

# ELECTRIC TRANSFORMER COMPATIBILITY MR16

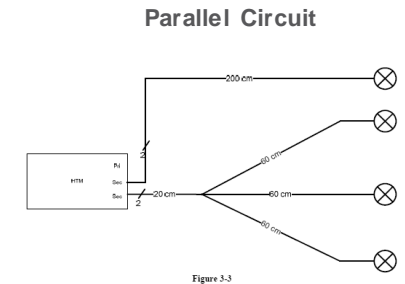
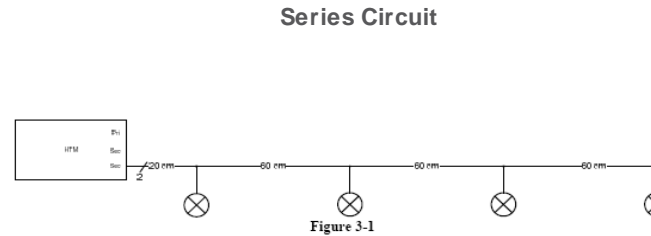
## BASIC INFORMATION:

### 1. WHAT IS THE PRODUCT CODE AND WHERE DO I FIND IT?

The product code describes the lamp type. It contains 7 letters and digits and is starting with "A". Below an example for the product code of the stamp of the lamp:



220-240V **AC01770** 2700K  
13 W 50/60 Hz 27 mA  
Made in Germany XXX-XXXX



### 2. HOW MANY LAMPS CAN I INSTALL ON ONE ELECTRIC TRANSFORMER?

For max. number of lamps on an Electric Transformer, please use the following rule of thumb:  
(Please note: actual number may vary from calculated result)

$$\text{Max. number of lamps} = \frac{\text{Max. load of Electric Transformer}}{\text{Equivalent Wattage (HAL/GLS)}}$$

### 3. HOW CAN I READ THE FOLLOWING CHARTS?

Legend:  
Information about the compatibility of the lamps. Green means very good compatibility, yellow means limited compatibility and red means undesired compatibility.

List of electric transformers tested in laboratory conditions.

Legend					PARATHOM PRO AR111 50	PARATHOM PRO AR111 75	PARATHOM PRO AR111 100	PARATHOM PRO AR111 GLOWdim	PARATHOM DIM MR111 20	PARATHOM MR111 20 non-dim	PARATHOM MR111 35 non-dim	
Very good compatibility with indicated number of lamps												
Good compatibility with indicated number of lamps												
Not tested												
ELECTRIC TRANSFORMERS												
Circuit	Brand	Model	Type	Voltage	Wattage	PARATHOM PRO AR111 50		PARATHOM PRO AR111 75		PARATHOM PRO AR111 100		
	OSRAM	HTM 70230-240	HT	230-240, 50-60Hz	20-70W	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	
Series Circuit	OSRAM	HTM 10920-240	HT	230-240, 50-60Hz	35-105W	1-3	1-4	1-4	1-3	1-4	1-4	
	OSRAM	ET-Parrot 70220-2401	ET	230-240, 50-60Hz	20-70W	1-3	1-4	1-4	1-3	1-4	1-4	
	OSRAM	HTM 15020-240	HT	230-240, 50-60Hz	50-150W	1-4	1-4	1-4	1-3	2-4	1-4	
	OSRAM	HTM 79230-2401	HT	230-240, 50-60Hz	20-75W	1-3	1-4	1-4	1-2	1-4	1-4	
	OSRAM	ET-Parrot 10920-2401	ET	230-240, 50-60Hz	35-105W	1-3	1-4	1-4	1-2	1-4	1-3	
	OSRAM	ET-Parrot 150	ET	230V/50Hz	50-150	1-4	1-4	1-4	1-4	1-4	1-4	
	OSRAM	HTL 10920-240	HT	230-240, 50-60Hz	35-105W	1-4	1-4	1-4	1-3	2-4	1-4	
	OSRAM	HTL 22920-240	HT	230-240, 50-60Hz	50-225W	1-4	1-4	1-4	1-4	3-4	1-4	
	OSRAM	DT 30220-240P	DT	230V/50Hz	30	1-2	1-2	1-2	1-2	1-4	1-4	
	OSRAM	DT 60220-240P	DT	230V/50Hz	60	1-4	1-3	1-3	1-3	1-4	1-4	
	Parallel Circuit	OSRAM	HTM 70230-240	HT	230-240, 50-60Hz	20-70W	1-3	1-4	1-4	1-2	1-4	1-4
		OSRAM	HTM 10920-240	HT	230-240, 50-60Hz	35-105W	1-3	1-4	1-4	1-3	1-4	1-4
		OSRAM	ET-Parrot 70220-2401	ET	230-240, 50-60Hz	20-70W	1-3	1-4	1-4	1-3	1-4	1-4
		OSRAM	HTM 15020-240	HT	230-240, 50-60Hz	50-150W	1-4	1-4	1-4	1-3	1-4	1-4
		OSRAM	HTM 79230-2401	HT	230-240, 50-60Hz	20-75W	1-3	1-4	1-4	1-2	1-4	1-4
OSRAM		ET-Parrot 10920-2401	ET	230-240, 50-60Hz	35-105W	1-4	1-4	1-4	1-2	1-4	1-3	
OSRAM		ET-Parrot 150	ET	230V/50Hz	50-150	1-4	1-4	1-4	1-4	1-4	1-4	
OSRAM		HTL 10920-240	HT	230-240, 50-60Hz	35-105W	1-4	1-4	1-4	1-3	2-4	1-4	
OSRAM		HTL 22920-240	HT	230-240, 50-60Hz	50-225W	1-4	1-4	1-4	1-4	3-4	1-4	
OSRAM		DT 30220-240P	DT	230V/50Hz	30	1-2	1-2	1-2	1-2	1-4	1-4	
OSRAM		DT 60220-240P	DT	230V/50Hz	60	1-4	1-3	1-3	1-3	1-4	1-4	

Information about the OSRAM lamp type

Assessment of the results into categories. Includes the number of lamps.

# TRANSFORMATOR KOMPATIBILITÄT MR16

## BASISINFORMATIONEN:

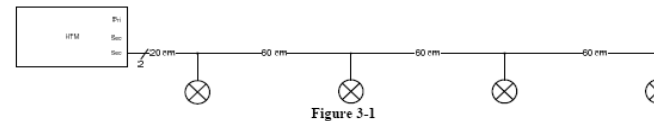
### 1. WAS IST DER PRODUKTCODE UND WO FINDE ICH IHN?

Der Produktcode beschreibt den Lampentyp. Er besteht aus sieben Buchstaben und Ziffern und beginnt mit einem "A". Nachfolgend ein Beispiel eines Produktcodes auf dem Aufdruck der Lampe.

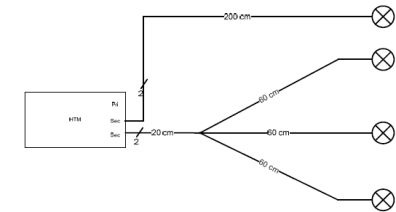


220-240V **AC01770** 2700K  
13 W 50/60 Hz 27 mA  
Made in Germany XXX-XXXX

Reihenschaltung



Parallelschaltung



### 2. WIE VIELE LAMPEN KANN ICH AN EINEN ELEKTRISCHEN TRANSFORMATOR ANSCHLIEßEN?

Die max. Anzahl an Lampen, die Sie an einen elektrischen Transformator anschließen können, ergibt sich aus der folgenden Faustregel:  
(Bitte beachten Sie: die tatsächliche Anzahl kann vom berechneten Ergebnis abweichen)

$$\text{Max. Anzahl von Lampen} = \frac{\text{Max. Last des elektrischen Transformators}}{\text{Äquivalente Wattage (HAL/GLS)}}$$

### 3. WIE LESE ICH DIE FOLGENDEN TABELLEN?

Legende: Angaben zur Kompatibilität der Lampen. Grün bedeutet eine sehr gute Eigenschaft mit der angegebenen Lampenanzahl, gelb eingeschränkte Eigenschaften und rot bedeutet eine teilweise kritische Kompatibilität.










Liste der getesteten Transformatoren

Legend					PARATHOM PRO						
					AR111 50	AR111 75	AR111 100	AR111 GLEN-dim	PARATHOM DIM MR111 20	PARATHOM MR111 20 non-dim	PARATHOM MR111 35 non-dim
Very good compatibility with indicated number of lamps					[Green background]						
Good compatibility with indicated number of lamps					[Yellow background]						
Not tested					[White background]						
ELECTRIC TRANSFORMERS					Number of Lamps on ET						
Band	Model	Type	Voltage	Wattage	Number of Lamps on ET						
					ET	ET	ET	ET	ET	ET	ET
Series Circuit	OSRAM HTM 70230-240	HT	230-240, 50-60Hz	20-70W	1-3	1-4	1-4	1-2	1-4	1-4	1-4
	OSRAM HTM 105230-240	HT	230-240, 50-60Hz	35-105W	1-3	1-4	1-4	1-3	1-4	1-4	
	OSRAM ET-Parrot 70220-240	ET	230-240, 50-60Hz	20-70W	1-3	1-4	1-4	1-3	1-4	1-4	
	OSRAM HTM 105230-240	HT	230-240, 50-60Hz	50-105W	1-4	1-4	1-4	1-3	2-4	1-4	
	OSRAM HTN 79230-240	HT	230-240, 50-60Hz	20-75W	1-3	1-4	1-4	1-2	1-4	1-4	
	OSRAM ET-Parrot 105220-240	ET	230-240, 50-60Hz	35-105W	1-3	1-4	1-4	1-2	1-4	1-2	
	OSRAM ET-Parrot 80	ET	230V/50Hz	50-150	1-4	1-4	1-4	1-4	1-4	1-4	
	OSRAM HTL 105230-240	HT	230-240, 50-60Hz	35-105W	1-4	1-4	1-4	1-3	2-4	1-4	
	OSRAM HTL 225230-240	HT	230-240, 50-60Hz	50-225W	1-4	1-4	1-4	1-4	3-4	1-4	
	OSRAM OT 30220-240P	OT	230V/50Hz	30	1-2	1-2	1-2	1-2	1-4	1-4	
OSRAM OT 60220-240P	OT	230V/50Hz	60	1-4	1-3	1-3	1-3	1-4	1-4		
Parallel Circuit	OSRAM HTM 70230-240	HT	230-240, 50-60Hz	20-70W	1-3	1-4	1-4	1-2	1-4	1-4	
	OSRAM HTM 105230-240	HT	230-240, 50-60Hz	35-105W	1-3	1-4	1-4	1-3	1-4	1-4	
	OSRAM ET-Parrot 70220-240	ET	230-240, 50-60Hz	20-70W	1-3	1-4	1-4	1-3	1-4	1-4	
	OSRAM HTM 105230-240	HT	230-240, 50-60Hz	50-105W	1-4	1-4	1-4	1-4	1-4	1-4	
	OSRAM HTN 79230-240	HT	230-240, 50-60Hz	20-75W	1-3	1-4	1-4	1-2	1-4	1-4	
	OSRAM ET-Parrot 105220-240	ET	230-240, 50-60Hz	35-105W	1-3	1-4	1-4	1-2	1-4	1-2	
	OSRAM ET-Parrot 80	ET	230V/50Hz	50-150	1-4	1-4	1-4	1-4	1-4	1-4	
	OSRAM HTL 105230-240	HT	230-240, 50-60Hz	35-105W	1-4	1-4	1-4	1-3	2-4	1-4	
	OSRAM HTL 225230-240	HT	230-240, 50-60Hz	50-225W	1-4	1-4	1-4	1-4	3-4	1-4	
	OSRAM OT 30220-240P	OT	230V/50Hz	30	1-2	1-2	1-2	1-2	1-4	1-4	
OSRAM OT 60220-240P	OT	230V/50Hz	60	1-4	1-3	1-3	1-3	1-4	1-4		










Angaben zum OSRAM Lampentyp

Bewertung der Testergebnisse in Ampel Kategorien. Beinhaltet die Lampenanzahl für die angegebene Ampel Kategorie.

## ELECTRIC TRANSFORMER COMPATIBILITY MR16

Legend					PARATHOM PRO MR16 20 36°	PARATHOM PRO MR16 35 36°	PARATHOM PRO MR16 43 36°	PARATHOM DIM MR16 20 36°	PARATHOM DIM MR16 35 36°	PARATHOM DIM MR16 50 36°	PARATHOM MR 16 20 NON DIM	PARATHOM MR 16 35 NON DIM	PARATHOM MR 16 50 NON DIM
Very good compatibility with indicated number of lamps													
Good compatibility with indicated number of lamps					EAN / Basic Code	EAN / Basic Code	EAN / Basic Code	EAN / Basic Code	EAN / Basic Code	EAN / Basic Code	EAN / Basic Code	EAN / Basic Code	EAN / Basic Code
Undesired compatibility					4058075431652 / AC23618 4058075431638 / AC23619 4058075431614 / AC23620	4058075449589 / AC24585 4058075449565 / AC24586 4058075449541 / AC24587	4058075449527 / AC24588 4058075449503 / AC24589 4058075449480 / AC24590	4058075431577 / AC23622 4058075431553 / AC23623 4058075431539 / AC23624	4058075431492 / AC23625 4058075431478 / AC23626 4058075431430 / AC23627	4058075449466 / AC24591 4058075449442 / AC24592 4058075449428 / AC24593	4058075431379 / AC23628 4058075431355 / AC23629 4058075431317 / AC23630	4058075431256 / AC23631 4058075431218 / AC23632 4058075431157 / AC23633	4058075449404 / AC24594 4058075449381 / AC24595 4058075449367 / AC24596
Not tested													
Electric Transformers					Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET
Brand	Model	Type	Voltage	Wattage									
OSRAM	HTM 70/230-240	ET	230-240, 50-60Hz	20-70W	1-6	1-4	1-4	1-6	1-6	1-4	1-6	1-2 & 4-6	1-4
OSRAM	HTM 105/230-240	ET	230-240, 50-60Hz	35-105W	1-6	1-4	1-4	2-6	2-6	1-4	1-6	1-6	1-4
OSRAM	ET-Parrot 70/220-240 I	ET APAC	220-240, 50-60Hz	20-70W		1-4	1-4			1-4			1-4
OSRAM	ET-A 60/220-240	ET APAC	220-240, 50-60Hz	20-60W		1-4	1-4			1-4			1-4
OSRAM	ET-L 30/220-240	ET APAC	220-240, 50-60Hz	2-30W		1-3	1-3			1-3			1-3
OSRAM	HTB 70/220-240	ET	220-240, 50-60Hz	20-70W	1-6	1-4	1-4	1-6	1-6	1-4	1-6	1-6	1-4
OSRAM	HALOTRNIC HTN75/230-240 I	ET	230-240, 50-60Hz	20-75W	1-6	1-4	1-4	1-6	1-6	1-4	1-6	5	1-4
OSRAM	HTM 150/230-240	ET	230-240, 50-60Hz	50-150W	2-6	2-4	2-4	4-6	2-6	2-4	1-6	1-6	2-4
OSRAM	HTL105/230-240	ET	230-240, 50-60Hz	35-105W	3-6	3-4	3-4	5-6	2-6	3-4	1-6	1-6	3-4
OSRAM	IZ-A50/240	ET India	240,50-60Hz	50W		1-4	1-4			1-4			1-4
OSRAM	IZ-HALD50/220-240	ET APAC	220-240, 50-60Hz	20-50W		1-4	1-4			1-4			1-4
OSRAM	HTB 105/220-240	ET	220-240, 50-60Hz	35-105W	1-6	1-4	1-4	1-6	1-6	1-4	1-3	1-6	1-4
OSRAM	ET-Parrot 150/220-240 I	ET	220-240, 50-60Hz	50-150W		2-4	2-4	2-6	2-6	2-4	1-6	1-6	2-4
OSRAM	ET-ZE 60/220-240	ET	220-240, 50-60Hz	20-60W	1-6	1-4	1-4	1-6	1-6	1-4	1-6	1-6	1-4
OSRAM	HTL225	ET	220-240,50-60Hz	50-225W	3-6	3-4	3-4	5-6	4-6	3-4	3-6	1-6	3-4
OSRAM	OT 15/220-240/12 P	OT	220-240,50-60Hz	15W	1-2	1-2	1-2	1-2	1-2	1-2	1-6	1-5	1-2
OSRAM	OT 30/220-240/12 P	OT	220-240,50-60Hz	30W	1-4	1-3	1-3	1-4	1-4	1-3	1-6	1-6	1-3
OSRAM	OT 60/220-240/12 P	OT	220-240,50-60Hz	60W	1-6	1-4	1-4	1-6	1-6	1-4	1-6	1-6	1-4
SLV	461060	ET	230,50-60Hz	10-60W	1-6	1-4	1-4	1-6	1-6	1-4	1-6	1-6	1-4

## ELECTRIC TRANSFORMER COMPATIBILITY MR16

Legend					PARATHOM PRO MR16 20 36°	PARATHOM PRO MR16 35 36°	PARATHOM PRO MR16 43 36°	PARATHOM DIM MR16 20 36°	PARATHOM DIM MR16 35 36°	PARATHOM DIM MR16 50 36°	PARATHOM MR 16 20 NON DIM	PARATHOM MR 16 35 NON DIM	PARATHOM MR 16 50 NON DIM
Very good compatibility with indicated number of lamps													
Good compatibility with indicated number of lamps					EAN / Basic Code	EAN / Basic Code	EAN / Basic Code	EAN / Basic Code	EAN / Basic Code	EAN / Basic Code	EAN / Basic Code	EAN / Basic Code	EAN / Basic Code
Undesired compatibility					4058075431652 / AC23618 4058075431638 / AC23619 4058075431614 / AC23620	4058075449589 / AC24585 4058075449565 / AC24586 4058075449541 / AC24587	4058075449527 / AC24588 4058075449503 / AC24589 4058075449480 / AC24590	4058075431577 / AC23622 4058075431553 / AC23623 4058075431539 / AC23624	4058075431492 / AC23625 4058075431478 / AC23626 4058075431430 / AC23627	4058075449466 / AC24591 4058075449442 / AC24592 4058075449428 / AC24593	4058075431379 / AC23628 4058075431355 / AC23629 4058075431317 / AC23630	4058075431256 / AC23631 4058075431218 / AC23632 4058075431157 / AC23633	4058075449404 / AC24594 4058075449381 / AC24595 4058075449367 / AC24596
Not tested													
Electric Transformers					Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET	Number of Lamps on ET
Brand	Model	Type	Voltage	Wattage									
BLOCK	HES 70K	ET	230-240,50-60Hz	20-70W	1-6		1-4	1-6	1-6	1-4	1-6	1-6	1-4
BLOCK	HES 105K	ET	230-240,50-60Hz	35-105W	1-6	1-4		2-6	1-6		1-6	6	
EVN	TAB 70 (3310)	ET	230,50-60Hz	20-70W	2-6	1-4	1-4	2-6	1-6	1-4	1-6	1-6	1-4
EVN	MINIJOKER 70(T27/10)	ET	230-240,50-60Hz	10-60W	1-6	1-4	2-4	1-6	1-6	2-4	1-6	1-6	2-4
EVN	CLOU 60(T41/09)	ET	230-240,50-60Hz	10-70W	3-6	2-4	1-4	1-6	1-6	1-4	1-6	1-6	1-4
Berker	Igel 20-105w 2921	ET	230-240,50-60Hz	20-105W	2-6	1-4	1-4	3-6	1-6	1-4	1-6	4-6	1-4
Berker	SNT 70/QU 2918	ET	230,50-60Hz	20-70W	3-6	1-4	1-4	5-6	2-6	1-4	2-6	2-6	1-4
Berker	SNTF II 35-105W 2927	ET	230,50-60Hz	35-105W	4-6	2-4	2-4	4-6	3-6	2-4	5-6	2-6	2-4
TCI	SHARK60	EU	220-240,50-60Hz	10-60W	2-6			1-6	2-6		1	1-6	
TCI	PUMA 105	EU	230-240,50-60Hz	20-105W	2-6			2-6	1-6		2	1-6	
TCI	ROUND 70	EU	230,50-60Hz	20-70W	2-6			2-6	1-6		1-6	1-6	
TCI	MW70 LED	ET	220-240,50-60Hz	10-60W		1-4	1-4			1-4			1-4
Paulmann	Disc electronic S 70	ET	230,50-60Hz	20-70W	3-6			5-6	2-6		1-6	1-6	
Paulmann	Profi 80	ET	220-240,50Hz	20-80W	3-6	2-4	2-4	4-6	2-6	2-4	1-6	2-6	2-4
Paulmann	Mipro 70	ET	230,50-60Hz	20-70W	2-6	2-4	2-4	3-6	2-6	2-4	5-6	3-6	2-4
JUNG	SNT 70 F	ET	230,50-60Hz	20-70W	2-6	1-4	1-4	2-6	2-6	1-4	1-6	1-6	1-4
JUNG	SNT 105 F	ET	230,50-60Hz	20-105W	3-6	1-4	1-4	4-6	2-6	1-4	1-6	1-6	1-4
nobile	EN-80F	ET	230,50-60Hz	20-80W	1 & 3-6	3-4	3-4	3-6	1-6	3-4	1-6	1-6	3-4
nobile	EN-60D2	ET	230,50-60Hz	20-60W	2-6	3-4	3-4	2-6	2-6	3-4	1-6	1-6	3-4
FN LIGHT	TL105S 20-105W 461107	ET	230-240,50-60Hz	20-105W	1-6	1-4	1-4	1-6	1-6	1-4	1-6	1-6	1-4
goodbay	SET110LV(35-110W)	ET	220-240,50Hz	35-110W	2-6	1-4	1-4	3-6	2-6	1-4	2-3	2-6	1-4
PHILIPS	Primaline 70 230-240	ET	230-240,50-60Hz	20-70W	2-6	3-4	3-4	3-6	2-6	3-4	1-3 & 5-6	1-4	3-4
abi	SET210(50-210VA) AL50476	ET	220-240V, 50Hz	50-210VA	1-6	1-4	1-4	3-6	1-6	1-4	1-6	1-6	1-4

**Please Note:**

- The compatibility list is based upon testing conducted by the manufacturer in a lab simulated environment, and the results can vary in certain field applications due to a number of factors. OSRAM does not take over any responsibility, warranty or liability that this results can also achieved by using the devices under other conditions, or when using successor models of the tested devices, or different models of the same manufacturer, or when using other LED lamp types
- The absence of a dimmer from this chart does not necessarily imply incompatibility.
- Please reference the dimmer manufacturer's instructions for installation.
- LED lamps contain several electronic components. Under unfavourable conditions these can lead to acoustic noise. In case of resonance even low noise can cause audible effect. Possible factors influencing this are the installation, the design of the lamp holder and the luminaire (acoustic resonance effect) as well as the dimmer or the transformer (harmonics or electronic resonance).
- Subject to change without notice
- Errors and omission excepted
- Always make sure to use the most recent release

**Bitte beachten:**

- Die Kompatibilitätsliste basiert auf Tests, die der Hersteller in einer im Labor simulierten Umgebung durchgeführt hat. Die Ergebnisse können aufgrund verschiedener Faktoren in manchen Praxisanwendungen abweichen. OSRAM übernimmt keinerlei Verantwortung, Garantie oder Haftung dafür, dass diese Ergebnisse tatsächlich mit den Geräten unter anderen Bedingungen, mit Nachfolgemodellen der getesteten Geräte, mit anderen Modellen desselben Herstellers oder bei Verwendung anderer LED-Lampentypen erreicht werden.
- Das Fehlen eines Dimmers in der Abbildung bedeutet nicht, dass ein Dimmer nicht kompatibel ist.
- Lesen Sie stets die Installationsanweisungen des Dimmerherstellers.
- LED-Lampen bestehen aus mehreren elektronischen Komponenten. Unter ungünstigen Bedingungen können diese Störgeräusche erzeugen. Im Resonanzfall können selbst geringe Geräusche einen hörbaren Effekt hervorrufen. Einflussfaktoren können die Installation, die Gestaltung des Lampenträgers, die Leuchte (akustischer Resonanzeffekt), der Dimmer oder der Trafo (Oberschwingungen oder elektronische Resonanz) sein.
- Änderungen vorbehalten.
- Irrtümer und Auslassungen vorbehalten.
- Vergewissern Sie sich, dass Sie stets die aktuellste Version benutzen.

**LEDVANCE GmbH**

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