

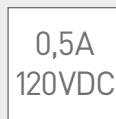
# General information

All articles in this catalogue have been designed according to the appropriate national and international standards (VDE / IEC). The choice of product and correct technical embodiment is the sole responsibility of the user. Exact information can be obtained upon request. We reserve the right to modify products.

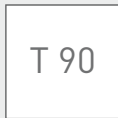
## Explanation of the symbols shown on the product pages.



**LED-Light-Engine**



**Rating**  
Indication of rated values.



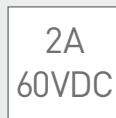
**Temperature rating T 90**  
The maximum operating temperature is given by a T marking. This is the maximum operating temperature for which the product is designed.



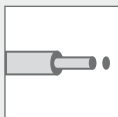
**Rating**  
Indication of rated values.



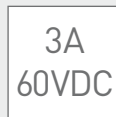
**Temperature rating T 110**  
The maximum operating temperature is given by a T marking. This is the maximum operating temperature for which the product is designed.



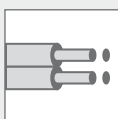
**Rating**  
Indication of rated values.



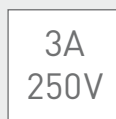
**Single push wire terminals**



**Rating**  
Indication of rated values.



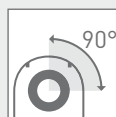
**Twin push wire terminals**



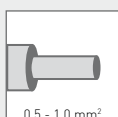
**Rating**  
Indication of rated values.



**For tinned wire ends within the cross sectional range stated**  
(In this example 0.5 - 1.0 mm<sup>2</sup>)  
When regulations deviate from IEC, other cross sections are possible (e.g. UL / CSA: cable 18 AWG).



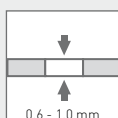
**90° rotor fixing**



**For solid conductors within the cross sectional range stated**  
(In this example 0.5 - 1.0 mm<sup>2</sup>)  
When regulations deviate from IEC, other cross sections are possible (e.g. UL / CSA: cable 18 AWG).



**CAD-Data in 2D or 3D format available**



**Material thickness**  
Indication in mm  
(In this example 0.6 - 1.0 mm)



**Additional information**  
Further information about the products shown on this page can be found on the pages shown within this symbol.

# Technical information for embodiment of our products

BJB lampholders are in accordance with IEC regulations and are designed to IEC 60061-2 publication.

Where no electrical data is stated then:

- according to IEC 60238 / VDE 0616 part 1, Edison lampholders E14 rated 250 V / 2 A conform to overload capacity category II, E27 rated 250 V / 4 A voltage and E40 conform to voltage overload capacity category III ,
- according to IEC 60400 / VDE 0616 part 3 fluorescent lampholders and starter holders rated 250 V / 2 A conform to voltage overload capacity category II
- Halogen lampholders designed according to IEC 60838 / VDE 0616 part 5, conform to voltage overload capacity category II
- Bayonet lampholders according to the requirements IEC 61184 / VDE 0616 part 2 conform to voltage overload capacity category II,
- Lampholder outer threads conform to IEC 60399.

When regulations deviate from IEC, e.g. UL, other ratings may be possible. Please consult us before use.

Through our work with the relevant standardisation committees, we ensure our lampholders are developed and tested to the latest specifications.

All technical product drawings shown in this catalogue indicate only the main important dimensions and tolerance values. As a rule only where this is of importance for the intended application.

All measurements stated without tolerances are nominal.

Limit values are:

- DIN 16901, size 130 for moulded parts
- DIN ISO 2768-m for metal parts
- DIN 40680, medium for ceramic parts

Weights of single items stated in this catalogue are rounded up or rounded down to the nearest gram, therefore the final weight of a pack quantity may differ. The weights shown are only a guide and should not be used for order or shipping specification purposes.

The choice of product and correct technical embodiment in accordance with the corresponding regulations (e.g. IEC 60598 / VDE 0711, IEC 60335 / VDE 0700 ) is the sole responsibility of the user.

- Specific attention must be given to:
- Temperature limits which must be observed in accordance with the corresponding regulations (e. g. T-markings);
  - The necessary creepage and clearance distances as well as distances through insulation;
  - The connecting cable and wires, which must have the correct heat and UV resistance, mechanical strength, voltage rating and a current carrying capacity corresponding to the conditions of the intended application;
  - Protection against contact with live parts;
  - Connectors, e.g. tab terminals, which must be selected in accordance with the requirements of their intended use (e.g. temperature, current carrying capacity, corrosion resistance);
  - The influence of control gear, transformers, starters / ignitors and other circuit components, must always be taken into consideration.

The catalogue also contains technical information, to which attention must be paid during project development, construction and electrical installation or when operating lighting installations. This information must be passed on, e.g. in an installation instruction.

To ensure snap fix products locate correctly and securely, consideration must also be given to the cut-out and where applicable, attention must be paid to special requirements (e.g. degree of burr, direction of punching, radii, etc.).

Consideration must also be given to the area required around the cut-out, to allow correct insertion. Different components may require to be inserted at different angles.

During fixing, it must be ensured that the fixing surface is correctly sized.

Information regarding light fitting wall thickness, should always be interpreted as inclusive of a coating, unless stated otherwise.

If there is a requirement for one of our products to be embodied in a way other than shown in our catalogue, please contact us.

Attention must also be given to the IEC lamp standards, as well as the technical instructions of the lamp manufacturers in respect of the embodiment and correct operation of lamp.

When LED modules are connected in series, creepage and clearance distances must be observed in accordance with the overall voltage.

When using TIM films and ceramic COBs, we recommend types with a thickness of 0 - 0.2mm.

The hardness of the TIM film should be min. 70 Shore A.

Softer and / or thicker TIM films, as well as phase change materials, can lead to functional disturbances and is the responsibility of the user.

Our oven lamps are exclusively designed for embodiment within domestic appliances.

They are not suitable to be used for general ambient lighting.

In accordance with our policy of continual product development and improvement, we reserve the right to make design modifications.

Due to the amount of information involved in compiling this catalogue, it is not always possible to avoid printer's errors or minor mistakes. Although every care is taken, BJB accepts no responsibility for the accuracy of the contents. If in doubt, or if you require confirmation of specific information, please contact us.

Edition 2015



# Guarantee conditions

## Guarantee conditions

These Terms apply for products and components which the acquirer has acquired from BJB GmbH & Co. KG, Werler Str. 1, 59755 Arnsberg (hereinafter referred to as "BJB"), insofar as BJB and the acquirer have agreed on these Guarantee Terms contractually, for example by making reference in the contract documents. Insofar as nothing to the contrary is agreed upon for the products and components affected, BJB GmbH & Co KG's General Terms & Conditions also apply (as of 06/2011), insofar as nothing different arises from the following terms.

## Guarantee period

Subject to compliance with the terms set out here, the acquirer is granted a guarantee for the below-mentioned period.

- For active parts with a physical nominal lifetime\* pursuant to the BJB product description  $\geq$  50,000 operating hours, BJB grants a guarantee for a period of five years.
- For active parts with a physical nominal lifetime\* pursuant to the BJB product description  $<$  50,000 operating hours, BJB grants a guarantee for a period of three years.

The guarantee period commences upon the respective delivery of the products and components to the acquirer.

\* Life span according to TM-21 L70 (6K) as per warranty condition.

## Guarantee prerequisites

The assertion of guarantee rights pursuant to these conditions requires that the products and components have been duly assembled and operated in accordance with BJB's instructions.

The guarantee lapses if changes or repairs are made to the products or components by people who are not qualified to do so. The acquirer has to keep a log sheet in this respect and have it ready for the purpose of the inspection. BJB representatives are to be given the opportunity to appraise the defective products in the necessary scope and within the time frame.

The guarantee for individual products and components applies subject to the prerequisite that the products or components are used pursuant to their agreed specifications and guidelines or specifications and guidelines arising out of BJB product publications.

Claims under the guarantee are to be notified in writing to BJB within 30 days after the appearance of the defect. The notification has to include a detailed defect description, details about the system used, the operating hours and cycles of operation, and name the installation and invoice date. If this is not done, claims under the guarantee are excluded.

Moreover, guarantee claims are excluded insofar as the notified defect is attributable to the following circumstances:

- improper use, misuse or improper treatment by the customer or a third party, particularly non-compliance with instructions or technical information in the operating instructions or in the product datasheets, including installation information in catalogues and electronic media;
- abnormal use conditions [e.g. ambient temperature, moisture];
- defective construction components which are not part of the relevant BJB products or components for which this guarantee is granted; or
- faults or fluctuations in the supply voltage or in the electric circuits outside the permissible tolerance limits.

## Services in guarantee case

If the defect is notified to BJB within the guarantee period, BJB will in its own discretion repair or replace the defective product or refund the product purchase price to the acquirer. If the product is no longer available, BJB reserves the right to replace it with a similar product, which might have minor deviations with regard to design and product specification. Ownership of defective products is transferred to BJB upon their replacement. Transport costs are borne by BJB in guarantee cases, otherwise by the acquirer. Costs arising in connection with disassembling the defective products or product parts and assembly for the new products are not borne by BJB in the framework of the guarantee. More extensive compensation claims, including claims for compensation of indirect loss, consequential loss or lost profit, are excluded pursuant to this guarantee.

## Scope of the guarantee

This guarantee pertains exclusively to the mortality beyond the nominal failure rate of the components. Only the full failure of the BJB products or components is deemed to be a defect and thus a guarantee case in the sense of these Guarantee Terms. Reduction in luminous flux or colour shift depending on operating time does not constitute a failure of BJB products or components and thus does not constitute a guarantee case.

Due to technical advances in LED technology as well as usage-related changes in light properties (such as colour location shifts, degradation) of products, when making subsequent deliveries of LED modules, there might be deviations in the light properties compared to the original products.

The guarantee period is not prolonged by the performance of work which falls under this guarantee service.

The Guarantee Terms pertain exclusively to commercial, industrial customers.

The acquirer's contractual or statutory warranty rights against BJB remain unaffected by this guarantee.

# General Conditions of Sale

## I. Entry into contract

1. These General Terms and Conditions apply to all - including future - contracts, deliveries and other services where we are the seller or the contractor. By placing an order, our customer declares itself in agreement with these Terms and Conditions. If the order placed by our customer is confirmed by the supplier only on the basis of its own Purchasing Terms and Conditions, then the latter are hereby objected to. Our Terms and Conditions are deemed to have been accepted at the latest upon accepting delivery of our goods or upon dispatch approval.
2. Our employees, insofar as they are not organs of the company, procurist or written form, are not authorised to make binding declarations on our behalf.
3. Information such as dimensions, weights, pictures, assembly sketches in product catalogues and other printed materials are only approximate, but have been ascertained in the best possible manner.
4. Any modifications to contract terms agreed in writing also require the written form.
5. Orders placed by the customer only become binding after our written order confirmation. We can validly give the order confirmation within four weeks after receipt of the order. The order confirmation can also be given in the form of an invoice or a delivery note.

## II. Oral supplementary agreements

Oral supplementary agreements as well as any modifications or additions to a contract require our express written confirmation in order to be valid.

## III. Prices and payment

1. We are bound by the confirmed prices for 3 months from the date the contract comes into existence. For deliveries after that point in time, we are entitled to increase the prices in accordance with the wage, administration and materials purchasing costs which have changed since the last price determination. Insofar as the price difference is greater than 10% of the confirmed price, the customer is entitled to rescind the contract for the parts of the performance which have not already been rendered.
2. Section III.1 applies correspondingly if our purchase prices increase due to foreign exchange rate changes.
3. VAT in the amount prescribed by law on the date of the invoicing will be added to the prices.
4. The invoice amount is due without deduction of discounts 30 days after invoicing. If payment is made within 8 days after the invoice date, 2% discount can be deducted.
5. In the event of default in payment, default interest in the statutory amount can be charged. We hereby reserve the right to claim compensation for other default loss.
6. Payment by bill of exchange or cheque is only ever conditional payment. Acceptance of the same is not to be regarded as deferral of the purchase price. Liability of the contractor for timely presentation, dishonour, notification or return in the case of non-redemption is hereby excluded.
7. Set-off or withholding payment is only permissible on the basis of counter-claims which are undisputed by us or which have been determined in a final and legally-binding manner.
8. The customer does not acquire any right in a tool by paying a portion of the costs of tools.
9. The customer is not entitled to transfer claims arising under this contract to third parties.

## IV. Product qualities and quantities

1. Product qualities, particularly quality and material properties (e.g. plastic), are initially determined in accordance with our respectively-valid technical specifications; should there be no such specifications, then in accordance with DIN norms valid when the contract is entered into. Insofar as there are no DIN norms, the corresponding Euro norms applicable when the contract is entered into apply, and in the absence of these, established commercial practice applies.
2. Insofar as nothing to the contrary is agreed upon, we are obliged to make the delivery free from third-party intellectual property rights and copyright only in the country of the delivery location.
3. The piece numbers to be delivered are determined through weighing, insofar as the products are mass-produced articles or bulk commodities. Minor excess deliveries or shortfalls caused thereby are irrelevant; this is deemed to be complete performance nevertheless. The customer does not derive any rights therefrom.
4. For special orders, we hereby reserve the right to make an excess or shortfall delivery of up to 10% of the quantity ordered.
5. BJB products are components for installation by our customers into electrical equipment, such as luminaries or domestic appliances.

## V. Right of rescission in the event of inability to perform

1. We are entitled to rescind the contract if despite entering into coverage transactions in a timely manner we ourselves are not supplied completely or in a timely manner and other coverage purchases are unreasonable or have failed or if we or our suppliers are unable to make timely delivery for reasons which have arisen since entering into the contract or were unknown to us and are not in our sphere of influence, such as strike, lock-out, non-culpable business shutdowns, including at our suppliers (e.g. tool breakages), supply blockades, plant closures, refusal of import or export licences, other acts of state and/or circumstances going beyond those, which are to be regarded as force majeure. Therefore, we assume no procurement risk.
2. We undertake to inform the customer without undue delay of the non-availability and to refund without undue delay the consideration rendered by the customer.

## VI. Right of rescission, etc. in the event of default in payment and deterioration of financial position

1. We are entitled to rescind the contract or in accordance with our discretion to only effect deliveries in return for payments made in advance if the customer is in default with fulfilment of the payment obligations owed by it to us, if its bills of exchange or cheques are not honoured, or if during the term of the contract its financial circumstances significantly deteriorate, which would respectively lead to the consequence that the fulfilment of the customer's obligations arising from the commercial transaction in the manner of a prudent, proper businessperson was no longer to be expected.
2. In the event of a default in payment, all of our other claims will become due immediately. In these cases, we are also entitled to demand cash payment in advance for further (partial) deliveries and to withdraw immediately from circulation all circulating acceptances, bills of exchange and cheques - with the costs arising therefrom to be borne by the customer - and to demand cash payment for the same.

## VII. Delivery period, bearing of risk and packaging disposal

1. If no transaction with a fixed date has been agreed to, but a delivery period is indicated in our offer or our order confirmation, this period can be exceeded by one week. Before bringing a claim for compensation based on non-performance, a reasonable final supplementary period for performance must be set. The delivery period is prolonged by the period during which delivery obstacles which arise due to the causes named in section V. hereof exist. If such an obstacle exists for longer than 3 months, we have the right to rescind the contract without thereby becoming liable to pay damages for the same. It remains the customer's decision whether or not to exercise the right to which it is entitled.
2. Risk passes to the customer at the latest upon dispatch of the goods, even if partial deliveries are being effected or if we have agreed to perform other services as well, e.g. shipping expenses or transport. Upon the customer's written request, the consignment will be insured by us at the customer's expense against theft, breakage, transport damage, fire and water damage, as well as against other insurable risks.
3. If the shipment is delayed because of circumstances for which the customer is responsible, then the risk and storage costs are transferred to the customer from the day the shipment was ready; however, we are obliged upon the customer's request and at its expense to obtain the insurance so requested by it. If the delivery is delayed for more than 4 weeks for the reasons for which the customer is responsible, we are entitled to rescind the contract and to assert the statutory claims.
4. Delivered goods are to be accepted by the customer regardless of the rights arising in section VIII. hereof, even if these goods have insignificant defects.
5. Partial deliveries are permissible.
6. When the net value per shipment is above EUR 800, the goods are delivered as freight to a German receiving station including packaging, below EUR 800, 2% is added for packaging, and the customer will be invoiced for delivery costs, to a German receiving station, below EUR 100, EUR 25 is charged as a packaging, postage and handling fee.
7. The customer hereby undertakes to properly classify and then arrange for disposal and/or recycling of the packaging at its own responsibility and cost pursuant to § 5.3 and according to the German Waste Recycling and Management Act (Krw-/AbfG).

## VIII. Notification of defects, claims based on defects and compensation due to breach of obligation

1. The customer must inspect the goods immediately after receiving them and, if a defect is found, must notify us in writing without undue delay. Otherwise, the goods are deemed to have been accepted, insofar as a defect which capable of being identified during proper inspection is concerned. The same applies when the customer does not carry out an agreed acceptance, or does not carry it out completely or in a timely manner. If a defect subsequently appears, this fact must be notified after discovery without undue delay. Later notification of deficiencies of the goods is excluded.
2. Insofar as there is a defect and this has been complained about in a timely manner, we are entitled to effect subsequent performance in the form of defect rectification or to supply a flawless item within a reasonable period, as we choose. We bear the work and materials costs associated with a justified subsequent improvement; other costs, particularly disassembly and installation costs, are borne by the customer. If the customer takes the goods to a location other than the acceptance location, then the customer bears the additional subsequent performance costs which arise as a result thereof. If the subsequent performance is unsuccessful or is unreasonable for the customer, then the customer is entitled to rescind the contract or to demand reduction of the remuneration (reduction). However, in the case of a contract breach which is not attributable to gross negligence by us, minor defects, the customer is not entitled to any rescission right. We can refuse to effect subsequent performance if it is associated with disproportionate costs.
3. Insofar as nothing is stipulated to the contrary in sections VIII.2, VIII. 5 and/or VIII. 6 hereof, claims of the customer based on material defects or defects in title - for whatever legal reason - are excluded insofar as the claim for the damage which has not occurred to the delivery object itself. In particular, we are not liable for loss of profits or other pecuniary loss suffered by the customer in this respect.
4. Insofar as nothing is stipulated to the contrary in sections VIII. 5 and/or VIII. 6 hereof, claims of the customer due to breach of an obligation arising from contractual obligations are hereby excluded.
5. The foregoing no-liability declarations (sections VIII. 3 and VIII. 4 hereof) do not apply in circumstances where we are compulsorily liable, for example (1) pursuant to the German Product Liability Act, [2] due to loss of life, personal injury or damage to health which is attributable to a negligent or intentional breach of obligation by us or one of our legal representatives or one of our agents, [3] if the cause of damage or loss was due to intentional behaviour or gross negligence by us or one of our legal representatives or one of our vicarious agents, [4] if the customer asserts rights based on a defect arising from a warranty regarding the product qualities or the particular duration of a product quality, [5] we negligently breach a fundamental contractual obligation whose fulfilment is what makes the due performance of the contract possible at all and whose fulfilment may be usually relied upon by the contract partner (cardinal obligation), [6] recourse claims in the consumer goods purchase delivery chain [§ 478 of the German Civil Code (BGB)] are involved.
6. If we negligently breach a cardinal obligation, our obligation to pay damages is limited to the contract-typical, foreseeable loss, if no intentional or grossly negligent behaviour is involved, and/or we are not liable due to loss of life, personal injury or damage to health.
7. If we have effected a partial delivery, the customer can only rescind the entire contract if it no longer has an interest in the part-performance. For successive delivery contracts, the customer's rights are limited to each respective partial delivery.
8. In the case of the elimination of a defect or replacement delivery (subsequent performance), section VII.1 and VIII.2 apply correspondingly.
9. We can refuse to carry out the elimination of defects, as long as the customer has not paid for the portion of the delivery which has not been objected to.
10. No claims against us exist based on loss for which the customer is responsible. The customer is particularly responsible for damage and loss which occurs due to the following reasons:
  - defective assembly or installation by the customer or a third party,
  - chemical corrosion and radiation (UV light) on synthetic and metal parts,
  - flawed, order dates and norms regarding the planned usage, exceeding established reference values (e.g. voltage, current, operating temperature, firing voltage),
  - natural wear and tear,
  - improper or negligent handling, unsuitable means of production or substitute materials, chemical or electrochemical influences, insofar as the same is not attributable to fault on our part.

11. All claims brought against us based on a material defect or a defect in title become time-barred 12 months after the legal commencement of the warranty, unless the German Product Liability Act or another Act, particularly § 431 paragraph 1, number 2 of the German Civil Code [Construction and Items for Construction], § 479.1 of the German Civil Code [Recourse Claims in the Consumer Goods Purchase Delivery Chain] or § 634a paragraph 1, number 2 of the German Civil Code [Building Defects], prescribes a longer limitation period. The time-barring of claims based on liability for damage or loss arising out of the loss of life, personal injury or damage to health which occurs due to a negligent or intentional breach of obligation by us or one of our legal representatives or vicarious agents, and for other damage or loss which is due to an intentional or grossly negligent breach of obligation by us or one of our legal representatives or vicarious agents, shall be determined pursuant to the statutory provisions.

## IX. Retention of title

1. We retain title to all goods we deliver until the customer has paid all debts (including future ones) arising from the business relationship. This also applies when some of our claims are taken into a running account as payment and the balance is calculated; the retention of title then pertains to the respective account balance claim. The delivery of bills of exchange and cheques does not count as payment as long as the negotiable instrument has not been redeemed. Subject to section IX.3. hereof, in the framework of the ordinary course of business, the customer is entitled to sell to third parties the goods to which the contractor retains title. If the third-party purchaser is allowed time for payment, the contractor is obliged to retain title on the same conditions as those set out above. The customer hereby assigns to the contractor the purchase price claims to which the former is entitled from the resale. In the event of resale together with goods from a third party, this assignment is only valid in the amount of the value of the goods at the time of the resale. The assignment takes place provisionally without notification; however, the vendor has to the right to collect the debts itself as soon as the customer does not comply properly with its payment obligations. The customer has to inform the purchaser of the assignment upon request by the vendor and give the latter all information necessary and useful for enforcing the transferred claims.
2. The customer only has the right to resell the goods to which the vendor retains title when it is insured that the claims arising from this sale contract pass to the vendor. Therefore, resale may not take place in the framework of a current account relationship, nor may the assignability of claims from the resale be excluded with the purchaser.
3. If the value of the securities which exist for us exceeds that of our claims by more than 20% in total, we are obliged in this respect, upon the customer's request, to release part of the securities in accordance with our discretion; however, only fully-paid deliveries require to be released from the goods to which we retain title.
4. The customer is obliged to take out reasonable insurance policies concerning goods to which the contractor retains title, against all usual risks, particularly fire, burglary and water hazards and to handle and store the goods with care. Insurance claims arising in the event of damage shall be assigned to the vendor.
5. In the event of levy or attachment of the goods and/or assigned claim by a third party, the contractor is to be notified in writing without undue delay, including the forwarding of a copy of the bailiff's record.

## X. Rendering of services

In cases where only services are rendered by us, the German Civil Code's provisions governing the rendering of services shall apply thereto, on the condition that these General Terms and Conditions of Sale apply correspondingly.

## XI. Final provisions

1. This contract is exclusively governed by substantive German law, and the application of the UN Convention on Contracts for the International Sale of Goods (CISG) is hereby excluded. The place of performance for the obligations arising under this contract is Arnsberg, Germany.
2. The courts of Arnsberg, Germany shall have jurisdiction locally and internationally for all disputes arising out of this contract.
  - a) if the other party is a businessperson or legal entity under public law or a public-law special asset,
  - b) if the other party has no general legal domicile (residence, headquarters or usual domicile) within the Federal Republic of Germany, or
  - c) if after entering into the contract, this party relocates its residence or usual domicile out of the area of the Federal Republic of Germany or its residence or usual domicile is not known at the time the lawsuit is filed.
3. The statutory provisions apply to default actions and summary proceedings for the recovery of debts.
4. Should a provision of these General Terms and Conditions of sale and the other agreements entered into be or become invalid, then the validity of the rest of the contract shall remain unaffected thereby. The contractual parties are obliged to replace the invalid provision with one which comes as closest as possible to the economic effect of the invalid one.

1 June 2011 BJB GmbH & Co. KG, Arnsberg, Germany

