



Certificate of Compliance

Certificate: 2182627

Master Contract: 163736

Project: 2182627

Date Issued: 2009-06-15

Issued to: Astec International Ltd-Philippine Branch
3rd and 4th Floor, Techno Plaza One Bldg
#18 Orchard Road, Eastwood City, Cyberpark
Bagumbayan
Quezon City, 1110
PHILIPPINES

Attention: Mr. Peter Paul Dychitan

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only



Issued by: Sanjay Chaubal

Authorized by: Jack Chin
Product Group
Manager

PRODUCTS

CLASS 5311 20 - POWER SUPPLIES - Component Type-For use in Medical Equipment.

CLASS 5311 96 - POWER SUPPLIES - Component Acceptance - Certified to US Standards.

Component Type Power Supply for use with Medical Applications where the suitability of the combination is to be determined.

Model: iVS3 series

iVS3-xxxx-xxxx-xxxx-xxxx-xxxx-xxxx-xxxx-xxxx-xxxx-xxxx-xxxx-xxxx-xxxx-xx

where the "-xxxx" denotes module version that can be used on the slots provided. The number of "-xxxx" depends on the number of module slots that can be accommodated by the front-end case.

Input: AC Input: 100-120V/200-240V, 25/30A max., 50/60Hz

DC Input: 120V min.-170V max. / 254Vmin. - 300Vmax, 25/30A max.

Output ratings: Refer to the Model Configuration as follows:

Certificate: 2182627

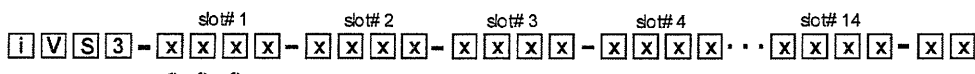


Master Contract: 163736

Project: 2182627

Date Issued: 2009-06-15

Model Configuration:



O/P Module Code
 O/P Voltage Code
 O/P Voltage Code
 i Module Option

O/P Voltage Code
 A=2V N=15V
 B=2.2V Q=18V
 C=3V P=20V
 D=3.3V Q=24V
 E=5V R=28V
 F=5.2V S=30V
 G=5.5V T=33V
 H=6V U=36V
 I=8V V=42V
 J=10V W=48V
 K=11V X=54V
 L=12V Y=60V
 M=14V Z=Special

Sample configuration:

Case Size	Module/Voltage/Option Codes	Case Option Codes	Software Code	Hardware Code
VSX	5L1 - 1Q1 - 2E0 - 4LLO	00	A	###
Case Size (mm) 1 Phase Input 1 = 5" x 5" x 11"; 1500 W - 3210 W, 9 Slots (127 x 127 x 279.4) 3 = 5" x 8" x 11"; 1800 W - 4500 W, 14 Slots (127 x 203.2 x 279.4) 3 Phase Input 6 = 5" x 5" x 11"; 3120 W, 9 Slots (127 x 127 x 279.4) 8 = 5" x 8" x 11"; 4920 W, 14 Slots (127 x 203.2 x 279.4) 8H = 5" x 8" x 11"; 4920 W, 14 Slots (127 x 203.2 x 279.4)	Module Codes Module/Voltage/option codes Module Codes: (None) = 36 W triple O/P (1 slot) 1 = 210 W single O/P (1 slot) 2 = 360 W single O/P (2 slots) 3 = 750 W single O/P (3 slots) 5 = 1500 W single O/P (slot 4) 4 = 144 W dual O/P (1 slot) HUP = Extra 30mS hold-up (1 slot) Voltage Codes: See Output Module Voltage/Current table above Option Codes: 0 = Standard 1 = Module enable 2 = Constant current 3 = 1 & 2 combined 4 = Set for use in standard (non-intelligent case) 5 = Shutdown mode for 1500 W 6 = 1 & 5 combined 7-9 Future	Case Option Codes First Digit 0 - 9 = Parallel code (See parallel codes table below) Second Digit 0 = No options 1 = Reverse air 2 = Not used 3 = Global enable 4 = Fan Off w/inhibit 5 = Opt 1 + Opt 3 6 = Opt 1 + Opt 4 7 = Opt 3 + Opt 4 8 = Opt 1 + 3 + 4 9 = Future	Software code used for configuration change. "A" is standard	Factory assembled for hardware or firmware mods.

Model: iVS3 series consists of the Front-end module 73-190-0001i case and DC/DC converter modules inserted on the slots provided. Each iVS3-configured model has a total of 14 slots for the DC/DC converter modules.

There are single, dual and triple output DC/DC converter modules some of which occupy more than 1 slot. The iVS3 series can be configured with various combinations of the following DC/DC modules:

- Single output 210W module, (width = 1 slot) : 73-551-xxxxi series
- Single output 360 W module, (width = 2 slots) : 73-552-xxxxi series
- Single output 750 W module, (width = 3 slots) : 73-553-xxxxi series
- Single output 1500W module, (width = 4 slots) : 73-558-xxxxi series
- Dual output 144W module, (width = 1 slot) : 73-554-xxxxi series
- Triple output 36W module, (width = 1 slot) : 73-550-xxxxi series

Certificate: 2182627



Master Contract: 163736

Project: 2182627

Date Issued: 2009-06-15

Additional Information: These equipments are considered Class I, all equipments are with no patient applied part, not suitable for use in the presence of flammable mixtures, continuous operation and detachable cord connected.

- | | |
|---|--|
| 1. Type of protection against electric shock: | Class I |
| 2. Degree of protection against electric shock: | No applied part/Not Classified |
| 3. Degree of protection against ingress of water: | IPX0 |
| 4. Degree of safety of application in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide: Equipment not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide. | |
| 5. Mode of operation: | Continuous |
| 6. Environmental Conditions: | Normal: 10-40°C, 30-75% Rh, 700- 1060 hpa. |

APPLICABLE REQUIREMENTS

- | | |
|------------------------------|---|
| CAN/CSA-C22.2 No. 0-M91 | - General Requirements, Canadian Electrical Code, Part II. |
| CAN/CSA-C22.2 No. 0.4-04 | - Bonding of Electrical Equipment. |
| CAN/CSA-C22.2 No. 601.1-M90 | - Medical Electrical Equipment Part I: General Requirements for Safety. |
| CAN/CSA-C22.2 No. 601.1S1-94 | - Supplement No. 1-94 to CAN/CSA-C22.2 No. 601.1-M90 - Medical Electrical Equipment--Part 1: General Requirements for Safety. |
| CAN/CSA-C22.2 No. 601.1B-98 | - Amendment 2 to CAN/CSA-C22.2 No. 601.1-M90 - Medical Electrical Equipment - Part 1: General Requirements for Safety |
| UL Std. No. 60601-1 | - Medical Electrical Equipment - Part 1: General Requirements for Safety. |

Subject to the following qualifications:

- (1) The equipment has not been investigated for the protection against hazards of explosions in medically used rooms.
- (2) The equipment has been evaluated to the above standards excluding requirements for Electromagnetic Compatibility (Clause 56), Biocompatibility (Clause 48) and Programmable Electronic Systems (Clause 52.1).
- (3) The main supply cord set provided with the equipment must be an approved type acceptable to the authorities where the equipment is sold.
- (4) SAFETY HAZARDS resulting from the intended physiological function of EQUIPMENT covered by this Standard are not considered.
- (5) The power supply is not for direct patient contact or in the patient vicinity.

Certificate: 2182627

Project: 2182627





Master Contract: 163736

Date Issued: 2009-06-15

MARKINGS

MARKING METHOD: The markings below are made via silk screening, die stamping, moulding or on CSA certified or UL recognized adhesive nameplate material compatible with the surface used, or equivalent permanent means that can pass the label rub test under Clause 6.1.

- (a) The CSA applicable mark  with optional reference to Standard CAN/CSA C22.2 No. 601.1 (AM1+AM2), UL 60601-1, or IEC 60601-1.
- (b) Manufacturer's identification: Name and/or CSA file number "LR 109492" or Master Contract "163736" on the same label as the CSA Mark. The name and/or trademark should appear elsewhere on the equipment if only the file number or Master Contract is used on this label.
- (c) Catalogue/Model/Type designation.
- (d) Electrical rating: The complete electrical ratings (in volts, hertz and amperes) with the IEC 60417-5032 "Alternating Current" symbol ~ or with IEC 60417-5031 "DC Current" symbol adjacent to the marked voltage.
- (e) Date of manufacture: Month and year of manufacture or date code. If a serial number is used instead of date of manufacture, a record of serial numbers shall be kept traceable to date of manufacture. (Not related to date of sale).
- (f) For UL 60601-1: Marking on the unit that indicates the manufacturing location if the equipment is manufactured at more than one factory location.
- (g) The IEC 348 symbol  indicating "Attention: Consult Accompanying Documents".
- (h) Type of protection against electrical shock: Class I for protectively grounded equipment. (May be marked on the product or recorded in accompanying documents)
- (i) Degree of Protection against Harmful Ingress of Water: Ordinary equipment, IPX0. (Marking is not required if it is IPX0)
- (j) Degree of Safety in the Presence of Flammable Anaesthetic Mixture with Air or Oxygen or Nitrous Oxide: Not suitable for use in the presence of a flammable anaesthetic mixture with air or with oxygen or nitrous oxide. (May be marked on the product or recorded in accompanying documents).
- (k) Mode of Operation: Continuous.



Supplement to Certificate of Compliance

Certificate: 2182627

Master Contract: 163736

*The products listed, including the latest revision described below,
are eligible to be marked in accordance with the referenced Certificate.*

Product Certification History

Project	Date	Description
2182627	2009-06-15	Original Certification.