




Wolf ATEX 400VA GRP Transformer Operation and Maintenance Instructions Please Retain – Read Before Use

Models

**LL-114, LL-114/RIG, LL-114/RB, LL-114/CEAG,
LL-214, LL-214/RIG, LL-214/RB, LL-214/CEAG, LL-221
LL-114/ (Suffix defines cable and plug options)
LL-214/ (Suffix defines cable and plug options)**

This Wolf ATEX Transformer has a durable GRP enclosure housed in a stainless steel skid, within the enclosure is a transformer component with maximum load of 400 VA. The Transformer is approved as Group II equipment for use in zone 1 & 2 potentially explosive gases, vapours, mists and dusts where the T3 temperature class permits.

Approval Codes/Certification:

 II 2 GD Ex ed IIC T3 IP66
Ex tD A21 T200°C
(Tamb = -20 to +55°C)

Supply Voltage: 230VAC or 110VAC +6%, -10%
Output Voltage: 110VAC or 24VAC
Check equipment label for confirmation of exact rating.

Certificate 'X' suffix - Do not open Transformer while energized.

Notified Body LCIE Paris – Head Office
33, Avenue du General Leclerc
92260 Fontenay-aux-Roses
France

Notified body number: **0081**

See attached ATX EC Declaration of Conformity.

IMPORTANT

1. Read this leaflet carefully before commencing to use the Transformer and retain it for future use.
2. Check the rating label to ensure the Transformer is suitable for the supply provided, ambient temperature present and IP rating.
3. The Transformer housing is constructed from GRP (Glass Reinforced Polyester) and the mounted sockets are plastic, the end user must ensure that these materials are suitable for the atmosphere the transformer will be used in. Excessive force should not be used on plastic components.
4. The Transformer must not be opened when energized, even after disconnection from the mains supply a delay of 5 minutes should be observed before opening.
5. Ensure all replacement fuses are of the correct type and current rating.
6. Prices and design are subject to alteration without notice. All products sold are subject to our conditions of sale. A copy of these instructions with any relevant revisions can be found at www.wolf-safety.co.uk

USE OF ATEX TRANSFORMERS

1. The Transformer is designed to supply a maximum load of 400 VA, if this is exceeded the internal output fuse may blow. Any apparatus operated from the transformer should be checked to ensure that the maximum load is not exceeded.
2. The fuse ratings used in this Transformer have been selected for use with Wolf temporary lighting products. For the fuses to provide the required level of protection the output cable to any connected device must be limited to a maximum 35 metres of 4mm² cable or 20 metres of 2.5mm² cable. Longer cable lengths and smaller cable diameters will increase cable impedance; this may prevent correct fuse operation, resulting in overheating, damage to the Transformer and a potentially unsafe condition in the safe or hazardous area.
3. It is the user's responsibility to ensure that any cable configuration used with this Transformer will not compromise the integral fuse protection of the unit.
4. Apparatus with long cable lengths (>20m) must be checked to ensure the calculated voltage drop will not prevent the apparatus from operating within the specified voltage tolerance (+ 6%, -10%).
5. All Transformers have terminal blocks suitable for up to 4mm² live, neutral and earth. Only one conductor should be fitted to each terminal

block, for screwed type terminal blocks all terminals should be fully tightened down whether a conductor is fitted or not.

6. Approved cable glands must be used and be suitable for the type of cable used. Any unused cable entries should be blanked off with an approved stopper plug to maintain a minimum IP rating as marked on the certification label.

MAINTENANCE

1. Isolate the Transformer from the mains and wait 5 minutes before opening.
2. It is essential that all Transformers are maintained in accordance with the requirements of EN60079-17
3. A visual check should be carried out to ensure all internal cable is in good condition, and not suffering any sign of damage or degradation. All internal connections should be checked to ensure that they are correctly secured.
4. The condition of the gaskets on the GRP enclosure should be inspected to ensure there is no breakdown in the IP66 rating.
5. If changing the input or output fuse care should be taken to replace with the correct type of fuse and secure the screwed cover on fully.
6. **IMPORTANT.** No modifications are permitted to the Transformer,

DISPOSAL OF WASTE MATERIAL

Disposal of packaging, Transformer and associated parts should be carried out in accordance with national regulations.

Ingress protection level: **IP66**

WARNING: USE ONLY GENUINE WOLF REPLACEMENT PARTS.

Spares list:-

Input Voltage	Input Fuse	Wolf Part Number	Output Voltage	Output fuse	Wolf Part Number
110V	4Amp (aM)	LL-377	24V	16Amp (gG)	LL-379
230V	2Amp (aM)	LL-1002	24V	16Amp (gG)	LL-379
230V	2Amp (aM)	LL-1002	110V	4Amp (gG)	LL-1007

LL-376 230/110 input - 24v output 400VA transformer component.

LL-378 24 volt ATX socket.

Further spares are available on request.

The Wolf Safety Lamp Co. Ltd has a policy of continuous product improvement. Changes in design details may be made without prior notice.

Wolf Safety Lamp Company

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Nous déclarons que les appareils destinés à être mis sur le marché afin d'être utilisés en atmosphères explosibles, désignés ci-après :

we declare that the fittings designed to be placed on the market for use in the explosive atmospheres described below :

Enveloppe type : CAe
Enclosures

satisfont / satisfy : - aux dispositions de la directive 94/9/CE / *the provisions of directive 94/9/EC*
- aux normes / standards :

EN 60079-0 (2004)	
EN 60079-1 (2004)	Antidéflagrant/ <i>flameproof « d »</i>
EN 60079-7 (2007)	Sécurité Augmentée/ <i>Increased safety « e »</i>
EN 50020 (2004)	Sécurité Intrinsèque / <i>Intrinsic safety « ia » ou « ib »</i>
EN 60079-18 (2004)	Encapsulage/ <i>Encapsulation « m »</i>
EN 61241-0 (2006) et/and EN 61241-1(2004)	Poussières/Dust <i>« tD »</i>

En fonction du marquage inscrit dans la notice d'instruction, les normes concernées s'appliquent.
According to the marking included in the instruction for use, concerned standards apply.

- aux variantes issues du type et représentatives de la gamme ayant fait l'objet de l'attestation d'examen CE de type N° **02 ATEX 6248X** (conformément à annexe III) et notification de l'évaluation du système qualité n° 02 ATEX Q8019 (conformément à annexe IV) délivrés par le LCIE.

variantes originating from this type and representative of the range of products that have received the EC examination certification type n° 02 ATEX 6248X (in accordance with Appendix III) and the quality system evaluation notification n° 02 ATEX Q8019 (in accordance with Appendix IV) issued by the LCIE.

- au chapitre premier, article 2 de la directive 94/9 CE, par la conformité aux spécifications suivantes en fonction de leur contenu \ *the chapter first, clause 2 in directive 94/9 EC, in accordance with the following specifications and the inside components :*

EN 60439-1 (2004) EN 60529 (2001)
EN 60204-1 (2006) EN 50102 (1999)

sous réserve d'une utilisation conforme à leur destination et/ou d'une installation conforme aux normes en vigueur et/ou aux recommandations du constructeur.

subject to use for the purpose for which they were designed and/or installed in accordance with standards in force and/or with the manufacturer's recommendations.

Le produit désigné a été conçu, fabriqué et contrôlé dans le cadre d'un système d'assurance qualité certifié conforme à :
The said product has been designed, manufactured and controlled within the guidelines of a quality insurance system which is certified to be conform with :

EN ISO 9001 (2000)

par le Laboratoire Central des Industries Electriques (L.C.I.E.) / *by the Laboratoire Central des Industries Electriques (L.C.I.E.)*

Certificat n° / *Certificate n° 196001-05*

Amiens, le 16 juin 2008

E. LEFRANC
Resp. Certification
Certification Manager



L'organisme notifié chargé de la surveillance est : / *notified body responsible for monitoring is:*
LCIE (N° identification 0081) - B.P. 8 - F 92260 Fontenay-aux-Roses Cedex

Wolf ATEX 400VA Transformer Usage Guidance Document

Following are details of fuse values and cable length and size that are recommended for use with Wolf ATEX Transformers.

Transformers – 230 or 110 Volt Input, 24 Volt Output – Fuse Values

Transformer Type	Input Voltage and Input Fuse Rating	Output Voltage and Input Fuse Rating
GRP/Stainless steel	230V, 2Amp (aM)	24V, 16Amp (gG)
GRP/Stainless steel	110V, 4Amp (aM)	24V, 16Amp (gG)

The fuse ratings are for the GRP and Stainless Steel 400VA transformers supplied by Wolf Safety.

Transformers – 230 or 110 Volt Input, 24 Volt Output – Cable length and size

Product	Plug type	Cable type	Cable size	Maximum cable length
LL-500/WF-300	ATX	SY	4mm ²	35m total
LX-400	ATX	SY	2.5mm ²	20m total
LL-500/WF-300/LX-400	Ceag	SY	2.5mm ²	20m total
LL-500/WF-300/LX-400	Ceag/ATX	Ship's Braided	2.5mm ²	20m total

- A total of 4 x LL-500 or WF-300 lights, or a total of 8 x LX-400 lights, can be connected to a 400VA transformer as long as maximum cable length limits are followed.
- LL-500 and WF-300 lamps cannot be linked at 24V.
- LX-400 lamps (up to 4 units) can be linked with a total of no more than 20m of cable.

Transformers – 230 Volt Input, 110 Volt Output – Fuse Values

Transformer Type	Input Voltage and Input Fuse Rating	Output Voltage and Input Fuse Rating
GRP	230V, 2Amp (aM)	110V, 4Amp (gG)

The fuse ratings are for the GRP and Stainless Steel 400VA transformers supplied by Wolf Safety.

Transformers – 230 Volt Input, 110 Volt Output – Cable length and size

Product Type	Maximum Number of Lamps Per Transformer	Maximum Cable Length 4mm ²	Maximum Cable Length 2.5mm ²
LL-500	5	150 metres	110 metres
WF-300	5	150 metres	110 metres
LX-400	12	150 metres	110 metres

For guidance on the use of any other product type or cable size and length with Wolf ATEX Transformers please contact Wolf Safety directly:- info@wolf-safety.co.uk

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