	1 st character				2 nd cl	haracter			
A	100 W		0	0 W	5		50 W		
B	200 W		1 10 W 6		60 W				
C	300 W		2	20 W		7		70 W	
D	400 W		3	30 W		8		80 W	
E	500 W		4	40 VV		9		90 W	
Examples: E0 = 6	000 W (600W+0W)	= 400W (400)	W+0W) B5 = 250W (2	200W+50W A5 = 150	0W (100)W+50W)			

v = M

y = M	
Product Grade	
С	-20 to 100°C
Т	-40 to 100°C
М	-55 to 100°C

= 00

Options (non-safety related), any alphanumeric combination, non-inclusive list of examples below	
00	Analog Communication
01	Digital Communication