

IEC SYSTEM FOR CONFORMITY TESTING TO
STANDARDS FOR SAFETY OF ELECTRICAL
EQUIPMENT (IECEE)
CB SCHEME

SYSTEME CEI D'ESSAIS DE CONFORMITE AUX
NORMES DE SECURITE DE L'EQUIPEMENT
ELECTRIQUE (IECEE)
METHODE OC

CB TEST CERTIFICATE CERTIFICAT D'ESSAI OC

Product
Produit

Name and address of the applicant
Nom et adresse du demandeur

Name and address of the manufacturer
Nom et adresse du fabricant

Name and address of the factory
Nom et adresse de l'usine

Rating and principal characteristics
Valeurs nominales et caractéristiques principales

Trade mark (if any)
Marque de fabrication (si elle existe)

Model/type Ref.
Ref. de type

Additional information (if necessary)
Information complémentaire (si nécessaire)

A sample of the product was tested and found
to be in conformity with
*Un échantillon de ce produit a été essayé et a été
considéré conforme à la*

as shown in the Test Report Ref. No.
which form part of this certificate
*comme indiqué dans le Rapport d'essais numéro
de référence*
qui constitue une partie de ce certificat

Switch mode power supply for building in

Vicor Corporation
23 Frontage Road, USA Andover, MA 01810

see above

Vicor Corporation
23 Frontage Road, USA Andover, MA 01810
400 Federal Street, USA Andover, MA 01810
AC 100-120/200-240 V; 47-440 Hz
13.5/8 A (600 W Series); 9.5/6 A (400 W Series)
5/2.5 A (200 W Series)

VICOR

FLAT PAC Series VI-abccc-deee-xx
(Model designation see page 2 and 3)

Protection class I

IEC	PUBLICATION	950	EDITION	2
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; Amendment 1:1992
; Amendment 2:1993
; Amendment 3:1995
; Amendment 4:1996

DE 1 - 6333 by VDE Institute
16237-3336-0001

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme National de Certification

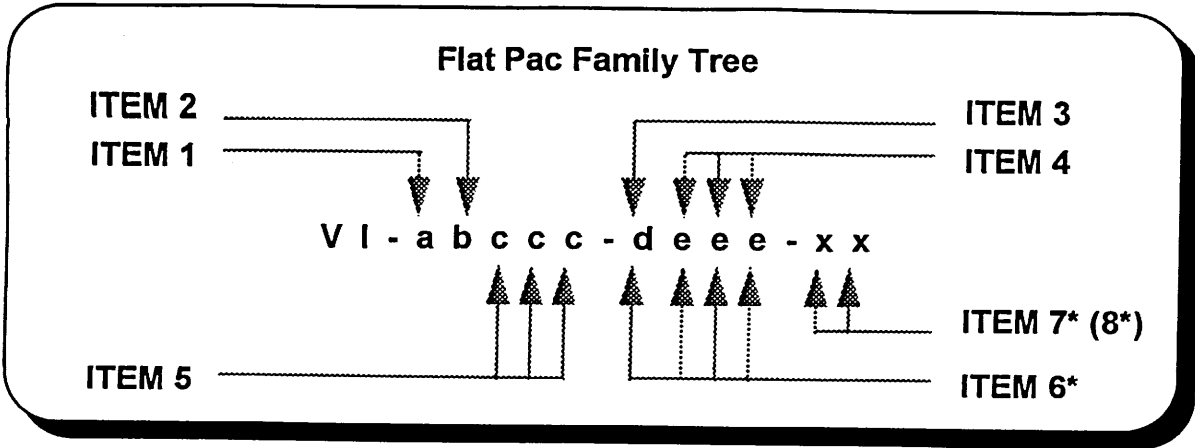
VDE Testing and Certification Institute
VDE Verband Deutscher Elektrotechniker e.V.
VDE Prüf- und Zertifizierungsinstitut

Department for Certification

Date
1998-02-25

Signature





Item 1. Product Configuration

L = 1 module, 1 output	Input Current (Max)	5.0 / 2.5 A
M = Up to 2 modules, 1 output		9.5 / 6.0 A
N = Up to 3 modules, 1 output		13.5 / 8.0 A
P = Up to 2 modules, 2 outputs		9.5 / 6.0 A
Q = Up to 3 modules, 2 outputs		13.5 / 8.0 A
R = Up to 3 modules, 3 outputs		13.5 / 8.0 A

(Modules see page 3)

Item 2. Input Type

- F = Strappable
- A = AutoRanging
- U = Universal

Item 3. Product Grade

C = Commercial	-20C to 85C	Input Voltage	100-120 / 200-240 V, 47-63 Hz
I = Industrial	-40C to 85C		100-120 / 200-240 V, 47-440 Hz
M = Military	-55C to 85 C		100-120 / 200-240 V, 47-440 Hz
E = Economy	0C to 85 C		100-120 / 200-240 V, 47-63 Hz

Item 4. Output Power / Current

	Vout ≥ 5V	Vout < 5V
M =	600 W	120 A
P =	450 W	90 A
Q =	400 W	80 A
S =	300 W	60 A
U =	200 W	40 A
V =	150 W	30 A
W =	100 W	20 A
X =	75 W	15 A
Y =	50 W	10 A
Z =	25 W	5 A

Item 5. Output voltage (Vdc) Nominal

Z = 2.0	2 = 15.0
Y = 3.3	N = 18.5
0 = 5.0	3 = 24.0
X = 5.2	L = 28.0
W = 5.5	J = 36.0
V = 5.8	K = 40.0
T = 6.5	4 = 48.0
R = 7.5	H = 52.0
M = 10.0	F = 72.0
1 = 12.0	D = 85.0
P = 13.8	B = 95.0

Item 6*. Specials

00 - 99 = Non-safety related component changes. When Selected items 3, 4, 7, 8 are not used.

Item 7*. Options

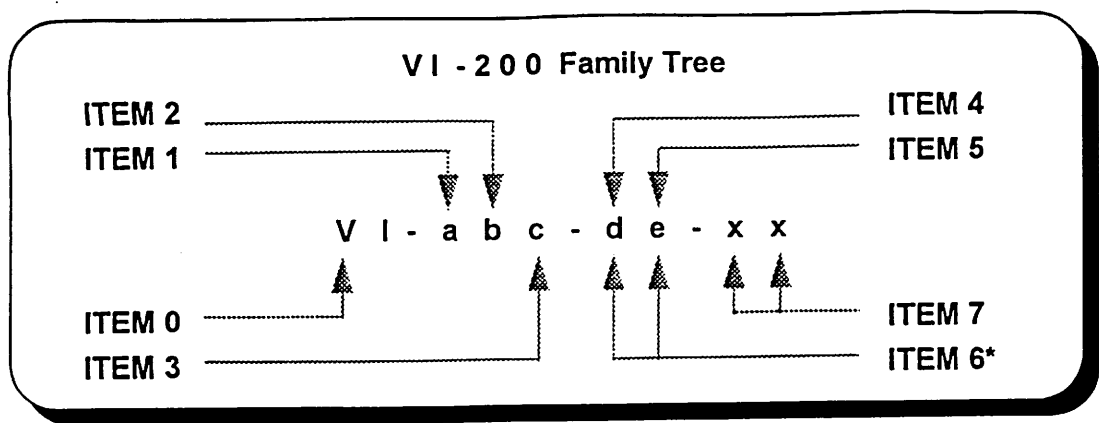
00 - 99 = Denotes unique labels or testing per customer request. When Selected item 8 is not used.

Item 8*. LL Options

LL = Low Leakage
 LL-xx = LL maybe provided with xx to denote 00-99 for non-safety component changes.

Example
VI-PA01-CUX-23

P=Up to 2modules, 2 output, A=AutoRanging, C=Commercial, Flat Pac
 U=Output 1: 200 W, X=Output 2 : 75 W, 23=Customer Label



- Item 0. Product Type**
 V = V (Standard Version) V = M (Military Version)
- Item 1. Module Type**
 2 = Drive Module (master)
 B = Boost Module (slave / without OTP)
- | <p>Item 2. Input Voltage (Vdc)</p> <table border="1"> <thead> <tr> <th>Nominal</th> <th>Range</th> <th>Max (A)</th> </tr> </thead> <tbody> <tr><td>0 = 12</td><td>10-20</td><td>@ 9.4</td></tr> <tr><td>1 = 24</td><td>21-32</td><td>@ 8.9</td></tr> <tr><td>W = 24</td><td>18-36</td><td>@ 10.4</td></tr> <tr><td>2 = 36</td><td>21-56</td><td>@ 6</td></tr> <tr><td>3 = 48</td><td>42-60</td><td>@ 6</td></tr> <tr><td>N = 48</td><td>36-76</td><td>@ 5.2</td></tr> <tr><td>4 = 72</td><td>55-100</td><td>@ 4.5</td></tr> <tr><td>T = 100</td><td>66-160</td><td>@ 2.8</td></tr> <tr><td>F = 165</td><td>130-260</td><td>@ 2.5</td></tr> <tr><td>5 = 150</td><td>100-200</td><td>@ 1.9</td></tr> <tr><td>6 = 300</td><td>200-400</td><td>@ 1.3</td></tr> <tr><td>7 = 225</td><td>100-375</td><td>@ 1.3</td></tr> </tbody> </table> | Nominal | Range | Max (A) | 0 = 12 | 10-20 | @ 9.4 | 1 = 24 | 21-32 | @ 8.9 | W = 24 | 18-36 | @ 10.4 | 2 = 36 | 21-56 | @ 6 | 3 = 48 | 42-60 | @ 6 | N = 48 | 36-76 | @ 5.2 | 4 = 72 | 55-100 | @ 4.5 | T = 100 | 66-160 | @ 2.8 | F = 165 | 130-260 | @ 2.5 | 5 = 150 | 100-200 | @ 1.9 | 6 = 300 | 200-400 | @ 1.3 | 7 = 225 | 100-375 | @ 1.3 | <p>Item 3. Output voltage (Vdc)</p> <table border="1"> <thead> <tr> <th>Nominal</th> <th>Max(A)</th> <th>Max(W)</th> </tr> </thead> <tbody> <tr><td>Z = 2.0</td><td>@ 40A</td><td>80W</td></tr> <tr><td>Y = 3.3</td><td>@ 40A</td><td>132W</td></tr> <tr><td>0 = 5.0</td><td>@ 40A</td><td>200W</td></tr> <tr><td>X = 5.2</td><td>@ 38.5A</td><td>200W</td></tr> <tr><td>W = 5.5</td><td>@ 36.4A</td><td>200W</td></tr> <tr><td>V = 5.8</td><td>@ 34.5A</td><td>200W</td></tr> <tr><td>T = 6.5</td><td>@ 30.8A</td><td>200W</td></tr> <tr><td>R = 7.5</td><td>@ 26.6A</td><td>200W</td></tr> <tr><td>M = 10.0</td><td>@ 20A</td><td>200W</td></tr> <tr><td>J = 12.0</td><td>@ 16.7A</td><td>200W</td></tr> <tr><td>P = 13.8</td><td>@ 14.5A</td><td>200W</td></tr> <tr><td>2 = 15.0</td><td>@ 13.3A</td><td>200W</td></tr> <tr><td>N = 18.5</td><td>@ 10.8A</td><td>200W</td></tr> <tr><td>3 = 24.0</td><td>@ 8.3A</td><td>200W</td></tr> <tr><td>L = 28.0</td><td>@ 7.1A</td><td>200W</td></tr> <tr><td>J = 36.0</td><td>@ 5.6A</td><td>200W</td></tr> <tr><td>K = 40.0</td><td>@ 5A</td><td>200W</td></tr> <tr><td>4 = 48.0</td><td>@ 4.2A</td><td>200W</td></tr> <tr><td>H = 52.0</td><td>@ 3.8A</td><td>200W</td></tr> <tr><td>F = 72.0</td><td>@ 2.8A</td><td>200W</td></tr> <tr><td>D = 85.0</td><td>@ 2.4A</td><td>200W</td></tr> <tr><td>B = 95.0</td><td>@ 2.1A</td><td>200W</td></tr> </tbody> </table> | Nominal | Max(A) | Max(W) | Z = 2.0 | @ 40A | 80W | Y = 3.3 | @ 40A | 132W | 0 = 5.0 | @ 40A | 200W | X = 5.2 | @ 38.5A | 200W | W = 5.5 | @ 36.4A | 200W | V = 5.8 | @ 34.5A | 200W | T = 6.5 | @ 30.8A | 200W | R = 7.5 | @ 26.6A | 200W | M = 10.0 | @ 20A | 200W | J = 12.0 | @ 16.7A | 200W | P = 13.8 | @ 14.5A | 200W | 2 = 15.0 | @ 13.3A | 200W | N = 18.5 | @ 10.8A | 200W | 3 = 24.0 | @ 8.3A | 200W | L = 28.0 | @ 7.1A | 200W | J = 36.0 | @ 5.6A | 200W | K = 40.0 | @ 5A | 200W | 4 = 48.0 | @ 4.2A | 200W | H = 52.0 | @ 3.8A | 200W | F = 72.0 | @ 2.8A | 200W | D = 85.0 | @ 2.4A | 200W | B = 95.0 | @ 2.1A | 200W |
|---|---------|---------|---------|--------|-------|-------|--------|-------|-------|--------|-------|--------|--------|-------|-----|--------|-------|-----|--------|-------|-------|--------|--------|-------|---------|--------|-------|---------|---------|-------|---------|---------|-------|---------|---------|-------|---------|---------|-------|--|---------|--------|--------|---------|-------|-----|---------|-------|------|---------|-------|------|---------|---------|------|---------|---------|------|---------|---------|------|---------|---------|------|---------|---------|------|----------|-------|------|----------|---------|------|----------|---------|------|----------|---------|------|----------|---------|------|----------|--------|------|----------|--------|------|----------|--------|------|----------|------|------|----------|--------|------|----------|--------|------|----------|--------|------|----------|--------|------|----------|--------|------|
| Nominal | Range | Max (A) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 = 12 | 10-20 | @ 9.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 = 24 | 21-32 | @ 8.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W = 24 | 18-36 | @ 10.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 = 36 | 21-56 | @ 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 = 48 | 42-60 | @ 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N = 48 | 36-76 | @ 5.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 = 72 | 55-100 | @ 4.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T = 100 | 66-160 | @ 2.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F = 165 | 130-260 | @ 2.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 = 150 | 100-200 | @ 1.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 = 300 | 200-400 | @ 1.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 = 225 | 100-375 | @ 1.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nominal | Max(A) | Max(W) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Z = 2.0 | @ 40A | 80W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Y = 3.3 | @ 40A | 132W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 = 5.0 | @ 40A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X = 5.2 | @ 38.5A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W = 5.5 | @ 36.4A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| V = 5.8 | @ 34.5A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T = 6.5 | @ 30.8A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R = 7.5 | @ 26.6A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M = 10.0 | @ 20A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| J = 12.0 | @ 16.7A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P = 13.8 | @ 14.5A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 = 15.0 | @ 13.3A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N = 18.5 | @ 10.8A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 = 24.0 | @ 8.3A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L = 28.0 | @ 7.1A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| J = 36.0 | @ 5.6A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| K = 40.0 | @ 5A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 = 48.0 | @ 4.2A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| H = 52.0 | @ 3.8A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F = 72.0 | @ 2.8A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D = 85.0 | @ 2.4A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B = 95.0 | @ 2.1A | 200W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
- Item 4. Product Grade**
- | | |
|----------------|-------------|
| C = Commercial | -20C to 85C |
| I = Industrial | -40C to 85C |
| M = Military | -55C to 85C |
| E = Economy | 0C to 85C |
- Item 5. Output Power / Current**
- | | Vout > 5V | Vout < 5V |
|-----------|-----------|-----------|
| U = 200 W | 40 A | |
| V = 150 W | 30 A | |
| W = 100 W | 20 A | |
| X = 75 W | 15 A | |
| Y = 50 W | 10 A | |
| Z = 25 W | 5 A | |
- Item 6*. Specials**
 00-99 = Non-safety related component changes. When selected Items 4 & 5 are not used.
- Item 7. Options**
 F1-F4 = FinMOD (Heat sink assembly)
 TM = TachoMOD (Non-safety related secondary component changes)
 S = SlimMOD (Flangeless Package)
 B1 = BusMOD (screw / lug wiring interface)
- 00-99 = Denotes unique labels or testing per customer request.