



# Halogen PAR 64 Lamps

## Applications and Benefits

PAR 64 lamps are used in a wide range of theatre and studio applications.

The new range of "POWERSAVER" 800W lamps reduces energy consumption by 200W while providing similar beam performance to the 1000W lamp. The low volt 800W surpasses the 1000W FFN in beam performance too. GE continues to provide the widest range of PAR 64 lamps on the market with a full range of high and low voltage lamps and beam spreads for all applications.

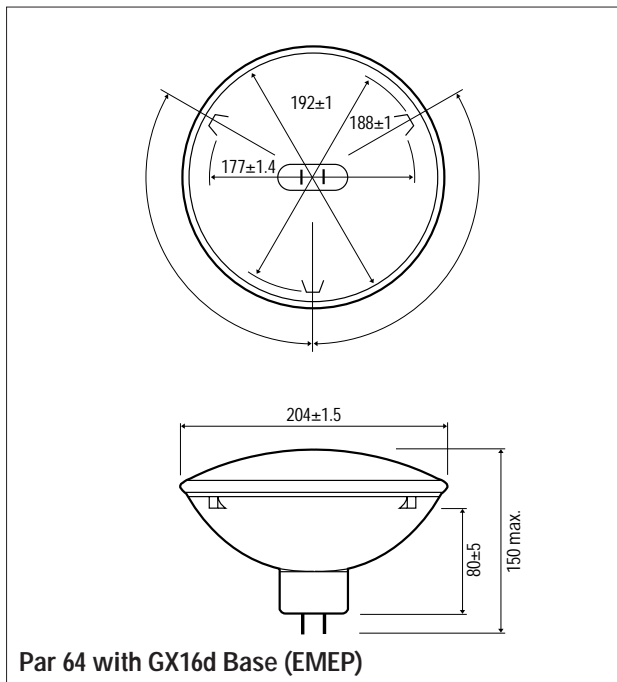


## PAR 64 with GX16d Base (EMEP)

Watts	Volts	Peak Intensity cd	Correlated Colour Temp. K	Beam	Approx. 50% Peak HxV Degr.	Approx. 10% Peak HxV Degr.	Average Rated Life Hours	Pack Quantity	LIF Code	ANSI Code	Product Description	Product Code
500	120	110,000	2800	Narrow Spot	12x7	19x14	2000	12	-	-	500PAR64/NSP	39406
500	120	37,000	2800	Medium Flood	23x11	35x19	2000	12	-	-	500PAR64/MFL	39409
500	120	13,000	2800	Wide Flood	42x20	55x32	2000	12	-	-	500PAR64/WFL	39412
500	230	240,000	3200	Very Narrow Spot	10x7	16x13	300	6	CP 86	-	Q500PAR64/VNSP	30280
500	230	140,000	3200	Narrow Spot	11x9	19x16	300	6	CP 87	-	Q500PAR64/NSP	30283
500	230	65,000	3200	Medium Flood	21x10	32x19	300	6	CP 88	-	Q500PAR64/MFL	30287
500	240	240,000	3200	Very Narrow Spot	10x7	16x13	300	6	CP 86	-	Q500PAR64/VNSP	30282
500	240	140,000	3200	Narrow Spot	11x9	19x16	300	6	CP 87	-	Q500PAR64/NSP	30286
500	240	65,000	3200	Medium Flood	21x10	32x19	300	6	CP 88	-	Q500PAR64/MFL	30288
800	117.5	500,000	3250	Very Narrow Spot	7x6	13x13	300	6	-	-	800PAR"POWERSAVER"	35129
800	117.5	35,000	3250	Narrow Spot	9x9	16x16	300	6	-	-	800PAR"POWERSAVER"	35122
800	117.5	105,000	3250	Medium Flood	26x12	35x21	300	6	-	-	800PAR"POWERSAVER"	35124
800	117.5	37,000	3250	Wide Flood	44x21	54x34	300	6	-	-	800PAR"POWERSAVER"	35128
800	230	310,000	3150	Narrow Spot	9x9	17x17	250	6	-	-	800PAR"POWERSAVER"	35118
800	230	95,000	3150	Medium Flood	26x13	35x22	250	6	-	-	800PAR"POWERSAVER"	35117
800	230	35,000	3150	Wide Flood	45x22	55x34	250	6	-	-	800PAR"POWERSAVER"	35130
800	240	310,000	3150	Narrow Spot	9x9	17x17	250	6	-	-	800PAR"POWERSAVER"	35111
800	240	95,000	3150	Medium Flood	26x13	35x22	250	6	-	-	800PAR"POWERSAVER"	35116
800	240	35,000	3150	Wide Flood	45x22	55x34	250	6	-	-	800PAR"POWERSAVER"	35110
1000	120	400,000	3200	Very Narrow Spot	12x6	24x10	800	6	-	FFN	FFN 120V	13233
1000	120	330,000	3200	Narrow Spot	14x7	26x14	800	6	-	FFP	FFP 120V	13229
1000	120	125,000	3200	Medium Flood	28x12	44x21	800	6	-	FFR	FFR 120V	13228
1000	120	40,000	3200	Wide Flood	48x24	71x45	800	6	-	FFS	FFS 120V	13227
1000	120	70,000	3200	Medium Flood	27x11	43x20	200	6	-	FGN	FGN 120V	13225
1000	120	200,000	3000	Narrow Spot	15x8	31x14	4000	6	-	-	Q1000PAR64/NSP	43497
1000	120	80,000	3000	Medium Flood	28x12	45x22	4000	6	-	-	Q1000PAR64/MFL	43498
1000	120	33,000	3000	Wide Flood	48x24	72x45	4000	6	-	-	Q1000PAR64/VNSP	43499
1000	230	320,000	3200	Very Narrow Spot	12x9	20x17	300	6	CP 60	EXC	CP 60 -EXC 230V	19909
1000	230	270,000	3200	Narrow Spot	14x10	22x20	300	6	CP 61	EXD	CP 61 -EXD 230V	19900
1000	230	125,000	3200	Medium Flood	24x11	38x20	300	6	CP 62	EXE	CP 62 -EXE 230V	19913
1000	230	15,000	3200	Extra Wide Flood	70x70	125x95	300	6	CP 95	-	CP 95 230V	30277
1000	230	38,000	3200	Wide Flood	57x21	73x36	300	6	-	EXG	EXG/Par64/WFL 230V	35482
1000	240	320,000	3200	Very Narrow Spot	12x9	20x7	300	6	CP 60	EXC	CP 60 -EXC 240V	19910
1000	240	260,000	3200	Narrow Spot	14x10	22x20	300	6	CP 61	EXD	CP 61 -EXD 240V	19912
1000	240	125,000	3200	Medium Flood	24x11	38x20	300	6	CP 62	EXE	CP 62 -EXE 240V	19914
1000	240	15,000	3200	Extra Wide Flood	70x70	125x95	300	6	CP 95	-	CP 95 240V	30278
1000	240	38,000	3200	Wide Flood	57x21	73x36	300	6	-	EXG	EXG/Par64/WFL 240V	35483
1200	120	160,000	3200	Medium Flood	24x13	36x22	400	6	-	GFA	GFA 1200W 120V MFL	34812
1200	120	450,000	3200	Narrow Spot	10x8	18x16	400	6	-	GFB	GFB 1200W 120V NSP	34810
1200	120	540,000	3200	Very Narrow Spot	10x8	16x14	400	6	-	GFC	GFC 1200W 120V VNSP	34808
1200	120	20,000	3200	Extra Wide Flood	65x65	145x95	400	6	-	GFD	GFD 1200W 120V XFL	34807
1200	120	45,000	3200	Wide Flood	58x25	71x34	400	6	-	GFE	GFE 1200W 120V WFL	34806

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### Lamp Operating Position

Universal for all types.

To prevent premature arcing in axial coiled single ended lamps orientations in which the main support is under the filament should be avoided.

### Supply Voltage

Lamps are available to operate on either 230V or 240V 50Hz nominal supplies. Any variation of supply from the nominal value will cause a significant change in lamp performance.

For any particular lamp, light output and life depend upon the voltage at which the lamp is operated. As approximation, light output varies by a factor of 3.6 times and life varies inversely by a factor of 12 times any percentage variation in supply. E.g. for every 1% change in supply voltage light output will rise by 3.6% and lamp life will be reduced by 12%.

The table below illustrates the effects of overvoltage or undervoltage applied to a lamp on its current, life and light output. Data applies only to DC or sine-wave AC current.

### The effect of supply voltage variation on lamp current, light output and lamp life

Volts %	Amps %	Lumens %	Life %
110	105.4	139.6	31.9
105	102.7	118.6	55.7
104	102.2	114.7	62.5
103	101.6	110.9	70.1
102	101.1	107.2	78.8
101	100.5	103.5	88.7
100	100	100	100
99	99.4	96.5	112.8
98	98.9	93.2	127.4
97	98.3	89.9	144.1
96	97.8	86.7	163.2
95	97.2	83.6	185.1
95	97.2	83.6	185.1

### Fusing of Circuits

A lamp normally fails at end of life by fusing of the filament. Often an arc then forms and as there is little resistance to limit the current, this rises to a very high value, which, if maintained can result in a serious overload on the envelope and seals. This might result in the lamp shattering. A quick acting high breaking capacity fuse must be connected in the supply line in all applications. Suitable types are given in IEC 60269 (BS88), IEC 60127 or IEC 60241.

### MCB (type 3 or 4) or HBC fuse ratings (A) - data for 220 - 250V types.

Lamp Power						
500	650	1000	1500	2000	2500	5000 10000
4	4	6	10	10	16	25 50
					(15 UK)	(30 UK)

### MCB (type 3 or 4) or HBC fuse ratings (A) - data for 100 - 120V types.

Lamp Power						
500	650	1000	1500	2000	2500	5000 10000
6	10	16	20	25	35	63 125
		(15 UK)		(30 UK)	(30 UK)	(60 UK)

### GUIDANCE FOR LUMINAIRE MANUFACTURERS

#### Lamp Operating Temperature Limits

Maximum Pin Temperature	350°C
Bulb Temperature Range	250 - 800°C
Maximum Seal Temperature	450°C



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GE Lighting is constantly developing and improving its products. For this reason, all product descriptions in this brochure are intended as a general guide, and we may change some specifications from time to time in the interest of product improvement.