

# Line Voltage Halogen Lamps



## Heater Lamps

Line Voltage Halogen Lamps ..... 23



### J

Standard Double-Ended Linear Halogen Lamps ..... 24



### GREEN HALOER J

Energy Reduction Double-Ended Linear Halogen Lamps ..... 25



### JD

Standard Single-Ended Tungsten Halogen Lamps ..... 26



### GREEN HALOER JD

Energy Reduction Single-Ended Tungsten Halogen Lamps ..... 27



### JCD

2-Pin Line Voltage Halogen Lamps ..... 28



### JCD

Super 5K 2-Pin Line Voltage Halogen Lamps ..... 28



### G9

Standard Line Voltage Halogen Lamps... 29



### GREEN HALOER G9

Energy Reduction Line Voltage Halogen Lamps ..... 30



### JTT

Standard Double Envelope Line Voltage Halogen Lamps ..... 31



### JTT

High Wattage Lamp 38mm tubular outer envelope ..... 31



### GREEN HALOER JTT

Energy Reduction Double Envelope Line Voltage Halogen Lamps ..... 32



### JDD

Standard Double Envelope Halogen Lamps ..... 33



### GREEN HALOER JDD

Energy Reduction Double Envelope Halogen Lamps ..... 34



### GREEN HALOER A55, A60, CANDLE

Energy Reduction Double Envelope Halogen GLS ..... 35



### GREEN HALOER ROUND, R50, R63, R80

Energy Reduction Double Envelope Halogen GLS ..... 36



### GREEN HALOER T25

Energy Reduction Double Envelope Halogen GLS ..... 37



### AR41-G9

Line Voltage Reflector Lamps ..... 38



### MR11 JDR-C

GU10/GZ10 Base Line Voltage Reflector Lamps ..... 38



### JDR-C

Standard GU10/GZ10 Base Line Voltage Reflector Lamps ..... 39



### GREEN HALOER GU10

Energy Reduction GU10/GZ10 Base Line Voltage Reflector Lamps ..... 40



### JDRC-Pro3500

GU10/GZ10 Base Line Voltage Reflector Lamps ..... 41



### PAR36/ES111

Halogen PAR Lamps With GU10/GZ10 Base (for direct mains voltage) ..... 42



### JDR-C

Standard Line Voltage Reflector Lamps Various bases ..... 43



### PAR16

Halogen PAR Lamps ..... 43



### PAR20

Standard Halogen PAR Lamps Conventional-style / Euro-style ..... 44



### GREEN HALOER PAR20

Energy Reduction Halogen PAR Lamps ..... 45



### PAR25

Halogen PAR Lamps ..... 46



### PAR30 Anti-Glare

Halogen PAR Lamps with anti-glare shield ..... 46



### PAR30

Standard Halogen PAR Lamps Conventional-style / Euro-style ..... 47



### GREEN HALOER PAR30

Energy Reduction Halogen PAR Lamps ..... 48



### PAR38

Standard Halogen PAR Lamps ..... 49



### GREEN HALOER PAR38

Energy Reduction Halogen PAR Lamps ..... 50

## Heater Lamps *Line Voltage Halogen Lamps*



Evolving from the halogen lamp technology, a vast variety of infrared heating lamps are now available for use in electrical appliances for consumer and industrial applications.

Working on most popular supply voltages, heater lamps of different wattages can be designed and manufactured to specific requirements. Apart from the traditional linear shape, the quartz glass can be processed to special shapes as required in the applications.

Heater lamps with bare or insulated lead-wires that can withstand high temperatures are available as well as a number of standard contacts for fitting into standard heater lamp sockets.

The halogen heater lamps can be used in any burning position. Lamps with special reflective coating for higher efficiency operation are available on request.

### Product benefits –

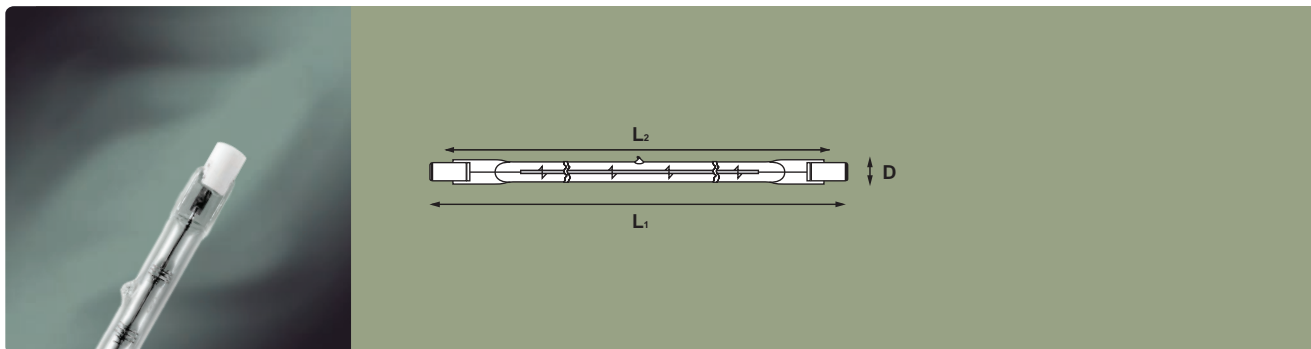
- Very compact heat source in small diameter
- Instant heat : full power within seconds after switching on
- High efficiency : more than 90% of energy being transformed into infrared heat
- Heat can be focused by reflectors
- Long life of up to 5000 hours
- Clean heat source with no pollution and no by-products
- Controllable from 0-100%

### Product applications –

- Drying of paper, lacquer, paint, printing inks, etc.
- Heat sterilization
- Food heating and warm-keeping
- Plastic softening, melting and thermoforming
- Oxidation processes in semiconductor industry

Prosperity's heater lamps can be custom-made to meet a combination of specific voltage, wattage, length, colour temperature, shape, lead-wire and base requirements.

## J Standard Double-Ended Linear Halogen Lamps



- In-line protection fuses are recommended for 220-240V circuits according to EN60357(BS1075) for following wattages :
 

60W to 300W	- 2A
500W	- 4A
750W & 1000W	- 6.3A
1500W & 2000W	- 10A
- Average life 2000 hours
- Colour temperature 2900K
- Protective covers are required for lighting fixtures

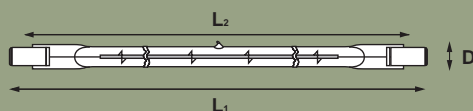
Lamp Code	Voltage (V)	Wattage (W)	Filament Support	Base	Diameter D (mm)	Length L <sub>1</sub> (mm)	Length L <sub>2</sub> (mm)	Lumen (lm)	Energy Efficiency Class
J-78/60W	120/130/230/240	60	Re-inforced	R7s	8	80	76±1.5	840	D
J-78/75W	120/130/230/240	75	Re-inforced	R7s	8	80	76±1.5	1050	D
J-78/100W	120/130/230/240	100	Re-inforced	R7s	8	80	76±1.5	1650	D
J-78/150W	120/130/230/240	150	Re-inforced	R7s	8	80	76±1.5	2600	D
J-78/200W	120/130/230/240	200	Re-inforced	R7s	8	80	76±1.5	3200	E
J-78/250W	120/130/230/240	250	Re-inforced	R7s	8	80	76±1.5	4000	E
J-118/100W	120/130/230/240	100	Re-inforced	R7s	8	118	114±1.5	1650	D
J-118/150W	120/130/230/240	150	Re-inforced	R7s	8	118	114±1.5	2600	D
J-118/200W	120/130/230/240	200	Standard	R7s	8	118	114±1.5	3200	E
J-118/300W	120/130/230/240	300	Standard	R7s	8	118	114±1.5	5000	E
J-118/500W	120/130/230/240	500	Standard	R7s	10	118	114±1.5	9500	D
J-189/750W	230/240	750	Standard	R7s	10	189	185±1.5	16500	*
J-189/1000W	230/240	1000	Standard	R7s	10	189	185±1.5	22000	*
J-254/1000W	230/240	1000	Standard	R7s	10	254	251±1.5	22000	*
J-254/1500W	230/240	1500	Standard	R7s	10	254	251±1.5	33000	*
J-333/2000W	230/240	2000	Standard	R7s	10	333	329±1.5	44000	*
J-333/2000W	230/240	2000	Standard	FA4	10	334	329±1.5	44000	*

\* Lumen over 12000 is exempt from Ecodesign Requirements



## GREEN HALOER J

Energy Reduction Double-Ended Linear Halogen Lamps



- **J/ER Saves 20% energy** in replacing traditional lamps
- Lower heat generation resulting in reduced air conditioning and heat stress on ambience
- Average life 2000 hours
- Colour temperature 2900K
- In-line protection fuses are recommended for 220-240V circuits according to EN60357(BS1075) for following wattages : 60W to 400W - 2A
- Protective covers are required for lighting fixtures
- **Comply to EU Ecodesign Requirements - Commission Regulation No. 244/2009**

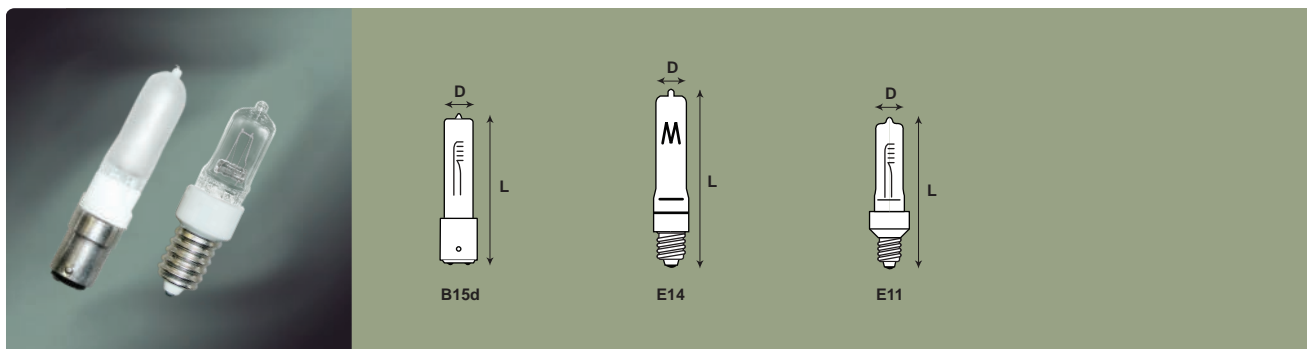
Lamp Code	Voltage (V)	Wattage (W)	Filament Support	Base	Diameter D (mm)	Length L <sub>1</sub> (mm)	Length L <sub>2</sub> (mm)	Lumen (lm)	Energy Efficiency Class
J-78/ER/48W	120/130/230/240	48	Re-inforced	R7s	8	80	74.9±1.6	750	C
J-78/ER/60W	120/130/230/240	60	Re-inforced	R7s	8	80	74.9±1.6	980	C
J-78/ER/80W	120/130/230/240	80	Re-inforced	R7s	8	80	74.9±1.6	1380	C
J-78/ER/120W	120/130/230/240	120	Re-inforced	R7s	8	80	74.9±1.6	2220	C
J-78/ER/160W	120/130/230/240	160	Re-inforced	R7s	8	80	74.9±1.6	3100	C
J-78/ER/200W	120/130/230/240	200	Re-inforced	R7s	10	80	74.9±1.6	3980	C
J-118/ER/80W	120/130/230/240	80	Re-inforced	R7s	8	118	114.2±1.6	1380	C
J-118/ER/120W	120/130/230/240	120	Re-inforced	R7s	8	118	114.2±1.6	2220	C
J-118/ER/160W	120/130/230/240	160	Re-inforced	R7s	8	118	114.2±1.6	3100	C
J-118/ER/200W	120/130/230/240	200	Re-inforced	R7s	10	118	114.2±1.6	3980	C
J-118/ER/230W	120/130/230/240	230	Re-inforced	R7s	10	118	114.2±1.6	4650	C
J-118/ER/400W	120/130/230/240	400	Re-inforced	R7s	10	118	114.2±1.6	8550	C

ER vs Traditional Lamps			
Energy Reduction ER series	Traditional Halogen J lamps	Save on Energy	Electrical billing * saving / year
48W	60W	20%	US\$ 15.77
60W	75W	20%	US\$ 19.71
80W	100W	20%	US\$ 26.28
120W	150W	20%	US\$ 39.42
160W	200W	20%	US\$ 52.56
200W	250W	20%	US\$ 65.70
230W	300W	20%	US\$ 91.98
400W	500W	20%	US\$ 131.4

\* based on 24 hrs operation/day - US\$0.15/1 KWH



## JD Standard Single-Ended Tungsten Halogen Lamps



- No transformer is required
- Available in clear and frosted bulbs
- Average life 2000 hours
- Colour temperature 2900K
- Conforms to EN60432-2/EN60357 requirements with integrated fuse
- Self-shielded feature allows free burning in open fixtures – conforms to EN60598 safety requirements

Lamp Code	Voltage (V)	Wattage (W)	Diameter D (mm)	B15d L (mm)	E14 L (mm)	E11 L (mm)	Lumen (lm)	Energy Efficiency Class
JD 35W	120 – 130	35	11.5	48	62	56	380	E
JD 35W	230 – 240	35	11.5	64	62	58	380	E
JD 50W	120 – 130	50	11.5	48	62	56	600	E
JD 50W	230 – 240	50	11.5	64	62	58	600	E
JD 60W	120 – 130	60	11.5	48	62	56	800	D
JD 60W	230 – 240	60	11.5	64	62	58	800	D
JD 75W	120 – 130	75	11.5	53	67	62	1050	D
JD 75W	230 – 240	75	11.5	66	64	60	1050	D
JD 100W	120 – 130	100	11.5	56	70	65	1500	D
JD 100W	230 – 240	100	11.5	76	74	70	1500	D
JD 150W	120 – 130	150	14	58	72	67	2500	D
*JD 150W	230 – 240	150	14	76/90	74	70	2500	D
JD 200W	120 – 130	200	14	64	77	73	3350	D
JD 200W	230 – 240	200	14	90	74	70	3350	D
JD 250W	120 – 130	250	14	69	83	78	4250	D
JD 250W	230 – 240	250	14	90	74	70	4250	D
JD 300W	120 – 130	300	14	69	83	78	5100	E
JD 300W	230 – 240	300	14	90	74	70	5100	E
JD 500W	120 – 130	500	14	95	93	88	8500	E
JD 500W	230 – 240	500	14	95	93	88	8500	E

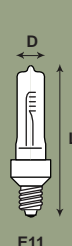
\*220-230V 150W B15d type available in both short (76mm) and long (90mm) versions

(Diameter tolerance of  $\pm 0.5$ mm, Length tolerance of  $\pm 2$ mm)



## GREEN HALOER JD

Energy Reduction Single-Ended Tungsten Halogen Lamps



- **Save 20% energy** in replacing traditional lamps with NO sacrifice of lighting quality
- Lower heat generation resulting in reduced air conditioning and heat stress on ambience
- No transformer is required
- Available in Clear and Frost bulbs
- Average life 2000 hours
- Colour temperature 2900K
- Conforms to EN60432-2/EN60357 requirements with integrated fuse
- Self-shielded feature allows free burning in open fixtures – conforms to EN60598 safety requirements
- Comply to EU Ecodesign Requirements - Commission Regulation No. 244/2009



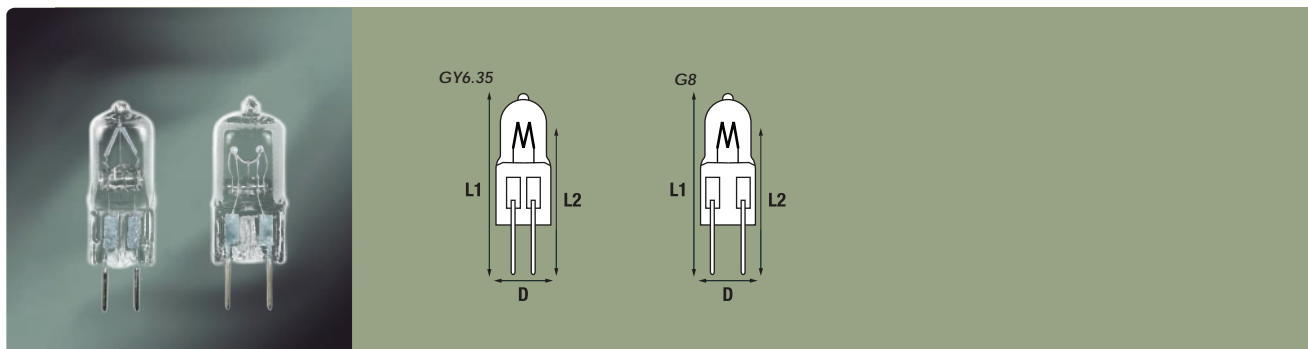
Lamp Code	Voltage (V)	Wattage (W)	B22/E27		B15d/E14		E11		Lumen (lm)	Energy Efficiency Class
			D (mm)	L (mm)	D (mm)	L (mm)	D (mm)	L (mm)		
JD/ER/28W	120/130/230/240	28	29	65	17/19.5	63/61	18.5	58	370	C
JD/ER/40W	120/130/230/240	40	29	68	17/19.5	66/64	18.5	61	590	C
JD/ER/48W	120/130/230/240	48	29	68	17/19.5	66/64	18.5	61	740	C
JD/ER/60W	120/130/230/240	60	29	68	17/19.5	66/64	18.5	61	980	C
JD/ER/80W	120/130/230/240	80	29	68	17/19.5	66/64	18.5	61	1380	C
JD/ER/120W	120/130/230/240	120	29	87	17/19.5	85/83	18.5	80	2220	C
JD/ER/160W	120/130/230/240	160	29	87	17/19.5	85/83	18.5	80	3090	C
JD/ER/200W	120/130/230/240	200	29	97	17/19.5	95/93	18.5	90	3980	C
JD/ER/230W	120/130/230/240	230	29	97	17/19.5	95/93	18.5	90	4700	C
JD/ER/400W	120/130/230/240	400	29	102	17/19.5	100/98	18.5	95	8600	C

(Diameter tolerance of  $\pm 0.5\text{mm}$ , Length tolerance of  $\pm 2\text{mm}$ )

ER vs Traditional Lamps			
Energy Reduction ER series	Traditional Halogen JD lamps	Save on Energy	Electrical billing saving / year
28W	35W	20%	US\$ 9.20
40W	50W	20%	US\$ 13.14
48W	60W	20%	US\$ 15.77
60W	75W	20%	US\$ 19.71
80W	100W	20%	US\$ 26.28
120W	150W	20%	US\$ 39.42
160W	200W	20%	US\$ 52.56
200W	250W	20%	US\$ 65.70
230W	300W	20%	US\$ 91.98
400W	500W	20%	US\$ 131.4

\* based on 24 hrs operation/day - US\$0.15/1 KWH

## JCD Standard 2-Pin Line Voltage Halogen Lamps



- No transformer is required
- Available in clear and frosted bulbs
- Average life 2000 hours
- Colour temperature 3000K
- Other wattages available, e.g. 25W, 200W, 250W
- UV-STOP quartz capsule available on request

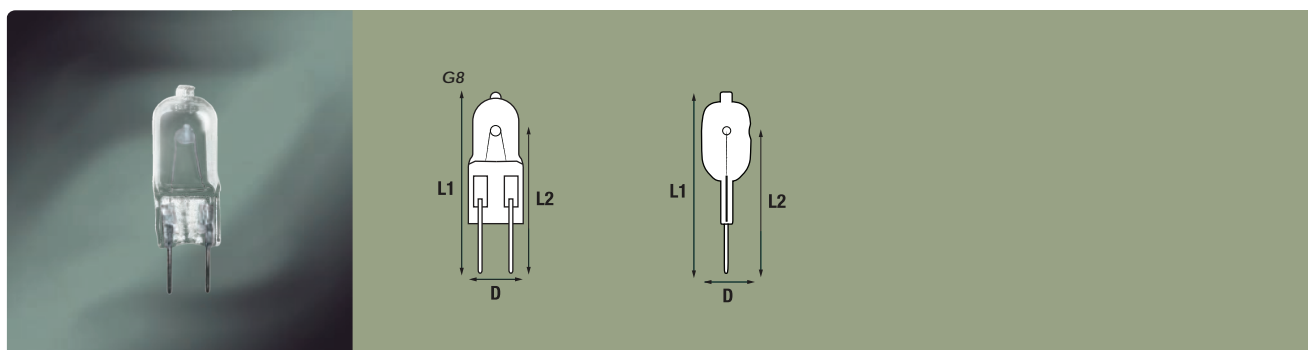


### WARNING :

To avoid electrical hazards, appropriate warning should be displayed on fixture to alert user of high-volt JCD lamp replacement instead of low-volt JC lamp

Lamp Code	Voltage (V)	Wattage (W)	Base	Diameter D (mm)	Length L <sub>1</sub> (mm)	Length L <sub>2</sub> (mm)	Lumen (lm)	Energy Efficiency Class
JCD 20W	120/130/230/240	20	G8, GY6.35	12	46	36	200	D
JCD 35W	120/130/230/240	35	G8, GY6.35	12	46	36	380	E
JCD 50W	120/130/230/240	50	G8, GY6.35	12	46	36	600	E
JCD 60W	120/130/230/240	60	G8, GY6.35	12	46	36	800	D
JCD 75W	120/130/230/240	75	G8, GY6.35	12	49	39	1050	D
JCD 100W	120/130/230/240	100	G8, GY6.35	15	60	45	1500	D
JCD 150W	120/130/230/240	150	G8, GY6.35	15	60	45	2500	D

## JCD Super 5K 2-Pin Line Voltage Halogen Lamps



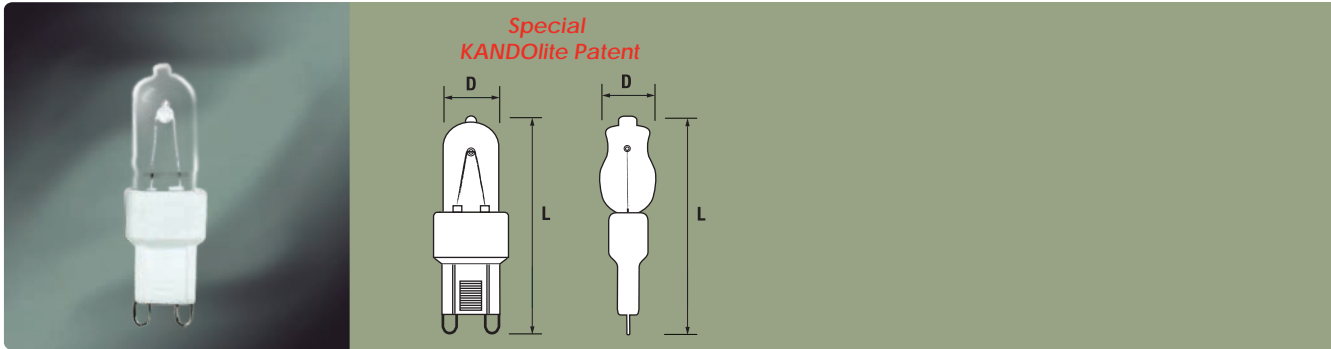
- Average life 5000 hours
- Colour temperature 3000K



Lamp Code	Voltage (V)	Wattage (W)	Base	Diameter D (mm)	Length L <sub>1</sub> (mm)	Length L <sub>2</sub> (mm)	Lumen (lm)	Energy Efficiency Class
JCD/5K 20W	120/130	20	G8, GY6.35	12	46	36	180	E
JCD/5K 35W	120/130	35	G8, GY6.35	12	46	36	340	E

**KANDOLite®**  
Brings you Light and Prosperity

Ceramic G9 Standard Line Voltage Halogen Lamps



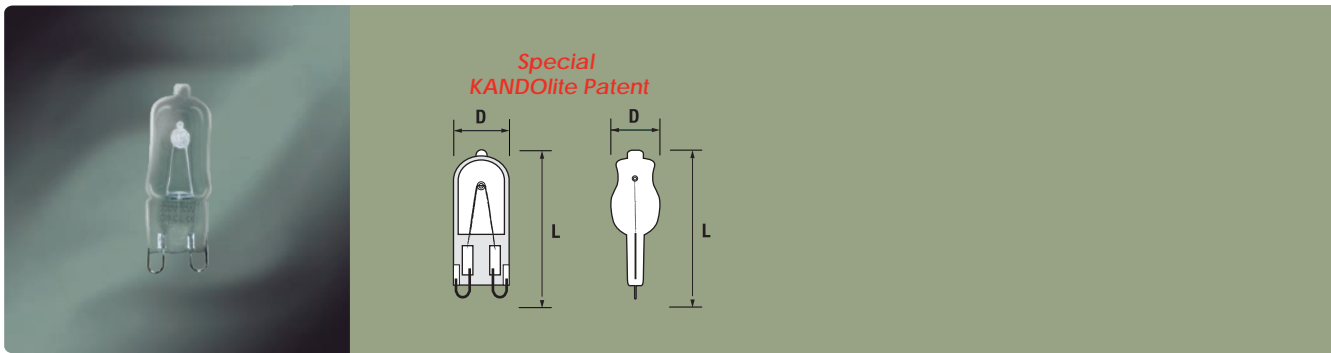
Lamp Code	Voltage (V)	Wattage (W)	Base	Bulb Dia. D (mm)	MOL L (mm)	Lumen (lm)	Energy Efficiency Class
G9 25W	120 – 130 / 220 – 250	25	G9	13	56	255	D
G9 35W	120 – 130 / 220 – 250	35	G9	13	56	380	E
G9 40W	120 – 130 / 220 – 250	40	G9	13	56	480	D
G9 50W	120 – 130 / 220 – 250	50	G9	13	56	600	E
G9 60W	120 – 130 / 220 – 250	60	G9	13	58	800	D
G9 75W	120 – 130 / 220 – 250	75	G9	13	58	1050	D

- Freely suspended filament, minimize deformation
- Built-in safety fuse action, no lamp explosion hazard
- Extended lamp life of 2000 hours
- Available in clear and frosted finish
- Conforms to EN60432-2/EN60357 requirements with double protection fuses
- Self-shielded feature allows free burning in open fixtures – conforms to EN60598 safety requirements
- UV-STOP Quartz capsule



Patent Alert :  
Ceramic G9 connection with protective rights embodied under :  
Germany Utility Model Patent No. 20209078.7  
China Utility Model Patent No. 02238768.4

Glass pinch G9 Standard Line Voltage Halogen Lamps



Lamp Code	Voltage (V)	Wattage (W)	Base	Bulb Dia. D (mm)	MOL L (mm)	Lumen (lm)	Energy Efficiency Class
G9-GP 25W	120 – 130 / 220 – 250	25	G9	13	42	255	D
G9-GP 35W	120 – 130 / 220 – 250	35	G9	13	42	380	E
G9-GP 40W	120 – 130 / 220 – 250	40	G9	13	42	480	D
G9-GP 50W	120 – 130 / 220 – 250	50	G9	13	42	600	E
G9-GP 60W	120 – 130 / 220 – 250	60	G9	13	42	800	D
G9-GP 75W	120 – 130 / 220 – 250	75	G9	13	42	1050	D



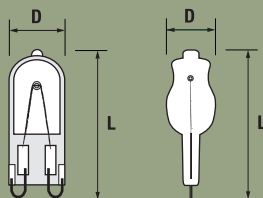


## GREEN HALOER G9

Energy Reduction Line Voltage Halogen Lamps



Special  
KANDOLite Patent



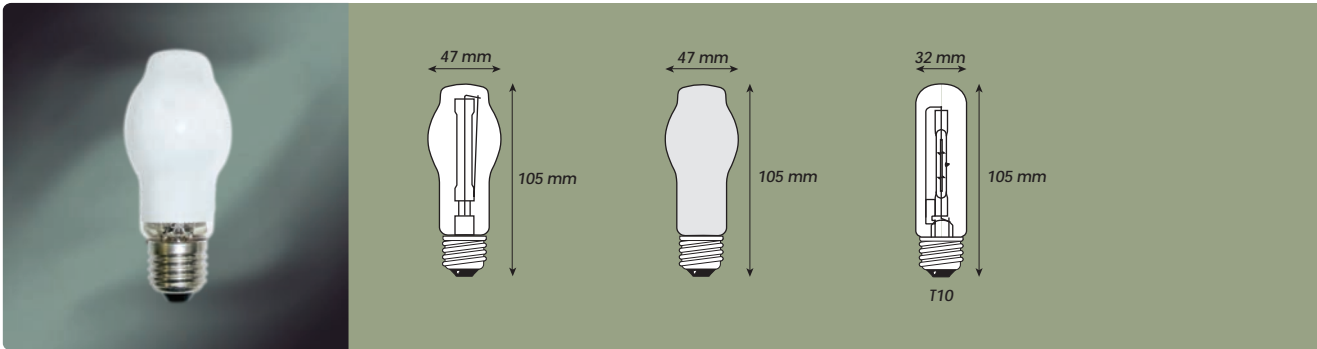
- **Saving 20% of energy** in replacing traditional lamps
- Xenon Halogen technology to enhance light output performance
- Optimized design of filament structure provides excellent light distribution
- High colour temperature gives more crispy white light
- Lower heat generation resulting in reduced air conditioning and heat stress on ambience
- Average life 2000 hours
- Comply to EU Ecodesign Requirements - Commission Regulation No. 244/2009

Lamp Code	Voltage (V)	Wattage (W)	Base	Bulb Dia. D (mm)	MOL L (mm)	Lumen (lm)	Energy Efficiency Class
G9/ER 20W	120/230/240	20	G9	13	42	235	C
G9/ER 33W	120/230/240	33	G9	13	42	460	C
G9/ER 48W	120/230/240	48	G9	13	42	740	C
G9/ER 60W	120/230/240	60	G9	13	42	980	C

ER vs Traditional Lamps			
Energy Reduction ER series	Traditional Halogen G9 lamps	Save on Energy	Electrical billing * saving / year
20W	25W	20%	US\$ 6.57
33W	40W	20%	US\$ 9.20
48W	60W	20%	US\$ 15.77
60W	75W	20%	US\$ 19.71

\* based on 24 hrs operation/day - US\$0.15/1 KWH

JTT Standard Double Envelope Line Voltage Halogen Lamps

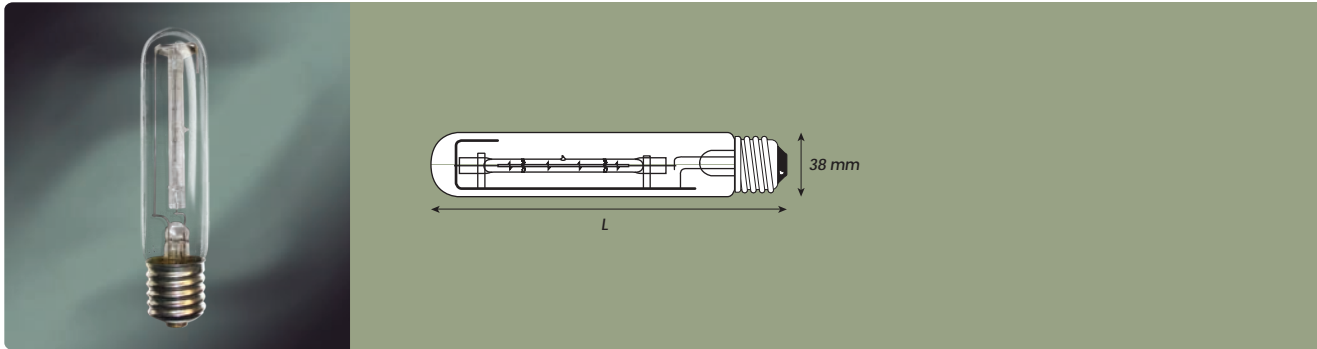


- Crisp white light with high efficiency
- Average life 2000 hours
- Conforms to EN60432-2/EN60357 requirements with integrated fuse.
- Self-shielded feature allows free burning in open fixtures – conforms to EN60598 safety requirements
- The hard glass envelope blocks harmful UV radiation



Lamp Code	Voltage (V)	Wattage (W)	Lumen (lm)		Base
			Clear	Opal	
JTT 60W	120 – 130 / 230 – 240	60	780	700	E26, E27
JTT 75W	120 – 130 / 230 – 240	75	1050	950	E26, E27
JTT 100W	120 – 130 / 230 – 240	100	1500	1350	E26, E27
JTT 150W	120 – 130 / 230 – 240	150	2500	2250	E26, E27

JTT High Wattage Lamp with 38mm tubular outer envelope



- Crisp white light with high efficiency
- Use in area floodlights without need of control gear
- Conforms to EN60432-2/EN60357 requirements with integrated fuse.
- Self-shielded feature allows free burning in open fixtures – conforms to EN60598 safety requirements
- Average life 2000 hours
- 3200K colour temperature lamp available for photography with average life 300 hours



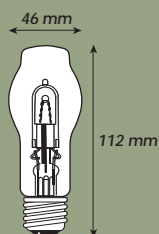
Lamp Code	Voltage (V)	Wattage (W)	Lumen (lm)	Base	Length L (mm)	
JTT 300W	120 – 130 / 230 – 240	300	5000	E39/E40	215	E
JTT 500W	120 – 130 / 230 – 240	500	9500	E39/E40	215	D
JTT 1000W	120 – 130 / 230 – 240	1000	22000	E39/E40	255	*

\* Lumen over 12000 is exempt from Ecodesign Requirements




## GREEN HALOER JTT

Energy Reduction Double Envelope Line Voltage Halogen Lamps



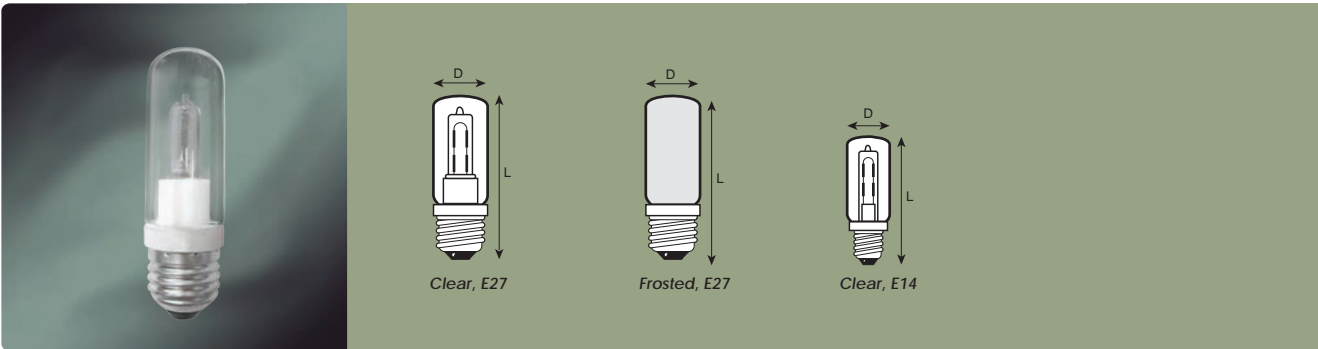
- **Saving 20% of energy** in replacing traditional lamps with NO sacrifice of lighting quality
- High colour temperature gives more crispy white light
- Lower heat generation resulting in reduced air conditioning and heat stress on ambience
- Average life 2000 hours
- **Comply to EU Ecodesign Requirements - Commission Regulation No. 244/2009**

Lamp Code	Voltage (V)	Wattage (W)	Base	Lumen (lm)	
JTT/ER 48W	120 – 130 / 230 – 240	48	E26, E27	740	C
JTT/ER 60W	120 – 130 / 230 – 240	60	E26, E27	980	C
JTT/ER 80W	120 – 130 / 230 – 240	80	E26, E27	1380	C
JTT/ER 120W	120 – 130 / 230 – 240	120	E26, E27	2220	C

ER vs Traditional Lamps			
Energy Reduction ER series	Traditional Halogen JTT lamps	Save on Energy	Electrical billing * saving / year
48W	60W	20%	US\$ 15.77
60W	75W	20%	US\$ 19.71
80W	100W	20%	US\$ 26.28
120W	150W	20%	US\$ 39.42

\* based on 24 hrs operation/day - US\$0.15/1 KWH

JDD Standard Double Envelope Halogen Lamps



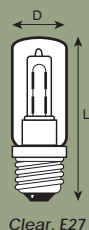
- Crisp white light with high efficiency
- Average life 2000 hours
- Conforms to EN60432-2/EN60357 requirements with integrated fuse
- Self-shielded feature allows free burning in open fixtures – conforms to EN60598 safety requirements
- The hard glass envelope blocks harmful UV radiation

Lamp Code	Voltage (V)	Wattage (W)	Lumen (lm)		Base	Diameter D (mm)	Length L (mm)
			Clear	Frosted			
JDD 40W	230 – 240	40	460	430	E14	26	89
JDD 60W	230 – 240	60	780	750	E14	26	89
JDD 75W	120 – 240	75	1050	1000	E26, E27	32	105
JDD 100W	120 – 240	100	1500	1440	E26, E27	32	105
JDD 150W	120 – 240	150	2500	2400	E26, E27	32	105
JDD 200W	120 – 240	200	3200	3070	E26, E27	32	105
JDD 250W	120 – 240	250	4200	4050	E26, E27	32	105



# GREEN HALOER JDD

## Energy Reduction Double Envelope Halogen Lamps



- **Save 20% energy** in replacing traditional lamps with NO sacrifice of lighting quality
- Lower heat generation resulting in reduced air conditioning and heat stress on ambience
- High colour temperature gives more crispy white light
- Average life 2000 hours
- Conforms to EN60432-2/EN60357 requirements with integrated fuse
- Self-shielded feature allows free burning in open fixtures – conforms to EN60598 safety requirements
- **Comply to EU Ecodesign Requirements - Commission Regulation No. 244/2009**

Lamp Code	Voltage (V)	Wattage (W)	Base	Diameter D (mm)	Length L (mm)	Lumen (lm)	Energy 12
JDD/ER 33W	120/130/230/240	33	E14	26	89	460	C
JDD/ER 48W	120/130/230/240	48	E14	26	89	740	C
JDD/ER 60W	120/130/230/240	60	B22, E27	32	105	980	C
JDD/ER 80W	120/130/230/240	80	B22, E27	32	105	1380	C
JDD/ER 120W	120/130/230/240	120	B22, E27	32	105	2220	C
JDD/ER 160W	120/130/230/240	160	B22, E27	32	105	3090	C
JDD/ER 200W	120/130/230/240	200	B22, E27	32	105	3980	C

ER vs Traditional Lamps			
Energy Reduction ER series	Traditional Halogen JDD lamps	Save on Energy	Electrical billing* saving / year
33W	40W	20%	US\$ 9.20
48W	60W	20%	US\$ 15.77
60W	75W	20%	US\$ 19.71
80W	100W	20%	US\$ 26.28
120W	150W	20%	US\$ 39.42
160W	200W	20%	US\$ 52.56
200W	250W	20%	US\$ 65.70

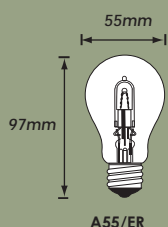
\* based on 24 hrs operation/day - US\$0.15/1 KWH



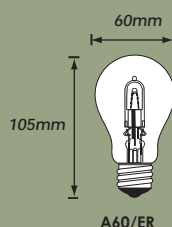


## GREEN HALOER A55, A60

Energy Reduction Double Envelope Halogen GLS



A55/ER



A60/ER



Lamp Code	Voltage (V)	Wattage (W)	Base	Lumen (lm)	Energy Efficiency Class
A55/ER, A60/ER 18W	120/230/240	18	B22, E26, E27	205	C
A55/ER, A60/ER 28W	120/230/240	28	B22, E26, E27	370	C
A55/ER, A60/ER 42W	120/230/240	42	B22, E26, E27	630	C
A55/ER, A60/ER 52W	120/230/240	52	B22, E26, E27	815	C
A55/ER, A60/ER 70W	120/230/240	70	B22, E26, E27	1175	C
A55/ER, A60/ER 105W	120/230/240	105	B22, E26, E27	1900	C

- **Save 30% energy** in replacing Incandescent lamp bulbs
- 2,000 hours average lamp life is twice the life of ordinary light bulbs
- High efficiency JCD Halogen capsule in conventional bulb shell provides brilliant attractive Halogen light
- No blackening on bulb shell - constant brightness throughout lamp life
- UV-STOP Quartz capsule
- **Comply to EU Ecodesign Requirements**  
- Commission Regulation No. 244/2009

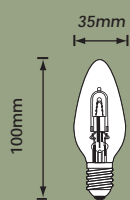
ER vs Traditional Lamps			
Energy Reduction ER series	Traditional GLS lamps	Save on Energy	Electrical billing saving / year *
18W	25W	30%	US\$ 9.20
28W	40W	30%	US\$ 15.77
42W	60W	30%	US\$ 23.65
52W	75W	30%	US\$ 30.22
70W	100W	30%	US\$ 39.42
105W	150W	30%	US\$ 59.13

\* based on 24 hrs operation/day - US\$0.15/1 KWH

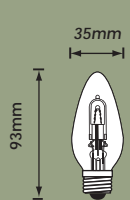


## GREEN HALOER CANDLE

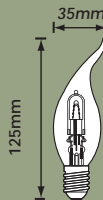
Energy Reduction Double Envelope Halogen GLS



E14/B15d



E26/E27/B22



E14



Lamp Code	Voltage (V)	Wattage (W)	Base	Lumen (lm)	Energy Efficiency Class
CANDLE/ER 18W	120/230/240	18	E14, B15d, B22, E26, E27	205	C
CANDLE/ER 28W	120/230/240	28	E14, B15d, B22, E26, E27	370	C
CANDLE/ER 42W	120/230/240	42	E14, B15d, B22, E26, E27	630	C

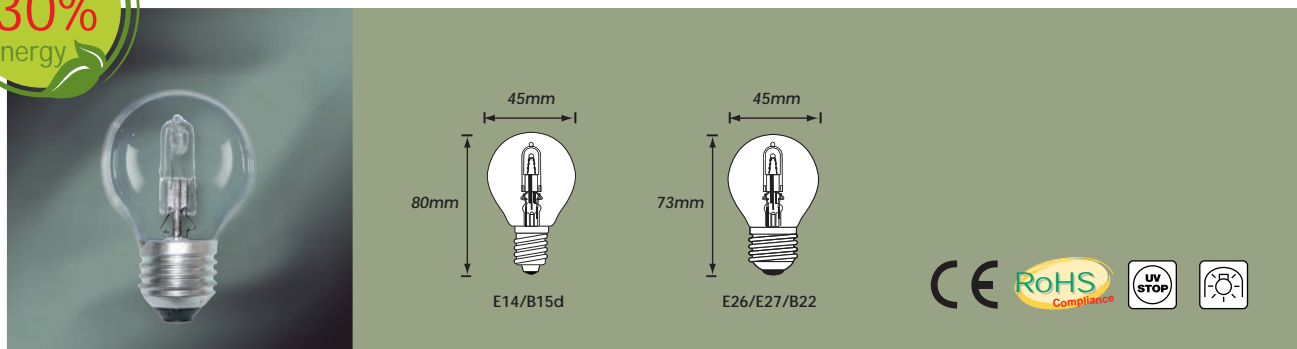
**KANDOLite®**

Brings you Light and Prosperity



## GREEN HALOER ROUND

Energy Reduction Double Envelope Halogen GLS



Lamp Code	Voltage (V)	Wattage (W)	Base	Lumen (lm)	Energy Star
ROUND/ER 18W	120/230/240	18	E14, B15d, B22, E26, E27	205	C
ROUND/ER 28W	120/230/240	28	E14, B15d, B22, E26, E27	370	C
ROUND/ER 42W	120/230/240	42	E14, B15d, B22, E26, E27	630	C

- Save 30% energy in replacing Incandescent lamp bulbs
- 2,000 hours average lamp life is twice the life of ordinary light bulbs
- High efficiency JCD Halogen capsule in conventional bulb shell provides brilliant attractive Halogen light
- No blackening on bulb shell - constant brightness throughout lamp life
- UV-STOP Quartz capsule
- Comply to EU Ecodesign Requirements  
- Commission Regulation No. 244/2009

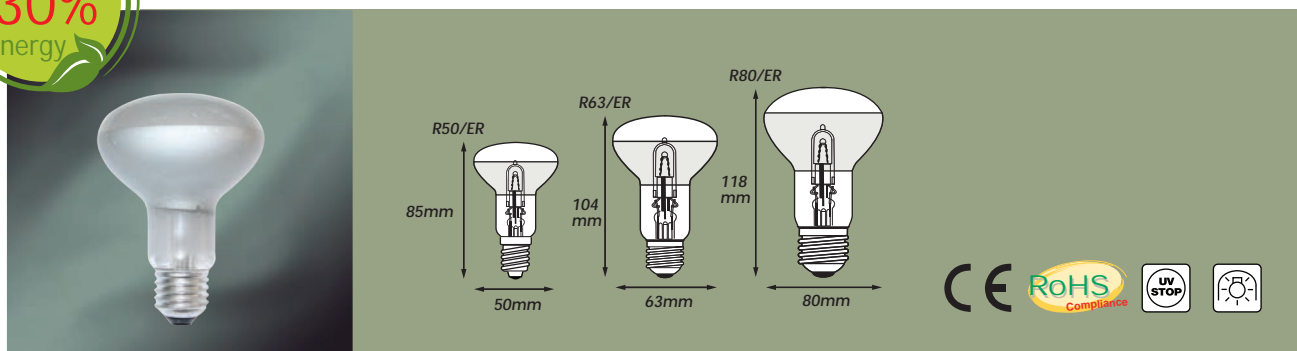
ER vs Traditional Lamps			
Energy Reduction ER series	Traditional GLS lamps	Save on Energy	Electrical billing * saving / year
18W	25W	30%	US\$ 9.20
28W	40W	30%	US\$ 15.77
42W	60W	30%	US\$ 23.65
52W	75W	30%	US\$ 30.22
70W	100W	30%	US\$ 39.42
105W	150W	30%	US\$ 59.13

\* based on 24 hrs operation/day - US\$0.15/1 KWH



## GREEN HALOER R50, R63, R80

Energy Reduction Double Envelope Halogen GLS

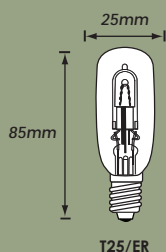


Lamp Code	Voltage (V)	Wattage (W)	Beam Angle	Base	Intensity (cd)
R50/ER 28W	120/230/240	28	40° ± 10%	E14	430
R63/ER 28W	120/230/240	28	40° ± 10%	E26, E27	430
R63/ER 42W	120/230/240	42	40° ± 10%	E26, E27	900
R80/ER 42W	120/230/240	42	40° ± 10%	E26, E27	900
R80/ER 52W	120/230/240	52	40° ± 10%	E26, E27	1050
R80/ER 70W	120/230/240	70	40° ± 10%	E26, E27	1300



## GREEN HALOER TUBULAR

### Energy Reduction Double Envelope Halogen GLS



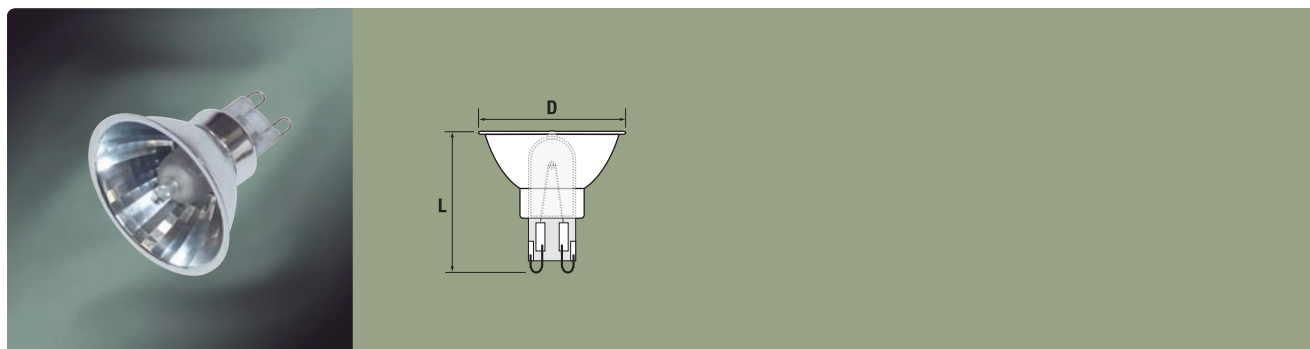
- Compact in size suitable for space limited cooker hoods appliance
- **Save 20/30% energy** in replacing incandescent tubular lamps
- 2,000 hours average lamp life equal to twice the life time of incandescent lamps
- High efficiency JCD Halogen capsule in conventional bulb shell provides brilliant attractive Halogen light
- UV-STOP Quartz capsule
- Comply to EU Ecodesign Requirements - Commission Regulation No. 244/2009

Lamp Code	Voltage (V)	Wattage (W)	Base	Lumen (lm)	Energy label
T25/ER 28W	230/240	28	E14	370	C
T25/ER 33W	230/240	33	E14	460	C

ER vs Traditional Lamps			
Energy Reduction ER series	Traditional GLS lamps	Save on Energy	Electrical billing * saving / year
28W	40W	30%	US\$ 15.77
33W	40W	20%	US\$ 9.20

\* based on 24 hrs operation/day - US\$0.15/1 KWH

## AR41-G9 Line Voltage Reflector Lamps

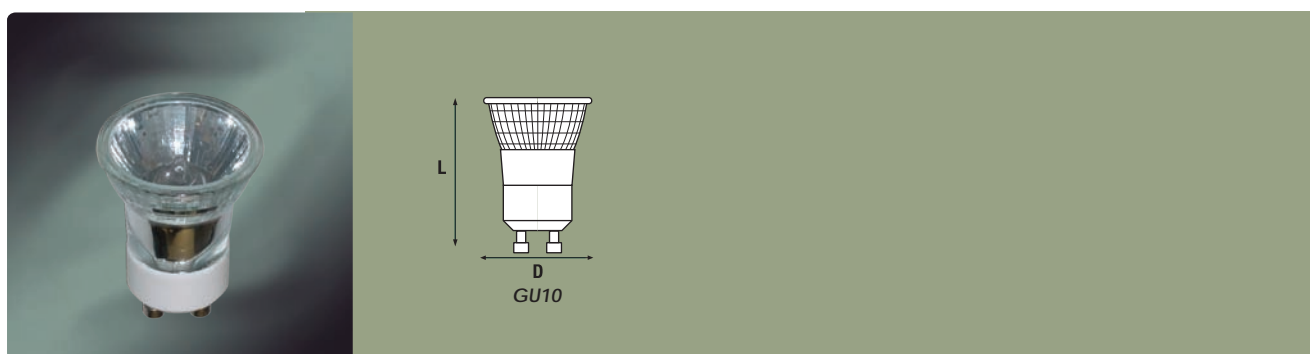


Lamp Code	Voltage (V)	Wattage (W)	Beam Angle	Intensity (cd)	Base	Diameter D (mm)	Length L (mm)
AR41-G9 25W	230	25	40°	300	G9	41	40
AR41-G9 40W	230	40	40°	500	G9	41	40

- Incredibly small dimensions for developing attractive and creative compact lighting solutions
- Equipped with a high-quality aluminium reflector with optimised faceting
- Freely suspended filament, minimize deformation
- UV-STOP Quartz capsule
- Conforms to EN60432-2 requirements with double protection fuses
- Self-shielded feature allows free burning in open fixtures - conforms to EN60598 safety requirements
- Average life 2000 hours
- Colour temperature approx. 2900K



## MR11 JDR-C GU10/GZ10 Base - Line Voltage Reflector Lamps

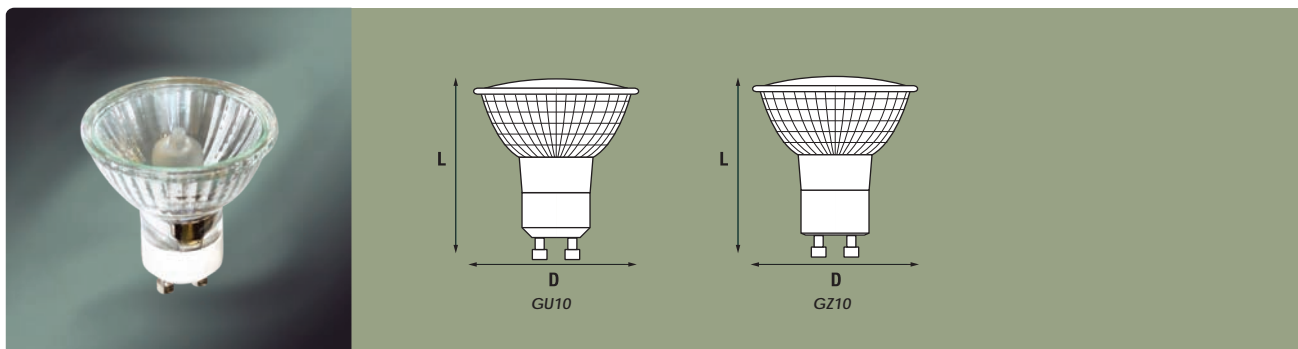


Lamp Code	Voltage (V)	Wattage (W)	Beam Angle	Intensity (cd)	Base	Diameter D (mm)	Length L (mm)
<b>35mm diameter reflector</b>							
MR11 JDR-R35	120 - 130 / 220 - 240	20	25°	250	GU10	35	50
MR11 JDR-R35	120 - 130 / 220 - 240	25	25°	300	GU10	35	50
MR11 JDR-R35	120 - 130 / 220 - 240	35	25°	450	GU10	35	50
MR11 JDR-R35	120 - 130 / 220 - 240	40	25°	500	GU10	35	50

- Conforms to EN60432-2/EN60357 requirements with double protection fuses.
- Self-shielded feature allows free burning in open fixtures – conforms to EN60598 safety requirements
- The hard glass front cover serves to block out harmful UV radiation
- Average life 2000 hours
- Colour temperature 3000K



## JDR-C Standard GU10/GZ10 Base - Line Voltage Reflector Lamps

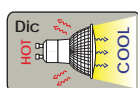
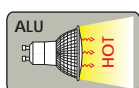


- Conforms to EN60432-2/EN60357 requirements with double protection fuses.
- Self-shielded feature allows free burning in open fixtures – conforms to EN60598 safety requirements
- The hard glass front cover serves to block out harmful UV radiation
- Average life 2000 hours
- Colour temperature 3000K



Other options :

- Beam angle : Wide flood 50° with frosted lamp capsule  
Super wide flood 70° with frosted glass cover



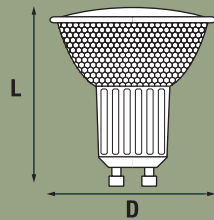
Lamp Code	Voltage (V)	Wattage (W)	Beam Angle	Intensity (cd)	Coating Type	Base	Diameter D (mm)	Length L (mm)
<b>50mm diameter reflector</b>								
JDR-R50	120 -130 / 230 - 240	20	30°	130	aluminium	GU10	50	53
JDR-R50	120 -130 / 230 - 240	25	30°	450	aluminium	GU10	50	53
JDR-R50	120 -130 / 230 - 240	35	30°	600	aluminium	GU10	50	53
JDR-R50	120 -130 / 230 - 240	35	30°	550	dichroic	GZ10	50	53
JDR-R50	120 -130 / 230 - 240	50	30°	950	aluminium	GU10	50	53
JDR-R50	120 -130 / 230 - 240	50	30°	900	dichroic	GZ10	50	53
JDR-R50	120 -130 / 230 - 240	50	50°	550	aluminium	GU10	50	53
JDR-R50	120 -130 / 230 - 240	50	50°	500	dichroic	GZ10	50	53
<b>63mm diameter reflector</b>								
JDR-R63	120 -130 / 230 - 240	75	30°	2400	aluminium	GU10	63	66
JDR-R63	120 -130 / 230 - 240	75	30°	2300	dichroic	GZ10	63	66
JDR-R63	120 -130 / 230 - 240	75	50°	1000	aluminium	GU10	63	66
JDR-R63	120 -130 / 230 - 240	75	50°	950	dichroic	GZ10	63	66



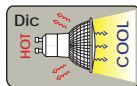
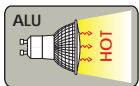


## GREEN HALOER GU10

Energy Reduction GU10/GZ10 Base - Line Voltage Reflector Lamps



- **Save 20% energy** in replacing traditional lamps with NO sacrifice of lighting quality
- Optimized design of filament structure provides excellent light distribution
- Lower heat generation resulting in reduced air conditioning and heat stress on ambience
- Conforms to EN60432-2/EN60357 requirements with integrated fuse
- Self-shielded feature allows free burning in open fixtures – conforms to EN60598 safety requirements
- Average life 2000 hours
- Colour temperature 2900K

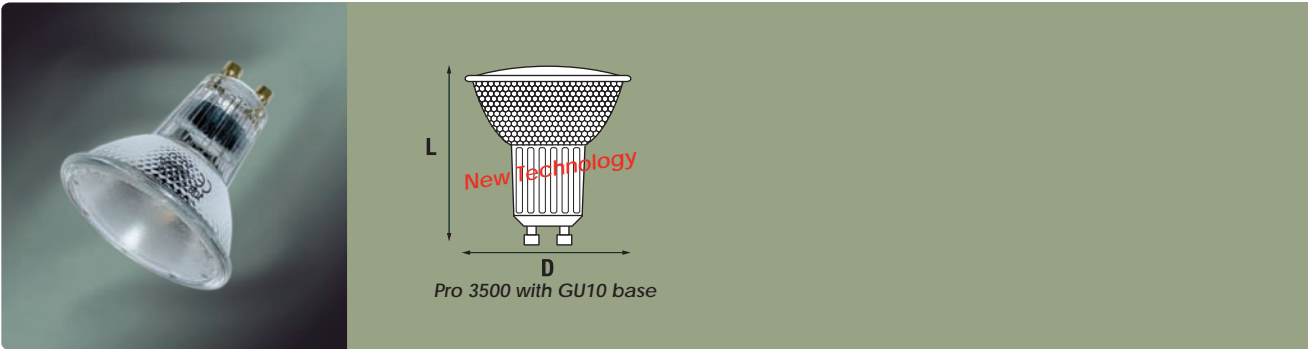


Lamp Code	Voltage (V)	Wattage (W)	Beam Angle	Intensity (cd)	Coating Type	Base	Diameter D (mm)	Length L (mm)
GU10/ER 28W	120 -130 / 230 - 240	28	30°	600	aluminium	GU10	50	53
GZ10/ER 28W	120 -130 / 230 - 240	28	30°	550	dichroic	GZ10	50	53
GU10/ER 40W	120 -130 / 230 - 240	40	30°	900	aluminium	GU10	50	53
GZ10/ER 40W	120 -130 / 230 - 240	40	30°	850	dichroic	GZ10	50	53

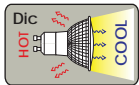
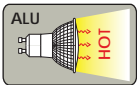
ER vs Traditional Lamps			
Energy Reduction ER series	Traditional Halogen GU10 lamps	Save on Energy	Electrical billing saving / year *
28W	35W	20%	US\$ 9.20
40W	50W	20%	US\$ 13.14

\* based on 24 hrs operation/day - US\$0.15/1 KWH

# JDR-C Pro3500 GU10/GZ10 Base - Line Voltage Reflector Lamps



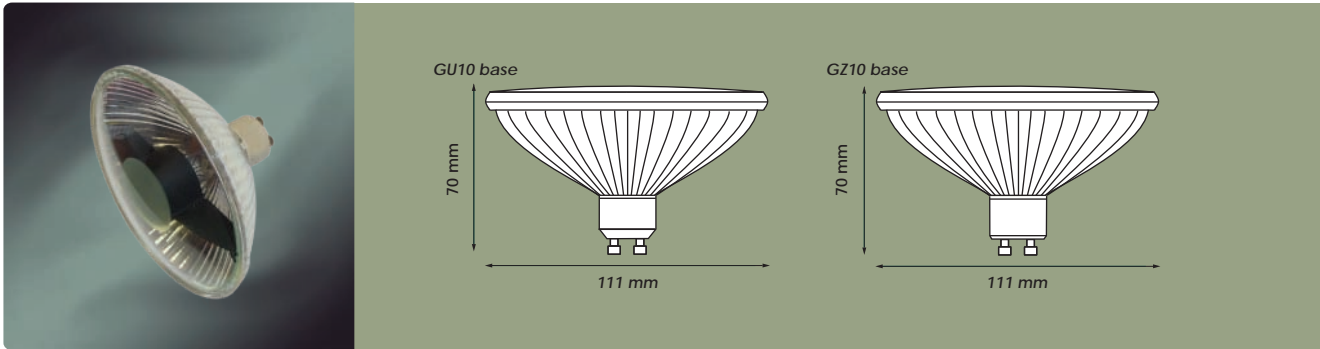
- Conforms to EN60432-2/EN60357 requirements with double protection fuses.
- Self-shielded feature allows free burning in open fixtures – conforms to EN60598 safety requirements
- The hard glass front cover serves to block out harmful UV radiation
- Extra long life 4000 hours
- Brightest GU10 Lamp in the industry



Lamp Code	Voltage (V)	Wattage (W)	Beam Angle	Intensity (cd)	Coating Type	Base	Diameter D (mm)	Length L (mm)
JDR-R50 Pro3500	120 -130 / 230 - 240	35	30°	900	aluminium	GU10	50	53
JDR-R50 Pro3500	120 -130 / 230 - 240	35	30°	850	dichroic	GZ10	50	53
JDR-R50 Pro3500	120 -130 / 230 - 240	50	30°	1400	aluminium	GU10	50	53
JDR-R50 Pro3500	120 -130 / 230 - 240	50	30°	1300	dichroic	GZ10	50	53

# PAR36/ES111 Halogen PAR Lamps

With GU10/GZ10 Base (for direct mains voltage)

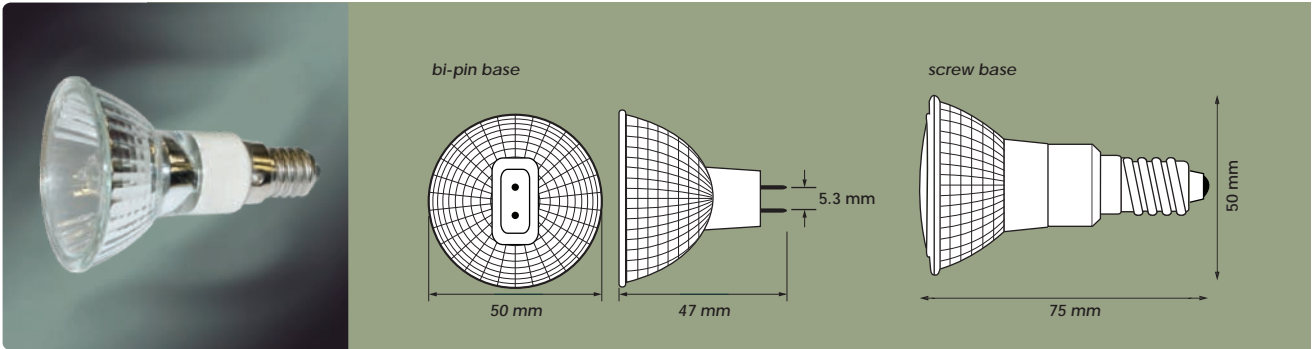


- No transformer is required - versus 12V AR111 lamps without the need of bulky transformers and tedious wiring
- Shorter lamp length allows better flexibility in the design of display lighting fixtures versus long-neck PAR30 and PAR38 lamps
- High comfort with anti-glare shield, reduce direct visual exposure
- Front hard glass lens cuts UV radiation
- Conforms to EN60432-2/EN60357 requirements with double protection fuse
- Self-shielded feature allows free burning in open fixtures – conforms to EN60598 safety requirements
- Average life 3000 hours
- Colour temperature 2900K for Aluminium version and 3000K for dichroic version

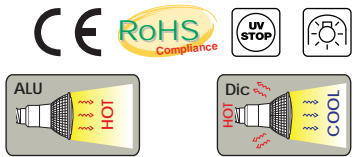


Lamp Code	Voltage (V)	Wattage (W)	Beam Angle	Intensity (cd)	Coating Type	Base
PAR36-ESD111-50W	120 – 130 / 230 – 240	50	24°	1900	dichroic	GZ10
PAR36-ESA111-50W	120 – 130 / 230 – 240	50	24°	2000	aluminium	GU10
PAR36-ESD111-75W	120 – 130 / 230 – 240	75	24°	2850	dichroic	GZ10
PAR36-ESA111-75W	120 – 130 / 230 – 240	75	24°	3000	aluminium	GU10
PAR36-ESD111-100W	120 – 130 / 230 – 240	100	24°	5000	dichroic	GZ10

# JDR-C Standard Line Voltage Reflector Lamps with various bases

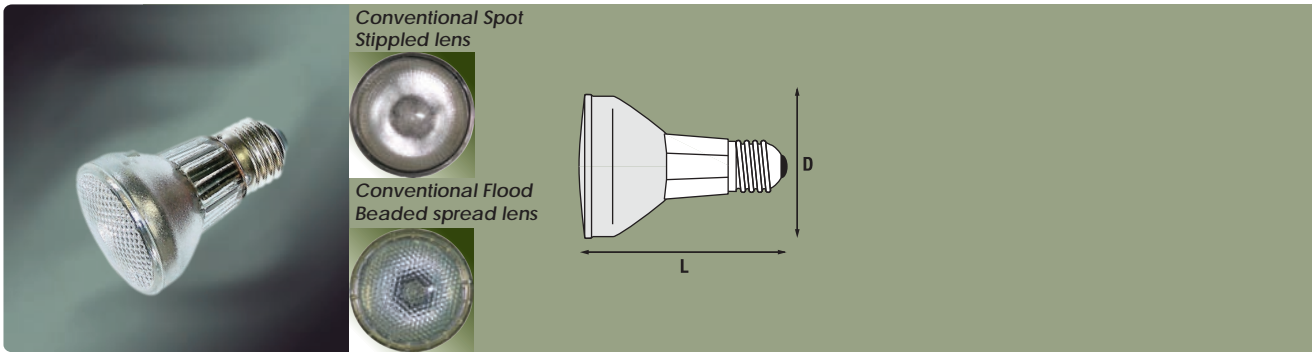


- Other wattages available, e.g. 20W, 25W
- Wide flood beam angle of 50 degree available with frosted capsule
- The hard glass front cover serves to block out harmful UV radiation
- Conforms to EN60432-2/EN60357 requirements with double protection fuses.
- Self-shielded feature allows free burning in open fixtures – conforms to EN60958 safety requirements
- Average life 2000 hours
- Colour temperature 3000K



Lamp Code	Voltage (V)	Wattage (W)	Beam Angle	Intensity (cd)		Base
				DIC. Reflector	ALU Reflector	
JDR-R50	120 – 130	35	30°	650	700	E11/E17/E26
JDR-R50	230 – 240	35	30°	650	700	E14/E27/B22
JDR-R50	120 – 130	50	30°	1050	1100	E11/E17/E26
JDR-R50	230 – 240	50	30°	1050	1100	E14/E27/B22
JDR-R50	120 – 130	75	30°	2300	-	E11/E17/E26
JDR-R50	230 – 240	75	30°	2300	-	E14/E27/B22

## PAR16 Halogen PAR Lamps

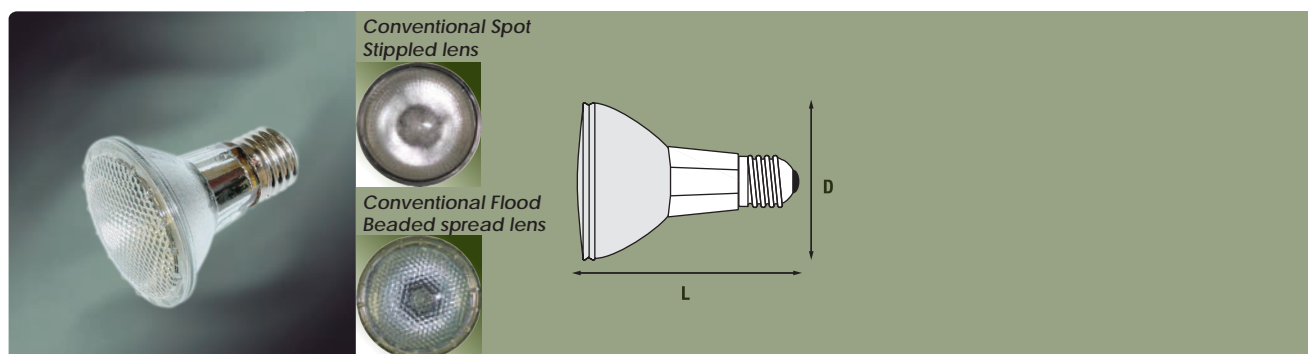


- PAR16 lamps of hard glass formation
- Lower wattages are available on request
- 230V and 240V lamps are available
- Colour temperature 2900K for aluminium version and 3000K for dichroic version
- Average Life 3000 hours

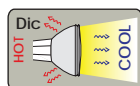
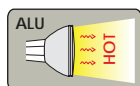


Lamp Code	Voltage (V)	Wattage (W)	Intensity (cd)		Base	Diameter D (mm)	Length L (mm)
			Spot	Flood			
PAR16/60W	120 / 130	60	5000	1300	E26	51	73
PAR16/75W	120 / 130	75	7500	1900	E26	51	73

## PAR20 Standard Halogen PAR Lamps, Conventional-style

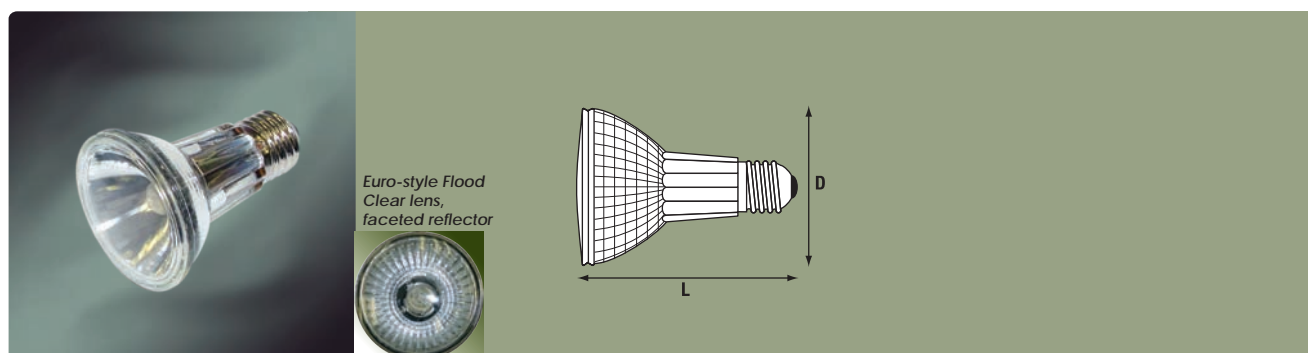


- Colour temperature 2900K for aluminium version and 3000K for dichroic version
- Average Life 3000 hours

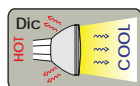
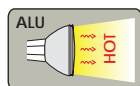


Lamp Code	Voltage (V)	Wattage (W)	Beam Spread	Intensity (cd)	Base	Diameter D (mm)	Length L (mm)
PAR20/35W	120 / 130	35	Spot	2000	E26	63	80
PAR20/35W	120 / 130	35	Flood	700	E26	63	80
PAR20/50W	120 / 130	50	Spot	3000	E26	63	80
PAR20/50W	120 / 130	50	Flood	1000	E26	63	80
PAR20/50W	230 / 240	50	Spot	3000	E27	63	82
PAR20/50W	230 / 240	50	Flood	1000	E27	63	82

## PAR20 Standard Halogen PAR lamps, Euro-style



- Colour temperature 2900K for aluminium version and 3000K for dichroic version
- Average Life 3000 hours



Lamp Code	Voltage (V)	Wattage (W)	Beam Spread	Intensity (cd)	Base	Diameter D (mm)	Length L (mm)
PAR20-Euro/35W	120/130	35	Spot	2000	E26	63	86
PAR20-Euro/35W	120/130	35	Flood	700	E26	63	86
PAR20-Euro/50W	120/130	50	Spot	3000	E26	63	86
PAR20-Euro/50W	120/130	50	Flood	1000	E26	63	86
PAR20-Euro/50W	230/240	50	Spot	3000	E27	63	86
PAR20-Euro/50W	230/240	50	Flood	1000	E27	63	86

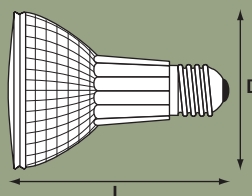
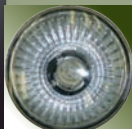




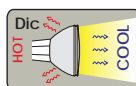
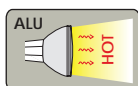
## GREEN HALOER PAR20 Energy Reduction Halogen PAR Lamps



Euro-style Flood  
Clear lens,  
faceted reflector



- **Save 20% energy** in replacing traditional Halogen PAR lamps with NO sacrifice of lighting quality
- Optimized design of filament structure provides excellent light distribution
- Lower heat generation resulting in reduced air conditioning and heat stress on ambience
- Average life 3000 hours
- Colour temperature 3000K



### ER vs Traditional Lamps

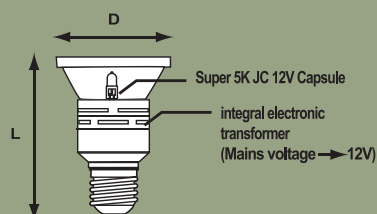
Energy Reduction ER series	Traditional Halogen PAR20	Save on Energy	Electrical billing * saving / year
40W	50W	20%	US\$ 13.14

\* based on 24 hrs operation/day - US\$0.15/1 KWH

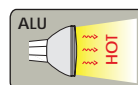
Lamp Code	Voltage (V)	Wattage (W)	Beam Angle	Intensity (cd)	Base	Diameter D (mm)	Length L (mm)
PAR20/ER 40W SP	120-130/230-240	40	Spot	2600	E26/E27	63	86
PAR20/ER 40W FL	120-130/230-240	40	Flood	940	E26/E27	63	86



## GREEN HALOER PAR20 Plus Energy Reduction Halogen PAR Lamps



- **Huge power reduction 60%** in replacing traditional Halogen PAR lamps /Incandescent Reflector lamps with higher light intensity (cd)
- Optimized design of filament structure provides excellent light distribution
- Lower heat generation resulting in reduced air conditioning and heat stress on ambience
- Average life 5000 hours = twice the life time of standard Halogen (PAR20) or 5 times of incandescent reflector lamps (R63/R95)
- Colour temperature 3000K



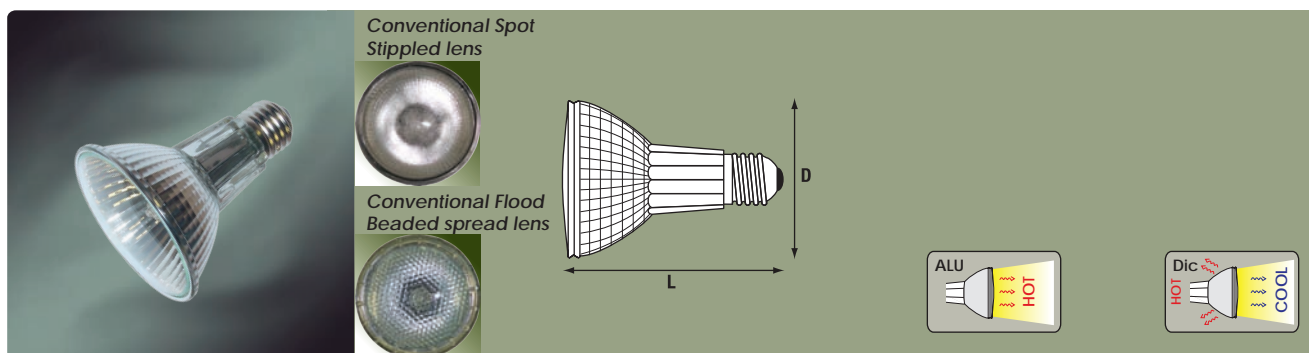
### ER vs Traditional Lamps

Energy Reduction ER Plus series	Traditional Halogen PAR20	Save on Energy	Electrical billing * saving / year
20W	50W	60%	US\$ 39.42

\* based on 24 hrs operation/day - US\$0.15/1 KWH

Lamp Code	Voltage (V)	Wattage (W)	Beam Angle	Intensity (cd)	Base	Diameter D (mm)	Length L (mm)
PAR20/ER-Plus 20W SP	120-130/230-240	20	12°	3400	E26/E27	63.5	91
PAR20/ER-Plus 20W FL	120-130/230-240	20	24°	1000	E26/E27	63.5	91

## PAR25 Halogen PAR Lamps

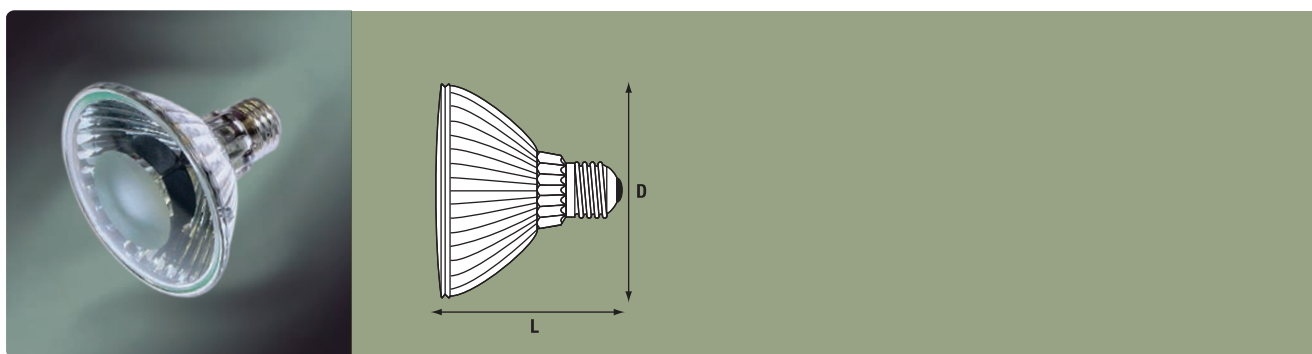


- Colour temperature 2900K for aluminium version and 3000K for dichroic version
- Average Life 3000 hours

Lamp Code	Voltage (V)	Wattage (W)	Beam Spread	Intensity (cd)	Base	Diameter D (mm)	Length L (mm)
PAR25/50W	230/240	50	Spot	4000	E27	80	103
PAR25/50W	230/240	50	Flood	1100	E27	80	103
PAR25/75W	230/240	75	Spot	5500	E27	80	103
PAR25/75W	230/240	75	Flood	1300	E27	80	103

## PAR30 Anti-Glare Halogen PAR Lamps

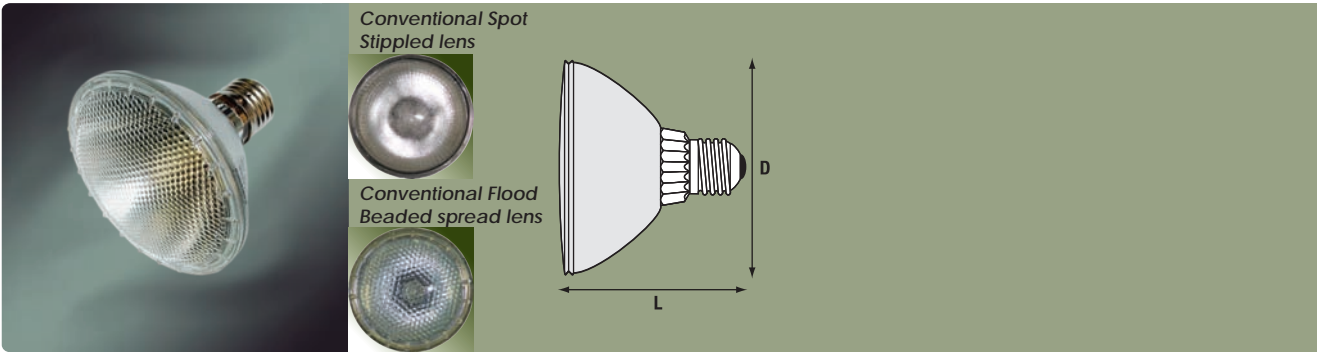
High visual comfort with anti-glare shield, reduce direct visual exposure



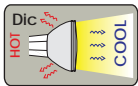
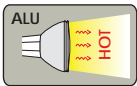
- Other wattages : 35W, 45W, 60W, 90W available on request
- Conforms to EN60432-2/EN60357 requirements with double protection fuse
- Self-shielded feature allows free burning in open fixtures – conforms to EN60598 safety requirements
- Front hard glass lens cuts UV radiation

Lamp Code	Voltage (V)	Wattage (W)	Intensity (cd)		Base	Diameter D (mm)	Length L (mm)
			Spot	Flood			
PAR30/50W/AG	120/130	50	3800	1250	E26	95	90
PAR30/75W/AG	120/130	75	6200	1900	E26	95	90
PAR30/75W/AG	230/240	75	6200	1900	E27	95	92
PAR30/100W/AG	230/240	100	8500	2800	E27	95	92

PAR30 Standard Halogen PAR Lamps, Conventional Style

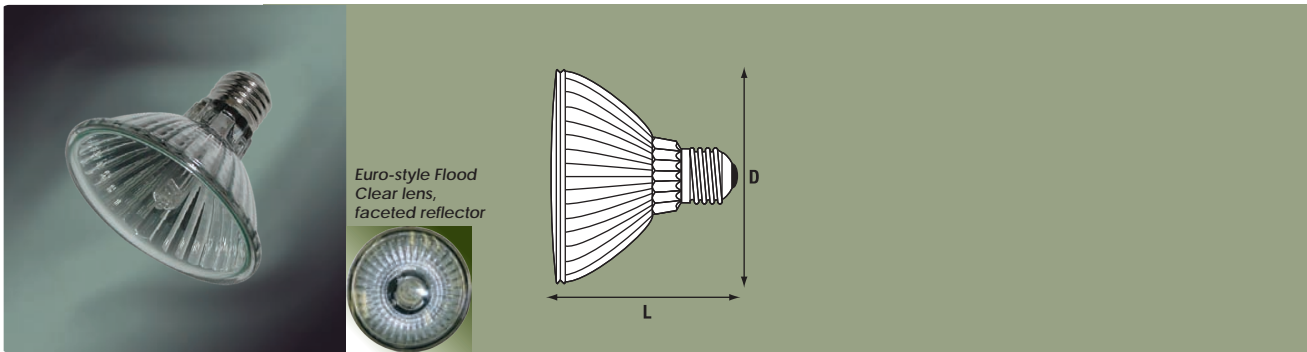


- Colour temperature 2900K for aluminium version and 3000K for dichroic version
- Average Life 3000 hours

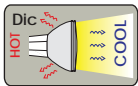
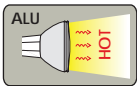


Lamp Code	Voltage (V)	Wattage (W)	Intensity (cd)		Base	Diameter D (mm)	Length L (mm)
			Spot	Flood			
PAR30/50W	120/130	50	4000	1300	E26	95	90
PAR30/75W	120/130	75	6500	2000	E26	95	90
PAR30/75W	230/240	75	6500	2000	E27	95	92
PAR30/100W	230/240	100	9000	3000	E27	95	92

PAR30 Standard Halogen PAR Lamps, Euro-style



- Colour temperature 2900K for aluminium version and 3000K for dichroic version
- Average Life 3000 hours



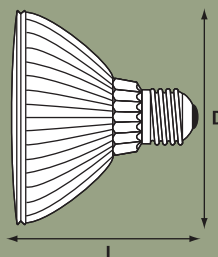
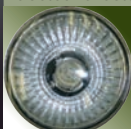
Lamp Code	Voltage (V)	Wattage (W)	Intensity (cd)		Base	Diameter D (mm)	Length L (mm)
			Spot	Flood			
PAR30-Euro/50W	120 / 130	50	4000	1300	E26	95	90
PAR30-Euro/75W	120 / 130	75	6500	2000	E26	95	90
PAR30-Euro/75W	230 / 240	75	6500	2000	E27	95	92
PAR30-Euro/100W	230 / 240	100	9000	3000	E27	95	92



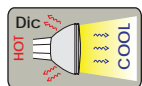
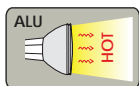
## GREEN HALOER PAR30 Energy Reduction Halogen PAR Lamps



Euro-style Flood  
Clear lens,  
faceted reflector



- **Save 20% energy** in replacing traditional Halogen PAR lamps with NO sacrifice of lighting quality
- Optimized design of filament structure provides excellent light distribution
- Lower heat generation resulting in reduced air conditioning and heat stress on ambience
- Average life 3000 hours
- Colour temperature 3000K



### ER vs Traditional Lamps

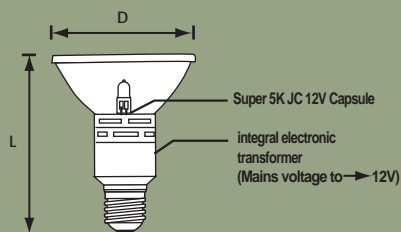
Energy Reduction ER series	Traditional Halogen PAR30	Save on Energy	Electrical billing * saving / year
40W	50W	20%	US\$ 13.14
60W	75W	20%	US\$ 19.71
80W	100W	20%	US\$ 26.28

\* based on 24 hrs operation/day - US\$0.15/1 KWH

Lamp Code	Voltage (V)	Wattage (W)	Beam Angle	Intensity (cd)	Base	Diameter D (mm)	Length L (mm)
PAR30/ER 40W SP	120-130/230-240	40	Spot	3000	E26/E27	95	90
PAR30/ER 40W FL	120-130/230-240	40	Flood	1100	E26/E27	95	90
PAR30/ER 60W SP	120-130/230-240	60	Spot	6200	E26/E27	95	92
PAR30/ER 60W FL	120-130/230-240	60	Flood	1800	E26/E27	95	92
PAR30/ER 80W SP	120-130/230-240	80	Spot	7500	E26/E27	95	92
PAR30/ER 80W FL	120-130/230-240	80	Flood	2600	E26/E27	95	92



## GREEN HALOER PAR30 Plus Energy Reduction Halogen PAR Lamps

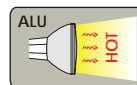


- **Huge power reduction 50%** in replacing traditional Halogen PAR lamps /Incandescent Reflector lamps with higher light intensity (cd)
- Optimized design of filament structure provides excellent light distribution
- Lower heat generation resulting in reduced air conditioning and heat stress on ambience
- Average life 5000 hours = twice the life time of standard Halogen (PAR30) or 5 times of incandescent reflector lamps (R63/R95)
- Colour temperature 3000K

### ER vs Traditional Lamps

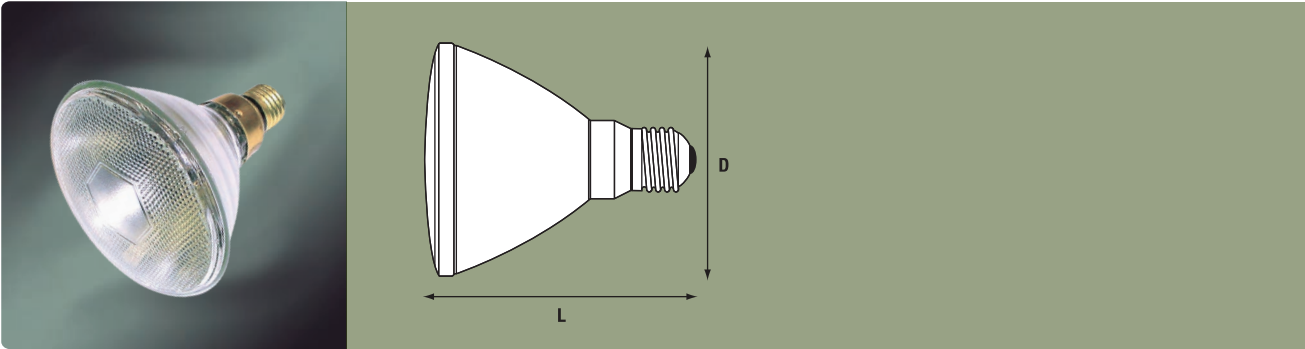
Energy Reduction ER Plus series	Traditional Halogen PAR30	Save on Energy	Electrical billing * saving / year
35W	75W	50%	US\$ 52.56

\* based on 24 hrs operation/day - US\$0.15/1 KWH



Lamp Code	Voltage (V)	Wattage (W)	Beam Angle	Intensity (cd)	Base	Diameter D (mm)	Length L (mm)
PAR30/ER-Plus 35W SP	120-130/230-240	35	13°	6000	E26/E27	95	119
PAR30/ER-Plus 35W FL	120-130/230-240	35	30°	2000	E26/E27	95	119

PAR38 Standard Halogen PAR Lamps



- Average life 3000 hours
- Colour temperature 2900K for aluminium version and 3050K for dichroic version

European Specifications :

Lamp Code	Voltage (V)	Wattage (W)	Intensity (cd)		Base	Diameter D (mm)	Length L (mm)
			Spot	Flood			
PAR38/75W	230 – 240	75	12000	2800	E27	122	136
PAR38/100W	230 – 240	100	16900	3800	E27	122	136
PAR38/120W	230 – 240	120	18000	4000	E27	122	136

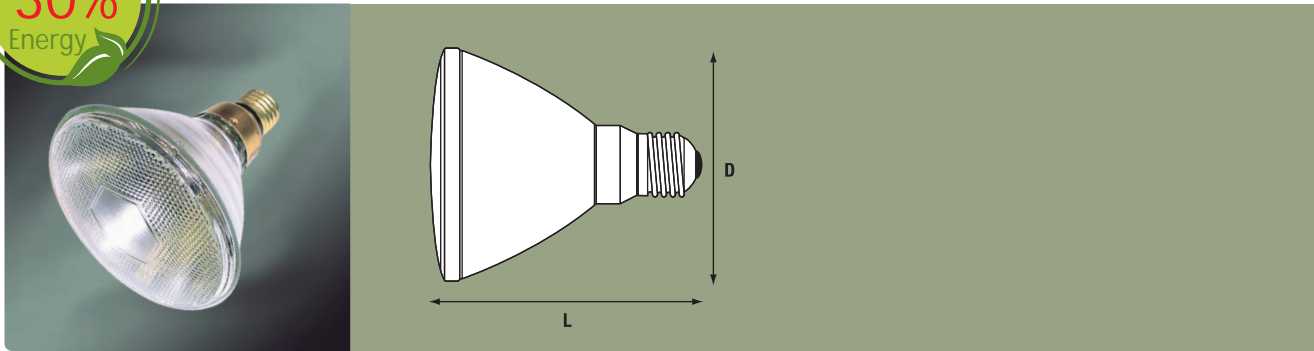
North American Specifications :

Lamp Code	Voltage (V)	Wattage (W)	Beam Spread	Intensity (cd)	Base	Diameter D (mm)	Length L (mm)
Q45PAR38/SP	120 – 130	45	Spot	6000	M.S. E26	122	134
Q45PAR38/FL	120 – 130	45	Flood	1350	M.S. E26	122	134
Q50PAR38/SP	120 – 130	50	Spot	6800	M.S. E26	122	134
Q50PAR38/FL	120 – 130	50	Flood	1500	M.S. E26	122	134
Q60PAR38/SP	120 – 130	60	Spot	8400	M.S. E26	122	134
Q60PAR38/FL	120 – 130	60	Flood	1900	M.S. E26	122	134
Q75PAR38/SP	120 – 130	75	Spot	10500	M.S. E26	122	134
Q75PAR38/FL	120 – 130	75	Flood	2400	M.S. E26	122	134
Q90PAR38/SP	120 – 130	90	Spot	13000	M.S. E26	122	134
Q90PAR38/FL	120 – 130	90	Flood	2900	M.S. E26	122	134
Q100PAR38/SP	120 – 130	100	Spot	15000	M.S. E26	122	134
Q100PAR38/FL	120 – 130	100	Flood	3400	M.S. E26	122	134
Q120PAR38/SP	120 – 130	120	Spot	18000	M.S. E26	122	134
Q120PAR38/FL	120 – 130	120	Flood	4000	M.S. E26	122	134
Q250PAR38/SP	120 – 130	250	Spot	40000	M.S. E26	122	134
Q250PAR38/FL	120 – 130	250	Flood	9000	M.S. E26	122	134





## GREEN HALOER PAR38 Energy Reduction Halogen PAR Lamps



- **Save 30% energy** in replacing standard incandescent PAR lamps with same pleasant quality of light
- Lower heat generation reducing air conditioning and heat stress on ambience
- Average life 3000 hours
- Colour temperature 3000K
- Suitable for outdoor applications with approved luminaires
- 100% dimmable

Lamp Code	Voltage (V)	Wattage (W)	Beam Angle	Intensity (cd)	Base	Diameter D (mm)	Length L (mm)
PAR38/ER 56W SP	120 - 130 / 230 - 240	56	Spot	4000	E26/E27	122	136
PAR38/ER 56W FL	120 - 130 / 230 - 240	56	Flood	1700	E26/E27	122	136
PAR38/ER 84W SP	120 - 130 / 230 - 240	84	Spot	8000	E26/E27	122	136
PAR38/ER 84W FL	120 - 130 / 230 - 240	84	Flood	3300	E26/E27	122	136

ER vs Traditional Lamps			
Energy Reduction ER series	Traditional Incandescent PAR38	Save on Energy	Electrical billing * saving / year
56W	80W	30%	US\$ 31.5
84W	120W	30%	US\$ 47.3

\* based on 24 hrs operation/day - US\$0.15/1 KWH