ENGLISH

General Safety Instructions:

READ SAFETY INSTRUCTIONS

Servicing:
These products are not customer serviceable TDK-Lambda UK LTD and their authorised agents only are permitted to carry out repairs.

Critical Components:
These products are not authorised for use as critical components in nuclear control systems, life support systems or equipment for use in hazardous environments without the express written approval of the Managing Director of TDK-Lambda EMEA.

Product Usage:
These products are designed for use within a host equipment which restricts access to authorised competent personnel.

This product is a component power supply and is only to be installed by qualified persons within other equipment and must not be operated as a stand alone product.
This product is for sale to business to business customers and can be obtained via distribution channels.
It is not intended for sale to end users.

This product is a component power supply and does not fall within the scope of the EMC directive. Compliance with the EMC directive must be considered in the final installation. Please contact your local TDK-Lambda office.

Environmental:
These products are IPX0, and therefore chemicals/solvents, cleaning agents and other liquids must not be used.

Environment:
This power supply is a switch mode power supply for use in applications within a Pollution Degree 2, overvoltage category II environment. Material Group IIIb PCB's are used within it.

Output Loading:
The output power taken from the power supply must not exceed the rating stated on the power supply label, except as stated in the product limitations in this instruction manual.

Input Parameters:
This product must be operated within the input parameters stated in the product limitations in this instruction manual.

End of Life Disposal:
The unit contains components that require special disposal. Make sure that the unit is properly disposed of at the end of its service life and in accordance with local regulations.

RISK OF ELECTRIC SHOCK

High Voltage Warning:
Dangerous voltages are present within the power supply**.** The professional installer must protect service personnel from inadvertent contact with these dangerous voltages in the end equipment.

WARNING: When installed in a Class 1 end equipment, this product must be reliably earthed and professionally installed.

When installed in a Class II end equipment, no earthing connection to the power supply is required.

CAUTION: DOUBLE POLE/NEUTRAL FUSING

The (+) or (-) output(s) can be earthed or left floating.

The unit cover(s)/chassis (where applicable) must not be made user accessible.

The mains input connector is not acceptable for use as field wiring terminals.

For encased products, do not use mounting screws, which penetrate the unit more than 4.5mm.

Internal fuses protect the unit and must not be replaced by the user. In case of internal defect, the unit must be returned to TDK-Lambda UK LTD or one of their authorised agents.

A suitable mechanical, electrical and fire enclosure must be provided by the end use equipment for mechanical, electric shock and fire hazard protection.

Energy Hazards:
The main output of this product is capable of providing hazardous energy (240VA). Final equipment manufacturers must provide protection to service personnel against inadvertent contact with the output terminals.

The ventilation openings on these products must not be impeded. Ensure that there is at least 50mm spacing between any obstruction and the ventilation openings.

The unit cover/chassis, where applicable, is designed to protect skilled personnel from hazards. They must not be used as part of the external covers of any equipment where they may be accessible to operators, since under full load conditions, part or parts of the unit chassis may reach temperatures in excess of those considered safe for operator access.

The power supply contains dangerous voltages and should only be handled by qualified personnel when the power supply has been disconnected from the mains supply voltage for more than 5 minutes.

DEUTSCH

Allgemeine Sicherheitsvorschriften:

LESEN SIE DIE SICHERHEITSVORSCHRIFTEN

Wartung:
Diese Produkte können nicht durch den Kunden gewartet werden. Nur TDK-Lambda UK LTD. und deren zugelassene Vertriebshändler sind zur Durchführung von Reparaturen berechtigt.

Kritische Komponenten:
Diese Produkte sind nicht für die Verwendung als kritische Komponenten in nuklearen Kontrollsystemen, Lebenserhaltungssystemen oder Geräten in gefährlichen Umgebungen geeignet, sofern dies nicht ausdrücklich und in Schriftform durch den Geschäftsführer von TDK-Lambda EMEA genehmigt wurde.

Produktverwendung:
Diese Produkte sind zur Verwendung innerhalb von Host-Anlagen gedacht, die einen auf das Fachpersonal beschränkten Zugang haben.

Dieses Produkt ist eine Stromversorgungs-Komponente und sie darf nur von qualifiziertem Personal in andere Geräte eingebaut werden und sie darf NICHT als eigenständiges ("Stand-Alone") Gerät betrieben werden.
Dieses Produkt ist für den Verkauf an Geschäftskunden entwickelt worden und es kann über Distributionskanäle bezogen werden.
Es ist NICHT für den Verkauf an Endkunden gedacht und konzipiert.

Dieses Produkt ist eine Stromversorgungsbaugruppe und sie fällt NICHT in den Bereich der EMV Direktive.
Die Konformität mit der EMV Richtlinie muss in der finalen Gesamtinstallation betrachtet werden.
Bitte kontaktieren Sie Ihr regionales TDK-Lambda Vertriebsbüro im Falle von Rückfragen.

Umwelt:
Diese Produkte sind IPX0, aus diesem Grund dürfen keine Chemikalien/Lösungsmittel, Reinigungsmittel und andere Flüssigkeiten verwendet werden.

Umgebung:
Dieses Netzteil ist ein Schaltnetzteil zur Verwendung in einer Umgebung mit einem Verschmutzungsgrad 2, Überspannungskategorie II. Materialgruppe IIIb mit darin verwendeten PCBs.

Ausgangsstrom:
Der Ausgangsstrom des Netzteiles darf die Leistung, die auf dem Label des Netzteiles vermerkt ist, nur dann überschreiten, wenn dies in den Produktgrenzen dieses Handbuches ausgezeichnet ist.

Eingangsparameter:
Dieses Produkt muss innerhalb der Eingangsparameter, die in den Produktgrenzen dieses Handbuches angegeben sind, betrieben werden.

Entsorgung am Ende der Betriebszeit:
Das Gerät enthält Komponenten die unter Sondermüll fallen. Das Gerät muss am Ende der Betriebszeit ordnungsgemäß und in Übereinstimmung mit den regionalen Bestimmungen entsorgt werden.

GEFAHR DURCH ELEKTRISCHEN SCHLAG

Hochspannungswarnung:
Innerhalb des Netzteiles gibt es gefährliche Spannungen**.** Der Elektroinstallateur muss das Wartungspersonal vor versehentlichem Kontakt mit den gefährlichen Spannungen im Endgerät schützen.

WARNUNG! Falls Sie unser Netzgerät in eine Anwendung mit Schutzklasse 1 eingebaut haben, stellen Sie sicher, dass es fachgerecht installiert und zuverlässig geerdet ist.

Bei Einbau in eine Anwendung mit Schutzklasse 2 ist keine Erdung zum Netzgerät erforderlich.

ACHTUNG: ZWEIPOLIGE/NEUTRALE SICHERUNG

Die (+) oder (-) Ausgänge können geerdet werden oder unangeschlossen bleiben.

Die Abdeckung des Gerätes/das Gehäuse darf für den Benutzer nicht zugänglich sein.

Der Haupteingangsanschluss ist nicht für die Verwendung als Feldverdrahtungsanschluss geeignet.

Verwenden Sie keine Befestigungsschrauben, die mehr als 4.5mm in das Gerät eindringen.

Eine interne Sicherung schützt das Gerät und darf durch den Benutzer nicht ausgetauscht werden. Im Fall von internen Defekten muss das Gerät an TDK-Lambda UK LTD oder einen der autorisierten Vertriebshändler zurückgeschickt werden.

Ein geeignetes mechanisches, elektrisches und brandgeschütztes Gehäuse muss als Schutz vor der Gefahr von mechanischen Risiken, Stromschlägen und Brandschutz in dem Endgerät vorgesehen werden.

Gefahren durch elektrische Energie:
Von bestimmten Modulen kann je nach Einstellung der Ausgangsspannung gefährliche elektrische Energie ausgehen (240 VA). Die Endgerätehersteller müssen einen Schutz für Servicepersonal vor unbeabsichtigtem Kontakt mit den Ausgangsanschlüssen dieser Module vorsehen. Kann aufgrund der Einstellung gefährliche elektrische Energie auftreten, dürfen die Modulanschlüsse für den Benutzer nicht zugänglich sein.

Das Gerät darf in jeder Position befestigt werden, mit Ausnahme über Kopf (umgekehrt) oder vertikal mit dem Luftstrom abwärts.

Die Belüftungsöffnungen an diesem Produkt dürfen nicht blockiert werden. Achten Sie darauf, dass mindestens 50 mm Abstand zwischen Hindernissen und den Belüftungsöffnungen bleibt.

Die Geräteabdeckung/das Gehäuse ist so entworfen, dass das Fachpersonal vor Gefahren geschützt wird. Sie dürfen nicht als Teil der externen Abdeckung für Geräte verwendet werden, die für den Betreiber zugänglich sein müssen, da Teile oder das gesamte Gerätegehäuse unter voller Auslastung übermäßige Temperaturen erreichen kann, die für den Zugang des Betreibers nicht mehr als sicher betrachtet werden.

Das Netzteil steht unter hoher Spannung und sollte deshalb mindestens 5 Minuten vom Netz getrennt sein. Die Bedienung darf nur durch Fachpersonal erfolgen

FRANÇAIS

Consignes générales de sécurité:

LIRE LES CONSIGNES DE SECURITE

Entretien:
Ces produits ne peuvent pas être réparés par l'utilisateur. Seuls, TDK-Lambda UK LTD et ses agents agréés sont autorisés à effectuer des réparations.

Composants critiques:
Ces produits ne doivent pas être utilisés en tant que composants critiques dans des systèmes de commande nucléaire, dans des systèmes de sauvetage ou dans des équipements utilisés dans des environnements dangereux, sans l'autorisation écrite expresse du directeur général de TDK-Lambda EMEA.

Utilisation du produit:
Ces produits sont conçus pour être utilisés dans un équipement hôte dont l'accès n'est autorisé qu'aux personnes compétentes.

Ce produit est une alimentation considérée comme un composant devant être installé par des personnes qualifiées, dans un autre équipement. Il ne doit pas être utilisé en tant que produit fini.
Ce produit est destiné à la vente entre entreprises et peut être obtenu via des canaux de distribution.
Il n'est pas prévu à la vente pour les particuliers.

Ce produit est une alimentation considérée comme un composant, il ne relève pas du champ d'application de la directive CEM. Le respect de la directive CEM doit être pris en compte dans l'installation finale. Veuillez contacter votre bureau TDK-Lambda le plus proche.

Environnement:
Ces produits sont IPX0, et donc on ne doit pas utiliser des produits chimiques/solvants, des produits de nettoyage et d'autres liquides.

Environnement fonctionnel :
Cette alimentation fonctionne en mode commutation pour utilisation dans des applications fonctionnant dans un environnement avec Degré de Pollution 2 et catégorie de surtension II. Elle utilise des cartes des circuits imprimés (PCB) de Groupe IIIb.

Intensité soutirée:
L'intensité soutirée de l'alimentation ne doit pas dépasser l'intensité nominale marquée sur la plaque signalétique, sauf indications contraires dans les limitations du produit décrit dans ce manuel.

Paramètres d'entrée:
Ce produit doit être utilisé à l'intérieur des paramètres d'entrée indiqués dans les limitations du produit dans ce manuel.

Elimination en fin de vie:
L'alimentation contient des composants nécessitant des dispositions spéciales pour leur élimination. Vérifiez que cette alimentation est mise au rebut correctement en fin de vie utile et conformément aux réglementations locales en vigueur.

RISQUE DE CHOC ELECTRIQUE

Attention-Danger haute tension:
Des tensions dangereuses sont présentes dans l'alimentation. L'installateur doit protéger le personnel d'entretien contre un contact involontaire avec ces tensions dangereuses dans l'équipement final.

AVERTISSEMENT: Si ce produit est installé dans un équipement final de classe I, il doit être mis à la terre de manière fiable et installé par un professionnel averti.

S'il est installé dans un équipement final de classe II, il n'est pas nécessaire de raccorder l'alimentation à la terre.

ATTENTION: FUSIBLE BIPOLAIRE/NEUTRE

Les sorties (+) ou (-) peuvent être raccordées à la terre ou laissées flotttantes.

Le couvercle/châssis de l'alimentation ne doit pas être accessible à l'utilisateur.

Le connecteur d'entrée d'alimentation principale ne doit pas être utilisé comme borne de raccordement.

N'utilisez pas de vis pénétrant dans le module sur une profondeur supérieure à 4.5 mm.

Un fusible interne protège le module et ne doit pas être remplacé par l'utilisateur. En cas de défaut interne, le module doit être renvoyé à TDK-Lambda UK LTD ou l'un de ses agents agréés.

Une enceinte appropriée doit être prévue par l'utilisateur final pour assurer la protection contre les chocs mécaniques, les chocs électriques et l'incendie.

Energies dangereuses :
Certains modules peuvent générer une énergie dangereuse (240 VA) selon le réglage de tension de sortie. Le fabricant de l'équipement final doit assurer la protection des techniciens d'entretien contre un contact involontaire avec les bornes de sortie de ces modules. Si une telle tension dangereuse risque de se produire, les bornes ou les connexions du module ne doivent pas être accessibles par l'utilisateur.

Le module peut être monté suivant une orientation quelconque, sauf en position inversée (monté sur son sommet) ou en position verticale avec écoulement d'air descendant.

Les orifices de ventilation sur ces produits ne doivent pas être obstrués. Vérifiez qu'il y a un espace libre d'au moins 50 mm entre une obstruction et les orifices de ventilation.

Le couvercle et le châssis du module sont conçus pour protéger des personnels expérimentés. Ils ne doivent pas être utilisés comme couvercles extérieurs d'un équipement, accessible aux opérateurs car en condition de puissance maximum, des parties du châssis peuvent atteindre des températures considérées comme dangereuses pour l'opérateur.

L’alimentation délivre des tensions dangereuses et doit seulement être manipulée par du personnel qualifié quand celle-ci a été déconnectée du secteur pendant plus de 5 minutes.

ITALIANO

Norme generali di sicurezza:

SI PREGA DI LEGGERE LE NORME DI SICUREZZA

Manutenzione:
Il cliente non può eseguire alcuna manutenzione su questi prodotti. L'esecuzione delle eventuali riparazioni è consentita solo a TDK-Lambda UK LTD e ai suoi agenti autorizzati.

Componenti critici:
Non si autorizza l'uso di questi prodotti come componenti critici all'interno di sistemi di controllo nucleari, sistemi necessari alla sopravvivenza o apparecchiature destinate all'impiego in ambienti pericolosi, senza l'esplicita approvazione scritta dell'Amministratore Delegato di TDK-Lambda EMEA.

Uso dei prodotti:
Questi prodotti sono progettati per l'uso all'interno di un'apparecchiatura ospite che limiti l'accesso al solo personale competente e autorizzato.

Questo prodotto è da considerarsi come un alimentatore professionale componente e come tale deve essere installato da personale qualificato all'interno di altre apparecchiature e non può essere utilizzato come prodotto indipendente.
Questo prodotto non è inteso per la vendita al dettaglio o agli utilizzatori finali.

Questo alimentatore è da considerarsi come un componente e come tale non è assogettato dagli scopi della direttiva EMC. Conformità alla direttiva EMC deve essere considerata nell'installazione finale di utilizzo. Gli uffici di TDK-Lambda Sas Succursale Italiana sono a vostra disposizione per ulteriori ragguagli.

Condizioni ambientali:
Questi prodotti sono classificati come IPX0, dunque non devono essere utilizzati sostanze chimiche/solventi, prodotti per la pulizia o liquidi di altra natura.

Ambiente:
Questo prodotto è un alimentatore a commutazione, destinato all'uso in applicazioni rientranti in ambienti con le seguenti caratteristiche: Livello inquinamento 2, Categoria sovratensione II. Questo prodotto contiene schede di circuiti stampati in materiali di Gruppo IIIb.

Carico in uscita:
La potenza in uscita ottenuta dall'alimentatore non deve superare la potenza nominale indicata sulla targhetta dell'alimentatore, fatto salvo dove indicato nei limiti per i prodotto specificati in questo manuale.

Parametri di alimentazione:
Questo prodotto deve essere utilizzato entro i parametri di alimentazione indicati nei limiti per il prodotto, specificati in questo manuale.

Smaltimento:
L'unità contiene componenti che richiedono procedure speciali di smaltimento. Accertarsi che l'unità venga smaltita in modo corretto al termine della vita utile e nel rispetto delle normative locali.

RISCHIO DI SCOSSA ELETTRICA

Avvertimento di alta tensione:
All'interno dell'alimentatore sono presenti tensioni pericolose. Gli installatori professionali devono proteggere il personale di manutenzione dal rischio di contatto accidentale con queste tensioni pericolose all'interno dell'apparecchiatura finale.

ATTENZIONE: Se installato in un’attrezzatura di classe I, questo prodotto deve essere collegato a terra in modo affidabile ed installato in modo professionale.

Se installato in un’attrezzatura di classe II, non è necessario alcun collegamento a terra.

ATTENZIONE: PROTEZIONE CON FUSIBILE BIPOLARE/NEUTRO

Le uscite (+) o (-) possono essere messa a terra o lasciate isolate.

I coperchi/il telaio dell'unità non devono essere accessibili da parte dell'utente.

Il connettore dell'alimentazione principale non può essere utilizzato come terminale di collegamento di campo.

Non utilizzare viti che penetrano nell'unità per più di 4.5 mm.

Un fusibile interno protegge l'unità e non deve essere sostituito dall'utente. Nell'eventualità di un difetto interno, restituire l'unità a TDK-Lambda UK LTD o a uno dei suoi agenti autorizzati.

L'apparecchiatura finale deve includere una recinzione meccanica, elettrica e antincendio per proteggere dai pericoli di natura meccanica, dalle scosse elettriche e dai pericoli di incendio.

Pericoli energetici:
Alcuni moduli sono in grado di erogare energia pericolosa (240 VA) a seconda della tensione in uscita impostata. I produttori delle apparecchiature finali sono tenuti a proteggere il personale di manutenzione dal rischio di contatto accidentale con questi terminali dei moduli di uscita. Se impostati su livelli che non escludono l'erogazione di energia pericolosa, questi terminali o collegamenti non devono risultare accessibili da parte dell'utente.

L'unità può essere installata in qualunque orientamento, ma non in posizione capovolta o in posizione verticale con il flusso dell'aria rivolto verso il basso.

Le griglie di ventilazione su questi prodotti non devono essere ostruite. Verificare che vi sia una distanza minima di 50 mm fra le griglie di ventilazione e qualsiasi eventuale ostruzione.

Il coperchio/telaio dell'unità è realizzato per proteggere il personale esperto dai pericoli. Non deve essere usato come parte degli involucri esterni di qualsiasi apparecchiatura, se risulta accessibile da parte degli addetti, poiché è possibile che in condizioni di pieno carico una o più parti del telaio dell'unità giunga/giungano a temperature superiori ai limiti considerati sicuri per l'accesso da parte degli addetti.

L'alimentatore contiene tensioni pericolose e deve essere gestito da personale qualificato previo scollegamento dalla tensione di rete da più di 5 minuti

ESPAÑOL

Instrucciones generales de seguridad:

LEA LAS INSTRUCCIONES DE SEGURIDAD

Servicio:
Estos productos no pueden ser reparados por los clientes. TDK-Lambda UK LTD. y sus agentes autorizados son los únicos que pueden llevar a cabo las reparaciones.

Componentes fundamentales:
Estos productos no pueden ser utilizados como componentes fundamentales en sistemas de control nuclear, sistemas de soporte vital o equipos a utilizar en entornos peligrosos sin el consentimiento expreso por escrito del Director General de TDK-Lambda EMEA.

Uso de los productos:
Estos productos han sido diseñados para ser utilizados en un equipo central que restrinja el acceso al personal cualificado autorizado.

Este producto es una fuente de alimentación y sólo puede ser instalado por personal cualificado dentro de otros equipos y no debe ser tratado como un producto independiente. Este producto debe ser vendido entre empresas profesionales y solo puede obtenerse a través de los canales de distribución .No está destinado para la venta a usuarios finales

Este producto es una fuente de alimentación y no se ve afectada por la directiva EMC . El cumplimiento de la directiva EMC se debe considerar en la instalación final . Por favor, póngase en contacto con su oficina local de TDK - Lambda

Medioambiental:
Estos productos son IPX0 y, por tanto, no pueden utilizarse sustancias químicas/disolventes, agentes de limpieza ni otros líquidos.

Medio ambiente:
Esta fuente de alimentación es una fuente de alimentación de modo conmutado a utilizar en aplicaciones dentro de un entorno con un Grado de contaminación 2 y una Categoría de sobretensión II. En él se utilizan policloruros de bifenilo del Grupo de materiales IIIb.

Carga de salida:
La potencia de salida tomada de la fuente de alimentación no puede sobrepasar el valor nominal indicado en la etiqueta de la fuente de alimentación, excepto en los casos indicados en las limitaciones del producto en este manual.

Parámetros de entrada:
Este producto debe ser utilizado dentro de los parámetros de entrada indicados en las limitaciones del producto en este manual.

Desecho de la unidad:
La unidad contiene componentes que deben ser desechados de una manera especial. Asegúrese de desechar correctamente la unidad al final de su vida útil y conforme a las normas locales vigentes.

PELIGRO DE DESCARGAS ELÉCTRICAS

Advertencia de alta tensión:

En esta fuente de alimentación hay tensiones peligrosas. El instalador profesional debe proteger al personal de servicio contra cualquier contacto accidental con estas tensiones peligrosas en el equipo final.

ADVERTENCIA: La instalación de este producto en un equipo de clase I la deben llevar a cabo profesionales y el producto debe estar conectado a tierra.

Para instalar este producto en un equipo de clase II no es necesario que la alimentación esté conectada a tierra.

PRECAUCIÓN: PROTECCIÓN POR FUSIBLES BIPOLAR/NEUTRA

La salida o salidas (+) o (-) pueden conectarse a tierra o se las puede dejar flotando.

Debe impedirse el acceso de los usuarios a la cubierta o cubiertas y al chasis de la unidad.

El conector de entrada de la red no es apto para ser utilizado a modo de bornes de cableado de campo.

No utilice tornillos de montaje susceptibles de penetrar en la unidad más de 4.5 mm.

Un fusible interno protege la unidad y este no debe ser nunca reemplazado por el usuario. En caso de existir algún defecto interno, la unidad debe ser enviada a TDK-Lambda UK LTD o a uno de sus agentes autorizados.

El equipo de uso final debe constituir un recinto de protección mecánica, eléctrica y contra incendios de protección mecánica, contra descargas eléctricas y contra el peligro de incendios.

Peligros de energía:
Algunos módulos pueden generar energía peligrosa (240VA) dependiendo de la configuración de la tensión de salida. Los fabricantes de equipos finales deben proteger al personal de servicio contra un contacto accidental con estos bornes de salida de los módulos. Si se configura de modo que pueda generarse energía peligrosa, hay que evitar que el usuario pueda acceder a los bornes o conexiones del módulo.

La unidad se puede montar en cualquier orientación excepto invertida (montada sobre su parte de arriba) o vertical con los orificios para el flujo de aire mirando hacia abajo.

Las aberturas de ventilación de estos productos no deben obstruirse jamás. Asegúrese de que quede una separación de 50 mm por lo menos entre cualquier obstrucción y las aberturas de ventilación.

La cubierta/chasis de la unidad ha sido diseñada para que proteja a las personas cualificadas de los peligros. No deben ser utilizadas como parte de las cubiertas externas de cualquier equipo al que pueden acceder los operarios, ya que bajo unas condiciones de carga completa, la pieza o piezas del chasis de la unidad pueden alcanzar temperaturas superiores a las consideradas seguras para el acceso de los operarios.

El suministro eléctrico contiene tensiones peligrosas y, en caso de que se haya desconectado de la alimentación principal durante más de 5 minutos, deberá ser manipulado únicamente por personal cualificado

PORTUGUÊS

Instruções gerais de segurança:

LEIA AS INSTRUÇÕES DE SEGURANÇA

Manutenção:
Estes produtos não são podem ser submetidos a manutenção por parte do cliente. Apenas a TDK-Lambda UK LTD e os seus agentes autorizados têm permissão para realizar reparações.

Componentes essenciais:
Não é autorizada a utilização destes produtos como componentes essenciais de sistemas de controlo nuclear, sistemas de suporte de vida ou equipamento para utilização em ambientes perigosos sem a expressa autorização por escrito do Director-Geral da TDK-Lambda EMEA.

Utilização do produto:
Estes produtos foram concebidos para utilização dentro de um equipamento de alojamento que apenas permita o acesso a pessoal qualificado autorizado.

Este produto é uma alimentaçao considerado com um componente para ser instalado por pessoas qualificadas, em outros equipamentos. Não deve ser usado como um produto acabado.
Este produto é destinado para venda entre as empresas e pode ser obtido através de canais de distribuição.
Não se destina à venda aos particulares

Este produto é uma alimentaçao considerado com um componente, não é dentro do appliquation âmbito da directiva CEM.
Conformidade com a directiva CEM devem ser considerados na instalação final.
Entre em contacto com seu escritório TDK-Lambda mais próximo.

Ambiental:
Estes produtos são IPX0 e, como tal, não se devem utilizar químicos/solventes, agentes de limpeza e outros líquidos.

Ambiente:
Esta fonte de alimentação é uma fonte de alimentação do modo de comutação para utilização em aplicações com um Nível de Poluição 2 e ambientes da categoria de sobretensão II. São utilizadas placas de circuitos impressos do grupo de materiais IIIb.

Carga de saída:
A potência de saída extraída da fonte de alimentação não deve exceder a classificação assinalada na etiqueta da fonte de alimentação, excepto quando indicado nas limitações do produto neste guia.

Parâmetros de entrada:
Este produto deve ser utilizado dentro dos parâmetros de entrada indicados nas limitações do produto neste guia.

Eliminação no fim de vida:
A unidade contém componentes que necessitam de procedimentos especiais de eliminação. Certifique-se de que a unidade é devidamente eliminada no fim da sua vida útil e que tal é feito em conformidade com os regulamentos locais.

RISCO DE CHOQUE ELÉCTRICO

Aviso de alta tensão:
Estão presentes tensões perigosas dentro da fonte de alimentação. O profissional que realizar a instalação deve proteger o pessoal de assistência contra contactos inadvertidos com estas tensões perigosas do equipamento final.

AVISO: Quando instalado num equipamento de Classe I, este produto deve ser ligado à terra de forma fiável e instalado por um profissional.

Quando instalado num equipamento de Classe II, não é necessário que a fonte de alimentação tenha ligação à terra.
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CUIDADO: LIGAÇÃO DE FUSÍVEIS DE DOIS PÓLOS/NEUTRA

As saídas (+) e (-) podem ser ligadas à terra ou deixadas soltas.

O chassis/cobertura(s) da unidade não deve estar acessível ao utilizador.

O conector de entrada de alimentação não deve ser utilizado como terminal de cablagens no local.

Não utilize parafusos de montagem, uma vez que estes penetrarão na unidade em mais do que 4.5 mm.

Existe um fusível interno que protege a unidade e que não deve ser substituído pelo utilizador. Em caso de defeito interno, a unidade deve ser devolvida à TDK-Lambda UK LTD ou a um dos seus agentes autorizados.

O equipamento de utilização final deve fornecer um bastidor com protecção mecânica, eléctrica e contra incêndios adequada.

Perigos de energia:
Alguns módulos tem a capacidade de fornecer energia perigosa (240 VA), de acordo com a configuração da tensão de saída. O equipamento final do fabricante deve garantir que o pessoal de assistência está protegido contra contactos inadvertidos com estes terminais de saída do módulo. Se essa energia perigosa for produzida, as ligações e os terminais do módulo não devem ser acessíveis pelos utilizadores.

A unidade pode ser instalada em qualquer posição, excepto invertida (montada sobre a parte superior), ou na posição vertical, com o fluxo de ar dirigindo-se para baixo.

As aberturas de ventilação destes produtos não devem ser obstruídas. Certifique-se de que existe um espaçamento de pelo menos 50 mm entre qualquer obstrução e as aberturas de ventilação.

O chassis/cobertura da unidade está concebido de forma a proteger o pessoal especializado de perigos. Não devem ser utilizados como parte das coberturas externas de qualquer equipamento em que possam estar acessíveis aos operadores, uma vez que em condições de carga máxima, algumas peças do chassis da unidade podem atingir temperaturas superiores às consideradas seguras para o acesso do operador.

A fonte de alimentação contém tensões perigosas e apenas deve ser manuseada por pessoal qualificado quando a fonte de alimentação tiver sido desligada da tensão de alimentação elétrica há mais de 5 minutos.

Special Instructions for medical applications

IEC/EN 60601-1 3rd Edition
ANSI/AAMI ES 60601-1
CSA C22.2 No 60601-1

- These products are designed for continuous operation within an overall enclosure, and must be mounted such that access to the mains terminals is restricted. See the appropriate standard listed above.
- For Class II installation, these products need to be fixed such that they are isolated from unearthed accessible conductive parts by at least 2 MOPP's (Reinforced).
- The perforated cover when fitted to the EFE400MxD (Class II) must be treated as a live part with 1 MOPP (Basic/Supplementary) insulation to primary and 1 MOPP (Basic/Supplementary) insulation to secondary.
- These products are NOT suitable for use in the presence of flammable anaesthetic mixtures with air or with oxygen, or with nitrous oxide.
- For IEC/EN 60601-1 3rd Edition, ANSI/AAMI ES 60601-1, CSA C22.2 No 60601-1, these products provide reinforced insulation between input and outputs of 2 MOPPs. 1 MOPP from input to earth and 1 MOPP from output to earth at 250Vac and due consideration must be given to this in the end product.
- These products are suitable for B and BF type medical equipment.
- These products are NOT protected against the ingress of water.
- Connect only apparatus complying with the standards listed above as appropriate to the signal ports.
- These products have SELV outputs.
- Reference should be made to local regulations concerning the disposal of these products at the end of their useful life.
- EFE400MxD models (Class II) must be assessed for Accessible Parts in the end equipment.
- Where any part of this product is made accessible to the operator in the end use equipment, the operator must not touch this part and the patient at the same time.
- These products have not been assessed to IEC/EN60601-1-2 (EMC) but EMC test data is available from TDK-Lambda UK Ltd.

Special Instructions for 60950-1

- EFE400MxD models (Class II) must be assessed for Accessible Parts in the end equipment.
- EFE400MxD models (Class II) must be assessed for Limited Current in the end equipment.
- For Class II installation, these products need to be fixed such that they are isolated from unearthed accessible conductive parts by Reinforced insulation.

WARNING: No modification of this product is allowed.

Environmental Specifications:

Description	Operation	Storage & Transportation
Use	Indoor	-
Temperature	0°C - +70°C (derating at 2.5%/°C above 50°C) - Covered by approvals.	-40°C - +70°C
Humidity	5 - 95% RH, non-condensing	5 - 95% RH, non-condensing
Altitude	-200m to 5000m*	-200m - 5000m
Pressure	54kPa (5000m)/70kPa (3000m) - 106kPa	54kPa - 106kPa
Orientation	The unit may be mounted in any orientation except inverted (mounted on its top) or vertical with the airflow downwards.	ALL
Material Group	IIIb	
Pollution Degree	2	
Overvoltage Category	II	
Class	I or II	
Weight	1 kg max	
IP Rating	IPX0	

* 3000m for 60601-1

Level of Insulation:
Dielectric Strength testing is carried out as follows:
Primary mains circuit to earth: 2.515 to 2.525kVDC
Primary mains circuits to secondary: 5.66kVDC*
Secondary circuits to earth: 2.515 to 2.525kVDC
*Important Note: This test is not possible with Y capacitors fitted to the unit as damage to these capacitors may occur. It is also necessary to short circuit the outputs together and to earth.

Routine Dielectric Strength testing is carried out as follows: Primary mains circuit to Secondary circuits and earth – 2.515kVdc to 2.615kVdc. Secondary circuits to earth 2.25kVdc to 2.35kVdc.

Safety approvals
UL60950-1 and CSA22.2 No.60950-1 - UL Recognised. C-UL for Canada.
UL62368-1 and CSA22.2 No.62368-1 - UL Recognised. C-UL for Canada.

IEC/EN62368-1 - CE and UKCA mark.

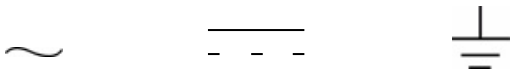
IEC/EN60950-1, IEC/EN62368-1 and IEC/EN60601-1 - CB Report and Certificate.

UL/CSA 60601-1 - UL + C -UL approval

CE marking when applied to any EFE400M product indicates compliance with the Low Voltage Directive in that it complies with EN62368-1 and with the RoHS Directive.
UKCA marking when applied to any EFE400M product indicates compliance with the Electrical Equipment (Safety) Regulations 2016 in that it complies with EN62368-1 and with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012.

Fusing: Internal fuses (F1): dual fuses in the L and N line or single fuse in the Live/+ Line, F10AH, 250V, 5x20mm.

Symbols:



AC **DC** **EARTH** **N – Neutral** **L – Live**

Note: All output voltages/variants may not be available as standard units, refer to datasheet for standard product range. These (and other variants) may be available as non-standard or custom units, please contact our sales team for details.

Unit Nomenclature

EFE400M or EFE-400M models as described below:

Units may be marked with a Product Code: U6x or Y6x where x may be any number of characters.

Unit Configuration (Description :) Code may be prefixed by NS # followed by / or - (where # may be any number of characters indicating non- safety related model differences).

Unit Configuration Code:

EFE400Mxy-a-b-cdef-gh-i-j-klm

Where:		
x	=	Nothing or J for Japanese models (may have non-safety differences).
y	=	Blank for Y2 capacitors from output to earth P for Y1 capacitors from output to earth D for Class II (with Y1 capacitors)
a	=	Channel 1 output Voltage (see Ch1 in the table below, adjustment range column).
b	=	Standby voltage: see standby voltage in table below.
c	=	BC for cover and U chassis without fan grill, with fan fitted (temperature controlled). (Y60001x model only) HN for Open frame, no fan, with 12V / 1A fan supply. HU for U chassis (not EFE400MxD models), no fan, with 12V / 1A fan supply. HC for Cover + chassis (not EFE400MxD models), no fan, with 12V / 1A fan supply. EC for Cover + chassis (not EFE400MxD models), end fan (temp controlled). NN for Open frame, no fan, no fan supply. NU for U chassis (not EFE400MxD models), no fan, no fan supply. NC for Cover + chassis (not EFE400MxD models), no fan, no fan supply. HP for perforated cover, no fan, with 12V / 1A fan supply. NP for perforated cover, no fan, no fan supply. TF for Cover + chassis (not EFE400MxD models), top fan (fixed speed)
d	=	M for Molex KK type 41791 input connector or equivalent. S for Molex Sabre type 43160 input connector or equivalent.
e	=	D for AC input with dual fuse. F for AC/DC input with dual fuse. E for single fuse input in the Live line. G for single fuse input in the + line.
f	=	L for low Leakage. R for reduced Leakage. T for tiny Leakage. * Z for EFE400MxD models (Class II).
g	=	Y for Oring FET included. N for no Oring FET.
h	=	T for inhibit. E for enable. N for no remote signals
i	=	V for vertical output connector or nothing for horizontal output connector.
j	=	Nothing for standard channel 1 output voltage, xD or xPD where D is for units with programmed negative load regulation, PD is for units with programmed positive load regulation, x is the voltage of the regulation in 100mVolts and is within the Output Adjustment range (example, 7D = 0.7V of negative load regulation, 18PD = 1.8V of positive load regulation).
klm	=	Three numbers from 0 to 9 which denotes various output voltage/current settings within the specified ranges of each output for a particular unit or blank for standard output settings. (may define non-safety related parameters/feature, e.g. reduced primary current limit, reduced OVP)

* L < 300uA leakage, R < 150uA leakage and T < 75uA leakage.

Input Parameters

Standard	60601-1	60950-1 & 62368-1	60950-1 & 62368-1
Nominal input voltage	100 - 240 Vac	100 - 240 Vac	133 - 318 Vdc**
Input voltage range	90 - 264Vac*	90 - 264Vac*	120 - 350Vdc**
Input frequency range	45 - 63Hz	45 - 440Hz	DC**
Maximum input current	6.1A rms	6.1A rms	5A

* Input de-rated, see variations and limitations below.
** Dc input ratings applicable to IEC/EN/UL/CSA60950-1& 62368-1, specific Non-standard versions only.
All ratings apply for ambient temperatures up to 50°C. (See variations and limitations below)

Output Parameters
There are three EFE400M standard models and two non-standard models with various options and output parameters shown in the tables below.

Standard models:

Standard model:				
Output Channel	Vout Nom.	Adjustment Range (V)	Output Current (A)	Maximum Power (W)
Channel 1	12	11.4 - 13.2*	33.33	400† (530**)
	24	22.8 - 26.4*	16.67	400 (530**)
	48	47 - 50*	8.33	400 (470**)
Fan output	12	12	1	12
Standby output	5	5	2	10
	12	12 - 12.2*	1	12.2

Variations and limitations of use for Standard models:
1. Output power de-rated 1% per volt from 100V to 90V input (channel 1 power 360W at 90V input).
2. Maximum ambient 70°C (de-rating output power 2.5% per °C above 50°C).
3. * Can be adjusted at the factory only.
4. Maximum continuous power output 400W (including fan output).
5. † Models with a combination of (i) vertical output connector), (ii) ORing FET and (iii) case with fan, are limited to 400W max at 40°C ambient or 350W at 50°C ambient.
6. ** Peak power for 10 seconds maximum, maximum rms power of 400W:

$$400Wrms \geq \sqrt{(peakpower^2 \times T1 + reducedpower^2 \times T2)/(T1+T2)}$$

where T1 = peakpower time on
and T2 = reducedpower time on

Non-Standard Models:

Non- Standard model: Y60001# (# can be any letter) (EFE400M-48-5-BCSDL-NT)				
Output Channel	Vout Nom.	Adjustment Range (V)	Output Current (A)	Maximum Power (W)
Channel 1	48	47 - 50*	8.33	400
Standby output	5	Fixed	2	10

Additional variations and limitations of use for Non- Standard model Y60001#:
1. Maximum ambient 50°C.
2. * Can be adjusted at the factory only**.**

Non- Standard model: Y60002# (# can be any letter) (EFE400M-12-5-NNMDL-NE-V)				
Output Channel	Vout Nom.	Adjustment Range (V)	Output Current (A)	Maximum Power (W)
Channel 1	12	11.4 - 13.2*	37.5	450 (530**)
Standby output	5	Fixed	2	10

Additional variations and limitations of use for Non- Standard model Y60002#:
1. Output power de-rated from 450W to 410W from 100V to 90V input. (e.g. channel 1 power 410W at 90V input)
2. IEC/EN60950-1 & 62368-1only.
3. Maximum ambient 40°C.
4. * Can be adjusted at the factory only**.**

Output Limitations

All outputs are SELV in accordance with 60950-1.

12 and 24V outputs are ES1 in accordance with 62368-1.

48V output is ES2 in accordance with 62368-1

Series Connection

IEC/EN 62368-1 and 60950-1: Series connection of Channel 1 is permitted however a maximum limit of 2 units must not be exceeded.

2x 12V units in series are considered ES1 for 62368-1 and SELV for 60950-1
2x 24V units in series are considered ES2 for 62368-1 and non-SELV for 60950-1
2x 48V units in series are considered ES3 for 62368-1 and non-SELV for 60950-1

Series connection is not permitted for DC Input or Class II products.

IEC/EN 60601-1: Series connection is not permitted and must not be used for medical applications.

Capacitive Loads
These products are designed for use with capacitive loads up to the value shown in the Table below. Applications where a discharged capacitor is switched onto the power supply output creates additional loading for which a non-standard product may be required if the peak current exceeds the value shown in the Table below. Consult factory for details.

Nominal Output Voltage (V)	12	24	48
Max Capacitive Load (uF)	33300	16600	4150
Peak Current for Switched Capacitive Loads (A)	45.2	22.6	9.8

Input Connections:
Molex Sabre 3 pin header: 18A/250V Max.
Molex KK type 3 pin header: 7A/250V Max.

Cooling for units with customer supplied air (all models except -BC and -EC)

The following method must be used for determining the safe operation of PSUs.

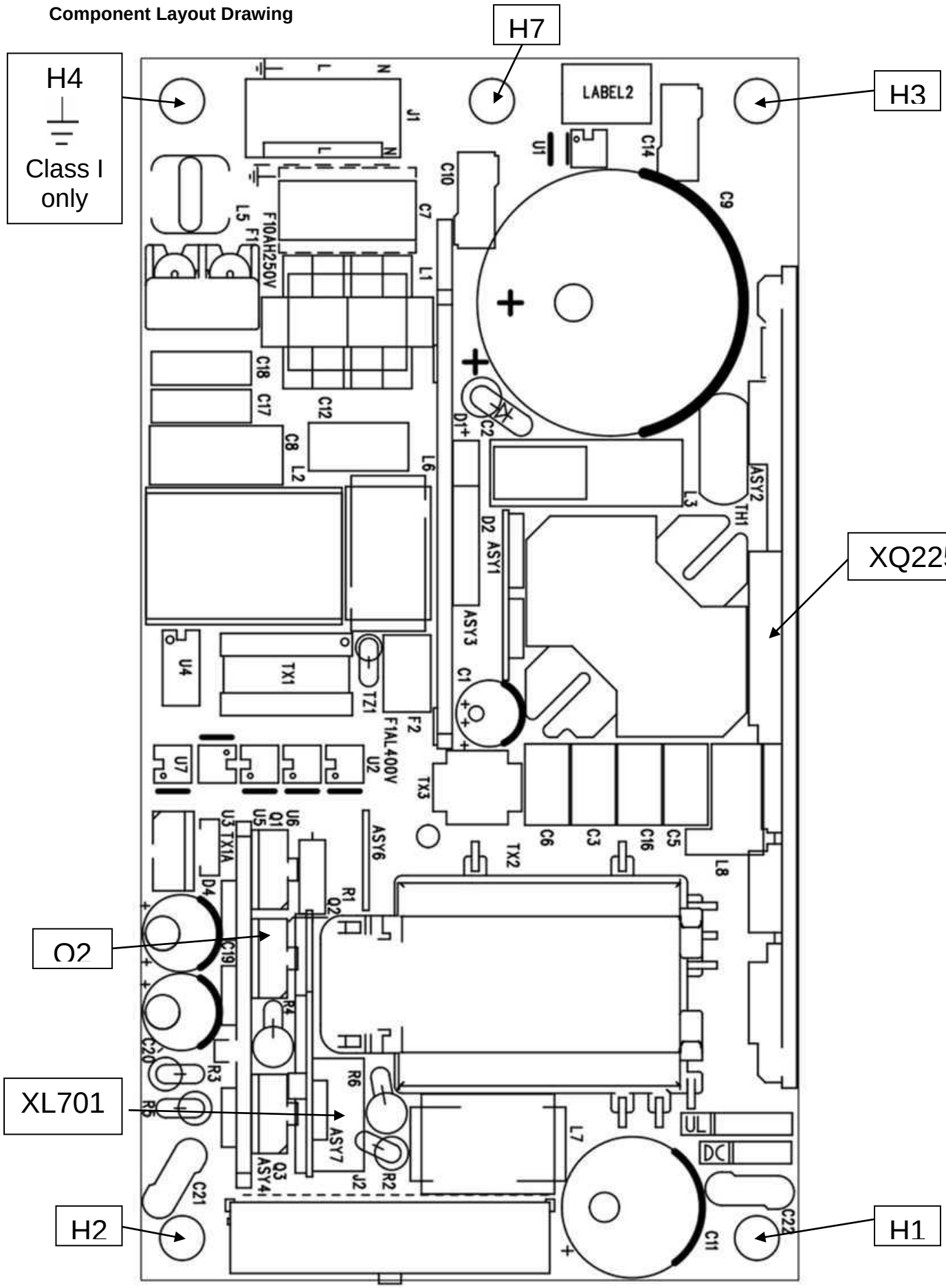
The components listed in the following table must not exceed the temperatures given. To determine the component temperatures the heating tests must be conducted in accordance with the requirements of the standard in question. Consideration should also be give to the requirements of other safety standards. Test requirements include: PSU to be fitted in its end-use equipment and operated under the most adverse conditions permitted in the end-use equipment instruction manual/specification and which will result in the highest temperatures in the PSU. To determine the most adverse conditions consideration should be given to the end use equipment maximum operating ambient, the PSU loading and input voltage, ventilation, end use equipment orientation, the position of doors & covers, etc. Temperatures should be monitored using type K fine wire thermocouples (secured with cyanoacrylate adhesive, or similar) placed on the hottest part of the component (out of any direct airflow) and the equipment should be run until all temperatures have stabilised.

Cooling for unit temperature table (see layout drawings below):

Circuit Ref.	Description	Max. Temperature (°C) †
J1	input connector	105 (75††)
C12, C8, C7	X cap	100
L1, L2	Common mode choke winding	130 (145)
L6	Series mode choke winding	130
TX1	Standby trx winding	130
U2, U3, U5, U6,	Opto-coupler	100
TX2	Primary, secondary windings and core	130
C5	Capacitor	85 (105)
C9	Boost capacitor	70 (105)
L3	Boost choke winding	130 (140)
L7	Channel 1 output choke	130
XQ225	Boost FET (ASY2 primary IMS)	125 (130)
Q2	Channel 1 output FET (ASY4	125 (130)
L8	Primary resonant choke (not 12V	130 (140)
J2	Output connector	105
XL701	1A fan output choke	110 (125)
C1, C11, C19,	Electrolytic capacitors	75 (105)

† The higher temperatures limits in brackets may be used but product life may be reduced.
†† Molex Sabre type connector.

Component Layout Drawing

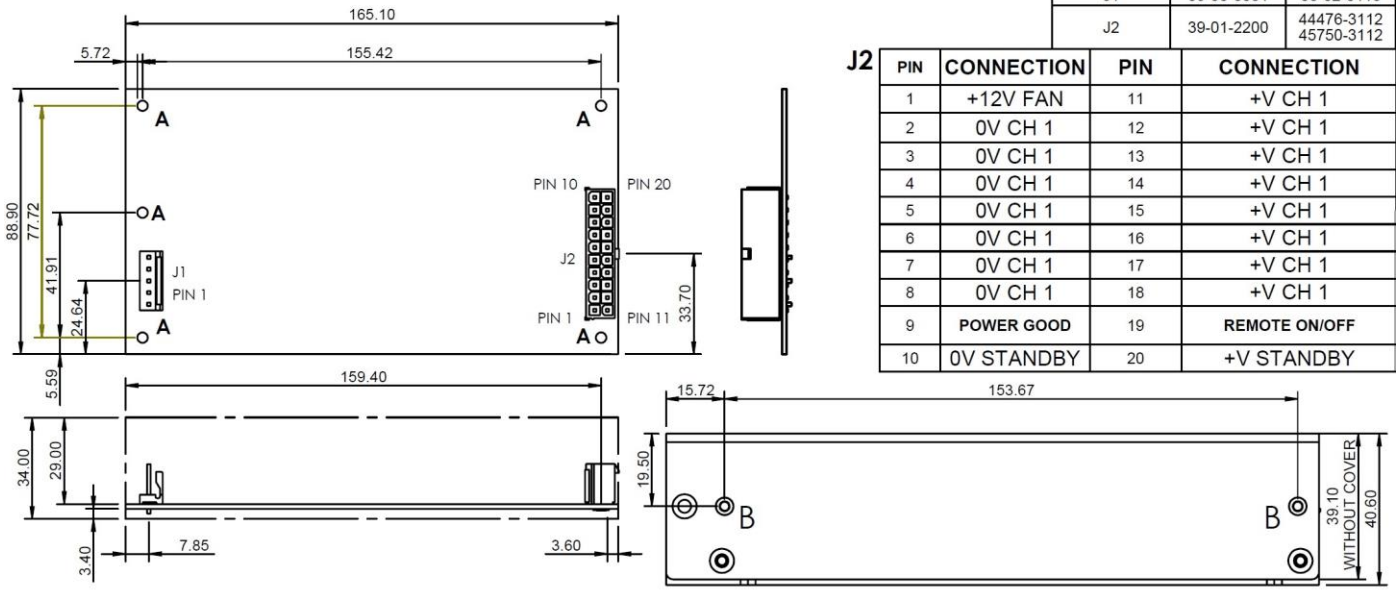


EFE400M Vertical Output Connector with Molex KK Type Input Connector, Outline and Connections

MATING PARTS (MOLEX OR EQUIVALENT)	CONNECTOR	HOUSING	CRIMP PIN
	J1	09-50-8051	08-52-0113
	J2	39-01-2200	44476-3112 45750-3112

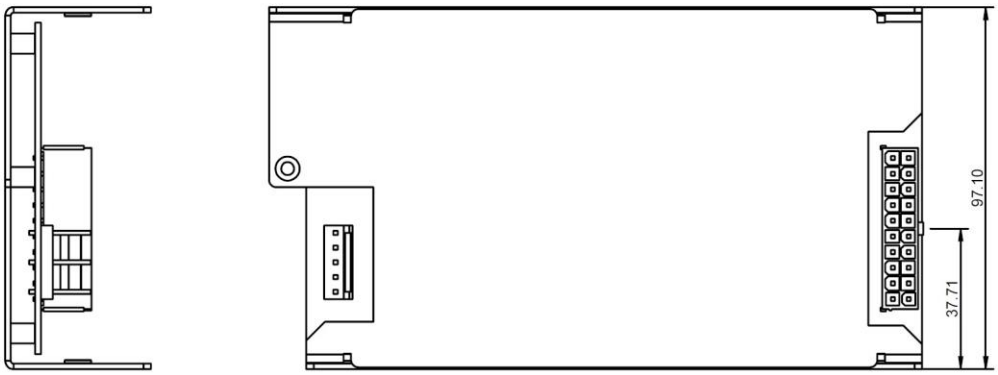
J2

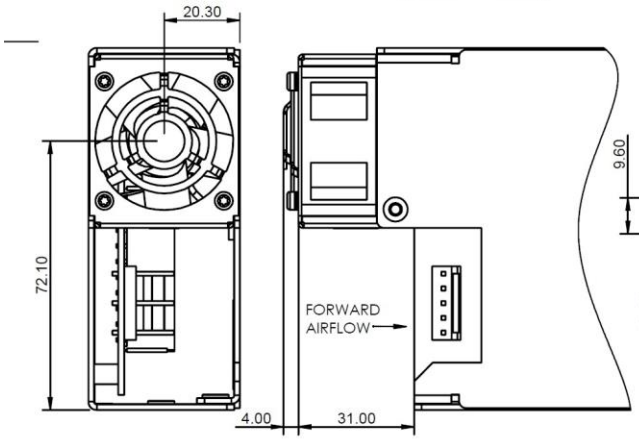
PIN	CONNECTION	PIN	CONNECTION
1	+12V FAN	11	+V CH 1
2	0V CH 1	12	+V CH 1
3	0V CH 1	13	+V CH 1
4	0V CH 1	14	+V CH 1
5	0V CH 1	15	+V CH 1
6	0V CH 1	16	+V CH 1
7	0V CH 1	17	+V CH 1
8	0V CH 1	18	+V CH 1
9	POWER GOOD	19	REMOTE ON/OFF
10	0V STANDBY	20	+V STANDBY

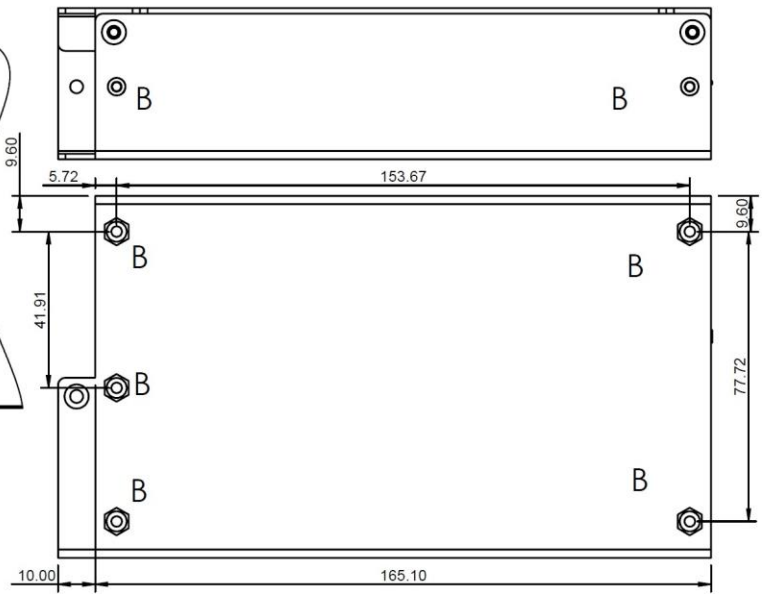


J1

PIN	CONNECTION
1	EARTH
2	NOT CONNECTED
3	LIVE
4	NOT CONNECTED
5	NEUTRAL

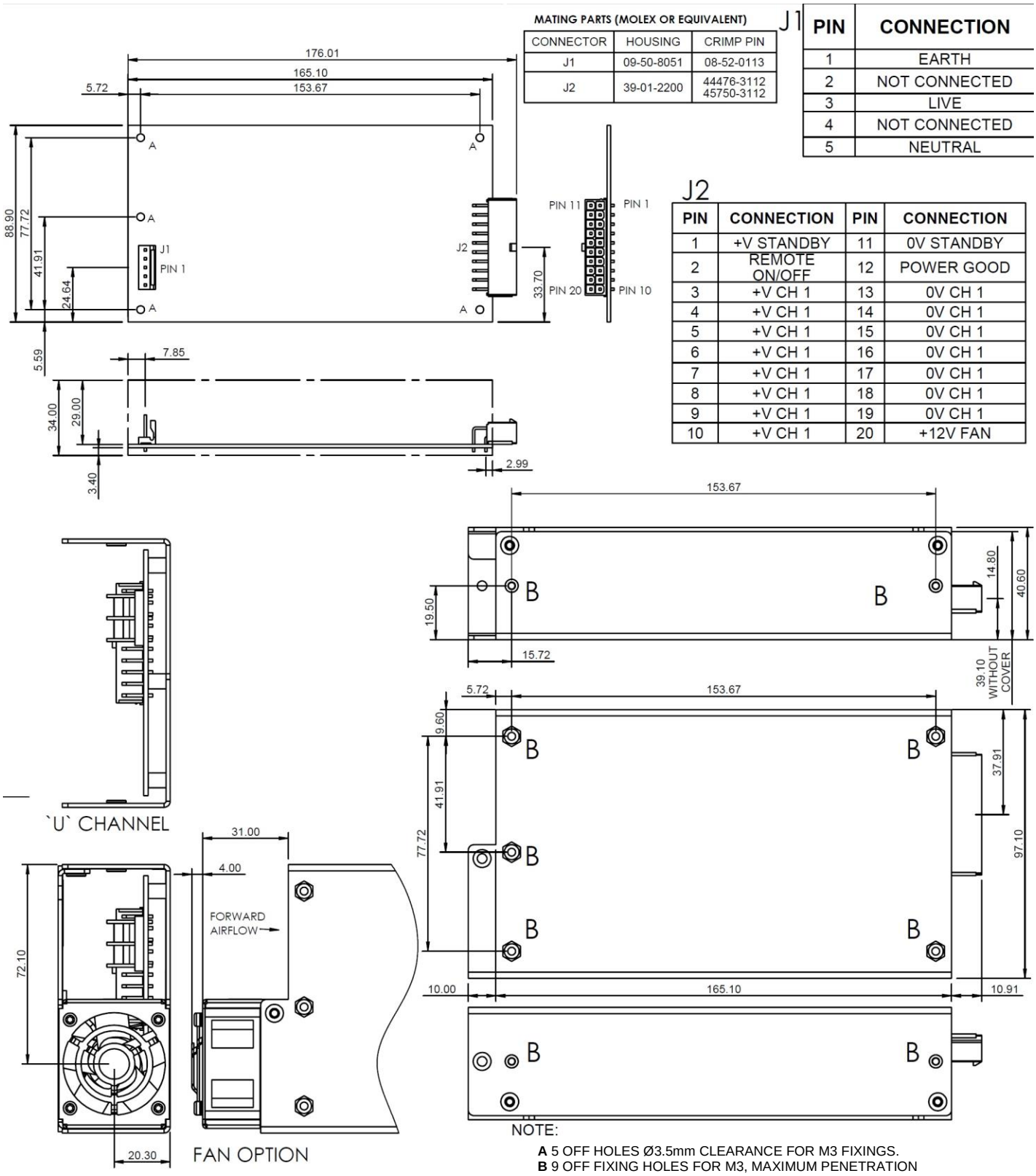






A 5 OFF HOLES Ø3.5mm CLEARANCE FOR M3 FIXINGS.
B 9 OFF FIXING HOLES FOR M3, MAXIMUM PENETRATION 4.5mm, MAXIMUM TORQUE 0.5-0.6Nm.
ALL TOLERANCES +/-0.5mm.

EFE400M Horizontal Output Connector with Molex KK Type Input Connector, Outline and Connections



MATING PARTS (MOLEX OR EQUIVALENT)

CONNECTOR	HOUSING	CRIMP PIN
J1	09-50-8051	08-52-0113
J2	39-01-2200	44476-3112 45750-3112

J1

PIN	CONNECTION
1	EARTH
2	NOT CONNECTED
3	LIVE
4	NOT CONNECTED
5	NEUTRAL

J2

PIN	CONNECTION	PIN	CONNECTION
1	+V STANDBY	11	0V STANDBY
2	REMOTE ON/OFF	12	POWER GOOD
3	+V CH 1	13	0V CH 1
4	+V CH 1	14	0V CH 1
5	+V CH 1	15	0V CH 1
6	+V CH 1	16	0V CH 1
7	+V CH 1	17	0V CH 1
8	+V CH 1	18	0V CH 1
9	+V CH 1	19	0V CH 1
10	+V CH 1	20	+12V FAN

NOTE:

A 5 OFF HOLES Ø3.5mm CLEARANCE FOR M3 FIXINGS.
B 9 OFF FIXING HOLES FOR M3, MAXIMUM PENETRATION 4.5mm, MAXIMUM TORQUE 0.5-0.6Nm.
ALL TOLERANCES +/-0.5mm.

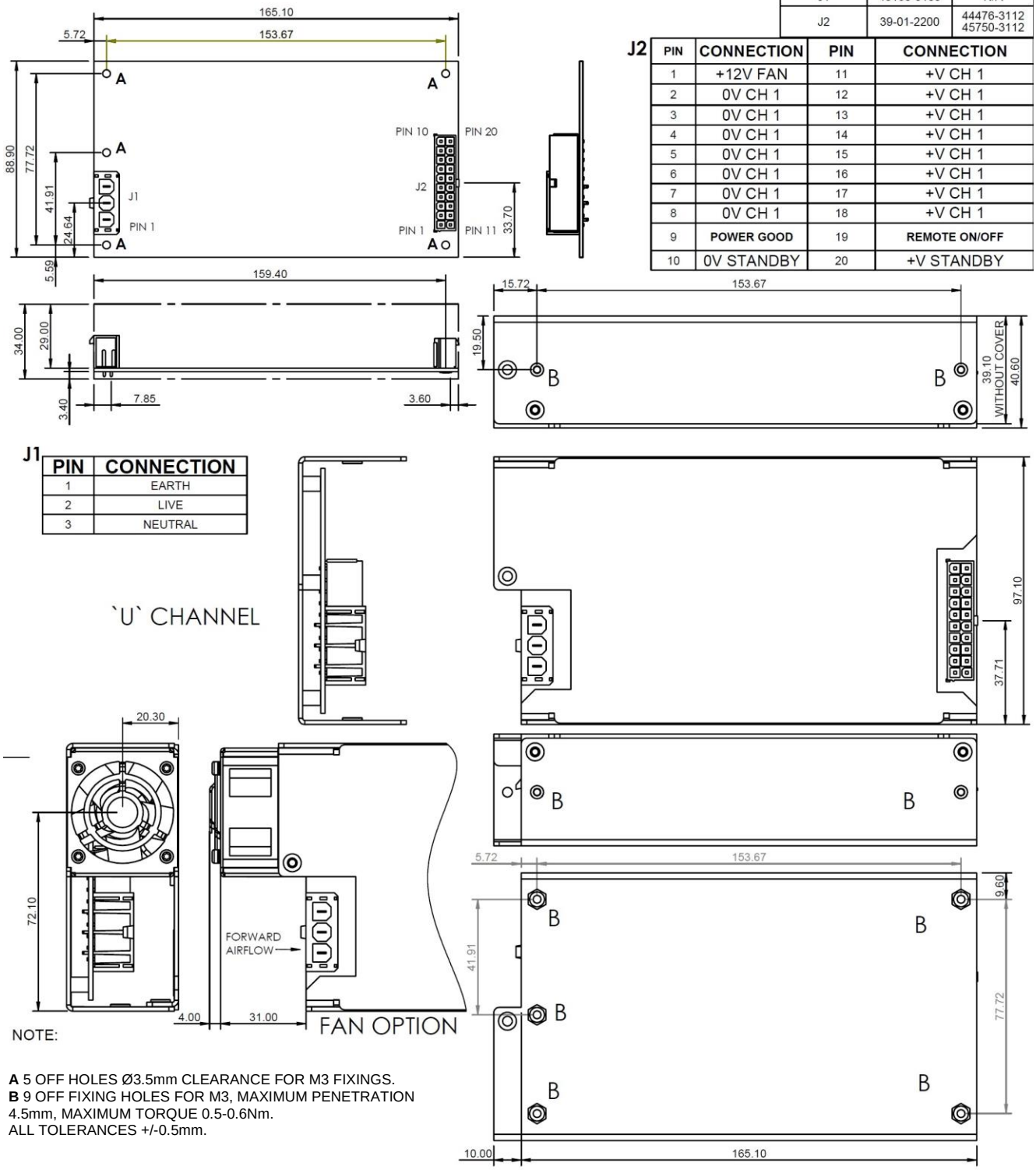
EFE400M Vertical Output Connector with Sabre Input Connector, Outline and Connections

MATING PARTS (MOLEX OR EQUIVALENT)

CONNECTOR	HOUSING	CRIMP PIN
J1	43160-0103	N/A
J2	39-01-2200	44476-3112 45750-3112

J2

PIN	CONNECTION	PIN	CONNECTION
1	+12V FAN	11	+V CH 1
2	0V CH 1	12	+V CH 1
3	0V CH 1	13	+V CH 1
4	0V CH 1	14	+V CH 1
5	0V CH 1	15	+V CH 1
6	0V CH 1	16	+V CH 1
7	0V CH 1	17	+V CH 1
8	0V CH 1	18	+V CH 1
9	POWER GOOD	19	REMOTE ON/OFF
10	0V STANDBY	20	+V STANDBY



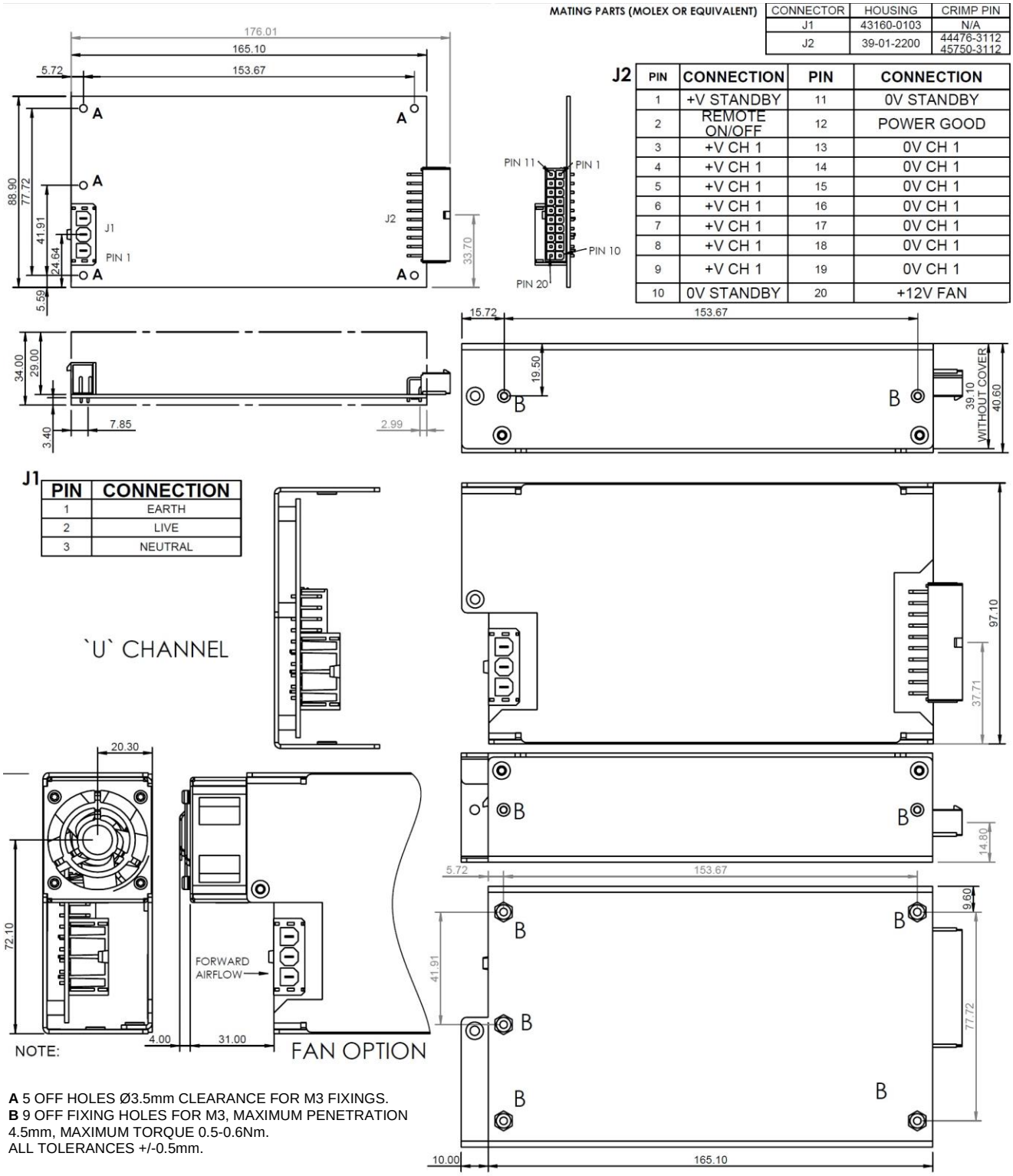
J1

PIN	CONNECTION
1	EARTH
2	LIVE
3	NEUTRAL

NOTE:

A 5 OFF HOLES Ø3.5mm CLEARANCE FOR M3 FIXINGS.
B 9 OFF FIXING HOLES FOR M3, MAXIMUM PENETRATION 4.5mm, MAXIMUM TORQUE 0.5-0.6Nm.
ALL TOLERANCES +/-0.5mm.

EFE400M Horizontal Output Connector with Sabre Input Connector, Outline and Connections



MATING PARTS (MOLEX OR EQUIVALENT)

CONNECTOR	HOUSING	CRIMP PIN
J1	43160-0103	N/A
J2	39-01-2200	44476-3112 45750-3112

J2

PIN	CONNECTION	PIN	CONNECTION
1	+V STANDBY	11	0V STANDBY
2	REMOTE ON/OFF	12	POWER GOOD
3	+V CH 1	13	0V CH 1
4	+V CH 1	14	0V CH 1
5	+V CH 1	15	0V CH 1
6	+V CH 1	16	0V CH 1
7	+V CH 1	17	0V CH 1
8	+V CH 1	18	0V CH 1
9	+V CH 1	19	0V CH 1
10	0V STANDBY	20	+12V FAN

J1

PIN	CONNECTION
1	EARTH
2	LIVE
3	NEUTRAL

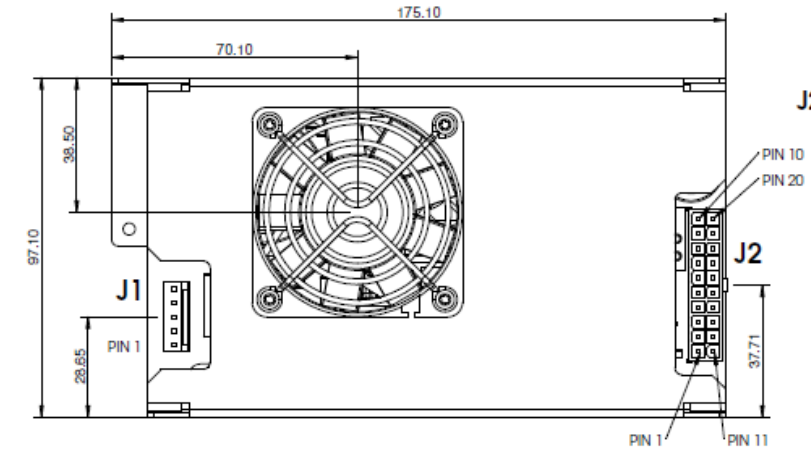
NOTE:

A 5 OFF HOLES Ø3.5mm CLEARANCE FOR M3 FIXINGS.
B 9 OFF FIXING HOLES FOR M3, MAXIMUM PENETRATION 4.5mm, MAXIMUM TORQUE 0.5-0.6Nm.
ALL TOLERANCES +/-0.5mm.

EFE400M Vertical Output Connector with Molex Input Connector and Top Fan, Outline and Connections

MATING PARTS (MOLEX OR EQUIVALENT)

CONNECTOR	HOUSING	CRIMP PIN
J1	09-50-8051	08-52-0113
J2	39-01-2200	44476-3112 45750-3112

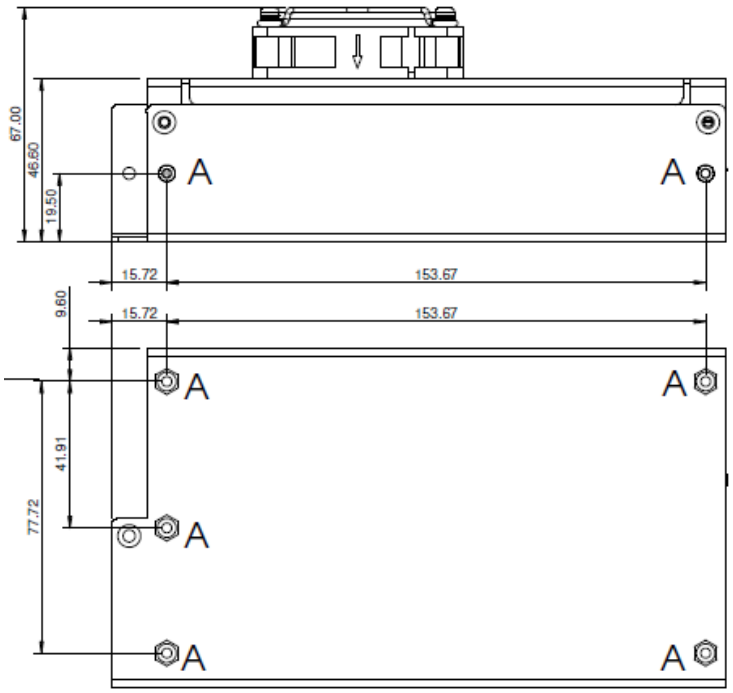


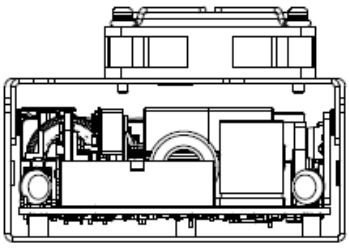
J2

PIN	CONNECTION	PIN	CONNECTION
1	+12V FAN	11	+V CH 1
2	0V CH 1	12	+V CH 1
3	0V CH 1	13	+V CH 1
4	0V CH 1	14	+V CH 1
5	0V CH 1	15	+V CH 1
6	0V CH 1	16	+V CH 1
7	0V CH 1	17	+V CH 1
8	0V CH 1	18	+V CH 1
9	POWER GOOD	19	REMOTE ON/OFF
10	0V STANDBY	20	+V STANDBY

J1

PIN	CONNECTION
1	EARTH
2	NOT CONNECTED
3	LIVE
4	NOT CONNECTED
5	NEUTRAL



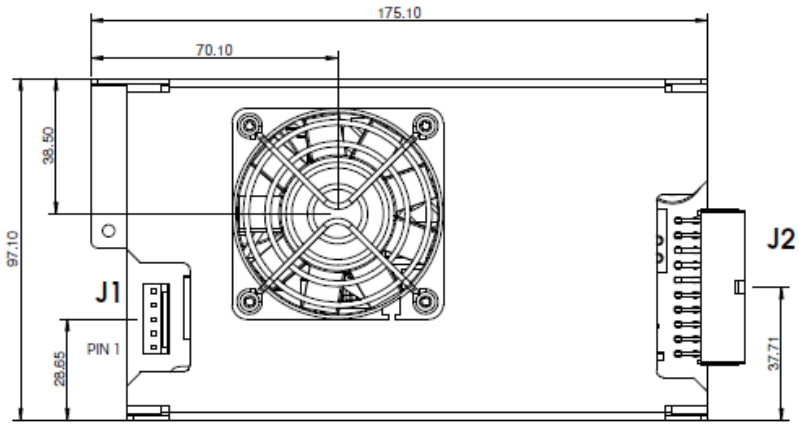


NOTE:
A 9 OFF FIXING HOLES FOR M3, MAXIMUM PENETRATION 4.5mm, MAXIMUM TORQUE 0.9Nm.
ALL TOLERANCES +/-0.5mm.

EFE400M Horizontal Output Connector with Molex Input Connector and Top Fan, Outline and Connections

MATING PARTS (MOLEX OR EQUIVALENT)

CONNECTOR	HOUSING	CRIMP PIN
J1	09-50-8051	08-52-0113
J2	39-01-2200	44476-3112 45750-3112

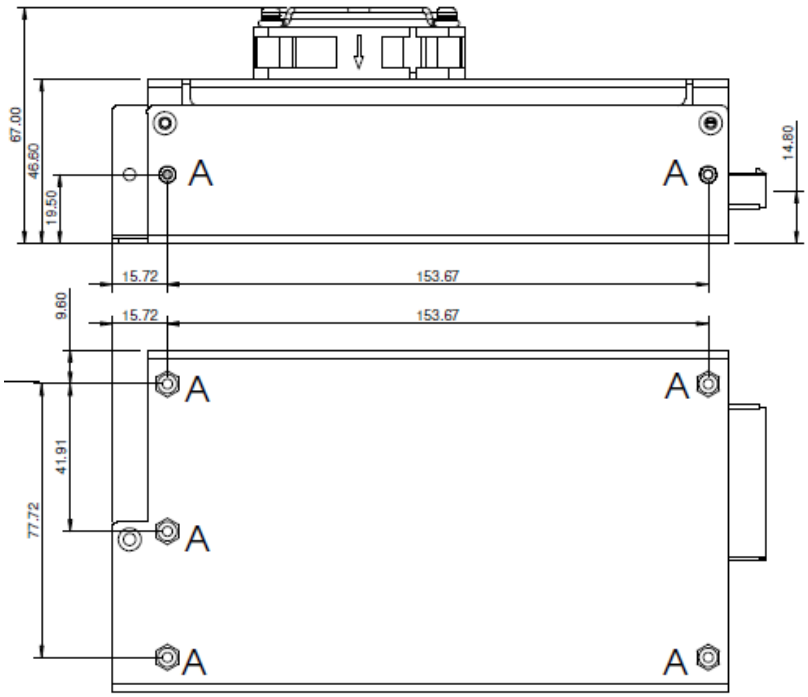


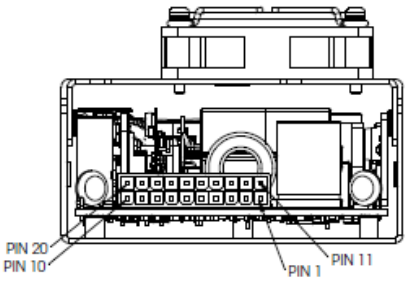
J2

PIN	CONNECTION	PIN	CONNECTION
1	+V STANDBY	11	0V STANDBY
2	REMOTE ON/OFF	12	POWER GOOD
3	+V CH 1	13	0V CH 1
4	+V CH 1	14	0V CH 1
5	+V CH 1	15	0V CH 1
6	+V CH 1	16	0V CH 1
7	+V CH 1	17	0V CH 1
8	+V CH 1	18	0V CH 1
9	+V CH 1	19	0V CH 1
10	+V CH 1	20	+12V FAN

J1

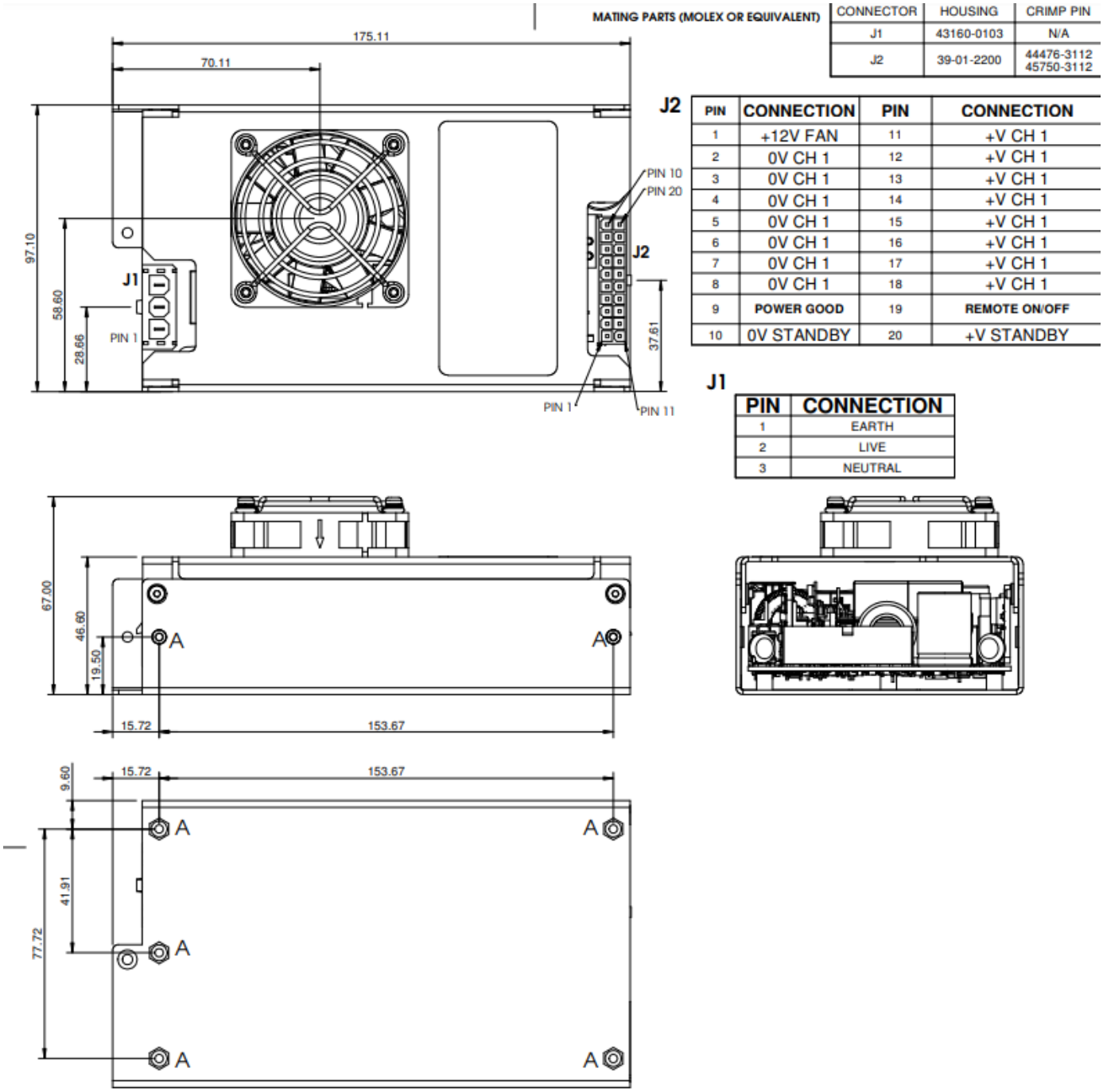
PIN	CONNECTION
1	EARTH
2	NOT CONNECTED
3	LIVE
4	NOT CONNECTED
5	NEUTRAL





NOTE:
A 9 OFF FIXING HOLES FOR M3, MAXIMUM PENETRATION 4.5mm, MAXIMUM TORQUE 0.9Nm.
ALL TOLERANCES +/-0.5mm.

EFE400M Vertical Output Connector with Sabre Input Connector and Top Fan, Outline and Connections



MATING PARTS (MOLEX OR EQUIVALENT)

CONNECTOR	HOUSING	CRIMP PIN
J1	43160-0103	N/A
J2	39-01-2200	44476-3112 45750-3112

J2

PIN	CONNECTION	PIN	CONNECTION
1	+12V FAN	11	+V CH 1
2	0V CH 1	12	+V CH 1
3	0V CH 1	13	+V CH 1
4	0V CH 1	14	+V CH 1
5	0V CH 1	15	+V CH 1
6	0V CH 1	16	+V CH 1
7	0V CH 1	17	+V CH 1
8	0V CH 1	18	+V CH 1
9	POWER GOOD	19	REMOTE ON/OFF
10	0V STANDBY	20	+V STANDBY

J1

PIN	CONNECTION
1	EARTH
2	LIVE
3	NEUTRAL

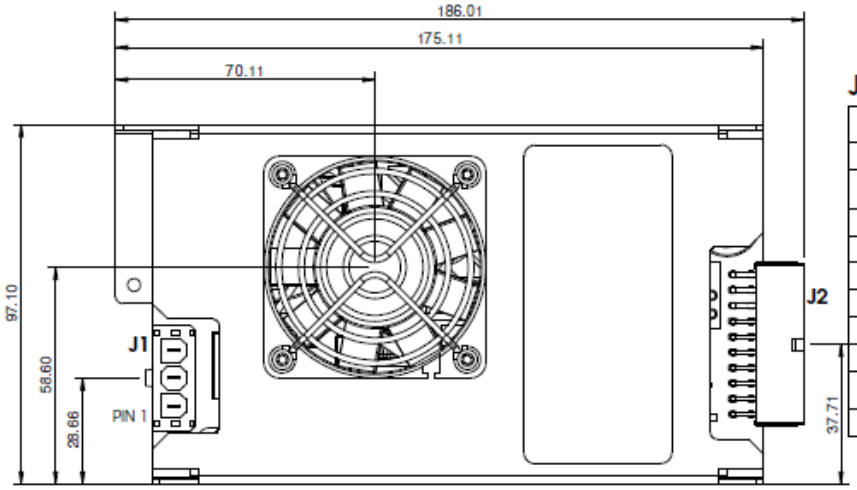
NOTE:

A 9 OFF FIXING HOLES FOR M3, MAXIMUM PENETRATION 4.5mm,
MAXIMUM TORQUE 0.9Nm.
ALL TOLERANCES +/-0.5mm.

EFE400M Horizontal Output Connector with Sabre Input Connector and Top Fan, Outline and Connections

MATING PARTS (MOLEX OR EQUIVALENT)

CONNECTOR	HOUSING	CRIMP PIN
J1	43160-0103	N/A
J2	39-01-2200	44476-3112 45750-3112

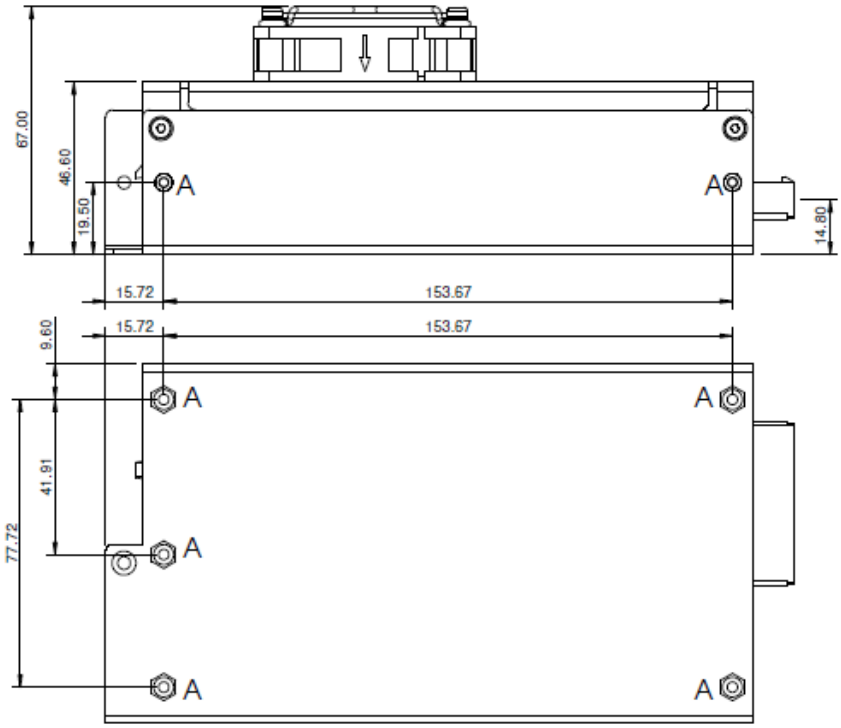


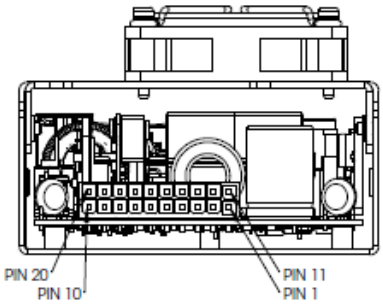
J2

PIN	CONNECTION	PIN	CONNECTION
1	+V STANDBY	11	0V STANDBY
2	REMOTE ON/OFF	12	POWER GOOD
3	+V CH 1	13	0V CH 1
4	+V CH 1	14	0V CH 1
5	+V CH 1	15	0V CH 1
6	+V CH 1	16	0V CH 1
7	+V CH 1	17	0V CH 1
8	+V CH 1	18	0V CH 1
9	+V CH 1	19	0V CH 1
10	0V STANDBY	20	+12V FAN

J1

PIN	CONNECTION
1	EARTH
2	LIVE
3	NEUTRAL





NOTE:

A 9 OFF FIXING HOLES FOR M3, MAXIMUM PENETRATION 4.5mm,
MAXIMUM TORQUE 0.9Nm.
ALL TOLERANCES +/-0.5mm.

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