



**Wolf ATEX 400VA Stainless Steel Transformer
Operation and Maintenance Instructions
Please Retain – Read Before Use**


Models

**LL-124, LL-124/(suffix used to define cable & plug used),
LL-224, LL-224/(suffix used to define cable & plug used).**

EC Declaration of Conformity

This Wolf ATEX Transformer has a durable marine grade stainless steel 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 T4 temperature class permits.

Approval Codes/Certification:

 II 2 GD Ex ed IIC T4 IP66
Ex tD A21 IP66 T135°C
(Tamb = -20 to +40°C) 350 VA
(Tamb = -20 to +30°C) 400 VA

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

Certificate 'X' suffix - observe variation in ambient temperature at the higher power usage, do not open while energized.

EC Type examination certificate: Sira08ATEX3182X

Notified Body Baseefa Ltd,
Rockhead Business Park, Staden Lane,
Buxton, SK17 9RZ, UK

Notified body number: **1180**

Harmonised standards applied:

EN60079-0:2006 EN61241-0:2006
EN60079-1:2007 EN61241-1:2004
EN60079-7:2007
Ingress protection level: IP66 to EN60529:1992

This Transformer is compliant with the 2004/108/EC EMC Directive.
The product is CE marked showing compliance with all relevant EC Directives.



Alex Jackson - Managing Director
Wolf Safety Lamp Company Ltd.

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 marine grade stainless steel enclosure 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 should only be used with the sockets parallel to the ground, with the lid uppermost, and mounted in the skid supplied.
5. 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.
6. Ensure all replacement fuses are of the correct type and current rating.
7. 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. This maximum load is reduced to 350 VA for a +40°C ambient.
2. The fuse ratings used in this Transformer have been selected for use with Wolf temporary lighting products. For the fuses to provide the

3. 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.
4. 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.
5. 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%).
6. 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.
7. 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 marine grade Stainless Steel 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.

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 |

LL-1078 230 V input – 24 V output transformer component
LL-1077 110 V input – 24 V output 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

Saxon Road Works, Sheffield, S8 0YA
Tel: +44 114 255 1051 Fax: +44 114 255 7988
E-mail: info@wolf-safety.co.uk Website: www.wolf-safety.co.uk



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

Wolf Safety Lamp Company

Saxon Road Works, Sheffield, S8 0YA
 Tel: +44 114 255 1051 Fax: +44 114 255 7988
 E-mail: info@wolf-safety.co.uk Website: www.wolf-safety.co.uk