ELECTRICAL DISTRIBUTORS' ASSOCIATION

WHITE PAPER **V2 / October 2025**

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With advice from EDA Data Quality Working Group

Creating Excellent Product Images:
Guidance & Best Practice for Ecommerce

EDA ELECTRICAL DISTRIBUTORS' ASSOCIATION

Creating Excellent Product Images: Guidance & Best Practice for Ecommerce

This paper is one of a series of White Papers produced for EDA members and affiliates covering topics relating to digitalisation and product data.

In this paper Richard Appleton, who has over 30 years' experience working with data, offers detailed guidance about creating high quality ecommerce friendly product images.

Acknowledgements

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Phil Thompson	NG Bailey (now at ETIM UK and Ireland)
Ronnie Ford	Marshall-Tufflex Ltd
Steve Mortlock	CEF
Stuart Squires	Amplifi

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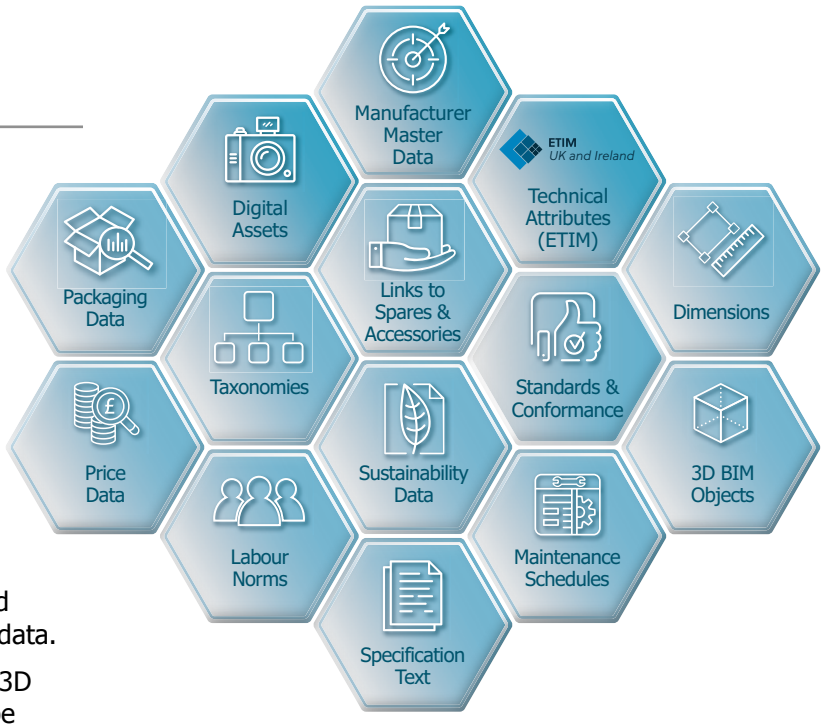
Introduction

This paper takes a more in depth look at product images, one of the key aspects of product data, and one where requirements have changed significantly with the move to ecommerce.

The paper is aimed primarily at manufacturers of electrotechnical products, and the main focus is on creating product images for use in ecommerce and other supply chain applications. It will therefore be of particular interest to manufacturers that are distributing their product data via EDATA. However much of the paper is of equal relevance to manufacturers in the HVAC, plumbing and building sectors as well as to wholesalers and merchants who are managing their own product data.

This paper includes a discussion about 360° and 3D images but does not include videos, which may be subject of a future paper.

Our objectives are to support manufacturers in responding to the data needs of the electrotechnical supply chain, to drive product data quality and best practice in the sector, and to provide a basis for EDATA data quality measures.



In this paper we quote a number of statistics taken from on-line sources. Studies vary widely and these cannot be taken as definitive but they do demonstrate the effect on customers of poor product content.

83%

of US smartphone users say that product photography is "very" and "extremely" influential to purchasing decisions

Best Practice

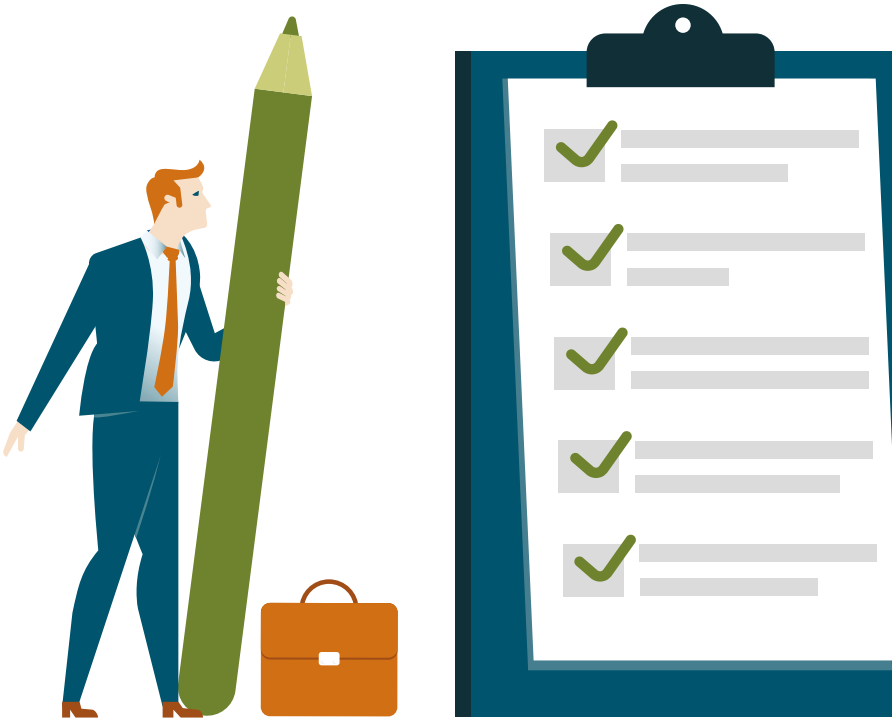
There is no definitive right and wrong way to create product images. This paper outlines what we consider to be best practice but is deliberately not over-prescriptive, recognising that many in the industry are still at an early stage in their product data journey.

We also recognise that many manufacturers have to supply product images to other channels, such as on-line retailers, each of which has its own specific requirements for example for image sets or file naming structure. This is unlikely to change but, in recommending a standard for the electrical wholesale channel as a whole, we aim to avoid a multitude of new customer-specific standards emerging, each one slightly different to the rest.

We anticipate that these guidelines will be further refined in future based on feedback and experience from the industry.

Your feedback

Creating excellent product images is not an exact science and is a complex and evolving subject. If you have a question or a point that you'd like to share, please get in touch on **info@eda.org.uk** Your insights are most welcome.



Who, Where and Why?

It is important to understand who will be using the product images you create and in what context.

Who are the images for?

Your product images may be published on your own or a wholesaler's web site, but the ultimate audience may be further downstream. Typically it will be someone considering buying the product, or perhaps installing or maintaining it.

Try to envisage the different roles of the people looking at your product images and consider what information they need which an image could provide. For example:

- A customer looking at a wholesaler's web site needs the image to help make a product selection. This may occur at more than one stage of the buying process. Firstly, an image can "draw the eye" to a potentially suitable product on the search results page. Secondly, once an initial selection is made, the image(s) on the product page will help confirm whether the selected product is the one required.
- An architect or building owner may want to see the aesthetic qualities of a product.
- An installer may use images to provide technical information. An image showing the connections on the back of a wiring device may provide more relevant information than a picture of the front plate and, thus, influence product selection.

Where will the images be used?

There are numerous organisations that may require your product images and applications where they may be used. These include wholesalers' web sites, click and collect apps, your own web site, customer-specific punch-out sites and contractors' procurement systems.

Try to identify them and consider both the technical requirements (where possible) and the information requirements of each type of organisation and application.

Why invest in creating good quality product images?

Creating good quality product images takes time and resources but, in the digital world, investment in creating excellent product data results in a valuable business asset with multiple benefits:

- Product data is your silent sales team. Your products are competing for attention in search engines and on web sites. Good quality images help your customers find and select your products. It's usually what the buyer sees first.
- Images can often convey information more quickly or clearly than text (a picture paints a thousand words) and greatly aid understanding of the products.
- Good quality product data improves customer service by helping customers find the right product and by reducing purchasing errors and returns.

42%

of sites display too little product information in their product gallery for users to evaluate if a product page is worth exploring

Types of Image

Primary Image

The Primary Image is the main product image (sometimes called the hero image) and the most important in an ecommerce environment. It will be displayed in the search results page of a wholesaler's web site and as the first image displayed on a product page.

The Primary Image, combined with the Short Description, needs to provide enough information for a customer to make an initial product selection, either to purchase the product or to investigate it in more detail.

It may be necessary to provide more than one version of the Primary Image to meet the specific requirements of certain sellers or platforms.

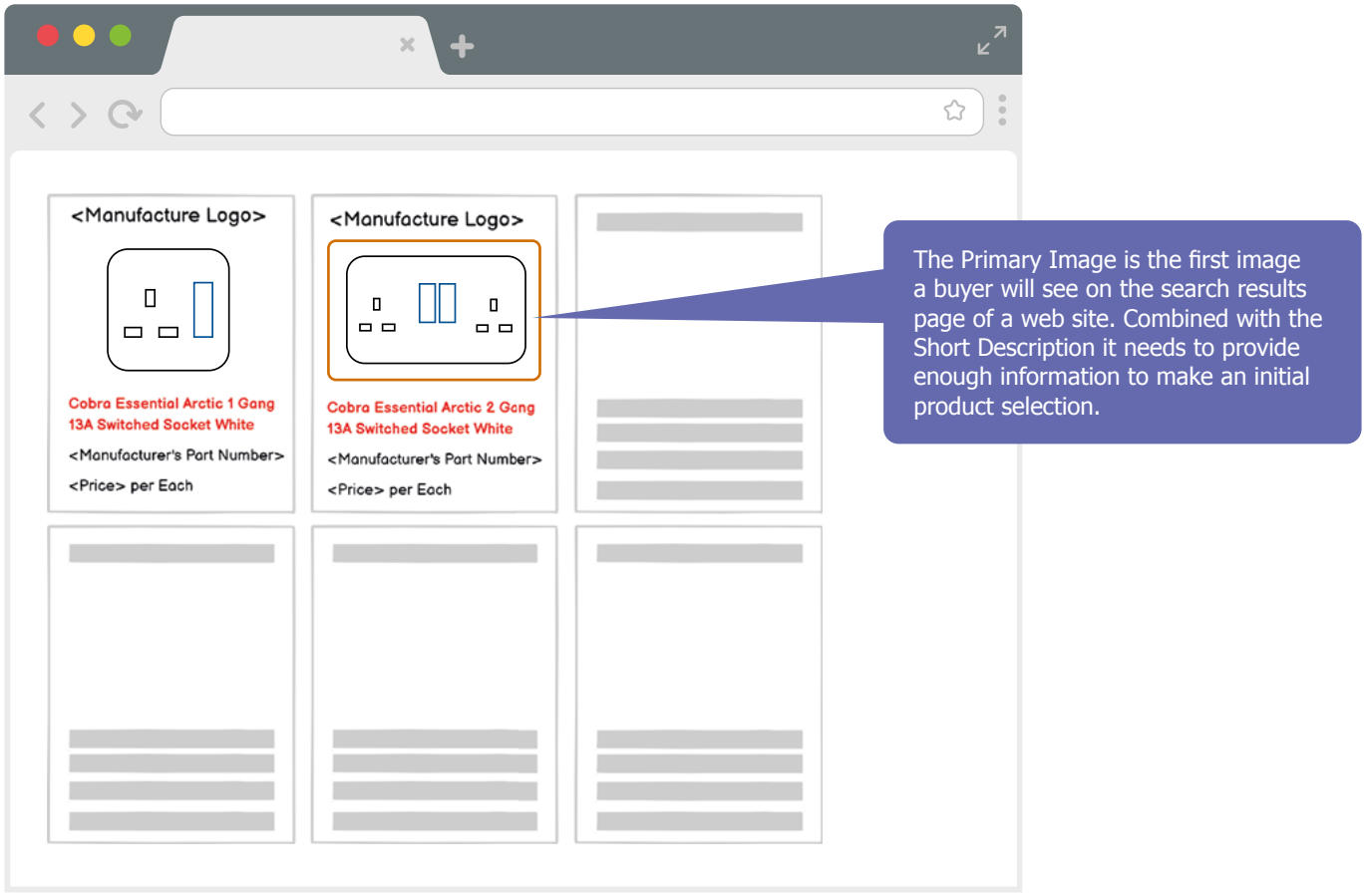


Illustration showing how the Primary Image might appear on a typical ecommerce web site search results page.

The Primary Image should be a clear view of the single, unboxed product. See below for guidelines.
Images courtesy (clockwise from top left): Aico Ltd, JCC, Signify (Philips Lighting), Luceco Group.

Future Trends: Mobile Ready Hero Images

There is now a trend in consumer goods to create a "mobile ready hero image", an alternative Primary Image specifically optimised for display on a mobile device.

Rather than a simple image, it may be a montage comprising the product image overlaid with key data such as detail images and pack quantity. Given the mobile nature of construction buyers it is likely this trend will be seen in the electrical and construction sectors in future.

Secondary Images

Depending on the product and the audience, manufacturers should consider providing a number of additional, Secondary Images either to reinforce the buyer's selection or to provide additional information.

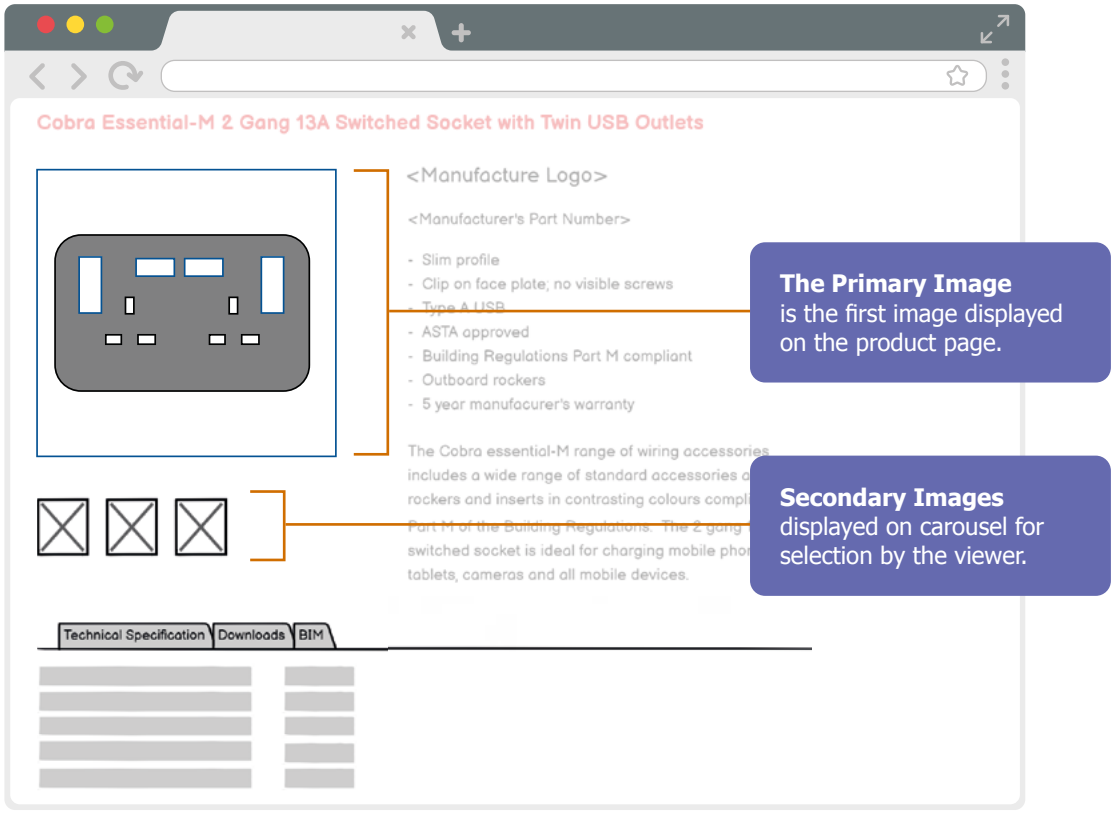


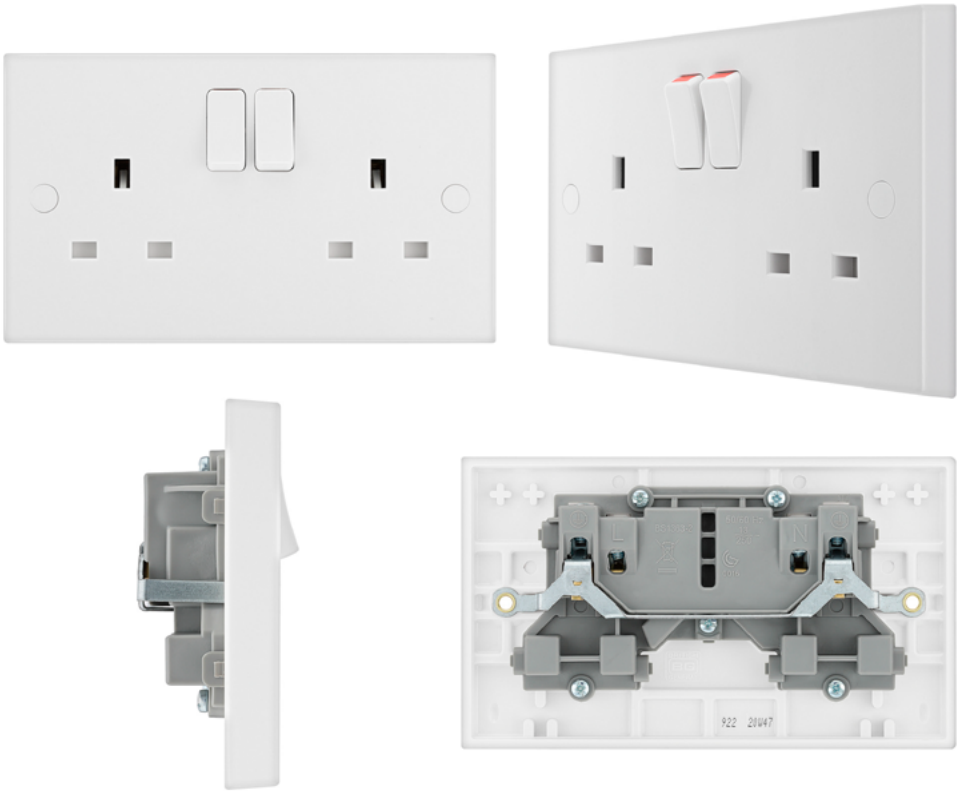
Illustration showing how the Primary and Secondary Images might appear on a typical ecommerce web site product page.

In the electrical and construction sectors, Secondary Images can be loosely categorised as:

- Secondary Product Images
- Schematic Images
- Miscellaneous Images

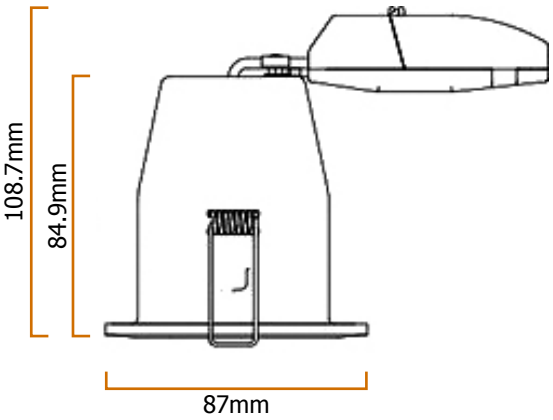
Frequently encountered Secondary Image types appropriate to the sector are listed and described below:

Image Type	Description
Secondary Product Images	
Alternative views	Images of the product from multiple angles e.g. front view, side view, rear view, inside view etc. These can convey important information which may influence a customer's product selection, but which cannot be seen in the primary image. *See example below.*
Application/In situ image	An image of the product installed and/or in use. This can convey both the scale of the product and its aesthetic qualities. *See example below*
Detail image	An image showing a specific detail of a product.
Pack image	An image showing the product packaging.
Montage	An image created artificially by combining two or more individual images.
Thumbnails	A smaller version of the primary image used to display on search results pages. Thumbnails are usually created and optimised by the recipient web site so there is no need to supply separate thumbnail images.
360° and 3D interactive images	Animated images which can be rotated by the user to see all sides of the product.
Schematic Images	
Dimensional drawing	A 2D drawing of the product annotated with key dimensions. Dimensional drawings are very useful to installers enabling them to see key dimensions more easily than in a text product description. *See example below.*
Wiring diagram	A wiring diagram for the product using standard notation.
Photometric diagram	A diagram illustrating the distribution of luminous intensity of a light source.
Exploded view diagram	A diagram showing the components of a complex product and how they fit together.
Miscellaneous Images	
Energy label	An image of the UK and/or EU energy label associated with the product.
Brand logo(s)	An image of the logo the manufacturer wishes to see associated with the product.
Barcode	A visual machine-readable representation of a numeric product code, normally the product's GTIN (Global Trade Item Number) aka EAN code.
QR code	Quick Response code. A type of barcode which normally points to a web site. Typically a QR code supplied by the manufacturer would point to the appropriate product details page on the manufacturer's own web site.



Images of the product from multiple angles can convey important information not visible in the Primary Image (images courtesy Luceco Group).

An in situ image showing an installed product can convey both its scale and its aesthetic qualities. (Image courtesy Glen Dimplex Heating & Ventilation).



Installers can see key dimensions more easily in a dimensional drawing than in a text product description. (Image courtesy JCC).

Photographic v. Computer Generated Product Images

The majority of product images will be photographs of the actual product. However, there are some products where a computer-generated (or rendered) image may be more visually effective and helpful in terms of directing a buyer to the appropriate product.

This particularly applies to generic or commodity products such as cable and fixings where a generic image can be created using standard illustration software.

We are now starting to see the emergence of more sophisticated computer-generated images, in some cases generated automatically from manufacturing drawings, and difficult to distinguish from a photograph.

Future Trends: 360° & 3D Images

There is now widespread use of 360° and 3D imagery in consumer ecommerce platforms. However, other than 3D BIM (Building Information Modelling) objects, usage of 360° and 3D images or objects in the electrical and construction sectors has, to date, been limited.

We expect this to change. 360° or 3D interactive images can convey a vast amount of information about a product in a single image. They are ideal not only in an ecommerce environment but also for contractors and maintenance engineers who wish to view a possible purchase from all angles.

360° and 3D interactive images for use in ecommerce are normally based on photographic images, but we are now beginning to see the emergence of animated computer-generated images. 3D PDFs, which can be created from existing CAD or BIM objects, offer another and comparatively cost effective option.

A summary of the different types of 360° and 3D images and objects can be found in Appendix B.

Product Images – Guidelines & Best Practice

General Guidelines for the Primary Image

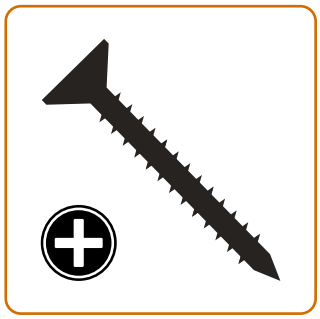
- Manufacturers should be able to supply a Primary Image for every product in their range, even for spares, consumables and ancillary products.
- The image should be a unique image of the specific product. A separate primary image is required for each colour and, in most cases, size and other types of variation. It is acceptable to link the same image to a number of products but only if they are visually identical. This applies to shape, colour etc. and also to annotations printed on the product itself: it is not acceptable to illustrate a 20A MCB with an image of a product annotated with 5A.
- The Primary Image should be a clear view of the product, not out-of-focus, grainy or blurry.
- The angle will depend on the product but normally a front or side view either straight on or angled is most suitable.
- The Primary Image should show the entire product. For linear products where this is impractical (conduit, trunking etc.), use an angled front/side view of one end of the product.

Images of linear products using angled front/side view of one end.

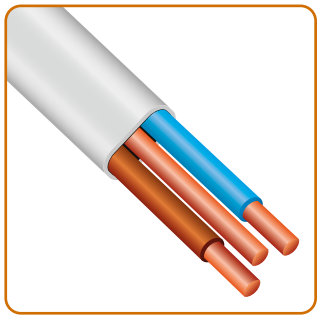
- The Primary Image should, in most cases, show a single unpacked or unboxed product. In the case of consumables such as paint, adhesives and cleaning products, the Primary Image should show a single sales unit (i.e. tin, bottle, aerosol etc.). If the product is sold in multi-packs, an image of the pack could be supplied as a Secondary Image.

- If the product is a kit comprising a number of parts (e.g. a cable gland kit; flexible conduit contractor pack) then all constituent parts should be shown in the Primary Image.

- In creating your Primary Image, consider how to convey the information a buyer needs in the most effective way. While a simple photograph works best for most, for certain products, a computer-generated image or montage with inset detail image can convey the information a buyer needs more effective way than a simple photograph.



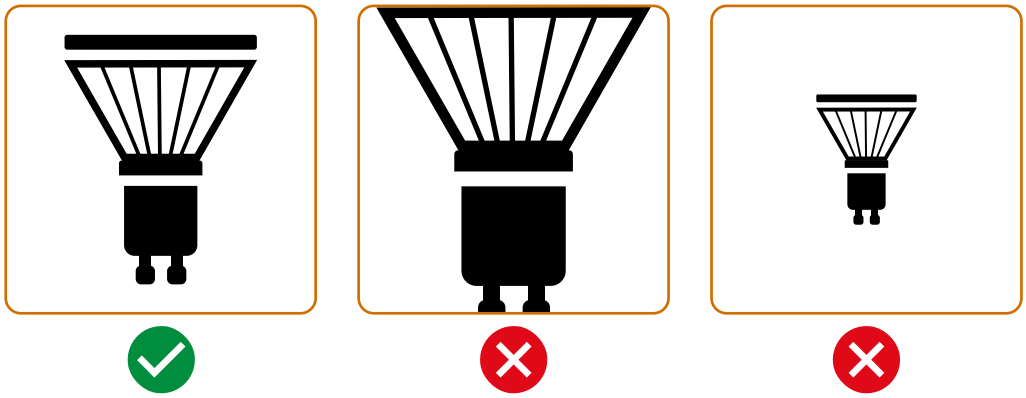
Images of wood screw, paint and labelling tape comprising montage of product photograph and inset detail image.

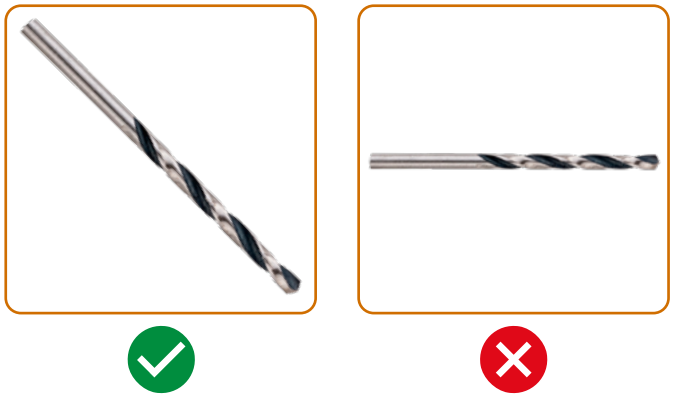


Some products such as cable are hard to photograph consistently and are better illustrated using a computer generated image.

Framing & Orientation

- The product should be framed in the image space, normally taking up between 75% and 90% of the available image space.

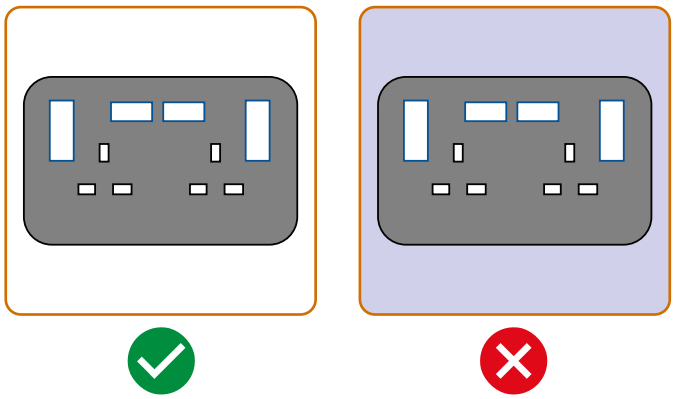




- Where this is not possible (e.g. with a linear product such as a drill bit) orientate the product in the image space to make maximum practical use of the space available.

Background

- To ensure the image works with a variety of designs, a pure white background (RGB 255,255,255) is recommended. Coloured backgrounds should be avoided.



- Some customers may require a clip path to be provided or a format which allows for transparent backgrounds. This is good option to offer especially for products which are predominantly white.

Consistency

- Search results pages on a web site will show several products in a range side by side. The Primary Image must therefore be consistent for all products in a range in terms of angle of view, framing, orientation, background and technical specification. A mix of different styles looks unattractive and reflects poorly on the brand as well as being confusing to the buyer.

- Aim for consistency of colour rendering and white balance.
  Ideally, photographs of all products in a range should be taken in the same session, under the same lighting conditions.

Things to Avoid

- Don't use a single representational image for a group of similar, but not identical, products (such as you might do in a printed catalogue).
- Don't supply product data without, at least, a Primary Image for each product. "No image available" never looks good, even alongside spares and accessories, and reflects poorly on the brand.
- Don't use an image with a border.
- Don't include any props, or ancillary products which have to be purchased separately.
- Don't use product images which contain overlaid sales messages, special offers or price information.
- Don't include manufacturer or brand names or logos.
- Don't use images with visible watermarks or visible copyright marks.
- Never use any image that conveys a misleading message about suitability, specification, performance or safety of a product.

22% of returns happen because the product looks different in person

Image Metadata

What is Image Metadata?

- Image Metadata is supplementary data which accompanies an image.
  It may be stored: (a) internally as data embedded within the image file itself;
  (b) outside the image file typically in a Digital Asset Management (DAM) system.

Image Metadata falls into three main categories:

Data Type	Description
Descriptive	• Information about the visual content including: ▪ Image description, tags, keywords, alt text ▪ Image classification (possibly using a standard index of image types such as that used in the BMEcat file exchange format).
Rights	• Including the identification of the creator of the image, ownership, copyright information and terms of usage.
Administrative	• Includes creation and modification date, file size, resolution, colour mode, details of the camera used to create the image. • Administrative metadata is usually created automatically on creation of the image, or when the image is transferred between systems.

Metadata Guidance & Best Practice

- Image Metadata requirements are, in part, determined by the system creating and storing the data or by the data exchange mechanisms used.
- With the increased emphasis in the construction sectors on traceability of product data, the metadata should ensure that an image can be traced back to the creator or owner (normally the product manufacturer).
- In addition to any metadata created automatically, inclusion of the following is recommended:

Metadata Attribute	Description
Manufacturer Name	
Brand Name	Primary brand name of the product illustrated.
Range name	Subsidiary brand/range name of the product illustrated.
Manufacturer's Part Number	Part number of the product illustrated.
Alternative Part Number	Used where the manufacturer assigns a second part number or order code.
GTIN	Global Trade Item Number (also known as the EAN code or bar code number).
Asset Type code	A code identifying the type of image. EDATA uses the standard 4-character BMEcat MIME Code.
Description	Description of the image.

Alt Text	Caption displayed when a mouse hovers over the image or where the image cannot be displayed for technical reasons.
Keywords	Any key search terms relevant to the image.
Version Number	
Issue Date	Date from which the image may be used.
Expiry Date	Date after which the image should not be used.
Sequence Number	Where a number of images are linked to a product the sequence number indicates the manufacturer's preferred order in which they should be displayed.
Copyright	Copyright statement detailing copyright owner and date.

Copyright

For guidance on copyright law relating to digital images and the internet see: https://www.gov.uk/government/publications/copyright-notice-digital-images-photographs-and-the-internet

Manufacturers must ensure they own the copyright of all their product images. If using third party photographers or editing services, the contract must stipulate that copyright remains with the manufacturer.

Agreements with distributors, data pools and other third parties who may re-publish a manufacturer's product should also be clear that the manufacturer retains copyright, and no publication or redistribution should take place without their permission.

Wholesalers should check they have the right to use any image. If images are sourced from a data pool such as EDATA then this will be taken care of in the data pool terms and conditions, but care should be taken if employing a third party data agency. Randomly scraping images from the internet risks infringing the owner's copyright.

It is not necessary to include a copyright notice in order to establish copyright and manufacturers should not include visible copyright marks on their images. However it makes sense to include an embedded copyright statement as part of the metadata. This also aids traceability.

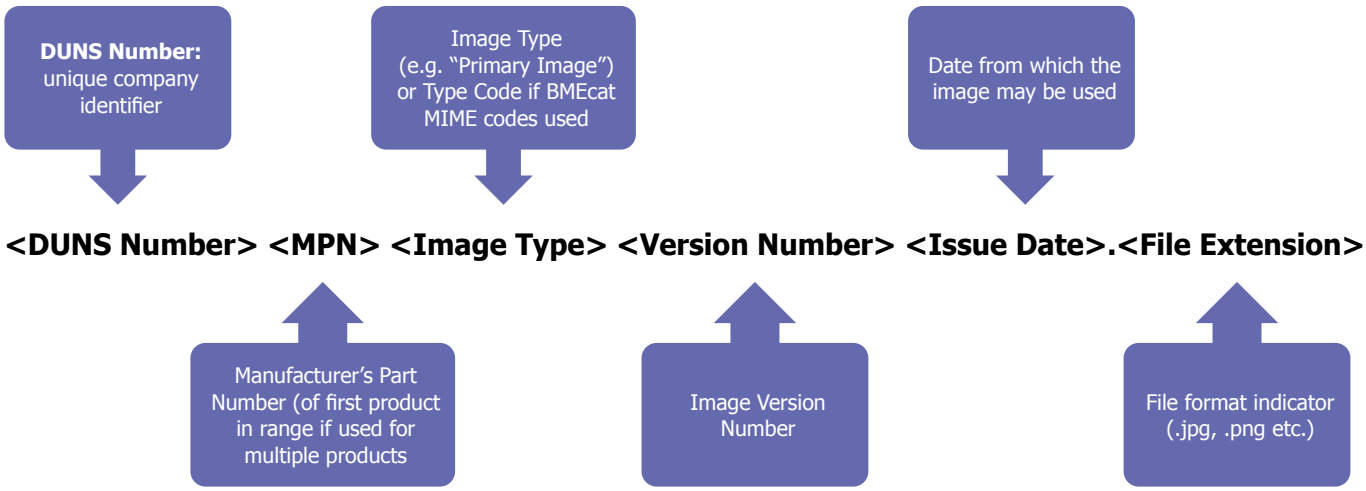
Image File Naming

File Naming Conventions

While some users may have their own file naming requirements, it makes sense for manufacturers to give all image files consistent and meaningful file names which can be easily interpreted by recipients. To do this, you will need to agree and adopt a standardised file naming convention.

File Naming Guidance & Best Practice

- Typically the file name will contain the Manufacturer's Part Number (MPN) of the relevant product and the type of image.
- If the same image is being used for a range of products, use the part number of the first product in the range, or substitute the range name for the MPN.
- The file name should also include information such as version number and/or issue date enabling a recipient to ensure they are using the latest version.
- File names should be lower case and may contain alphanumeric characters, space, period (full stop), hyphen and underscore. They should not contain any other punctuation or special characters.
- An example file naming convention is illustrated below.



Images Accessed via URL

Depending on the data exchange mechanism chosen, images may be stored in the cloud to be accessed by users via web page URL. This may be to facilitate a one-off download with the image subsequently stored on the recipient's site. Alternatively some customers will prefer not to store the images permanently and access them via URL on an ad hoc basis as required.

If providing URLs, the images should still have unique file names following a convention such as that shown above. The file name, including extension, should preferably be included at the end of the URL. URLs used in this context should be stable, not subject to change if it can be avoided.

Technical Specification

Technical specification requirements vary from customer to customer and platform to platform so it is impossible to be too prescriptive. The following recommendations to manufacturers will allow most requirements to be met and will be appropriate for providing data to data pools such as EDATA.

File format

A summary of the most common image file formats can be found in Appendix A.

- JPEG files are generally recommended for ecommerce product images, providing good quality images in a comparatively small file.
- Some customers may require an alternative format (e.g. PNG) which supports a transparent background.
- PNGs or GIFs are recommended for schematics.
- TIFFs may be required if you are providing images for use in printed material.
- Brand logos may be required as vector graphic files (e.g. EPS or Adobe Illustrator native file formats).

File Size & Resolution

- Manufacturers are recommended to create large, high resolution images, preferably 300 PPI*, which can be reduced in size without noticeable loss of quality by the recipient. The minimum acceptable resolution is 72 PPI (which is the standard for general internet use).
- The longest side should be at least 500 pixels and preferably 1000-1500 pixels, which is large enough to enable zooming.
- The largest image file accepted by Google merchanting is 16 MB, so this should be considered the practical maximum size for any image intended for internet usage.

* The terms PPI (pixels per inch) and DPI (dots per inch) are often used interchangeably. The former is the correct term for digital images. DPI describes the resolution of a physical printed image and refers to the number of ink dots.

Colour Mode

- Use RGB (or sRGB) for images to be used on web sites.
- It may be necessary to provide a CMYK alternative for use in print media.

Shape, Aspect Ratio & Orientation

- For the Primary Image, a square image or standard 3:2 portrait format are the most versatile options for digital display.
- Shape, aspect ratio and orientation of secondary images will be determined by what is most suitable for the image type, subject matter and requirements of the user.

Image Creation & Management

These are large topics and not covered in detail here. However a few pointers are included.

Creation

- Product images based on photographs should, preferably be professionally taken in a properly equipped studio. While the quality of cameras in smart phones has improved enormously, better quality and control will be achieved with a DSLR.
- Images can be enhanced (inc. clipping, mounting on a consistent background and inserting drop shadows) and resized using Photoshop or similar. However avoid any editing of the image itself that may produce a misleading result.
- It is recommended that a technical photography guide is produced covering style and the techniques used. This will form an invaluable reference point in the future for maintaining quality and consistency.

Management

- It is recommended that images are stored in a Digital Asset Management (DAM) system. This is normally combined with a Product Information Management (PIM) system and will contain facilities for:
  - Governance and version control.
  - Creation and management of metadata.
  - Syndication of the data in a choice of data exchange formats or by API.

Appendix A: Image File Formats

Format	File Extension	Notes
JPEG	.jpg	• The de facto standard for internet use. • Can be compressed significantly, providing an acceptable quality image with a small file size. • JPEGs degrade over time each time they are opened and re-saved. • Defined lines tend to blur over time so not the best for text heavy images or illustrations with sharp lines.
GIF	.gif	• Lower quality than JPEG images. • Suitable for more simplistic images and icons which only include a few colours. • GIFs can support animation, but this is not recommended for product images.
PNG	.png	• There are two versions PNG-8, which supports a limited colour palette, and PNG-24. • PNG-8 can be used as an alternative to GIFs. • PNG-24 can be used as an alternative to JPEGs and does not degrade and supports transparency. However the file size is significantly larger than JPEG.
TIFF	.tif	• TIFF files are very large and the images of high quality. • Commonly used for illustrations in page layout or publishing applications. • Less suited for delivering web content. Few web browsers can display TIFFs without a plug-in.

Appendix B: Types of 360° & 3D Images

Format	Notes
360° Image	• A 360° image is an image that can rotate on a single axis. • 360° images are created by taking a series of photographs (typically 24 or 36) at defined intervals while the product rotates on a turntable. • The individual images are then combined using a 360° viewer and presented to the user as a single, animated 360° image, which can be rotated by the user. • Some 360° viewer software includes provision to add annotations, making the image even more information rich.
3D Interactive Image	• A 3D interactive image is similar to a 360° image but it can be rotated on more than one axis. • The process to create and view 3D images is similar to that for 360° images, though necessarily more complex. • While a 360°image can be rotated to show all sides of a product, a 3D interactive image can also be rotated to show the top and bottom.
3D BIM Object	• A 3D BIM Object is a digitally created 3D visual representation of a product for inclusion in a digital 3D model of a building. • A 3D object will combine geometric data with associated technical data. • 3D Objects are supplied in a format compatible with 3D modelling/computer aided design software such as Autodesk Revit.
3D PDF	• A standard PDF file containing a 3D model which can be rotated and viewed dynamically using Adobe PDF reader. • It can contain visible dimensions and annotations not visible in a conventional PDF. • 3D PDF creation software enables the 3D PDF to be created from existing Computer Aided Design (CAD) or BIM models so is potentially a cost-effective option.

If you would like further information, or to discuss how to syndicate your product data via EDATA, please contact the EDA on 020 3141 7350.

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- ☐ **Creating a Product Data Strategy**
- ☐ **Creating Excellent Product Descriptions**
- ☑ **Creating Excellent Product Images**

Appendix C: Useful Links & References

Amazon Seller Product Page Style Guide
https://tinyurl.com/Amazon-product-page-style

BMEcat Data Exchange Format Guidelines
https://www.etim-international.com and filter BMEcat guidelines in the Downloads section or follow this link https://tinyurl.com/BMEcat-format

Electrical Distributors' Association
www.eda.org.uk

Google Merchant Center: Image Guidelines
https://support.google.com/merchants/answer/6324350

GS1 Mobile Ready Hero Image Guidelines
https://www.gs1.org/standards/Mobile-Ready-Hero-Image/1-0

Intellectual Property Office: Guidance on Copyright Notice: Digital Images, Photographs and the Internet
https://www.gov.uk/government/publications/copyright-notice-digital-images-photographs-and-the-internet

Shopify: 10 Must Know Image Optimisation Tips
https://www.shopify.com/ca/blog/7412852-10-must-know-image-optimization-tips#one

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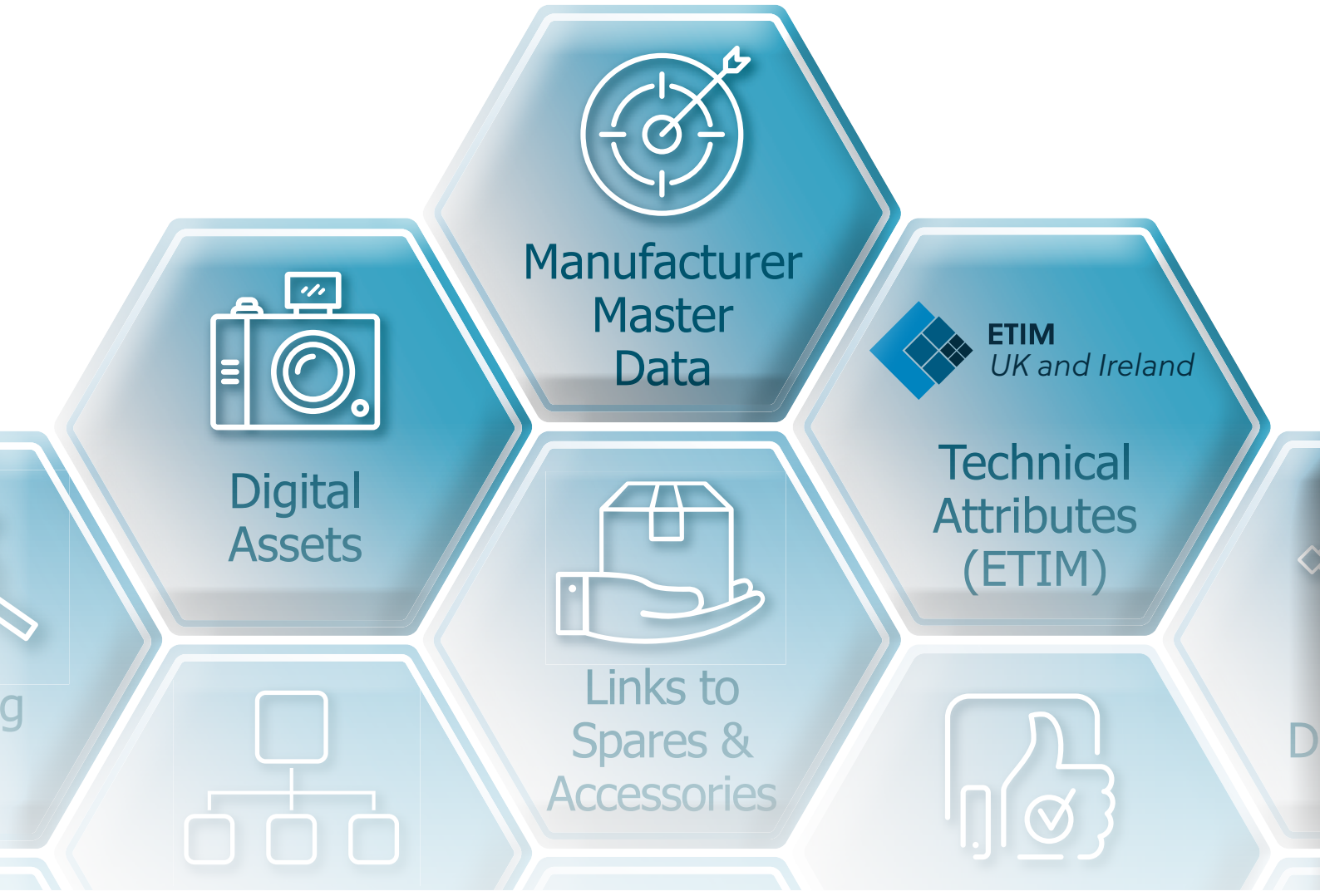

Creating Excellent Product Images: Guidance & Best Practice for Ecommerce

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