INSTALLATION INSTRUCTION

TET2500 Series

AC/DC-DC Front-End Power Supply

READ THIS CAREFULLY BEFORE INSTALLATION!	VOR DER INSTALLATION BITTE FOLGENDE SICHERHEITSHINWEISE BEACHTEN!	LEGGERE ATTENTAMENTE PRIMA DELL'INSTALLAZIONE!	A LIRE ATTENTIVEMENT AVANT L'INSTALLATION!
Before operating, read this document thoroughly and retain it for future reference. Non-respect of these instructions may reduce performances and safety of the devices and cause danger for people and property. The products must be installed, operated, serviced and maintained by qualified personnel in compliance with applicable standards and regulations. Do not open the device, it does not contain replaceable components, the tripping of the internal fuse (if included) is caused by an internal failure. Do not repair or modify the device, if malfunction or failure should occur during operation, send unit to the factory for inspection. No responsibility is assumed by Bel Power Solutions for any consequences deriving from the use of this material.	Lesen Sie dieses Dokument vor der Inbetriebnahme sorgfältig durch und bewahren Sie es zum späteren Nachschlagen auf. Die Nichtbeachtung dieser Anweisungen kann die Funktion und Sicherheit der Geräte beeinträchtigen und birgt Gefahren für Personen und Eigentum. Die Geräte müssen von qualifiziertem Personal unter Einhaltung der geltenden Normen und Vorschriften installiert, betrieben, gewartet und instand gehalten werden. Öffnen Sie das Gerät nicht, es enthält keine austauschbaren Komponenten, das Auslösen der internen Sicherung (falls vorhanden) ist stets auf tiefergehende Fehler im Schaltkreis zurück zu führen. Reparieren oder modifizieren Sie das Gerät nicht. Sollte während des Betriebs eine Fehlfunktion oder ein Defekt auftreten, schicken Sie das Gerät zur Überprüfung ins Werk. Bel Power Solutions übernimmt keine Haftung für die Folgen, die sich aus dem Einsatz dieses Gerätes ergeben.	Prima dell'installazione, leggere attentamente questo documento istruzioni e conservarle per future consultazioni. L'inosservanza delle presenti istruzioni può compromettere le caratteristiche e la sicurezza dell'apparecchio e causare pericolo per le persone e le cose. Il prodotto deve essere installato, utilizzato e riparato da personale qualificato e nel rispetto delle normative vigenti. Non aprire il prodotto, esso non contiene componenti sostituibili, il guasto del fusibile interno (se previsto) è causato da un guasto interno. Non tentare di riparare o modificare il prodotto, se durante il funzionamento si verificano guasti o anomalie, inviarlo al produttore per il controllo. Bel Power Solutions non si assume nessuna responsabilità per qualunque conseguenza derivante dall'uso di questo materiale.	Lire ces instructions avant l'installation, conserver ce manuel pour référence future. Défaut de se conformer à ces instructions peut affecter les caractéristiques et la sécurité du dispositif, et causer du danger aux personnes ou aux biens. Les produits doivent être installés, exploités et entretenus par du personnel qualifié et en conformité avec les règlements. N'ouvrez pas le produit, il ne contient aucune pièce réparable, le déclenchement du fusible interne (le cas échéant) est causé par un défaut interne. Ne pas essayer de réparer ou modifier le produit ; si des défaillances se produisent pendant le fonctionnement, retourner le produit au fabricant pour inspection. Bel Power Solutions n'assume aucune responsabilité des conséquences éventuelles découlant de l'utilisation des produits.
CAUTION	**ACHTUNG**	**ATTENZIONE**	**AVVERTISSEMENT**
RISK OF BURNS, EXPLOSION, FIRE, ELECTRICAL SHOCK, PERSONAL INJURY. Never carry out work on live parts! Danger of fatal injury! The product's enclosure may be hot, allow time for cooling product before touching it. Do not allow liquids or foreign objects to enter into the products. To avoid sparks, do not connect or disconnect the device before having previously turned-off input power and wait for internal capacitors discharge (minimum 2 minutes).	**GEFAHR VON VERBRENNUNGEN, EXPLOSIONEN, FEUER, STROMSCHLAG, PERSONENSCHÄDEN.** Führen Sie niemals Arbeiten an spannungsführenden Teilen durch! Gefahr von tödlichen Verletzungen! Das Gehäuse des Gerätes kann heiß sein, lassen Sie Zeit zum Abkühlen des Gerätes, bevor Sie es berühren. Lassen Sie keine Flüssigkeiten oder Fremdkörper in die Geräte eindringen. Um Überschläge zu vermeiden, schließen Sie das Gerät nicht an oder trennen Sie es nicht ohne vorher die Eingangsspannung abgeschaltet zu haben, und warten Sie die Entladung der internen Kondensatoren ab (mindestens 2 Minuten).	**RISCHIO USTIONI, ESPLOSIONE, INCENDIO, SCOSSA, LESIONI GRAVI.** Non effettuare mai operazioni sulle parti sotto tensione! Pericolo di lesioni letali! Il contenitore può scottare, lasciar quindi raffreddare il dispositivo prima di toccarlo. Non far entrare liquidi o oggetti estranei nel dispositivo. Per evitare scintille, non collegare o scollegare l'apparecchiatura prima di avere tolto tensione di ingresso e prima che sia avvenuta la scarica dei condensatori interni (min. 2 minuti).	**RISQUE DE BRULURES, EXPLOSION, INCENDIE, ELECTROCUTION, DOMMAGE AUX PERSONNES.** Ne jamais effectuer des opérations sur les parties sous tension! Danger de mort! Le boîtier peut produire des brûlures, le laisser refroidir avant de toucher l'appareil. Ne faire pas pénétrer des liquides ou des corps étrangers dans l'appareil. Pour éviter des étincelles, ne pas connecter ou déconnecter l'équipement jusqu'à ce que la tension d'entrée a été supprimée et avant qu'il n'ait eut lieu la décharge des condensateurs internes (minimum 2 minutes).
INTENDED USE	**BESTIMMUNGSGEMÄSSER BETRIEB**	**USO PREVISTO**	**UTILISATION**
These are component type devices for internal installation within system equipment. They are isolated from hazardous voltages and with outputs under 60 Vdc or connected to protective earth. The devices can be used for general applications such as ITE network/servers, industrial and medical. This product may cause interference if used in residential areas. Such use must be avoided unless the user takes special measures to reduce electromagnetic emissions to prevent interference to the reception of radio and television broadcast. Do not use these devices in applications where malfunction may cause injury or death. Please see full spec of unit for further details.	Dies sind Komponenten für die interne Installation in Systemgeräten. Sie sind gegen gefährliche Spannungen isoliert und haben Ausgänge unter 60 VDC oder sind mit Schutzerde verbunden. Die Geräte können für allgemeine Anwendungen wie ITE-Netzwerke / Server, Industrie und Medizin verwendet werden. Dieses Gerät ist nicht für den Betrieb in Wohnräumen konzipiert. Für den Betrieb in solchen Umgebungen müssen zusätzliche EMV Schutzmassnahmen erbracht werden. Verwenden Sie diese Geräte nicht in Anwendungen, bei denen eine Fehlfunktion zu Verletzungen oder zum Tod führen kann. Weitere Informationen finden Sie in der vollständigen Spezifikation des Geräts.	I dispositivi sono di tipo componente per l'installazione all'interno dell'apparecchiatura. Sono isolati da una tensione pericolosa e hanno tensione in uscita sotto 60Vdc o sono collegati a terra protettiva. I dispositivi son per l'utilizzo generale per applicazioni come rete ITE/ server, industriali e medici. Questo prodotto può causare interferenze se usato in aree residenziali. Tale uso deve essere evitato a meno che l'utente non prenda misure speciali per ridurre le emissioni elettromagnetiche atte ad evitare interferenze alla ricezione alle trasmissioni radiotelevisive. Non utilizzare in applicazioni in cui un eventuale guasto può comportare rischio di lesioni o di morte. Vedere le specifiche complete del dispositivo per ulteriori dettagli	Ce sont des types de composant pour une installation interne d'équipement de système. Ils sont isolés des tensions dangereuses et avec des sorties inférieures à 60 Vdc ou connectés au terre de protection. Les appareils peuvent être utilisés pour des applications générales telles que les réseaux / serveurs ITE, industriels et médicaux. Ce produit peut provoquer des interférences s'il est utilisé dans un environnement résidentielles. Nous ne recommandons pas son utilisation dans de telles conditions à moins que l'utilisateur prenne des mesures spécifiques pour réduire les émissions électromagnétiques afin d'éviter les interférences avec les systèmes à réception tel que radio et de télévision. Ne pas utiliser ces dispositifs dans une application où un dysfonctionnement pourrait entraîner le risque des blessures ou de mort. Pour de plus amples informations, se référer à la fiche technique du produit
ENVIRONMENTAL CHARACTERISTICS	**UMGEBUNGSBEDINGUNGEN**	**CARATTERISTICHE AMBIENTALI**	**CARACTÉRISTIQUES ENVIRONMENTALES**
Installation in a Pollution Degree 2 environment. Do not use in wet area or subject to moisture. Carefully recycle the product and related batteries according to local regulations.	Installation in einer Umgebung mit Verschmutzungsgrad 2. Nicht in nassen Bereichen oder unter Feuchtigkeit verwenden. Das Gerät und die zugehörigen Batterien sind entsprechend den lokalen Vorschriften zu recyceln bzw. zu entsorgen.	Usare in ambienti con Grado di Inquinamento 2. Non far funzionare l'apparecchio in un ambiente umido o soggetto a formazione di condensa. Riciclare il prodotto e le batterie collegate, nel rispetto delle normative locali vigenti.	Utiliser les produits dans des environnements avec degré de pollution 2. Ne pas employer l'appareil dans un environnement humide ou soumis à la condensation. Recycler les produits et les batteries, conformément à la réglementation locale.



TET2500-12NAHS412
TET2500-12RAHS412

AC Input: 100 – 127 V ~, 16 A, 50/60 Hz
200 – 277 V ~, 14 A, 50/60 Hz

DC Input: 240 – 380 V ⎓, 11.5 A

DC Outputs:
V1: 12 V⎓,209 A max. (200 – 277V~, 240-380V⎓)

V1: 12 V⎓,125 A max. (100 – 127V~)

Vsb: 12 V⎓, 3 A

Maximum Output Power:
1536 W. (100 – 127V~)

2536 W. (200 – 277VAC,240-380V⎓)
Note: For the details, see product datasheet.



TET2500-12-054NAH
TET2500-12-054RAH

AC Input: 100 – 127 V ~, 16 A, 50/60 Hz
200 – 277 V ~, 14 A, 50/60 Hz

DC Input: 240 – 380 V ⎓, 11.5 A

DC Outputs:
V1: 12 V⎓,209 A max. (200 – 277V~, 240-380V⎓)

V1: 12 V⎓,125 A max. (100 – 127V~)

Vsb: 5 V⎓, 3 A

Maximum Output Power:
1515 W. (100 – 127V~)

2515 W. (200 – 277VAC,240-380V⎓)
Note: For the details, see product datasheet.



TET2500-12NACS412
TET2500-12RACS412

AC Input: 100 – 127 V ~, 16 A, 50/60 Hz
200 – 240 V ~, 14 A, 50/60 Hz

DC Input: 240 ⎓, 11.5 A

DC Outputs:
V1: 12 V⎓,209 A max. (200 – 240V~, 240V⎓)

V1: 12 V⎓,125 A max. (100 – 127V~)

Vsb: 12 V⎓, 3 A

Maximum Output Power:
1536 W. (100 – 127V~)

2536 W. (200 – 240VAC,240V⎓)
Note: For the details, see product datasheet.



TET2500-12-054NAC
TET2500-12-054RAC

AC Input: 100 – 127 V ~, 16 A, 50/60 Hz
200 – 240 V ~, 14 A, 50/60 Hz

DC Input: 240V ⎓, 11.5 A

DC Outputs:
V1: 12 V⎓,209 A max. (200 – 240V~, 240V⎓)

V1: 12 V⎓,125 A max. (100 – 127V~)

Vsb: 5 V⎓, 3 A

Maximum Output Power:
1515 W. (100 – 127V~)

2515 W. (200 – 240VAC,240V⎓)
Note: For the details, see product datasheet.

ENVIRONMENTAL CONDITIONS:

CHARACTERISTICS	CONDITION	VALUE
Ambient temperature	Transportation and storage	-40 °C to + 70 °C
	Operation	0°C to +65°C (at max. 2500 W load) *
Relative humidity	Transportation and storage	5% to 95 % RH for 96 hours, non-condensing
	Operation	5% to 95 % non-condensing
Altitude	Operation	0 to 5000 m above sea level

*** For the details about power derating check the product datasheet.**

SAFETY APPROVALS

Approved to the latest version of the following safety standards: IEC/EN 62368-1 and UL/CSA 62368-1

CAUTION

These component level power supplies are intended exclusively for installation within other equipment by an industrial assembly operation or by professional installers. This is a Class 1 power supply; the unit must be properly connected to earth ground in end use. A component power supply should be installed in end-use equipment according to the requirements of the safety standard used for that equipment. This power supply is not designed to be operated outside of an enclosure which provides a means of mechanical, electrical, and fire protection. To maintain ES1 requirements, the output should not be connected together in any manner which causes the total output voltage to exceed 60VDC.

PROTECTIVE EARTHING

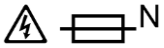
The Power Supply must be properly connected to mains protective earth termination at end use.

WARNING

Operation of this equipment in a residential environment could cause radio interference.

警告:在居住环境中， 运行此设备可能会造成无线电干扰。

警告:為避免電磁干擾，本產品不應安裝或使用於住宅環境。



CAUTION: Double pole/ neutral fusing. Disconnect mains before servicing.
ATTENTION: Double pôle/ fusible sur le neutre. La déconnexion du réseau d'alimentation avant de entretien.

注意: 双极/中线熔断。维护前请断开电网电源。



Keep the body parts away from fan blades.

身体部位远离风扇叶片.

POWER SUPPLY CORD SET

A power supply cord set is not provided with the power supply. A power supply cord set, complying with the national regulations of the country in which the product is to be sold, shall be provided with the end-use equipment.

FUSING

CAUTION: Fuses (F100, F101) are rated 25A, 420Vdc/ac, fast acting type. In case of failure, the Power Supply must be returned to a Bel Power Solutions Authorized Service Center. There are no user-serviceable parts in the Power Supply.

SERVICING

In case of failure, the Power Supply must be returned to a Service Center authorized by Bel Power Solutions. There are no user-serviceable parts in the Power Supply.

LIMITED WARRANTY

Bel Power Solutions warrants each power supply of its manufacture for a period of 3 years from the date of original shipment. This warranty applies to defects in materials and workmanship that result in non-performance to published specifications. The product(s) must be returned to a Bel Power Solutions Authorized Service Center for repair with a Bel Power Solutions pre-assigned RMA number.

Bel Power Solutions assumes no liabilities for consequential damages of any kind through the use or misuse of its products by any user.

No other obligations are expressed or implied.

Please note that the specifications, terms, and conditions stated are subject to change without notice.

NUCLEAR AND MEDICAL APPLICATIONS

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Bel Power Solutions products are not designed, intended for use in, or authorized for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems without the express written consent of the respective divisional president of Bel Power Solutions.

TECHNICAL REVISIONS

The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.

CONNECTOR

PARAMETER	DESCRIPTION / CONDITION	MANUFACTURER	TYPE / MODEL
Input connector	Non-standard type	Anderson	2006G1(TUV) SAF-D-GRID (UL)
Input connector	IEC60320 C22 type	Rongfeng SCHURTER	SS-3BA 1681
Output Connector	Amphenol 10106262-6003006LF or Oupiin 9303-A1S12H06CB30DLA-A025 or equivalent	FCI Oupiin	PwrBlade+ 9303

INPUT POWER CONNECTOR-PINOUT

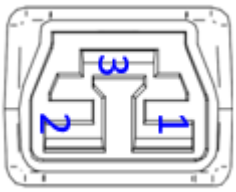


Figure 1. Input connector (Anderson)

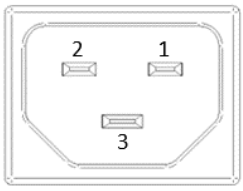


Figure 2. Input connector (C22 Type)

PIN	FUNCTION	DESCRIPTION
1	Positive or Line	Line for AC input, Positive for DC input.
2	Negative or Neutral	Neutral for AC input, Negative for DC input.
3	Ground (⏚)	Protective earth

OUTPUT CONNECTOR-PINOUT

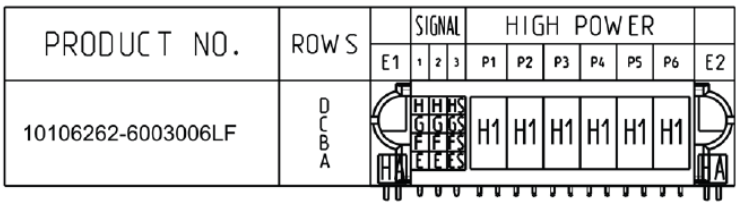


Figure 3. Output connector

PIN	NAME	DESCRIPTION

Output		
P4, P5, P6	V1	+12 VDC main output
P1, P2, P3	V1&VSB_RETURN	+12 VDC / VSB Output Return
Control Pins		
A1	PRESENT_L	Power supply present pin: Active-low
B1	VSB	Standby Output
C1	ACOK_H	AC input OK signal: Active-high
D1	ISHARE	Current Share Bus
A2	V1_SENSE_R	Main output negative sense
B2	V1_SENSE	Main output positive sense
C2	PWOK_H	Power OK signal output (lagging pin): Active-high
D2	APS	I^2C address (select by a pull-down resistor)
A3	SDA	I^2C data signal line
B3	SCL	I^2C clock signal line
C3	PSON_L	Power supply remote on input: Active-low
D3	SMB_ALERT_L	SMB Alert signal output: Active-low

AIR FLOW DIRECTION

For TET2500-12-054NAC,TET2500-12NACS412,TET2500-12-054NAH,TET2500-12NAHS412

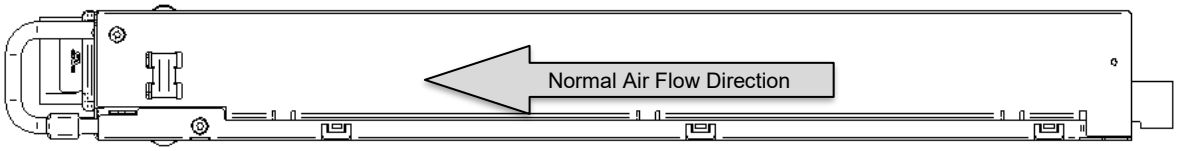


Figure 4. Normal Air Flow direction

For TET2500-12-054RAC,TET2500-12RACS412,TET2500-12-054RAH,TET2500-12RAHS412

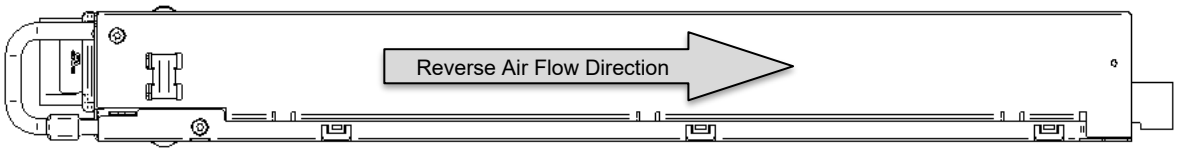


Figure 5. Reverse Air Flow direction

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MECHANICAL DIMENSIONS

Input Connector: C22 Type Input AC connector, RongFeng SS-3BA or equivalent (TET2500-12-054NAC, TET2500-12-054RAC, TET2500-12NACS412, TET2500-12RACS412)

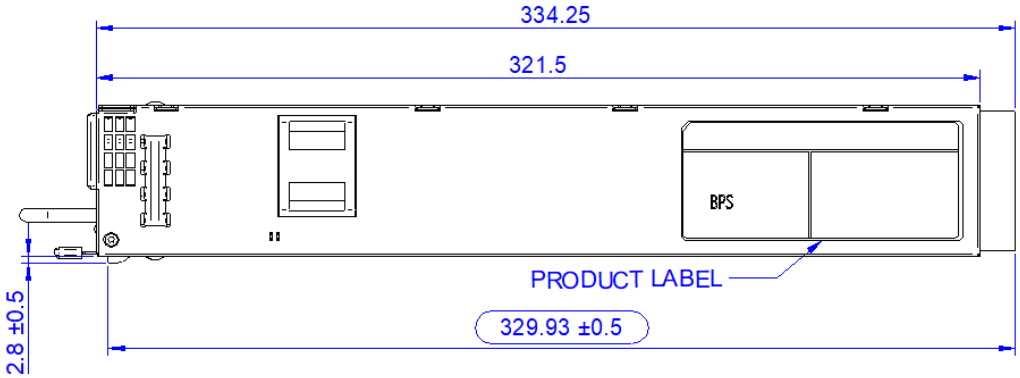


Figure 6. Top view

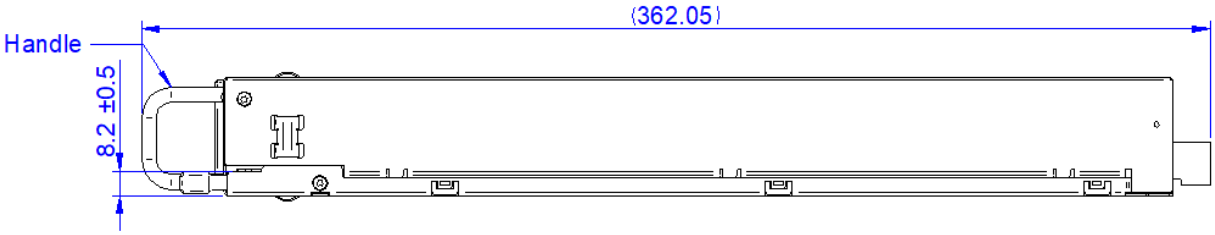


Figure 7. Side view

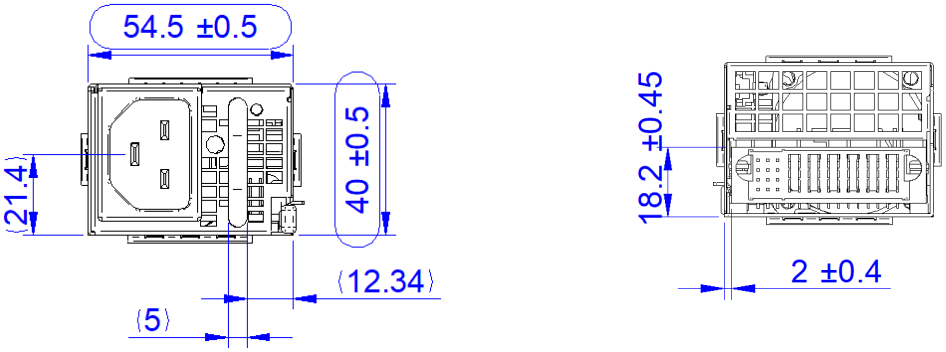


Figure 8. Front and rear view

Input Connector: ANDERSON 2006G1-BK or equivalent (TET2500-12-054NAH, TET2500-12-054RAH, TET2500-12NAHS412, TET2500-12RAHS412)

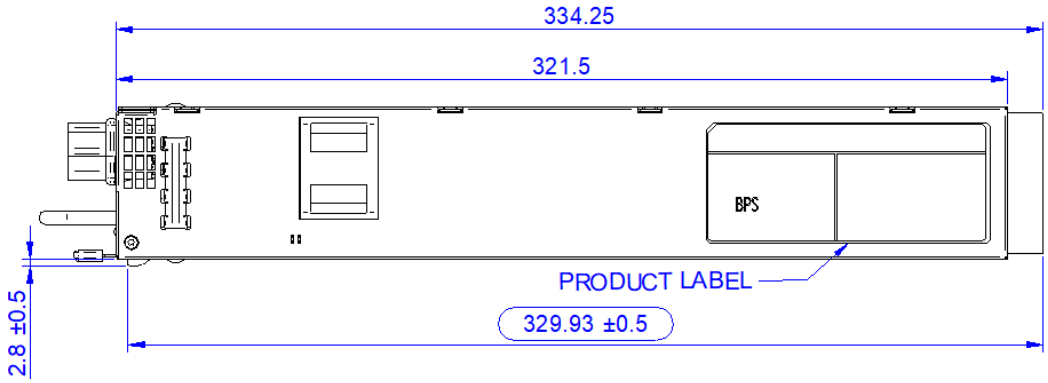


Figure 9. Top views

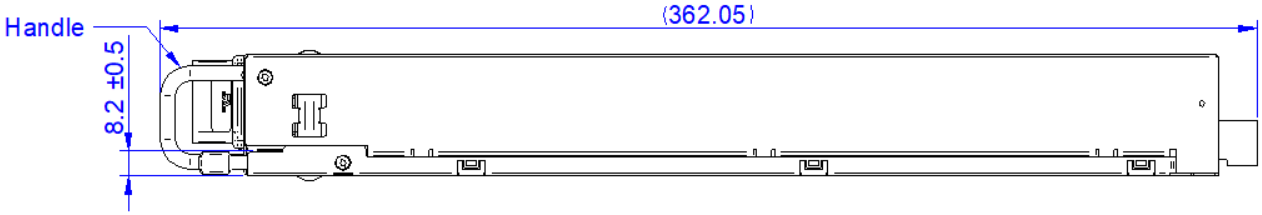


Figure 10. Side view

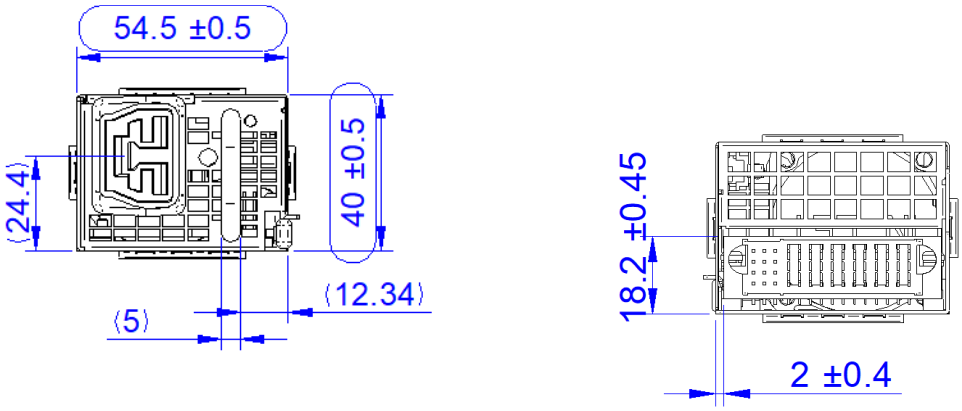


Figure 11. Front and rear view

Additional information about characteristics and application of the products is available from the Bel Power Solutions web site at belfuse.com

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