

PRODUCT FAMILY DATASHEET

AC LED Modules

Modules driven straight from AC 120 V or AC 220 V with no separate DC power supply in the sign, for installations where there is no room or no access for a driver box.



What This Family Is For

Removing the driver removes the component that fails first in a hot sign cavity. These two models run on mains directly and publish a three year warranty rather than the five year figure the DC range carries.

Products In This Family

Product	Group	Summary
JDS-6616B/AC120V/220V	Bezel-Free Series 6 616B/AC120V/AC220V	Mains-driven module at AC 120 V or 220 V, 1.5 W, IP67, no DC driver needed inside the sign.
JDS-3939B/AC120V/220V	Bezel-Free Series 3 939B/AC120V/AC220V	Square four-lens mains module, 39 x 39 x 9 mm, 2 W at AC 120 V or 220 V, IP67, for signs 120 to 200 mm deep.

Published Specification

Property	Value
Model	JDS-6616B/AC120V/220V
Series	Bezel-Free Series 6616B/AC120V/AC220V
Module size	66 x 16 x 9 mm
Input voltage	AC 120 V / AC 220 V
Power	1.5 W per piece
Luminous efficacy	80 lm/W
Luminous flux	120 +/-3 lm per piece at 10000K, 6500K and 3000K
Beam angle	175 deg
Ingress protection	IP67
Cascade limit	20 modules single-ended, 50 modules double-ended power feed
Colour options	Cool white 10000K, pure white 6500K, warm white 3000K
Sign depth designed for	80-120 mm
Operating temperature	-20 to +50 C
Storage temperature	-30 to +80 C
Warranty	3 years
Packing	20 pcs per bag, 100 pcs per box, 2000 pcs per carton
Carton weight	21 kg

Property	Value
Carton dimensions	50 x 35 x 30 cm

Figures are reproduced from the manufacturer's published specification and may be revised. Rows reading 'not published' are figures the source specification does not publish; they are confirmed in writing rather than estimated. Confirm the current revision with your quotation.

Why Buyers Choose This Range

- Runs directly from AC 120 V or AC 220 V with no DC driver in the sign
- IP67 sealing on both models
- Published depth bands of 80 to 120 mm and 120 to 200 mm
- Same 175 degree beam angle as the DC range

Problems It Solves

- A retrofit where the cavity has no room left for a driver box.
- A DC driver cooking inside a sealed sign cavity in summer.
- Long low-voltage runs from a remote driver, which drop voltage before they reach the far letters.
- A maintenance visit that is really just a failed power supply.

Who It Is For

- Contractors retrofitting existing illuminated signage
- Fabricators working where driver access is impossible
- Distributors supplying mains-voltage sign components
- Installers on projects with 120 V or 220 V mains at the sign

Application Scenarios

- Fascia retrofits with no driver space
- Deep parapet lettering fed from mains at the sign
- Installations where driver access would need a cherry picker
- Markets where 120 V or 220 V is already run to the sign position

Materials

- Injection-moulded housing with the optic moulded in, rather than a lens glued on afterwards.
- Potting compound filling the cavity around the board, which is what carries the IP rating.
- Pre-tinned lead wires on both ends for cascading, cut to the published module pitch.
- 3M backing tape on the models where the specification lists it, for direct mounting to the inside of a return.

Manufacturing Process

1. Patch - SMT placement of the emitters onto the module board, photographed as stage one on the factory's own process board.
2. Solder wire - Lead wires are soldered and strain-relieved before the housing is closed.
3. Injection moulding - The housing and the optic are moulded together, then the cavity is potted.
4. Testing - Electrical test under load before the module leaves the line.
5. Back glue - 3M backing tape is applied to a cleaned housing on the models specified with it.
6. Aging - Finished modules are run on the aging rack before packing.

Customisation Options

- Colour temperature selected per order from the published options rather than held as one stock colour.

- Lead wire length and module pitch cut to the sign layout instead of a default spacing.
- OEM and ODM work: the source site states that OEM and ODM are supported for customers in all markets.
- Packing quantity per bag and per carton adjusted to how the modules will be issued on the fabrication floor.

Certification Standards

Production follows CE, RoHS, LVD, IP68 test report, UL. Certificates are sent per model and destination market on request.

Questions Buyers Ask

Is the warranty the same as the DC modules?

No. Both AC models publish a three year warranty, against five years on the DC range. That difference is published by the manufacturer and is reproduced here rather than smoothed over.

Does AC drive mean no driver at all?

It means no separate DC power supply inside the sign. Mains still has to be brought to the sign and switched and protected to local code.

Can AC and DC modules be mixed on one sign?

Not on the same run. They are separate circuits with separate requirements, and mixing them on one feed is an electrical fault, not a compromise.

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