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TEMPEST PLUGGABLE POWER FILTERS UK RANGE



FM00699



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L33 7UL
UK



Description

MPE Limited’s range of TEMPEST pluggable filters has been designed for use with TEMPEST applications where compliance to NATO SDIP-27 B/C is required. Utilising ultra-high speed feedthrough capacitors, all units deliver optimum performance across the full frequency range and under all loading conditions. The filter range has been designed to ensure fitting and electrical installation is as quick and simple as possible.

Typical Applications

- TEMPEST applications requiring EMI protection of single phase mains power lines to NATO SDIP-27 B/C
- Designed for rapid deployment applications where hardwired connections are not practical
- Simple mechanical and electrical installation

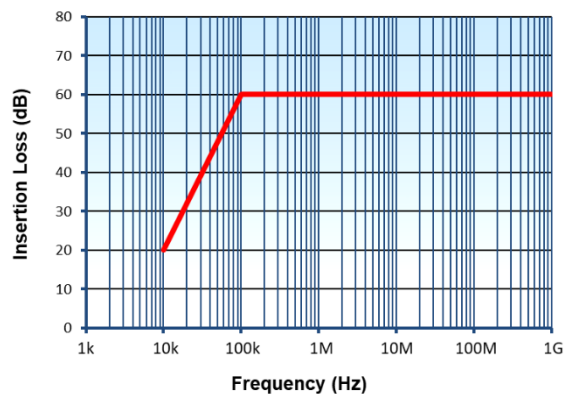


Features

- Filters available for 6A, 13A or 32A current ratings
- Choice of BS 1363 three-pin plug or IEC 60309 industrial three-pin plug on filter input
- Choice of BS 1363 sockets or unterminated wire on filter output
- Designed to AV/ICT equipment safety standard EN 62368-1
- Fully 360° screened input cable to maintain red/black separation to filter
- Flame-retardant and Low Smoke Zero Halogen (LSZH) rated screened cabling for use in sensitive areas
- Self-healing metallised plastic film capacitor dielectric material for fail-safe transient handling and reliability
- Designed to be downline tolerable to a personnel protection RCCB
- Rugged ferromagnetic stainless steel enclosure
- UKCA, CE & RoHS compliant

Insertion Loss Performance

Typical asymmetric attenuation of 60dB from 100kHz to 1GHz shown as measured in a 50Ω system, at all loading conditions, in accordance with CISPR-17.





Technical Specification

| | |
|---------------------------------------|---|
| Rated Voltage | 250VAC (SP&N) 50/60Hz |
| Test Voltage (Line – Earth) | 1250VDC |
| (Line – Line) | 1250VDC |
| Rated Current, I _R at 50°C | 6A, 13A, 32A (see range available) |
| Max. Earth Leakage Current | 6A & 13A rated filters – less than 3.5mA, 32A rated filters – less than 20mA |
| Max. Temperature Rise on Full Load | 25°C |
| Operating Temperature Range | -25°C to 50°C |
| Insertion Loss (50Ω, asymmetric) | 60dB from 100 kHz to 1GHz (see graph) |
| Discharge Time | Less than 1s to below 34V (filter incorporates discharge resistors) |

UK Product Range

Filters are available with an appropriately fused three-pin plug or industrial ‘Commando’ style input plug on a 2 metre length of screened cable. Different output options include either 1, 2 or 4 socket outlets or a 2 metre length of screened cable with unterminated ends that can be incorporated into an electrical system.

| UK Product Range | | | | | |
|------------------|---|--|--|--|--|
| Rated Current | Input 2m length of screened cable with suitably rated plug | Outlet | | | |
| | | Single Outlet 1 x BS 1363 socket (type G) | Dual Outlet 2 x BS 1363 socket (type G) | Quad Outlet 4 x BS 1363 socket (type G) | In-Line 2m length of unterminated screened 2P+E cable |
| 6A | BS 1363 plug fitted with 7A fuse | DS30830 | DS30831 | | DS30832 |
| 13A | BS 1363 plug fitted with 13A fuse | DS30833 | DS30834 | DS30835 | DS30836 |
| 32A | IEC 60309 ‘Commando’ plug No fusing within filter unit* | | DS30837 | DS30838 | DS30839 |

*The User must ensure adequate fuse protection.





Mechanical Details

| | |
|----------------------------|--|
| Enclosure Material | Ferromagnetic stainless steel |
| Finish | Natural, dressed |
| Capacitor Potting Compound | Epoxy resin meeting UL94 V-0 flammability rating |
| Earth Connection | Via input termination earth pin |
| Socket outlet | Covered outlet (IP54 rating when covered) |
| Weight | See product dimensional drawings on pages 5 – 11 |
| Marking | Self-adhesive labels |

Dimensions

See product dimensional drawings on pages 5 – 11.

NATO Stock Numbers

| MPE Part Number | NATO Stock Number (NSN) |
|-----------------|-------------------------|
| DS30830 | 5915-99-297-9931 |
| DS30831 | 5915-99-615-9659 |
| DS30832 | 5915-99-959-4364 |
| DS30833 | 5915-99-563-9370 |
| DS30834 | 5915-99-693-2068 |
| DS30835 | 5915-99-402-0482 |
| DS30836 | 5915-99-845-4710 |
| DS30837 | 5915-99-156-5218 |
| DS30838 | 5915-99-882-1971 |
| DS30839 | 5915-99-615-9661 |

Installation

Although the filter does not need to be mounted to a solid surface, it is provided with a mounting option and where possible it should be fixed securely with maximum distance between the filter and the User's device. The input screened cable and any equipment cables on the filter output should be maximally separated from each other to maintain red/black cable separation. Please consult the MPE TEMPEST Pluggable Filters Installation and Maintenance Guide Application Note for further information.

Safety

Relevant safety standards have been adhered to in the design and manufacture of this product. The filter must be solidly and permanently earthed to allow safe discharge of all internal capacitors - The earth connection of the input plug must be present and must not be interfered with. The User should ensure they do not overload the filter over the load limit.

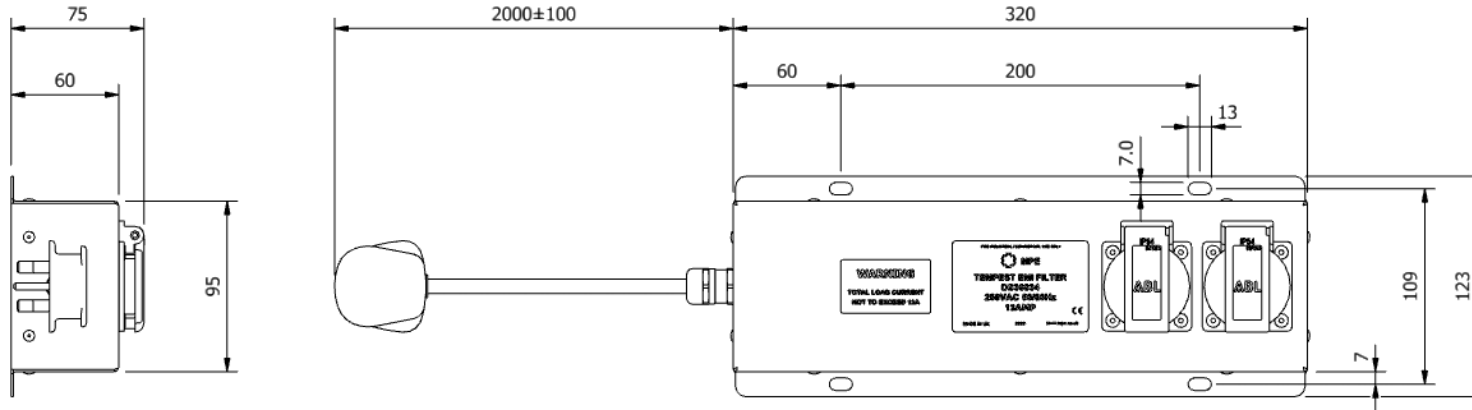


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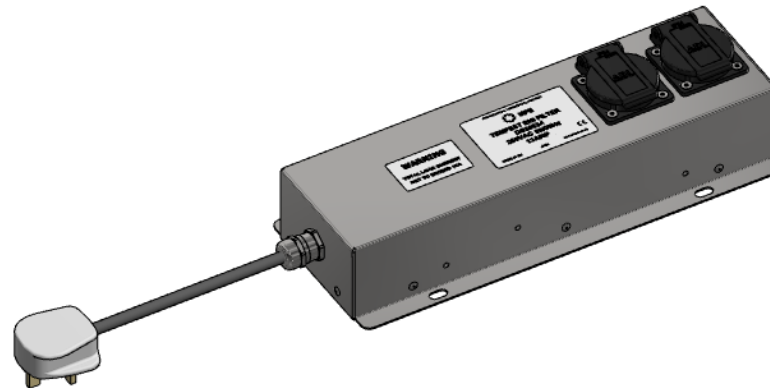
DS30831 & DS30834 – 6A & 13A DUAL SOCKET FILTERS

DS30831 (7 Amp fuse fitted in plug)

DS30834 (13 Amp fuse fitted in plug)



Weight (approx.) 3.3kg
(both types)



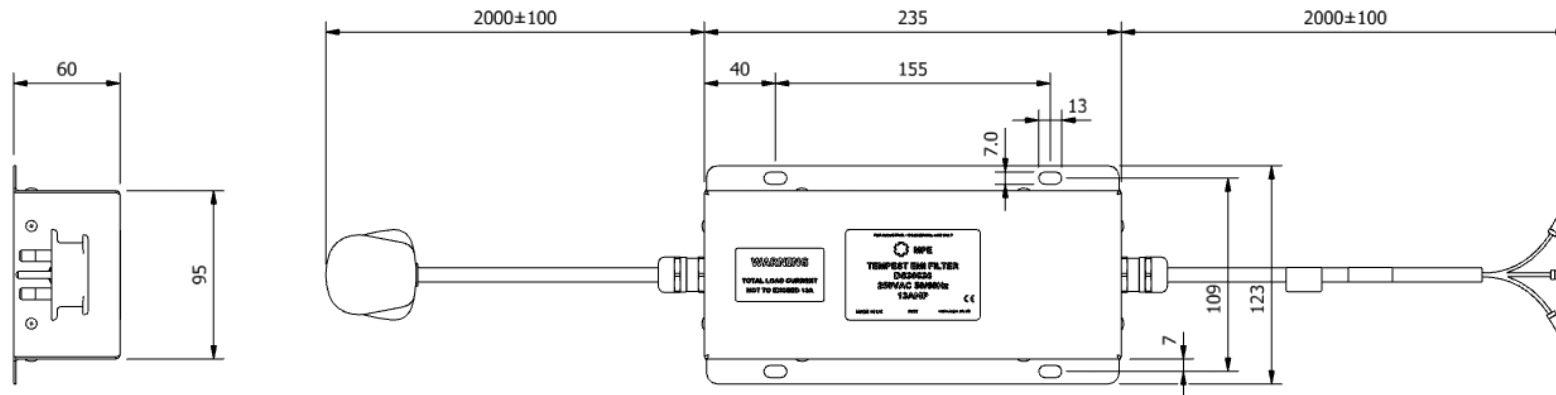


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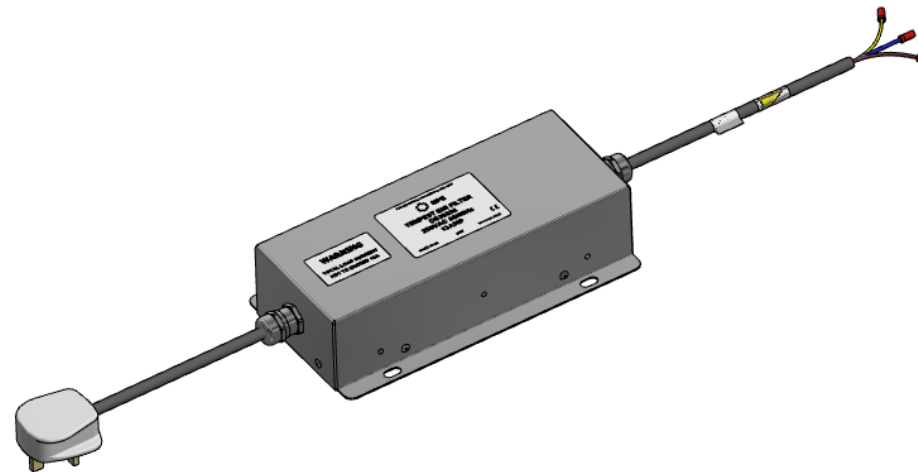
DS30832 & DS30836 – 6A & 13A IN-LINE FILTER

DS30832 (7 Amp fuse fitted in plug)

DS30836 (13 Amp fuse fitted in plug)



Weight (approx.) 3.0kg
(both types)

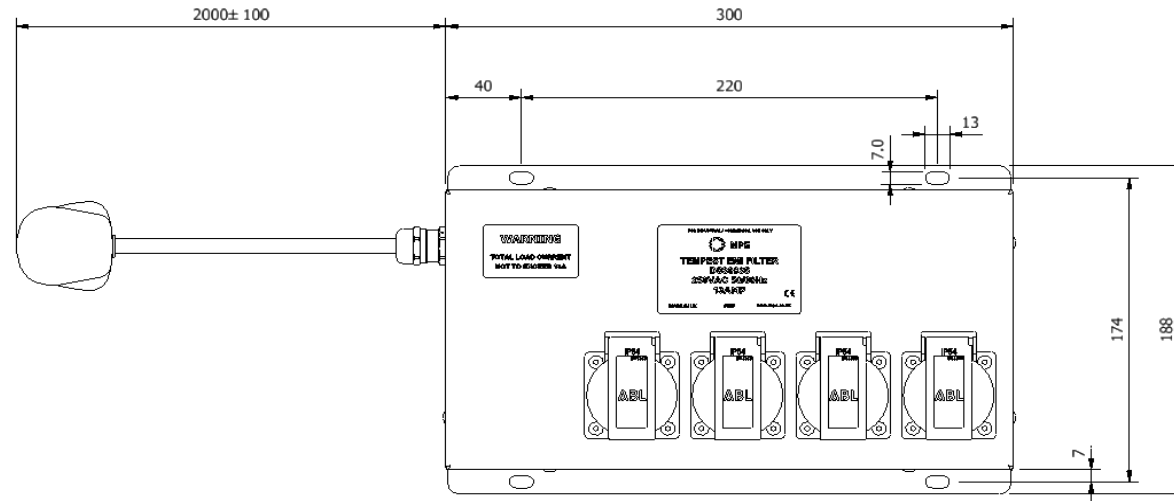
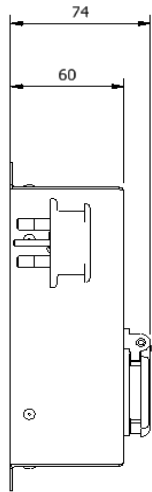




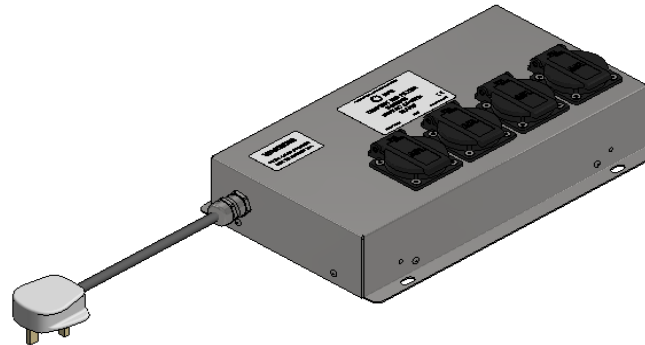
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DS30835 – 13A QUAD SOCKET FILTER

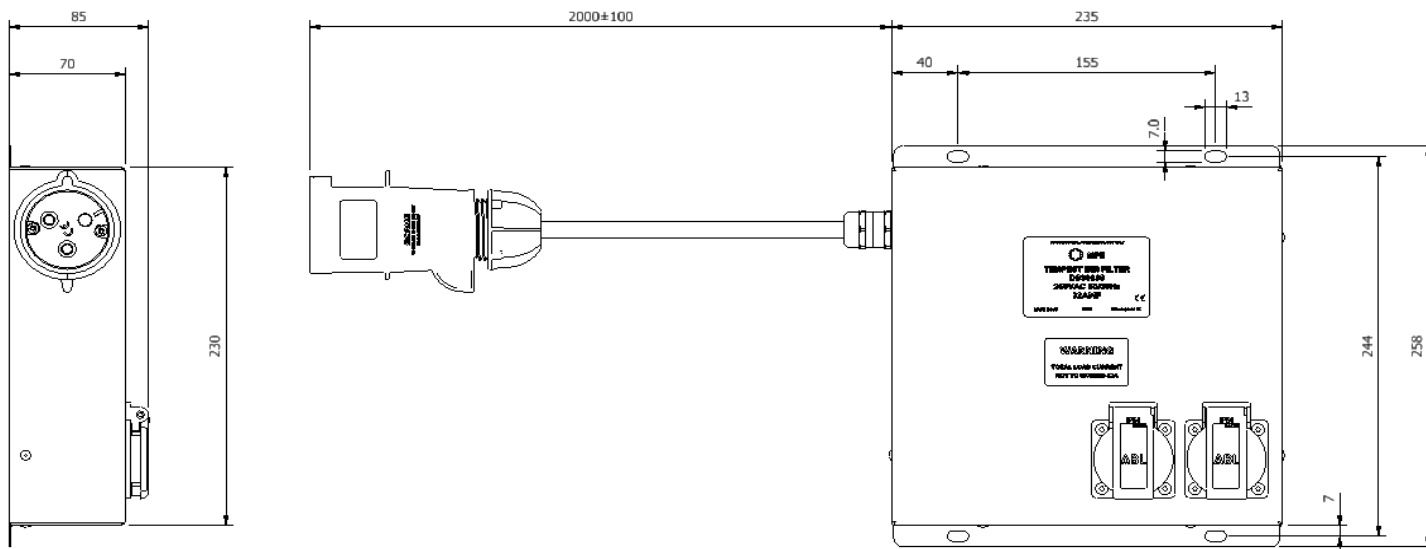
DS30835 (13 Amp fuse fitted in plug)



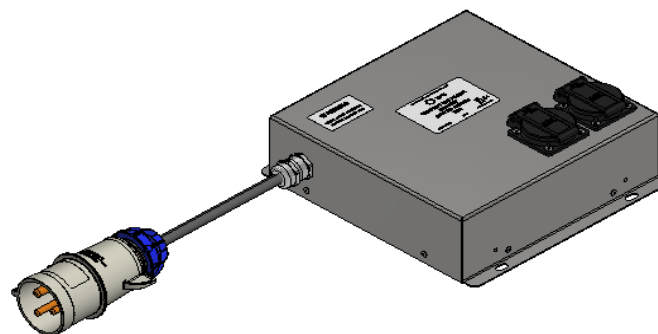
Weight (approx.) 4.0kg



DS30837 (No fuse in plug)



Weight (approx.) 4.0kg

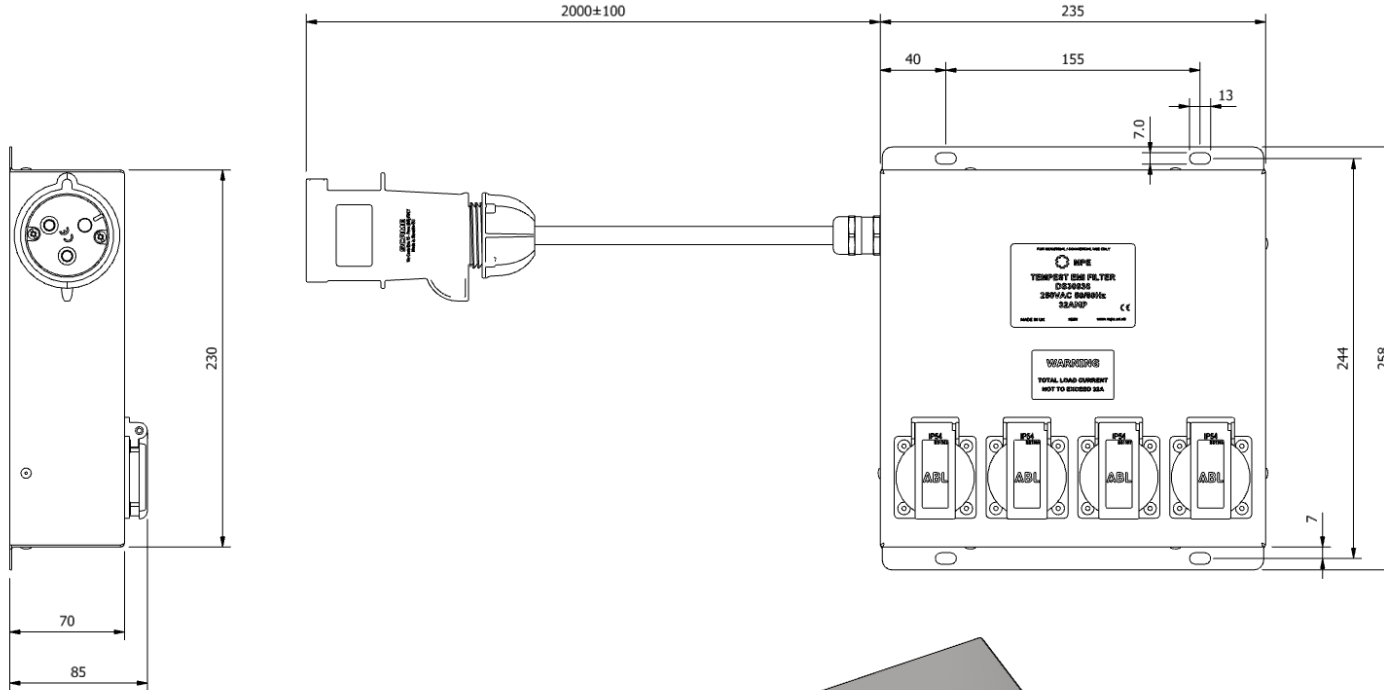




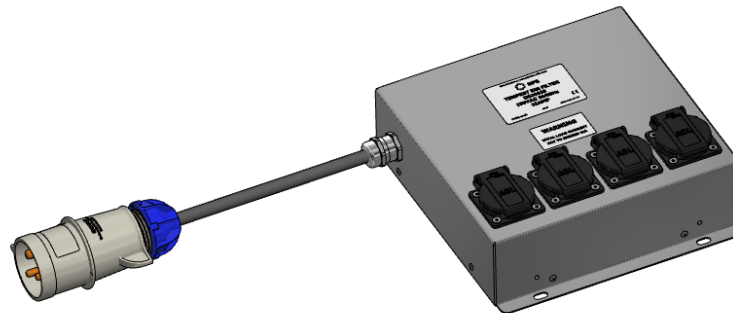
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DS30838 – 32A QUAD SOCKET FILTER

DS30838 (No fuse in plug)



Weight (approx.) 4.0kg

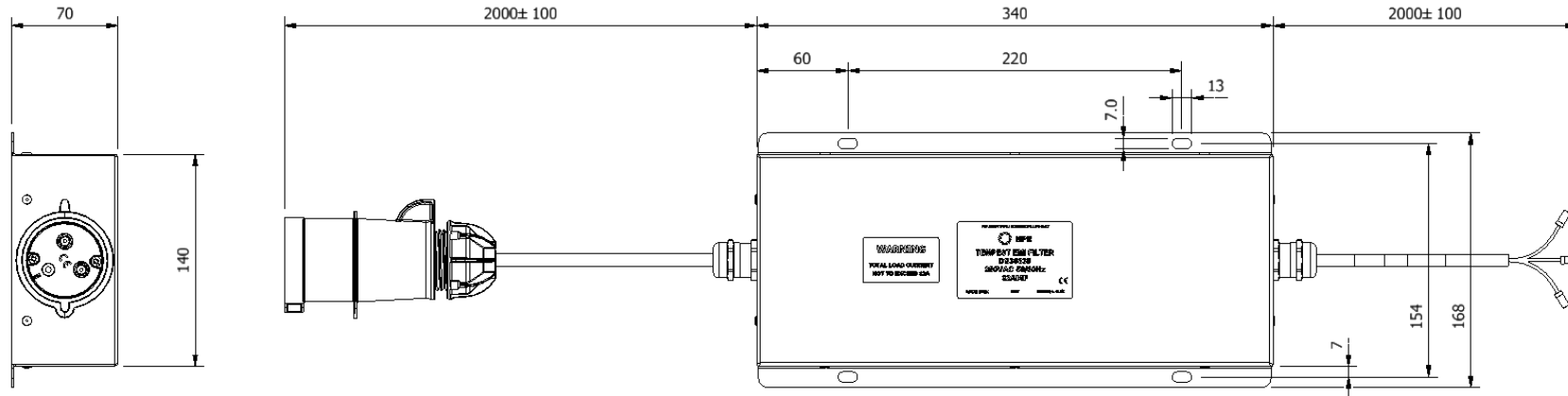




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DS30839 – 32A IN-LINE FILTER

DS30839 (No fuse in plug)



Weight (approx.) 4.0kg

