

Ingress Protection

BS EN 60529 provides an objective basis for testing and categorising the protection afforded to electrical assemblies against the ingress of liquids and solid bodies. The International Protection (IP) index has been widely accepted across Europe by specifiers, users and manufacturers. In some European countries the system has been expanded to include a measure of mechanical strength, although this has not generally been the practice in the UK.

IP Index

The IP index comprises of two digits. The first digit relates to the protection afforded against solid bodies and the second digit to the protection afforded against the ingress of liquids.

Example: IP 56

First Figure: 5

Protected against dust (no harmful deposit)

Second Figure: 6

Protected against swamping with water (such as heavy seas)

Blakley Products

Overleaf is a table detailing the IP rating of many standard Blakley Power Products. In addition, we are able to make non-standard distribution products with IP ratings as high as IP66. Since 1993 we have carried out extensive IP testing of our assemblies, both in-house and by Third Parties and we use this experience to design enclosures for one off applications, where Third Party Testing is not always practical or economic.

When specifying high IP equipment, it is important to consider routine maintenance, which may include the replacement of gaskets every 5 to 10 years and the replacement of damaged gaskets on an ad hoc basis. The degree of maintenance is heavily influenced by the application (such as the frequency that doors are opened and covers removed) and we would be pleased to advise on these matters.



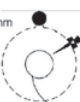


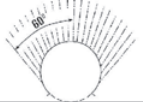
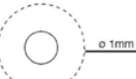




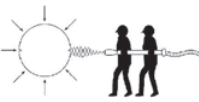

Tests according to EN60529			
1st digit Protection against solid bodies		2nd digit Protection against liquids	
0	No protection	0	No protection
1	Protection against solid bodies greater than 50mm 	1	Protection against vertical drops of water (condensation) 
2	Protection against solid bodies greater than 12.5mm 	2	Protection against drops of water falling up to 15° from vertical 
3	Protection against solid bodies greater than 2.5mm 	3	Protection against rainwater up to 60° from vertical 
4	Protection against solid bodies greater than 1mm 	4	Protection against water projected from all directions 
5	Protection against dust (no harmful deposits) 	5	Protection against hosing with water from all directions 
6	Total protection against dust 	6	Protection against swamping with water 
		7	Protection against immersion 

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Transformers		
TA / TT / PTI series Tool & Site Transformers	IP44	
TL , TH, TS and TTS series (## If standard 13A domestic sockets are fitted, the maximum IP rating is IP20)	IP21	Ventilated enclosure. Any fusing is located within the enclosure (under the lid). Any MCB toggles are unprotected and protrude through the enclosure. Sockets to be minimum IP21##(industrial sockets are normally IP44)
TL, TH, TS , TTS and TDC series	IP23	As IP21 but: Any MCB toggles protected by hinged windows / covers. Sockets to be minimum IP23 (industrial sockets are normally IP44)
TL, TH, and ITU series Transformers	IP44	As IP23 but non-vented enclosure and sockets to be minimum IP44.
TH & ITU series Transformers	IP55	As IP44 but sockets to be minimum IP55 (normally IP67).
Distribution Assemblies		
13A 230V Equipment	IP20	Indoor use only
Powerline	IP44	Available to IP66 with water tight sockets
EOA / IOA / SOA / Extension Leads	IP44	
Plugs, Couplers and Splitters to BS EN 60309-2	IP44	Also available to IP67 (water tight)
RDA Rubber Distribution Assemblies	IP44	MCB / RCD toggles protected by hinged windows, with IP44 sockets fitted.
RDA Rubber Distribution Assemblies	IP55	As IP44 but sockets are water tight to IP67
IDA Insulated Distribution Assemblies	IP44	MCB / RCD toggles protected by hinged windows, with IP44 sockets fitted.
IDA Insulated Distribution Assemblies	IP55	As IP44 but sockets are water tight to IP67
PDA Plastic Distribution Assemblies	IP44	MCB / RCD toggles protected by hinged windows, with IP44 sockets fitted.
PDA Plastic Distribution Assemblies	IP55	As IP44 but sockets are water tight to IP67
E series and Reflex series MDAs	IP44	
B5 to B7 series MDAs	IP44	Can be uprated to IP55
B1 to B4 series MDAs	IP54	Can be uprated to IP55
ESD series Switch Disconnectors	IP54	
Power Clusters	IP44	Can be uprated to IP55
Standard Pillars	IP54	
Dockside Service Units & Cable Change Boxes	IP55	Can be uprated to IP56
LV9 and SMB Sockets	IP44	Available to IP55 with water tight sockets
Protection— RCD and Monitored Earth Protection Equipment		
Safe Supply Units	IP20	Indoor use only
ELE and HELE series	IP30	Indoor use only
SRC series, 100A to 800A	IP54	
ARC / AMRC Safelink sockets, 16A / 32A	IP44	Available to IP66 with water tight sockets
ARC / AMRC Safelink sockets, 63A / 125A	IP66	
ARC series, 100A to 1250A	IP55	
Site Lighting		
Handlamps	IP20	Indoor use only
Tasklites, Mini Tasklites, Spikelites & TH Lighting	IP44	
Festoon Lighting	IP54	Safety covers should be used for outside use (or max 25W lamps)
HPS & Metal Halide Floodlights + Bulkheads	IP55	
Flori-67	IP65	ACF Fluorescent fittings IP65. Plug and socket to IP67
ACF Fluorescent Luminaires, 5ft Single & 2ft Twin	IP65	