

## Product Datasheet:

### ELEMENT 40/220-240/1A0 CS T S Black (Korea version)

900mA-1050mA

#### Product Description

- Compact size for miniaturized track light luminaire design
- Suitable for 1 circuit system
- Easy current selection via dip switches
- 30.000h lifetime
- Black color available
- Low ripple



#### Product Benefits

- High light of quality with low ripple current
- High flexibility from 2 different output currents
- Small housing compatible to popular track systems in black

#### Applications

- Shop
- Retail
- Public building

#### Approval Marks

# CB

#### Product Features

- |   |   |
|---|---|
| – Output currents: 900/1050mA           | – 30'000 h lifetime at $t_{cmax} = 75^{\circ}C$               |
| – Output voltage: $30V_{DC} - 42V_{DC}$ | – Fixed Output (i.e. no dimming)                              |
| – Output power: 27W – 44.1W             | – Typ. Efficiency: 88%  |
| – Input voltage : 220 – 240 $V_{AC}$    | – SELV  |
| – Suitable for class II luminaires      | – Ambient temp range, $t_a$ : $-20^{\circ}C$ to $+35^{\circ}$ |

#### Electrical Specifications

	Item	Value	Unit	Remarks
Input	Nominal voltage	220-240	VAC	
	Nominal frequency	50 / 60	Hz	
	AC voltage	198 – 264	VAC	Safety voltage range
	Max voltage	300	VA	2 hrs
	Nominal current	276	mA	230V
	THD	<20	%	Full load, 230V, 50 Hz
	Power factor	0.95		Full load, 230V, 50 Hz
	Efficiency	88	%	Full load, 230V, 50 Hz, typical
	No-load power	n/a		Load switching on output side is not permitted
	Power loss	6	W	at 230V, Input power 50,1 W max.
	Protection class	NA		Suitable for class II luminaires
	Inrush current	14.88	A	twidth = 200 µs typical (measured at 50% I <sub>peak</sub> )
	Max units per circuit breaker	B10: 30; B16: 48 C10: 50; C16: 80; B25: 75; C25: 126;		
	Leakage current	<0.7	mA	Output floating
Output	Nominal voltage range	30-42	VDC	Refer to Table 1 for details
	Max voltage	60	VDC	Open circuit
	Nominal current	900/1050	mA	
	Current accuracy	+/- 7.5	%	
	Current ripple	<=3	%	(I <sub>max</sub> -I <sub>min</sub> ) / (I <sub>max</sub> +I <sub>min</sub> ) @ 100 Hz
	Pst LM	≤ 1		
	SVM	≤ 0.4		
	Nominal power range	27-44.1	W	Partial Load.
	Max power	44.1	W	T <sub>a</sub> ≤ 35°C
	Galvanic isolation	SELV		Output to mains - Touch current < 0.7 mA
Dimming	Dimming control	n/a		Not dimmable
	Dimming range	n/a	%	
	Dimming technique	n/a		
	Frequency	n/a	Hz	
	Galvanic isolation	n/a		
Environment	Ambient temperature range t <sub>a</sub>	-20...+35	°C	Refer to Table 1 for details
	Maximum case temperature t <sub>c</sub>	75	°C	Measured on t <sub>c</sub> point indicated of the 2D drawing
	Max. case temp. in fault condition	110	°C	
	Storage temperature range	-20...+80	°C	Cool down before operating
	Relative humidity	5...85	%	Not condensing
	Surge transient protection	1 / 2	kV	L/N; LN/PE acc. IEC 61547
	Environmental rating	Indoor		
	IP rating	IP20		
	Mains switching cycles	> 100.000		
	Expected lifetime	30.000	hours	T <sub>c</sub> max = 75°C, 10% failure rate
Protections	Over temperature	Yes		Automatic, reversible
	Over load	Yes		Automatic, reversible
	No load	Yes		Limitation of Output voltage < 60V
	Short-circuit	Yes		Automatic, reversible
	Output overvoltage	Yes		Limitation of Output voltage < 60V

## Wiring Diagram

Terminal: Push in terminals

Weight: 110g

Wire preparation:

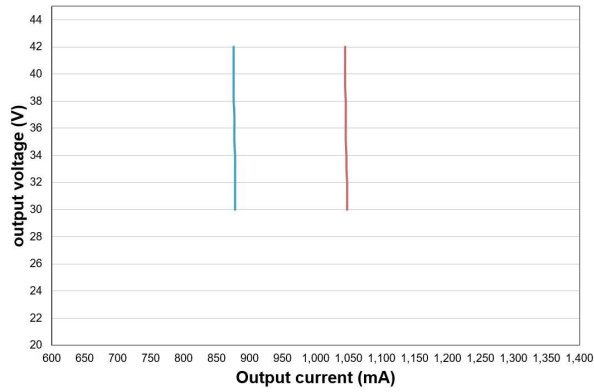
Push in

s: 0.5-1.5

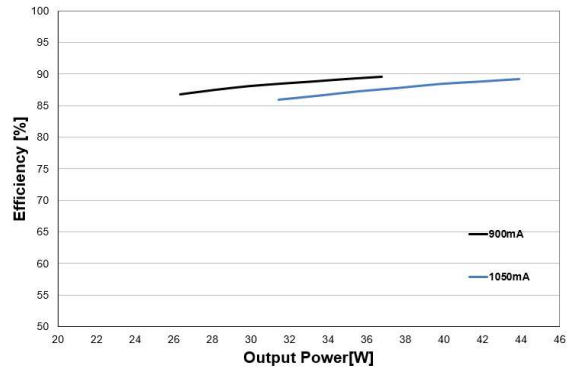
f: 0.75-1.5



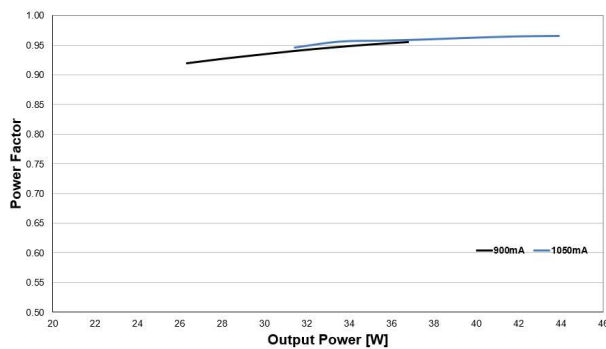
## Typical Operating window



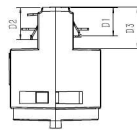
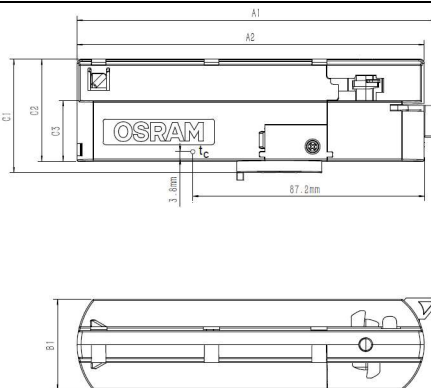
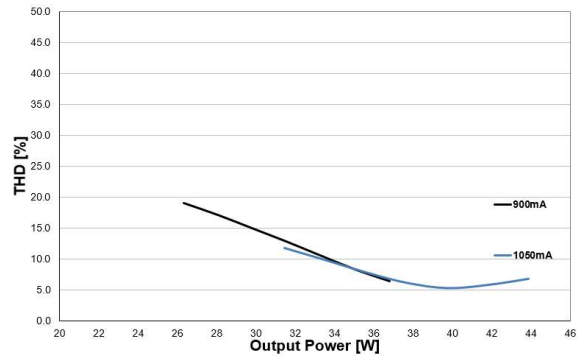
## Typical Efficiency VS load



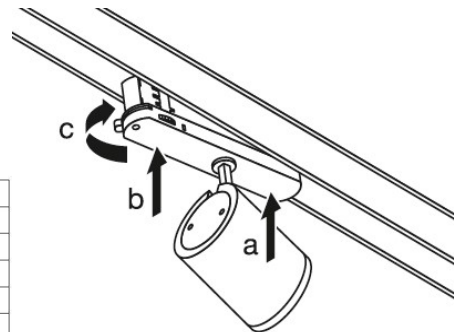
## Typical Power factor VS load



## Typical THD VS load



Data Sheet	
Item	Dimension
A1	135.2 ± 1.5 mm
A2	130.6 ± 1 mm
B1	34 ± 1 mm
C1	42.6 ± 0.5 mm
C2	38.3 ± 0.5 mm
C3	22.8 ± 0.5 mm
D1	10.8 ± 0.5 mm
D2	12.2 ± 0.5 mm
D3	15.5 ± 0.5 mm



Minimum distance between two drivers in the track system is 25cm

Table 1:

<b>I<sub>out</sub> (mA)</b>	<b>900</b>	<b>1050</b>
<b>U<sub>min</sub> [V]</b>	30	30
<b>U<sub>max</sub> [V]</b>	42	42
<b>P<sub>min</sub> [W]</b>	27	31.5
<b>P<sub>max</sub> [W]</b>	37.8	44.1
<b>T<sub>a</sub> [°C]</b>	35	35
<b>T<sub>c</sub> [°C]</b>	75	75
<b>Line Current, nominal @230V [mA]</b>	236	276
<b>Max Power Loss @230V [W]</b>	5.16	6
<b>Input Power @230V [W]</b>	42.96	50.11

<b>SW</b>	<b>I<sub>rated</sub>(mA)</b>
ON	1050
OFF	900

Current selection by DIP-switch

- Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs.
- Indication that the lamp controlgear relies upon the luminaire enclosure for protection against accidental contact with live parts.
- The max. mechanical loading F<sub>max</sub> for the track driver mounted on the ceiling is 50N, which should be intended as the whole system inclusive of the weight of luminaires and accessories.
- The max. mechanical loading F<sub>max</sub> for the track driver mounted on the wall is 25N, which should be intended as the whole system inclusive of the weight of luminaires and accessories.

### Standards

Safety: IEC 61347-1, IEC 61347-2-13

Performance: IEC 62384

Radio interference: CISPR 15

Harmonic content: IEC 61000-3-2

Immunity: IEC 61000-3-3

<b>Product name</b>	<b>EAN10</b>	<b>EAN40</b>	<b>Pieces / box</b>
ELEMENT 40/220-240/1A0 CS T S B			

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