

COMPACT SOURCE LAMPS CS

CS lamps are super-high-pressure mercury lamps. They are characterized by a very high energy concentration in the smallest possible dimensions. This results in a high brightness hitherto unknown for such an uncomplicated light source. Moreover, CS lamps give very high energy radiation in the middle and long wave ultra-violet.

Compact source mercury lamps are operated on a.c. or d.c. and have natural cooling. They consist of an elliptical quartz discharge tube with two diametrically placed electrodes. The 150 W size has a tubular outer bulb of hard glass, which transmits the visible and long wave ultra-violet.

Philips compact source lamps are the result of extensive research in the laboratories, combined with close contact with the market. They have some distinct advantages over many other types of lamps: they have a small concentrated point source, a high intrinsic brightness, a radiation of high actinic value and low heat content.

APPLICATIONS

Compact source lamps provide the solution when light sources are needed with a higher luminance — in the visible region — or radiation sources with a high intensity in the ultra-violet region. Examples of applications are as follows: microfilm enlargers, recording and measuring instruments, searchlights, microscopy, zone melting, photochemistry.



Lamp type	Catalogue number	Lamp voltage V	Lamp current A	Lum. flux lm	Luminance cd/cm ²	Burning position 1)	Av. life 2) h	Diam.	Overall length
CS 100 W	57178 AR/51	20 d.c.	5	2000	170000	vertical ± 90°	200	9.5	87.5
CS 150 W	57141 C/92	66 d.c.	2.3	7000	25000	vertical	200	35	140
	57177 C/92	66 a.c.	2.7	7000	25000	vertical	200	35	140
CS 200 W	57179 AR/51	57 d.c.	3.5	10000	45000	vertical ± 20°	400	17	124
CS 500 W	57142 AR/51	77 d.c.	6.5	29000	30000	vertical ± 20°	400	28	170
		2) a.c.	3)	29000	30000	vertical ± 20°	200	28	170
CS 1000 W	57176 AR/51	80 d.c.	12.5	50000	35000	vertical ± 15°	400	46	288
		80 a.c.	14.5	50000	35000	vertical ± 15°	200	46	288

- 1) Anode down.
 2) 81 or 73.5 V, } dependent on the connections to the
 3) 7.1 or 7.8 A, } tapping of the power supply unit.
 4) Based on an average of 3 burning hours per switching.

BALLASTS

Compact source lamps being gas-discharge lamps, they need some form of current-limiting device or ballast.

For the CS 150 W lamp complete gear is normally available, either for 220 V 50 c/s or for 110 V 60 c/s. Gear for the other lamps is usually made according to the specific requirements of the equipment maker.

Technical information on the requirements to be met when designing rectifiers, ignition devices and induction coils is obtainable on application.



Power supply unit for CS 150 W

Catalogue number	Nom. voltage V	Mains current A	Power factor	Losses W	Dimensions
103783	220	2.0	0.40	30	260 x 170 x 130

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