

Delivering leading edge, innovative power solutions for more than 30 years....

Model:GTM961200P120VV.V-T3A

May 20, 2024

GTM961200P120VV.V-T3A

Information

Model Number

GTM961200P120VV.V-T3A

Description

GTM961200P120VV.V-T3A, ICT / ITE / Medical Power Supply, 60601-1-4th Ed. , Desktop/External, Regulated Switchmode AC-DC Power Supply AC Adaptor, , Input Rating: 100-240V~, 50-60 Hz, IEC 60320/C6 AC Inlet Connector, Class I, Earth Ground (aka "Mickey Mouse"), Output Rating: 120 Watts, Power rating with convection cooling (W) , 12-54V in 0.1V increments, Approvals: CB 61347; RCM; CCC; Morocco; EAC; cETLus; cETLus 60601-1-11; Malaysia; Taiwan BSMI (12,15,18,19,24,48,54V only); South Africa; ETL; S-Mark 60950; CB 61347; ETL; CB 60335; VCCI; CB 60601-1; S-Mark; WEEE; Ukraine; RoHS; ETL 62368; Level VI; China RoHS; CE;Class I; PSE; PSE; PSE; ETL (Brazil); S-Mark 62368; IRAM; Korea (12V and 13V Only); UKCA; Conforms to 62368-1; NrCAN (12V only); CB 60335; CB 62368;

Model Picture



Agency Documents

<http://www.globtek.info/certs/GTM961200P/>

CE EC-Declaration

https://www.globtek.com/pdf/ec_declaration/a0O3a00000NKYPKEA5

RoHS/RoHS2 Declaration

https://www.globtek.com/pdf/rohs_cert/a0O3a00000NKYPKEA5

REACH Declaration

https://www.globtek.com/pdf/iso_certificates/REACH.pdf

Conflict Minerals Declaration

<https://www.globtek.com/pdf/conflict-minerals.pdf>

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Model:GTM961200P120VV.V-T3A

May 20, 2024

MODEL PARAMETERS

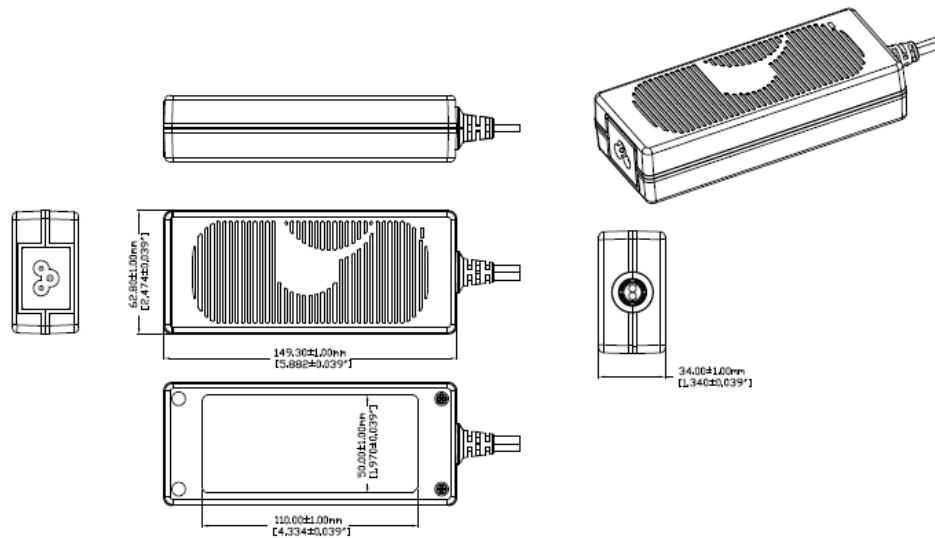
Type	Desktop/External
Technology	Regulated Switchmode AC-DC Power Supply AC Adaptor
Category	ICT / ITE / Medical Power Supply
Input Voltage	100-240V~, 50-60 Hz
I/P Amps (A)	1.5 A
Wattage (W)	120.0
Vout Range (V)	12-54
Efficiency Level	USA DOE Level VI / Eco-design Directive 2009/125/EC, (EU) 2019/1782
Ingress Protection	IP41
Size (mm)	149.30*62.80*34.00

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May 20, 2024

ENCLOSURE



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Model:GTM961200P120VV.V-T3A

May 20, 2024

RATING TABLE

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
GTM961200P11012-T3A	12 V	9.2	110.40	RFQ
GTM961200P12015-T3A	15 V	8	120.00	RFQ
GTM961200P12019-T3A	19 V	6.316	120.00	RFQ
GTM961200P12024-T3A	24 V	5	120.00	RFQ
GTM961200P12028-T3A	28 V	4.28	119.84	RFQ
GTM961200P12030-T3A	30 V	4	120.00	RFQ
GTM961200P12036-T3A	36 V	3.33	119.88	RFQ
GTM961200P12038-T3A	38 V	3.15	119.70	RFQ
GTM961200P12048-T3A	48 V	2.5	120.00	RFQ
GTM961200P12054-T3A	54 V	2.22	119.88	RFQ

Model:GTM961200P120VV.V-T3A

May 20, 2024

SPECIFICATIONS

Input

Input Voltage:	Specified: 90-264VAC, Nameplate: 100-240VAC
	100% rated load current for 90-264VAC
	90% rated load current for 85-264VAC
	100% rated load current for 90-370VDC
Input Frequency:	Specified: 47-63Hz, Nameplate: 50-60Hz
Power Factor:	0.90 min. @ 230VAC, 0.97 min. @ 115VAC
No Load Input Power:	< 150mW @ 115/230VAC
Inrush Current:	< 65A @ 115VAC, < 130A @ 230VAC (cold start)
Efficiency:	DoE Level VI and EU CoC Tier 2 compliant

Output

Turn-on Delay:	1 second typ.
Output Regulation:	± 4% (measured at output connector)
Line Regulation:	± 0.5% typ. (measured at output connector, full load)
Ripple:	1% or 200mV, whichever is greater (using a 47µF low-ESR cap + 0.1µF ceramic capacitor, measured @ 20MHz BW, at output connector)
Startup Overshoot:	5% max.
Transient Response:	5% max. deviation, 1ms typ. recovery time (with 25% to 50% load step)
Hold-up Time:	20ms min.
Power Indicator:	Green LED
Switching Frequency:	Variable, 25KHz - 125KHz, depending on load

Protections

Input Protection:	300VAC MOV transient suppressor, input line fusing
Over-Current Protection	Current limited to less than $< 170W / V_{out(nom.)}$ and $< 13A$, auto-restart
Short-Circuit Protection:	Auto-restart
Over-Voltage Protection:	110 - 135% (60V max for models rated 45 - 54V), full load condition, latched off, cycle AC to reset
Over-Temperature Protection	Internal ambient NTC temperature sensor, latched off, cycle AC to reset

Environmental

MTBF:	1,500,000 hours @ 25°C ambient, full load (Telcordia SR-332, Issue 3)
Operating Temperature:	-10°C to 40°C (full load)
Storage Temperature:	-30°C to 80°C

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<https://www.globtek.com/ds/QApuRmoXwnR/dJSgFLBPwWX.html>

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Model:GTM961200P120VV.V-T3A

May 20, 2024

Humidity:	0% to 95% relative humidity, non-condensing
Altitude:	5000m
Cooling:	Convection
RoHS:	Complies with EU 2011/65/EU and China SJ/T 11363-2006
Note 1:	Regarding operating temperature a. See below de-rating table for output power capability at alternate temperature b. Extended low-end temperature range available as a custom option

Safety

Dielectric Withstand Voltage:	4000VAC or 5656VDC from input to output 3000VAC or 4242VDC from input to earth (Class I models only)
Touch Current:	Class I: 20μA max. Class II: 70μA max.
Earth Leakage Current	Class I: 300μA max. Class II: N/A
Means of Protection:	2 x MOPP
Output Isolation Options:	Class I: C6 or C14 inlet (output negative tied to Earth contact) Class II: C8 or C18 inlet Class II FE: C6 or C14 inlet (output isolated from Earth contact) Review isolation options by reading our white paper PSU Isolation and Identity .
Primary-to-Secondary Bridging Capacitors:	Two IEC60384-14 Class Y1 capacitors
Earth Continuity Test:	< 0.1Ω between earth pin (on AC inlet) and PCB termination point (Class I models only)
Compliant Standards:	See listing at end of this datasheet for specific standards

EMC

Applicable Standards:	Medical: EN60601-1-2, 4th edition Emissions: EN55032, EN61000-6-3, EN61000-6-4, CISPR11, CISPR22 Immunity: EN55024, EN61000-6-1, EN61000-6-2
Conducted Emissions:	Class B, FCC Part 15, Class B (with resistive load)
Radiated Emissions:	Class B, FCC Part 15, Class B (with resistive load)
Harmonic Current Voltage Distortion:	EN61000-3-2, Class A
Voltage Fluctuations/Flicker:	EN61000-3-3
Electrostatic Discharge (ESD) Immunity:	EN61000-4-2, 10KV contact discharge, 18KV air discharge
Radiated RF Immunity:	EN61000-4-3, 10V/m 80-1000MHz, 3V/m 1-2.7GHz, 80% 1KHz AM
EFT/Burst Immunity:	EN61000-4-4, 4KV/100kHz.
Line Surge Immunity:	EN61000-4-5, 2KV differential, 4KV common-mode
Conducted RF Immunity:	EN61000-4-6, 3VRMS, 80% 1KHz AM
Power Frequency Magnetic Field Immunity:	EN61000-4-8, 3A/m
Voltage Dip Immunity:	EN61000-4-11

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Model:GTM961200P120VV.V-T3A

May 20, 2024

Enclosure

Housing:	High impact plastic, 94V0 polycarbonate, non-vented
Size:	149.4 * 62.6 * 33.5mm, $\pm$ 1.0mm
AC Input Mechanical Options:	C6, C8, C14, or C18 IEC inlet
Markings:	Label and/or pad printed and/or laser-etched into case

Special Options

1. Reduced leakage current to meet IEC60601-1 Type-CF limits
2. Improved EN61000-4-5 line surge immunity (3KV differential, 5KV common-mode)
3. Reduced harmonic current levels for LED lighting (EN61000-3-2 Class C) for 85 - 120W load
4. Short term output surge capability for motors or other high peak current loads
5. Ruggedized construction with improved shock and vibration resistance
6. Compliance to IPC-600, IPC-610, IPC-6012 Class 2 or 3
7. Custom cordsets, special cordage and connector types
8. Custom housing markings
9. Custom housing/cordage colors
10. Tightened output voltage tolerance
11. Reduced output ripple level
12. Reduced output power rating
13. Low temperature option, down to -40°C
14. Epoxy potted version "P2" or "P3" suffix, with flying wires or custom cables
15. "Back EMF" upgrade, for motor loads and other high inductance applications with reverse energy flow requirements
16. Improved ingress protection (IP) rating

Output Connectors

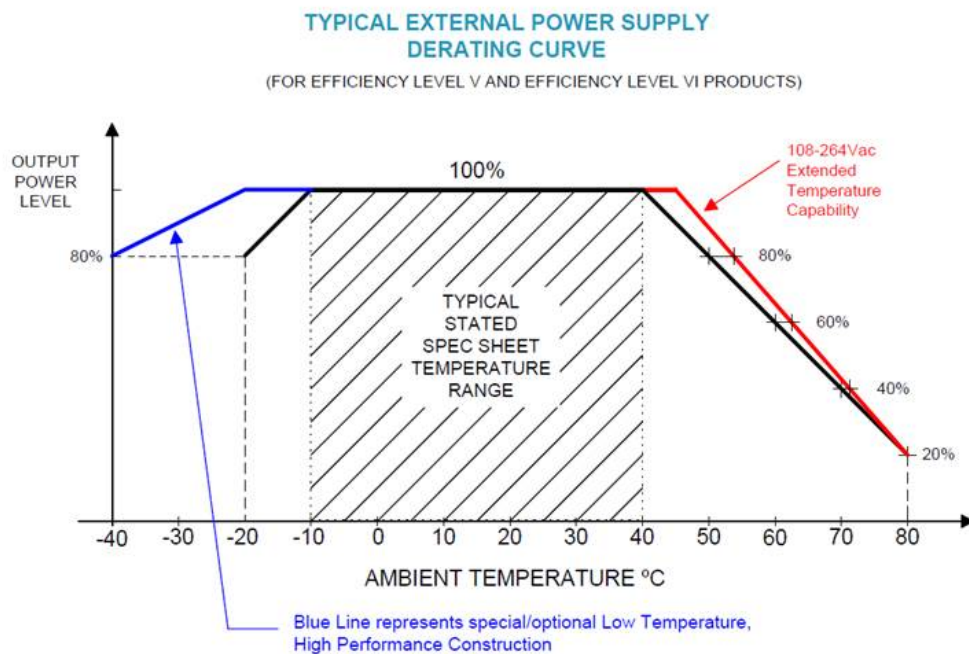
- Several output connector options are available with various output current ratings. GlobTek can supply 10A rated 2.1mm and 2.5mm style DC Power Jacks, to complement our 10A output rated 2.1mm and 2.5mm DC power plugs used on our output cordsets.
- Please visit our real-time listing of mating connector product offering:
<https://en.globtek.com/news/high-current-coaxial-barrel-plug-jacks-for-high-wattage-power-supplies>

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May 20, 2024

DERATING CURVE

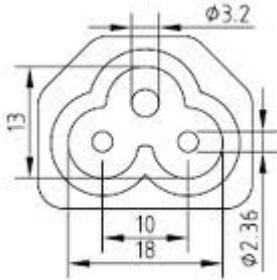


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May 20, 2024

INPUT CONFIGURATION

Description IEC 60320/C6 AC Inlet Connector, Class I, Earth Ground (aka "Mickey Mouse")



Mates with IEC 60320/C5 Plug

Standard International IEC 320/C5 Cordsets

Below are standard cordsets which are "not included" (unless stated above); these can be purchased separately or package with the power supply. Contact your Sales Engineer if the style required is not shown below. Many more available in different lengths, colors or cable material.

Part Number / Link	Country	Plug	Connector	Length (mm)	Length (ft)
3021066F712(R)	N. American (Type B)	NEMA 5-15P	IEC 320/C5 1880	6	
1191068F0712(R)	N. American (Type B)	NEMA 5-15P Hospital	IEC 320/C5 2459	8	
2194262M0712(R)	Argentina (Type I)	IRAM 2073	IEC320/C5 2050	6.7	
2064262M0712(R)	Australian (Type I)	AS3112 / 3 PRONG	IEC 320/C5 2000	6.6	
204B4262M0712(R)	Brazil (Type N)	BRAZIL	IEC 320/C5 2000	6.6	
6023592M5712(R)	China (Type I)	CCC GR2099	IEC 320/C5 2500	8	
23144262M0712(R)	Europe (Type E)	CEE 7/7	IEC 320/C5 2050	6.6	
2313K3432M0712(R)	Korea (Type F)	KS C 8305	IEC 320/C5 2000	6.6	
205IN4262M0712(R)	India (Type D)	India IS 1293 (also known as IA16A3 or BS546)	IEC320/C5 2000	6.6	
377C4262M0712(R)	Israel (Type H)	ISL	IEC320/C5 2050	6.7	
23024262M0712(R)	Italy (Type L)	CEI 23-16/VII	IEC 320/C5 2000	6.6	
3003316F0712(R)	Japan (Type B)	JIS 8303 / 3 PINS	IEC 320/C5 1830	6	
	Japan / USA	JIS 8303 / 3 PINS +			

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Model: GTM961200P120VV.V-T3A

May 20, 2024

3021066F0712ULPSE(R)	(Type B)	NEMA 5-15P	IEC 320/C5 1830	6
2054262M0712(R)	S. Africa (Type D)	South Africa SABS164-1 (6A type plug)	IEC320/C5 2050	6.7
2084262M0712(R)	S.Africa (Type M)	South Africa SABS164-1 (16A type plug)	IEC 320/C5 2000	6.6
23214262M0712(R)	Switzerland (Type J)	SEV 1011 (EL 203)	IEC 320/C5 2000	6.6
3003316F0712(R)	Taiwan (Type B) BSMI		IEC 320/C5 2000	6.6
6104262M0712(R)	UK, Hong Kong, Singapore, Gulf States (Type G)	BS1363	IEC 320/C5 2000	6.6

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Model: GTM961200P120VV.V-T3A

May 20, 2024

OUTPUT CONFIGURATION

Common output connector options:



L Type (Coaxial
5.5x2.5mm plug)



C Type (Coaxial
5.5x2.1mm plug)



K Type (Coaxial
3.5x1.3mm plug)



LL Type (5.5x2.5mm
Locking 760k type)



CL Type (5.5x2.1mm
Locking S761k type)



ML2 Type (Molex
housing 43025-0200)



YL3 Type
(KPPX-3P)



YL4 Type (KPPX-4P)



EJ1/2/3/4/5 (EIAJ
RC-5320A type
connectors)



MSB Type (Micro
USB)



USBC Type (USB
Type C)



Inquire for custom
design

For a comprehensive list of options, [click here](#)

Contact GlobTek for your specific requirements or custom solutions.

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Model:GTM961200P120VV.V-T3A

May 20, 2024

Approvals

Logo	Description
	Taiwan BSMI GTM961200P-T3(A) R32282 GTM961200P-T3(A); http://www.bsmi.gov.tw/wSite/ct?xItem=4072&ctNode=816&mp=2
No Logo Applicable	CB for IEC 60601-1:2006/A1:2013+A12:2014 IEC 60601-1-11:2015
No Logo Applicable	IEC 60335-1.2010+A1
No Logo Applicable	IEC 60335-1.2010+A1
No Logo Applicable	CB for IEC61347-1:2015 + A1:2017 IEC61347-2-13:2014, A1:2016
No Logo Applicable	CB for IEC61347-1:2015 + A1:2017 IEC61347-2-13:2014, A1:2016
No Logo Applicable	CB for IEC 62368-1:2014 (Second Edition)
	CCC Altitude up to 5000 m GB17625.1-2012, GB4943.1-2011, GB/T9254-2008
	Test standard: EN 55032: 2012+AC: 2013 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 55024:2010 EN 60601-1-2:2015
	Audio/Video, Information And Communication Technology Equipment - Part 1: Safety F [UL

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May 20, 2024

	62368-1:2014 Ed.2] Audio/Video, Information And Communication Technology Equipment - Part 1: Safety F [CSA C22.2#62368-1:2014 Ed.2]
	CHINA SJ/T 11364-2014, China RoHS Chart: http://www.globtek.com/pdf/F-GT-DJD-8.4.1-006%20China%20RoHS%20Declaration%
Conforms to AAMI STD.ES60601-1,IEC 60601-1-11 Certified to CAN/CSA STD.C22.2 NO.60601-1	Conforms to AAMI STD.ES60601-1,IEC 60601-1-11 Certified to CAN/CSA STD.C22.2 NO.60601-1
Conforms to UL STD. 60950-1 Certified to CSA STD C22.2 NO.60950-1	Conforms to UL STD. 60950-1 Certified to CSA STD C22.2 NO.60950-1
Conforms to UL STD. 62368-1 Certified to CSA STD C22.2 NO.62368-1	Conforms to UL STD. 62368-1 Certified to CSA STD C22.2 NO.62368-1
	Declaration ДС № EAЭC N RU Д-US.KA01.B.10453_19 Custom Union of Russia, Bela Kazakhstan http://www.globtek.com/redirect/?loc=gost-certificate-eac-declaration
	Medical Electrical Equipment - Part 1: General Requirements For Basic Safety And Ess Performance (R2012) [AAMI ES60601-1:2005 +C1;A2] [CSA C22.2#60601-1:2014 Ed.3] [AAMI HA60601-1-11:2015 Ed.2]
	Information Technology Equipment Safety Part 1: General Requirements >Valid without revision: 01Jan2022< [UL 60950-1:2007 Ed.2 +R:14Oct2014]
	ETL (Brazil) to IEC 62368-1;2014 DOC cert
	Indoor Use Only - Mark is on the label or Molded in the case

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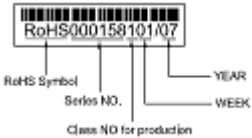
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 DC-E-G71-005.1 PRECAUCION: PARA USO EN EQUIPOS ELECTRONICOS SOLAMENTE	IRAM certificate DC-E-G71-005.1 to IEC 62368-1:2014
 GlobTek, Inc.	JAPAN TUV R-PSE, Cert. No. JD 50469658, to J62368-1(H30) , J55032(H29),J3000(H less). Please reference the following website for guidelines on PSE regulations: https://www.globtek.com/r2/Szj4Vb
 GlobTek, Inc.	JAPAN TUV R-PSE, Cert. No. JD 50469658, to J62368-1(H30) , J55032(H29),J3000(H25)[DC15?30V]. Please reference the following website for guide regulations: https://www.globtek.com/r2/Szj4Vb
 GlobTek, Inc.	JAPAN TUV R-PSE, Cert. No. JD 50469658, to J62368-1(H30) , J55032(H29),J3000(H25)[DC30?60V]. Please reference the following website for guide regulations: https://www.globtek.com/r2/Szj4Vb
 Mfr. Name: GLOBTEK (SUZHOU) CO.,LTD A/S Center:10-6221-6100	Korea KET KC Mark GTM961200P11012-T3(A) HU10499-21046A (12V & 13V Only)
EFFICIENCY LEVEL VI	Efficiency: complies to section 301 of Energy Independence and Security Act (EISA) co Energy Star tier 2 (North America), ECP tier 2 (China), MEPS tier 2 (Australia), Code of (Europe)
No Logo	Malaysia ST Release Letter GTM961200P T2 T3(A) IEC62368-1(Ed.2): No logo
	Morocco SDoC declaration http://www.globtek.info/certs/Morocco%20SDoC%20Declaration/

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Model:GTM961200P120VV.V-T3A

May 20, 2024

	Natural Resources Canada (NRCAN): CSA Standard C381.1-08, QSP NRCAN EEV119 GTM961200P10812-T3, -T3A, -T3TAB, -T2, -T2A, http://shop.csa.ca/en/canada/energy-efficiency/canicsa-c3811-08/inv/27024802008
 GMA-514113-EA	RCM certificate GMA-514113-EA; Australia and New Zealand Regulatory Compliance, http://rcm.standards.org.au/rcmfaq/rcmfaq.htm
RoHS	Specifications of directive 2011/65/EU Annex VI (ROHS-2) with amendment 2015/863- http://www.ce-mark.com/Rohs%20final.pdf
	S-Mark Certificate EN 60601-1:2006 + A1:2013 + A12:2014 EN 60601-1-11:2015 (http://www.intertek.com/marks/s/)
	S-Mark Certificate EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011+A2:2013 (http://www.intertek.com/marks/s/)
	S-Mark Certificate EN 62368-1:2014 + A11 (http://www.intertek.com/marks/s/)
	Serial Number Information
No Logo	SOUTH AFRICAN EMI/EMC SABS
	UKCA Certification
	Ukraine UKRSepro (Document: www.globtek.com/html/iso_certificates/GT_Ukraine.pdf)

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Model:GTM961200P120VV.V-T3A

May 20, 2024

	Japan: Voluntary Control Council for Interference (VCCI)
	WEEE: Complies with EU 2012/19/EU (http://ec.europa.eu/environment/waste/weee/) Mark is on the label or Molded in the case