






**BUREAU
VERITAS**

TEST REPORT

IEC 61683

Photovoltaic systems – Power conditioners – Procedure for measuring efficiency

Report reference number	PV140717C01
Date of issue	2014-07-30
Total number of pages	21
Testing laboratory name	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Address	No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
	 
Applicant's name	Delta Electronics, Inc.
Address	39, Section 2, Huandong Road, Shanhua Township, Tainan Country, 74144, Taiwan
Test specification	
Standard	IEC 61683:1999; EN 61683:2000; DIN EN 61683:2000
Certificate	Certificate of compliance
Test report form number	IEC61683
Master TRF	Bureau Veritas Consumer Products Services Germany GmbH
Test item description	Grid-tied photovoltaic inverter
Trademark	
	
Model / Type	RPI M50A_xxx* * Remark: In the inverter name 'x' can be any number 0 to 9 or letter A to Z or blank
Model Names	RPI M50A_xxx*
Ratings	See below
MPP DC voltage range [V]	520-800Vdc
Input DC voltage range [V]	200-1000Vdc, 1000Vdc max.
Input DC current [A]	50A x 2 strings
Output AC voltage [V]	230/400Vac, 3P4W, 50Hz
Output AC current [A]	76A max.
Output power [VA]	50,0 kVA

Testing Location.....:	Delta Electronics Inc.
Address	39, Section 2, Huandong Road,Shanhua Township, Tainan City 74144, Taiwan
Tested by (name and signature)	Dino Kao 
Approved by (name and signature)	Edward Chiueh 
Manufacturer's name	Delta Electronics (Jiang Su), Ltd.
Factory address.....:	No. 1688, Jiangxing East Rd., Wujiang Economic Development Zone, Wujiang City, Jiang Su Provice, 215200, P.R. China

Document History			
Date	Internal reference	Modification / Change / Status	Revision
2014-07-30	Dino Kao	Initial report was written	0
Supplementary information:			

Copy of marking plate:



Solar Inverter(太陽能逆變器/太阳能逆变器)

Model(型號/型号) : RPI M50A_120

Part Number(料號/料号) : RPI503FA0E0000

DC Input(輸入/输入) : 200-1000Vdc, MPPT 520-800Vdc
1000Vdc max, 50A*2 max,
Isc: 60A*2 max

AC Output(輸出/输出) : 220/380, 230/400Vac, 3P3W or 3P4W,
50/60Hz, 50kVA nom, 52.5kVA max,
76A max, cosφ 0.8 ind ~ 0.8 cap

IP Code(IP防護等級/IP防护等级) : IP65(Electronics/電子部分/电子部分)

Protective Class(防護等級/防护等级): I

AC Over voltage Category(過電壓等級/过电压等级) : III

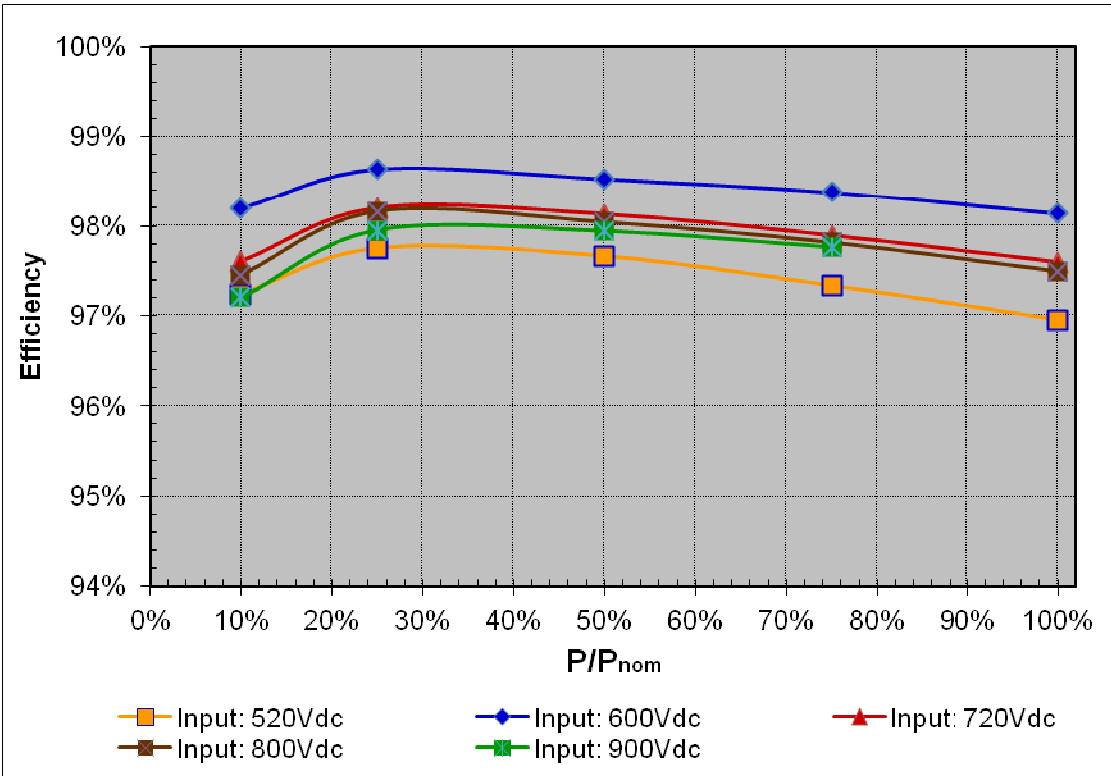
Assembled in China

VDE 0126-1-1
VDE-AR-N 4105

CE IP65



4. Efficiency measurement conditions test results							P
Ambient		25°C					
Input voltage (Vdc)		Power Level (P/P _{nom})					
		10%	25%	50%	75%	100%	
		5kW	12,5kW	25kW	37,5kW	50kW	
V _{min}	520	97,24%	97,75%	97,66%	97,33%	96,95%	
V _{nominal}	600	98,20%	98,64%	98,53%	98,38%	98,14%	
V _{max} (90% MPPT)	720	97,60%	98,20%	98,13%	97,89%	97,59%	
V _{max} (MPPT)	800	97,45%	98,16%	98,04%	97,81%	97,49%	
V _{max} (90%)	900	97,20%	97,95%	97,94%	--	--	



Internal power consumption via auxiliary input in standby : 3,33W (Input: 0V, 0A; Output: 230V, 445mA)
 Internal power consumption via auxiliary input at maximum output power : 1,575 kW