



**PHILIPS**

ErP legislation

HID lamps & drivers

# ErP in the spotlight

Stage 3 of the Energy related Product legislation (EC245/2009) starts April 12th 2017 and requires all inefficient light sources to be phased out. As the legislation reaches its third stage, a number of popular lighting types will be affected.



\* Data derived from EC245/2009

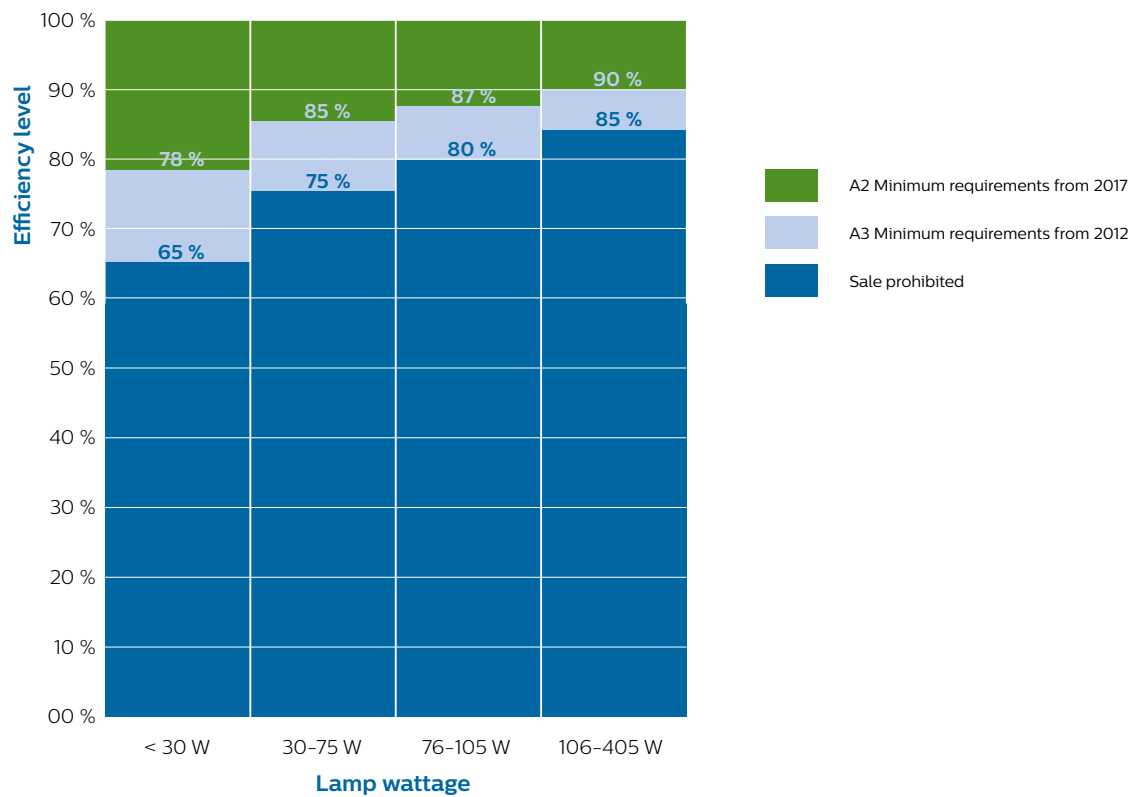
## Requirements for Metal Halide lamps with E27/E40/PGz12 caps

Nominal lamp wattage (W)	Rated lamp efficacy (lm/W) - Clear lamps	Rated lamp efficacy (lm/W) - Not clear lamps
$W \leq 55$	$\geq 70$	$\geq 65$
$55 < W \leq 75$	$\geq 80$	$\geq 75$
$75 < W \leq 105$	$\geq 85$	$\geq 80$
$105 < W \leq 155$	$\geq 85$	$\geq 80$
$155 < W \leq 255$	$\geq 85$	$\geq 80$
$255 < W \leq 405$	$\geq 90$	$\geq 85$

Burning hours	Lamp lumen maintenance factor	Lamp survival factor
12,000	$> 0.80$	$> 0.80$

Nominal lamp wattage (P) (W)	April 2017 onwards	2012 - 2017
	Minimum ballast efficiency [%]	Minimum ballast efficiency [%]
$P < 30$	78	65
$30 < P < 75$	85	75
$75 < P < 105$	87	80
$105 < P < 405$	90	85
$P > 405$	92	90

## ErP Directive for HID ballasts



To make sure that the portfolio you offer also complies after April 2017, we are currently working on product upgrades and/or replacements for the impacted lamps.

# All impacted lamps are being upgraded to comply

Below lamps are impacted by the third stage of the ErP legislation. We are currently working on efficient and cost-effective upgrades and/or replacements for the impacted lamps. The announcement on upgrades will follow in Q1 2016.

## Quartz Metal Halide lamps

## Ceramic Metal Halide lamps



**HPI-T Plus** - Impacted  
**HPI Plus** - Impacted  
**HPI-T** - Exempted - All our lamps comply  
**MHN** - Exempted - All our lamps comply

**CPO-TW/TT** - All our lamps comply  
**CDO-TT/ET** - All our lamps comply  
**CDM Elite MW** - Exempted - All our lamps comply  
**CDM-TT** - Impacted

## SON High Pressure Sodium lamps

## SOX low pressure Sodium lamps

## HID Horticulture lamps

## Compact High Intensity Discharge lamps



Not impacted  
 All our lamps comply

Exempted  
 All our lamps comply

Exempted  
 All our lamps comply

Not impacted  
 All our lamps comply

## List of impacted lamps (EC245/2009)

Material code	Ordering code (EOC) 8711500	Product name	
<b>MASTER HPI-T Plus</b>			
928481300098	179890 15	MASTER HPI-T Plus 250W/645 E40 1SL/12	Upgrade/successor expected Q3 2016
928481600096	179906 15	MASTER HPI-T Plus 400W/645 E40 1SL/12	Upgrade/successor expected Q3 2016
<b>MASTER HPI Plus</b>			
928410800027	211477 15	MASTER HPI Plus 250W/645 BU-P E40 1SL/12	Upgrade/successor expected Q3 2016
928076709891	181145 15	MASTER HPI Plus 250W/645 BU E40 1SL/12	Upgrade/successor expected Q3 2016
928076809894	207395 15	MASTER HPI Plus 250W/667 BU E40 1SL/12	Upgrade/successor expected Q3 2016
928410700027	211453 10	MASTER HPI Plus 400W/645 BUS-P E40 1SL/6	Upgrade/successor expected Q3 2016
928074709891	181114 10	MASTER HPI Plus 400W/645 BUS E40 1SL/6	Upgrade/successor expected Q3 2016
928410600027	211439 10	MASTER HPI Plus 400W/645 BU-P E40 1SL/6	Upgrade/successor expected Q3 2016
928074309891	182524 10	MASTER HPI Plus 400W/645 BU E40 1SL/6	Upgrade/successor expected Q3 2016
928074409894	207371 10	MASTER HPI Plus 400W/667 BU E40 1SL/6	Upgrade/successor expected Q3 2016
<b>MASTERColour CDM-TT</b>			
928093609235	209658 15	MASTERCOLOR CDM-TT 70W/942 E27 1SL/12	Upgrade/successor expected Q3 2016
928093709230	209672 15	MASTERCOLOR CDM-TT 150W/942 E40 1SL/12	Upgrade/successor expected Q3 2016

# No magnetics anymore below 400W, electronics provide a good alternative

After April 2017, all electromagnetic MK4 drivers and the majority of Heavy Duty drivers will be banned for sales within the EU, both for initial installs and replacements. Exception for this are the magnetic drivers (“BSX”) for SOX lamps, which are not affected by this legislation, and a few metal halide ballasts below 400W with efficacy above 90%. Igniters and capacitors will not be phased out by ErP Stage 3 legislation.

Fortunately, we have a broad portfolio available of electronic drivers that can replace magnetic drivers:

- Our electronic HID drivers can drive all lamps up to 250W
- Our new and attractively priced alternative **Philips BasePerform** can replace all Magnetic drivers up to 150W for SON lamps
- Magnetic drivers of 400W and above will continue to be available for high wattage HID lamps
- Sports lamps can be served either by magnetic drivers or 3rd party electronics drivers



**BHA 500**



**BHL 80**



**BSL 100**



**BSN 250**

## These drivers will stay in the portfolio

Description	
BHA	BHA 400 L33 230V 50Hz HD2-151
BHD	BHD 2000 L76 380/400/415V 50Hz HP-317
BHD	BHD 2000 L77 400/415/430V 50Hz HP-317
BHL	BHL 2000 L4018-A
BHL	BHL 2000 L4018-A HPGT IP65
BHL	BHL 2000 L50 360/380/400V 50Hz HP-257
BHL	BHL 2000 L76 380/400/415V 50Hz HP-317
BHL	BHL 2000 L78 230/240V 50Hz HP-317
BHL	BHL 1000 L02 220V 50Hz HP-207
BHL	BHL 1000 L307-A HPGT IP65
BHL	BHL 1000 L78 230/240V 50Hz HP-207
BHL	BHL 400 K202 230V 50Hz BC2-151
BHL	BHL 400 K307 230/240V 50Hz BC2-160
BHL	BHL 400 K327 230/240V 50Hz BC2-160
BHL	BHL 400 L40 230V 50Hz HD2-151
BHL	BHL 250 K202 230V 50Hz BC2-126
BHL	BHL 250 K307 230/240V 50Hz BC2-134
BHL	BHL 250 K327 230/240V 50Hz BC2-134
BHL	BHL 250 L40 230V 50Hz HD2-126
BMH	BMH 2000 L5018-A
BMH	BMH 2000 L5018-A HPGT IP65
BMH	BMH 2000 L5019-A LA/FC HPGT IP65
BMH	BMH 2000 L5030-A HPGT IP65
BMH	BMH 2000 L76 380/400/415V 50Hz HP-317
BMH	BMH 1800 L78 230/240V 50Hz HP-317
BSH	BSH 2540 K3067 220-240V 50-60Hz BC1-118
BSN	BSN 1000 L02 220V 50Hz HP-257
BSN	BSN 1000 L201-A HPGT IP65
BSN	BSN 1000 L307-A
BSN	BSN 1000 L307-A HPGT IP65
BSN	BSN 1000 L407-I-A HPGT IP65
BSN	BSN 1000 L78 230/240V 50Hz HP-257
BSN	BSN 600 K3030-ITS 480V 60Hz BC3-166
BSN	BSN 600 K309-ITS 400V 50Hz BC3-166
BSN	BSN 600 K309-ITS 400V 50Hz BC3-166
BSN	BSN 400 K302-I 230V 50Hz BC3-166
BSN	BSN 400 K307-TS-R 230/240V 50Hz BC3-166
BSN	BSN 400 K407-ITS 230/240V 50Hz BC3-166
BSN	BSN 400 K407-ITS 230/240V 50Hz BC3-166
BSN	BSN 400 L33-TS 230V 50Hz HD3-166
BSN	BSN 400 L34-TS 240V 50Hz HD3-166
BSN	BSN 400/250 K407-TS 230/240V 50Hz
BSN	BSN 100/70 K407-TS 230/240V 50Hz BC1-123
BSN	BSN 70 K302-I 230V 50Hz BC1-118
BSN	BSN 70 L33-TS 230V 50Hz HD1-118
BSN	BSN 70 L34-TS 240V 50Hz HD1-118
BSX	BSX 131 H96 220-240V 50Hz CW-178/78
BSX	BSX 131 H96 TR 220-240V 50Hz CW-114/74
BSX	BSX 135 H96 220-240V 50Hz CW-149/67
BSX	BSX 180 H96 220-240V 50Hz CW-178/78
BSX	BSX 36 H66 240V 50Hz CW-173/44
BSX	BSX 55 H26 220-230V 50Hz CW-173/44
BSX	BSX 90 H26 220-230V 50Hz CW-173/52
BSX	BSX 90 L32 240V 50Hz HD1-118
BSX	BSX 90 L40 230V 50Hz HD1-118
BSX	BSX 91 H96 220-240V 50Hz CW-149/67

## These drivers will be phased out

Description	
BHA	BHA 500 K302-ITS 230V 50Hz BC2-160
BHL	BHL 125 K202 230V 50Hz BC1-118
BHL	BHL 125 K307 230/240V 50Hz BC1-118
BHL	BHL 125 L40 230V 50Hz HD1-118
BHL	BHL 80/125 K407 230/240V 50Hz BC1-118
BHL	BHL 80/125 K427 230/240V 50Hz BC1-118
BHL	BHL 50/80 K407 230/240V 50Hz BC1-118
BMH	BMH 70 K302-ITS 230V 50Hz BC1-118
BMH	BMH 70 K407-ITS 230/240V 50Hz BC1-118
BMH	BMH 35 K302-ITS 230V 50Hz BC1-118
BMH	BMH 35 K407-ITS 230/240V 50Hz BC1-118
BSL	BSL 100 K307-TS 230/240V 50Hz BC1-118
BSL	BSL 50 K307-TS 230/240V 50Hz BC1-118
BSN	BSN 250 K302-I 230V 50Hz BC2-151
BSN	BSN 250 K307-TS-R 230/240V 50Hz BC2-160
BSN	BSN 250 K407-ITS 230/240V 50Hz BC2-160
BSN	BSN 250 K407-ITS 230/240V 50Hz BC2-160
BSN	BSN 250 K427-ITS 230/240V 50Hz BC2-160
BSN	BSN 250 L33-TS 230V 50Hz HD2-151
BSN	BSN 250 L34-TS 240V 50Hz HD2-160
BSN	BSN 250/150 K407-TS 230/240V 50Hz
BSN	BSN 150 K301-ITS 220V 60Hz BC2-134
BSN	BSN 150 K302-I 230V 50Hz BC2-126
BSN	BSN 150 K307-TS-R 230/240V 50Hz BC2-134
BSN	BSN 150 K327-TS-R 230/240V 50Hz BC2-134
BSN	BSN 150 K407-ITS 230/240V 50Hz BC2-134
BSN	BSN 150 K427-ITS 230/240V 50Hz BC2-134
BSN	BSN 150 L33-TS 230V 50Hz HD2-126
BSN	BSN 150 L34-TS 240V 50Hz HD2-134
BSN	BSN 150/100 K407-TS 230/240V 50Hz
BSN	BSN 150/100 K427-TS 230/240V 50Hz
BSN	BSN 100 K302-I 230V 50Hz BC1-123
BSN	BSN 100 K307-TS-R 230/240V 50Hz BC1-123
BSN	BSN 100 K407-ITS 230/240V 50Hz BC1-123
BSN	BSN 100 K427-ITS 230/240V 50Hz BC1-123
BSN	BSN 100 L33-TS 230V 50Hz HD1-123
BSN	BSN 100 L34-TS 240V 50Hz HD1-123
BSN	BSN 70 K301-ITS 220V 60Hz BC1-118
BSN	BSN 70 K307-TS-R 230/240V 50Hz BC1-118
BSN	BSN 70 K327-TS-R 230/240V 50Hz BC1-118
BSN	BSN 70 K407-ITS 230/240V 50Hz BC1-118
BSN	BSN 70 K427-ITS 230/240V 50Hz BC1-118
BSN	BSN 70/50 K322-TS-R 230V 50Hz BC1-118
BSN	BSN 70/50 K407-TS 230/240V 50Hz BC1-118
BSN	BSN 70/50 K427-TS 230/240V 50Hz BC1-118
BSN	BSN 50 K302-I 230V 50Hz BC1-118
BSN	BSN 50 K407-ITS 230/240V 50Hz BC1-118
BSN	BSN 50 K427-ITS 230/240V 50Hz BC1-118
BSN	BSN 50 L33-TS 230V 50Hz HD1-118

To find out more, go to [www.philips.com/conventional](http://www.philips.com/conventional)

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