

LAMP DATA SHEET

General Description

Mercury vapour discharge lamps with quartz arc tubes loaded below 100 watt/cm of arc length and operating at pressures of 8-10 atmospheres.

The quartz arc tube is mounted in a pear-shaped outer bulb of Wood's filter glass. This glass absorbs most of the radiation from the mercury discharge which lies outside the long wave ultra-violet region. In effect therefore, the radiation from the lamp is more or less restricted to the strong line at 3650Å and little visible light is emitted. Lamps giving this sort of radiation are often known as 'black light' lamps.

Normal operation is from a.c. supply and control gear must be incorporated in the circuit.

General Applications

As a concentrated source of long wave ultra-violet radiation, the function of these lamps is to excite fluorescence in susceptible substances.

Examination by long wave u. v. will often disclose differences not discernible under visible light. Hence these lamps have many uses in bacteriological, mineralogical, forensic and suchlike investigations.

Similarly they have parallel applications in industrial establishments. They are used, for example, to detect stains or marks on materials in laundries. In conjunction with fluorescent paint, they are used to reveal minute cracks in metal surfaces.

Other applications derive from the ability of these lamps to make objects coated with fluorescent paint visible in the dark, while emitting next to no visible light themselves. They may thus be used to create special effects in the theatre and in other places of entertainment, or in shop window displays at night.

Standard Rating and Type

Watts	Volts	Cap	Type	A.E.I. L. & L. Product No.
125	200/220	3-pin BC	MBW/U	91-6201
	220/250			91-6213

Dimensions (mm)

Watts	Cap	Diameter	Overall length	L. C. L.	Neck dia.
125	3-pin BC (B22d-3/31x30)	90 + 1.0 - 3.0	178 + 5.5	128 + 5.0	42 max.

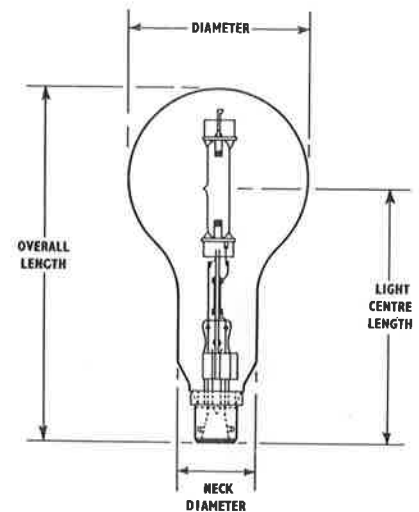
Note: The 3 pins of the BC cap are spaced at 135°, 135°, and 90°. This cap and the corresponding holder are specified in B.S. 52.

Electrical Characteristics

Rating		Lamp operating volts	Nom. Lamp operating current (amps)	Starting current (amps)	Apparent power factor
Watts	Volts				
125	200/220	100/120	1.15	2.0-1.5	0.91
	220/250	110/140			

NOTE: The starting current values given above represent the short-circuit current at nominal supply voltage of the standard chokes used to operate the lamps. The incorporation of power-factor correction capacitors in the lamp circuits results in these values being lowered.

Mercury Discharge High Pressure Long Wave U.V. Lamps Type MBW/U



THE L.C.L. IS TAKEN FROM THE GEOMETRIC CENTRE OF THE BULB, NOT OF THE ARC TUBE

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