



Mining And Surface Certification (Pty) Ltd

(Pty) Ltd: 2015/021934/07

THIS CERTIFICATE IS ISSUED AS AN I.A. CERTIFICATE IN TERMS OF THE MINE HEALTH AND SAFETY ACT, ACT NO 29 OF 1996 (AND REGULATIONS), THE OCCUPATIONAL HEALTH AND SAFETY ACT (ACT 85 OF 1993) AND REGULATION 17 OF THE ELECTRICAL MACHINERY REGULATIONS

| | | | |
|--|---|--|------------------------------------|
| IA CERTIFICATE | MASC S/21-2440X | Issue | 4 supplement to include LED Driver |
| Issue Date | 15 April 2025 | Expiry Date | 09 February 2031 |
| Applicant | Electroflame (Pty) Ltd, 83 Brand Street, President Park, Midrand, South Africa | | |
| Manufacturer | Electroflame (Pty) Ltd, 83 Brand Street, President Park, Midrand, South Africa | | |
| Description (See "Annex A" below) | | | |
| Equipment | MODULITE | Type | MODULITE 100W / 200W |
| Photo | | | |
| MARKING: <i>Must be additionally applied to the equipment</i> | Applicant / Manufacturer Type Ex Marking | Electroflame (Pty) Ltd MODULITE 100W or MODULITE 200W Ex db eb mb IIB + H ₂ T4 Gb Ex tb IIIC T135°C Db IP65 | |
| | IA Number Rating: | MASC S/21-2440X See "ANNEX A" below | |
| WARNING(S) | "DO NOT OPEN WHEN ENERGIZED" | | |
| Compliance: | | | |
| <p>The equipment as described above and in MASC report 21-2440 R4 has been allocated the rating <u>Explosion Protected as above</u> utilizing the SANS Standards:</p> <ul style="list-style-type: none"> SANS 60079-0: 2019 General requirements SANS 60079-1: 2015 Equipment protection by flameproof enclosures "d" SANS 60079-7: 2019 "Explosive atmospheres" – Part 7: Equipment protection by increased safety "e" SANS 60079-18: 2016 "Equipment protection by encapsulation "m" SANS 60079-31: 2014 "Explosive atmospheres" –Part 31: Equipment dust ignition protection by enclosure "t" SANS 60529: 2013 "Degrees of protection by enclosures (IP Code) ARP 0108: 2018 Regulatory requirements for explosion protected apparatus NCOP 2398: 2022 National Code of Practice for Electrical Machinery in Hazardous Locations - Regulatory requirements for explosion-protected apparatus <p>Conditions:</p> <ul style="list-style-type: none"> ➤ This certificate covers only a national implementation of above standards for use in South African industry. ➤ It is up to the manufacturer to ensure that the product complies to all relevant standards for the application. ➤ This document will not be supported by MASC outside the borders of South Africa and may not be used for other/international certification purposes. ➤ This certificate may only be reproduced in full, is not transferable and remains the property of the issuing body. This certificate only covers the sample submitted and does not cover production units. ➤ According to the relevant requirements of the MHS Act and the OHS Act, production units of explosion protected equipment are required to comply with third party quality assurance (an approved markscheme or batch testing by an accredited test laboratory). | | | |
| Specific conditions of use: See "Annex A" below | | Conditions of manufacture: See "Annex A" below | |
| M. Erasmus TECHNICAL SPECIALIST | | W. Haywood TECHNICAL SPECIALIST | |



Apparatus in hazardous locations is subject to the following provisions as applicable, which shall be adhered to:
SANS 10086 requirements:
Any conditions mentioned in the above certificate:
Any relevant requirements of the MHS Act;
Any restrictions and conditions enforced by the chief inspector of mines, principal inspector (Group I equipment) or chief inspector of factories (Group II equipment).



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IA CERTIFICATE: MASC S/21-2440X

Equipment: MODULITE

ANNEX A

| Description | Enclosure | Populated | Unpopulated |
|------------------------------------|---|--|--|
| | | General | <p>The MODULITE consist of up to four flameproof head pieces secured to each other. The head pieces consisted of an Aluminium housing and glass lens secured by a keeper plate.</p> <p>The head piece and controller box maintained an IP65 rating by means of a continuous seals provided between the head piece housing and the glass lens as well as on the Controller Box and lid.</p> <p>Termination to each head piece is done via the main control box mounted on the back of the head pieces with a through bushing for supply cables.</p> <p>The complete assembly consists of two or four separate Head Pieces with a Controller Box certified as a whole.</p> |
| | Approximate Dimensions | <p>MODULITE 100W – 434mm x 212mm x 160mm MODULITE 200W – 434mm x 434mm x 160mm</p> | |
| | Fasteners | <p>The unit consisted of an Aluminium housing and glass lens secured with a keeper plate fastened with twelve M6 x 1.0 x 35mm (A2-70).</p> | |
| | Material | <p>The unit consisted of an Aluminium housing, terminal box and a glass lens.</p> | |
| | Population | <p>This unit is populated with the following:</p> <ul style="list-style-type: none"> • Suitably certified terminal blocks • LED PCB • Suitably certified LED Driver • Surge protector <p>Note: If the population is updated from original certification a new layout drawing MUST be submitted to MASC for separate certification.</p> | |
| Rating | <p>Input Voltage: 220-240 Vac Maximum wattage per Head Piece 54 Watt</p> | | |
| Standard compliance | <p>See "certificate" above</p> | | |
| Warnings | <p>See "certificate" above</p> | | |
| Conditions of Certification | | | |
| Specific conditions of use | <ul style="list-style-type: none"> • Fasteners used on the flameproof enclosure shall comply with the minimum grade specified in the description. • The manufacturer's ratings of the equipment may not be exceeded. • Only suitably certified glands, adaptors, blanking plugs may be used in all apertures. <ul style="list-style-type: none"> ○ The equipment / components' certification conditions / schedule of limitations must be complied with. ○ All unused entries must be sealed using suitably certified blanking elements. • The unit shall be installed to prevent any inadvertent impact. • Installation / supply cable shall comply with suitable current rating as applicable, keeping in mind the deratings for ambient / service temperatures • Special conditions of individually certified components remain applicable. • The unit to be installed with supply cable incorporating an earthing or equipotential bonding conductor. | | |
| Conditions of manufacture | <ul style="list-style-type: none"> • The seals of the unit must remain intact for the IP65 rating • Flameproof through bushes must be casted to at least 12mm. • The labels with information / certification details as indicated in this certificate must be maintained on the enclosure, the label must be legible and indelible permanently fixed to the apparatus. • It is a condition of certification that a copy of this certificate and instructions must be provided / made available with each assembly. | | |

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MASC takes no responsibility for any non-conformances, exclusions or any results / assessments / inspections not in compliance with the standards. By marking the equipment in accordance with the documentation / standard, the manufacturer / applicant attests on his own responsibility that the equipment / installation has been designed and constructed in accordance with the applicable requirements of the relevant standards and documentation, that the routine verifications / routine tests have been correctly completed and the equipment / installation complies with the documentation and standard(s).

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