



## FEATURES

- Independent driver
- Up to 89 % efficiency
- Nominal life-time up to 35,000 h under insulation coverage @25°C
- Suitable for LED lighting

## HOUSING PROPERTIES

- Housing: plastic, white
- Type of protection IP20

## INTERFACES

- Terminal blocks: push terminals

## FUNCTIONS

- Protective features (over temperature, short-circuit, overload, no-load, reduced surge amplification)

## WARRANTY

- Five years (subject to terms and conditions)

CERTIFICATION	IP RATING	DIMENSIONS(mm)

### Specific technical data

Order code	Part no.	Type	Output current setting	PIN1	PIN2	Output current ④	Min. forward voltage	Max. forward voltage	Max. output power	Typ. power consumption (at 230V, 50Hz, full load)②④	Typ. current consumption (at 230 V, 50 Hz, full load) ②
2221	2221	ECD40 WCC065 0-0950 ECO4+		OFF	OFF	650 mA	30 V	39 V	25.4 W	29 W	140 mA
				ON	OFF	750 mA	30 V	39 V	29.3 W	33 W	155 mA
				OFF	ON	850 mA	30 V	39 V	33.0 W	37 W	170 mA
				ON	ON	950 mA	30 V	39 V	37.0 W	42 W	190 mA

**Technical data**

Rated supply voltage <sup>①</sup>	220 – 240 V
AC voltage range	198 – 264 V
DC voltage range	198 – 278 V
Mains frequency	0 / 50 / 60 Hz
Overvoltage protection	350 Vac, 2 h
Voltage range for temporary operation (Dt = 0.5 h)	176 - 198 Vdc
Typ. input current (at 230 V, 50 Hz, full load) <sup>②</sup>	190 mA
Typ. input current (at 230 V, 0 Hz, full load) <sup>②</sup>	180 mA
Leakage current (at 230 V, 50 Hz, full load) <sup>②</sup>	≤ 0.5 mA
Max. input power	42 W
Typ. efficiency (at 230 V, 50 Hz, full load) <sup>②③</sup>	89 %
$\lambda$ (at 230 V, 50 Hz, full load)	> 0.9
Typ. input current in no-load operation	< 40 mA
Typ. input power in no-load operation	< 0.5 W
THD (at 230 V, 50 Hz, full load) <sup>②</sup>	< 25 %
Time to light (at 230 V, 50 Hz, full load)	< 0.5 s
Time to light (DC mode)	< 0.5 s
Switchover time (AC/DC)	< 0.5 s
Turn off time (at 230 V, 50 Hz, full load)	< 20 ms
Output current tolerance <sup>③</sup>	± 6 %
Max. output current peak (non-repetitive)	≤ 1.1 output current
Output LF current ripple (< 120 Hz)	± 5 %
Max. output voltage (no-load voltage)	55 V
Mains surge capability (between L - N)	1 kV
Surge voltage at output side (against PE)	500 V
Dimensions L x W x H	176 x 42.5 x 32 mm
Ambient temperature $t_a$	-20 ... +40 °C
Admissible temperature range for storage	-40 ... +50°C
Admissible humidity range for storage	5 ... 85%
EOFI	0.95

**Note:**

- ① Hot plug is not allowed.
- ② At max. forward voltage.
- ③ Depending on the selected LED lamp, the voltage of the LED lamp is 36V.
- ④ Output current is mean value.
- ⑤ Input voltage 230V.



**Wiring and connection**

Input wire cross-section	1.5 - 2.5 mm <sup>2</sup>
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**Package data**

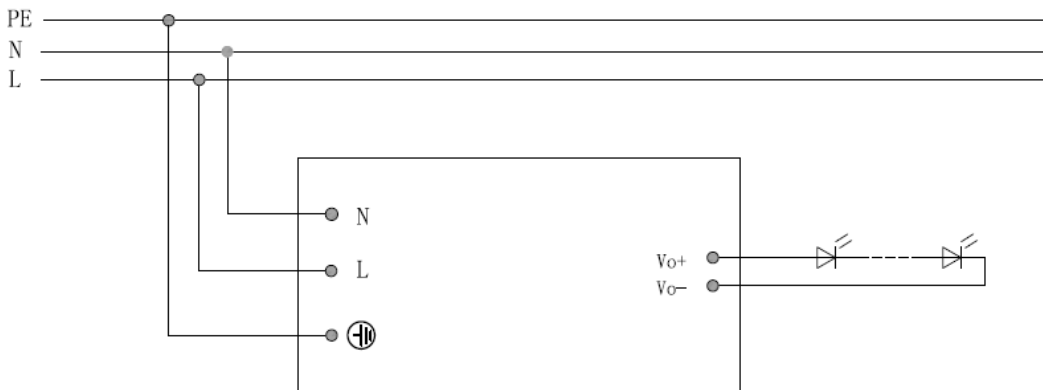
Drivers/carton	Drivers/pallet (Max.1.1m)	Unit carton weight
40 pcs	1760 pcs	6.59 kg

**Standards**

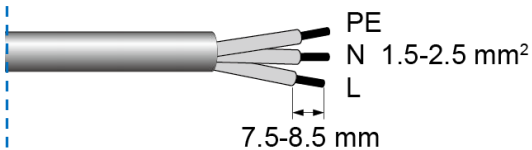
AS/NZS CISPR 15 , AS/NZS 61000-3-2, AS/NZS 61000-3-3, AS/NZS 61347-1, AS/NZS 61347-2-13, AS/NZS 62384, AS/NZS 61547,  
Acc. to AS/NZS 50172, Acc. to AS/NZS 60598-2-22

**Installation and wiring Instruction**

**Installation circuit diagram**



**Wiring type and cross section**



**Mains supply wires:**

Stranded wire or solid wire from 1.5 to 2.5mm<sup>2</sup> may be used for wiring.

Strip 7.5–8.5mm of insulation from the cables to ensure perfect operation of the push terminals.

Use one wire for each terminal connector only.

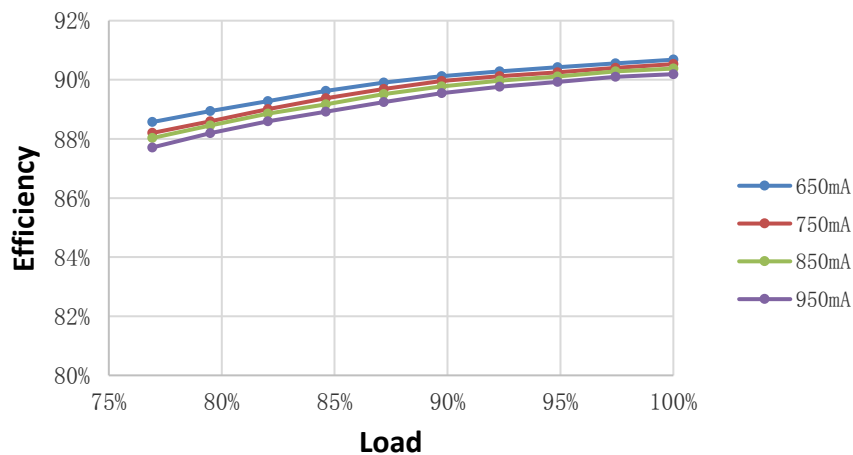


### Inrush current

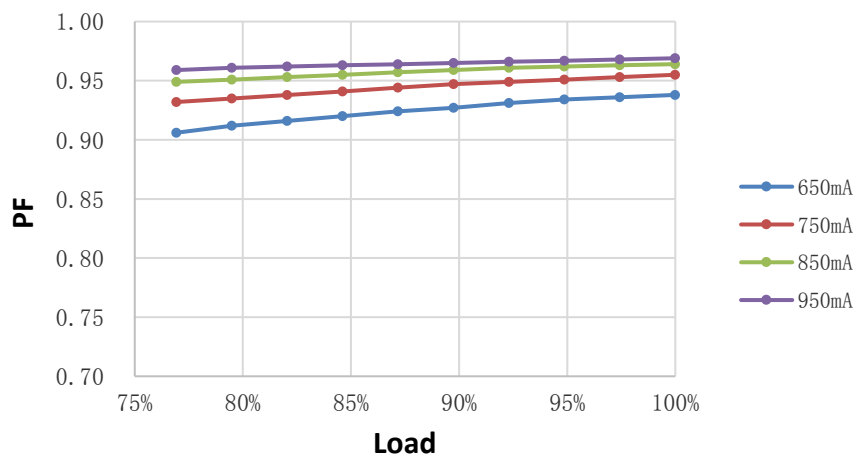
Type	I peak <sup>⑤</sup>	Duration T <sub>width</sub> <sup>⑤</sup>	Number on single-pole power circuit breakers (CB)				Inrush current profile	
			CB-type	10 A	13 A	16 A		20 A
ECD40WCC0650-0950 ECO4+	38.8 A	100 μs	B	14 pcs	19 pcs	23 pcs	29 pcs	
			C	24 pcs	31 pcs	39 pcs	48 pcs	
Installation Ø				1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	

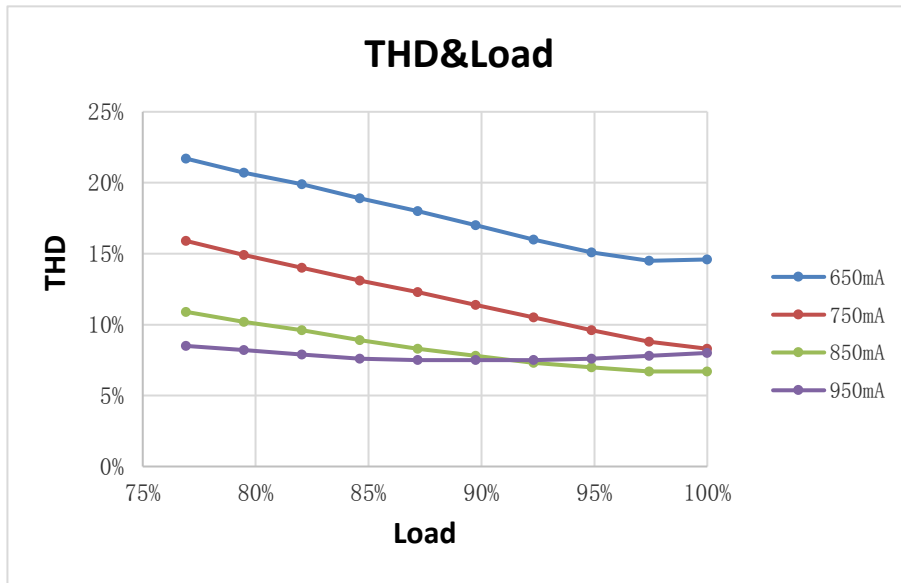
### Electrical values

#### Efficiency&Load



#### PF&Load

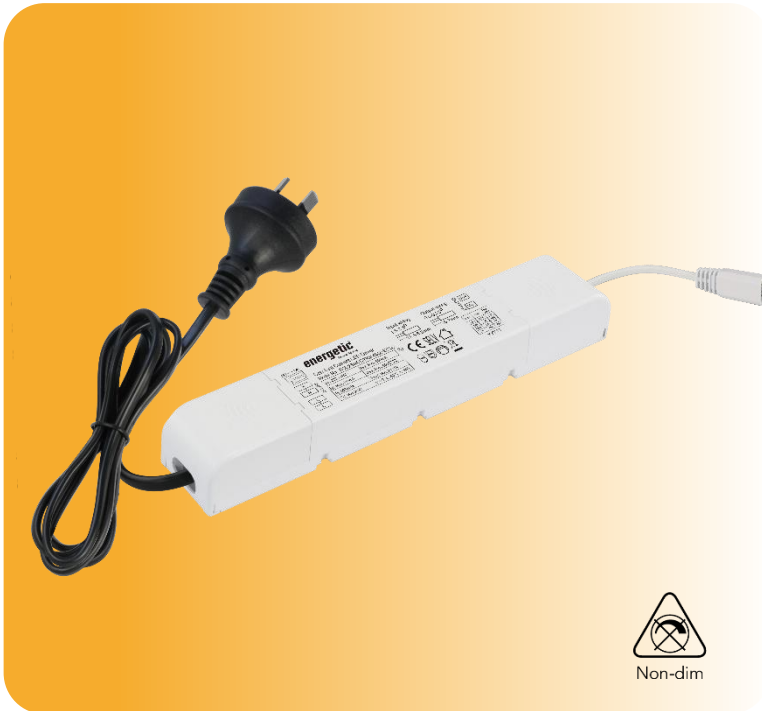




Expected Life-time			
Type	Ta	40 °C	50 °C
ECD40WCC0650-0950 ECO4+	Tc <sup>⑥</sup>	65 °C	75 °C
	Life-time	50000 h	35000 h
Note: ⑥ Test result at 36V Output voltage.			

The LED Drivers are designed for a life-time stated above under reference conditions and with a failure probability of less than 10 %.





### FEATURES

- Independent driver
- Up to 87 % efficiency
- Nominal life-time up to 50,000 h
- Suitable for LED lighting

### HOUSING PROPERTIES

- Housing: polycarbonate, white
- Type of protection IP20

### INTERFACES


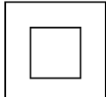
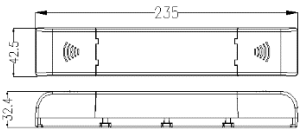
- Terminal blocks: push terminals

### FUNCTIONS


- Protective features (over temperature, short-circuit, overload, no-load, reduced surge amplification)

### WARRANTY

- Five years (subject to terms and conditions)

CERTIFICATION	IP RATING	DIMENSIONS(mm)
		

### Specific technical data

Order code	Part No.	Model No.	Output current setting	PIN1	PIN2	Output current ④	Min. forward voltage	Max. forward voltage	Max. output power	Typ. power consumption (at 230V, 50Hz, full load)②④	Typ. current consumption (at 230 V, 50 Hz, full load) ②
2222	2222	ECD23WC C0300- 0550 ECO2		OFF	OFF	300 mA	30 V	42 V	12.6 W	14 W	70 mA
				ON	OFF	350 mA	30 V	42 V	14.7 W	17 W	80 mA
				OFF	ON	450 mA	30 V	42 V	18.9 W	22 W	100 mA
				ON	ON	550 mA	30 V	42 V	23.1 W	26 W	120 mA

### Technical data

Rated supply voltage <sup>①</sup>	220 – 240 V
AC voltage range	198 – 264 V
Mains frequency	50 / 60 Hz
Overvoltage protection	350 Vac, 2 h
Typ. input current (at 230 V, 50 Hz, full load) <sup>②</sup>	120 mA
Leakage current (at 230 V, 50 Hz, full load) <sup>②</sup>	≤ 0.5 mA
Max. input power	26 W
Typ. efficiency (at 230 V, 50 Hz, full load) <sup>②③</sup>	87 %
$\lambda$ (at 230 V, 50 Hz, full load)	> 0.9
Typ. input current in no-load operation	< 50 mA
Typ. input power in no-load operation	< 0.5 W
THD (at 230 V, 50 Hz, full load) <sup>②</sup>	< 30 %
Time to light (at 230 V, 50 Hz, full load)	< 0.5 s
Turn off time (at 230 V, 50 Hz, full load)	< 20 ms
Output current tolerance <sup>③</sup>	± 10 %
Max. output current peak (non-repetitive)	≤ 1.1 output current
Output LF current ripple (< 120 Hz)	± 5 %
Max. output voltage (no-load voltage)	55 V
Mains surge capability (between L - N)	1 kV
Surge voltage at output side (against PE)	500 V
Dimensions L x W x H	235 x 42.5 x 32.4 mm
Max Tc point	70 °C
Ambient temperature $t_a$	-20 ... +40 °C
Admissible temperature range for storage	-40 ... +50 °C
Admissible humidity range for storage	5 ~ 85 %

**Note:**

- ① Hot plug is not allowed.
- ② At max. forward voltage.
- ③ Depending on the selected LED lamp, the voltage of the LED lamp is 36V.
- ④ Output current is mean value.
- ⑤ Input voltage 230V.

### Wiring and connection

Input wire cross-section	1.5 - 2.5 mm <sup>2</sup>
Output wire cross-section	0.5 – 0.75 mm <sup>2</sup>
Maximum allowable current to the terminal	16 A

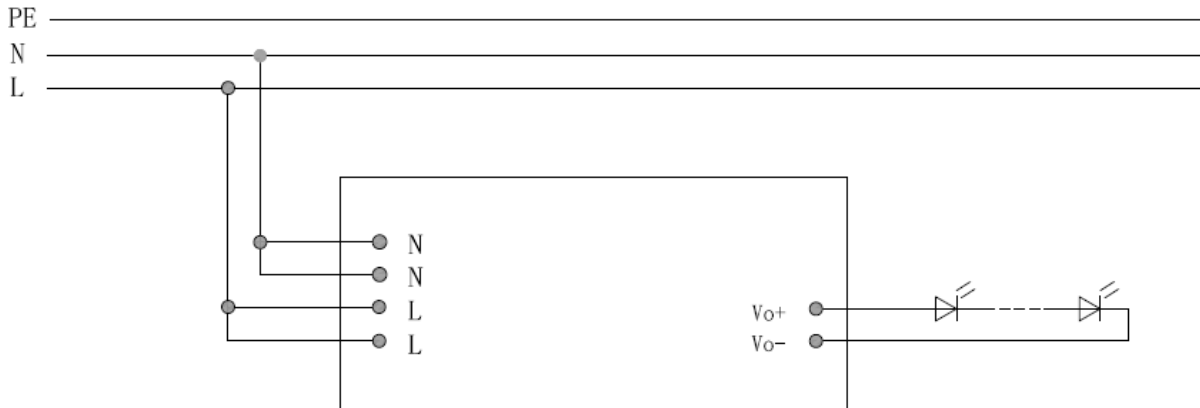
### Standards

AS/NZS CISPR 15 , AS/NZS 61000-3-2, AS/NZS 61000-3-3, AS/NZS 61347-1, AS/NZS 61347-2-13, AS/NZS 62384, AS/NZS 61547, Acc. to AS/NZS 50172, Acc. to AS/NZS 60598-2-22

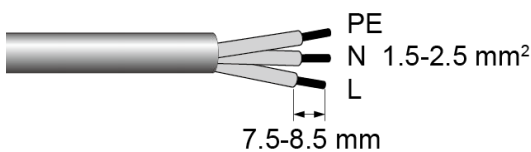


### Installation and wiring Instruction

#### Installation circuit diagram



#### Wiring type and cross section

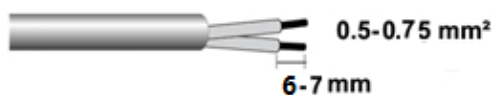


##### Mains supply wires:

Stranded wire or solid wire from 1.5 to 2.5mm<sup>2</sup> may be used for wiring.

Strip 7.5–8.5mm of insulation from the cables to ensure perfect operation of the push terminals.

Use one wire for each terminal connector only.



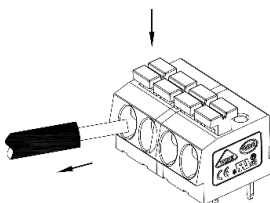
##### Secondary wires (LED module):

The wiring can be in stranded wires with ferrules or solid with a cross section of 0.5 - 0.75mm<sup>2</sup>.

Strip 6 - 7mm of insulation from the cables to ensure perfect operation of the push-wire terminals.

Use one wire for each terminal connector only.

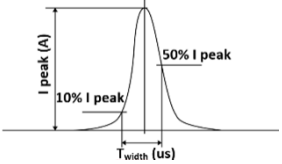
#### Loose wiring



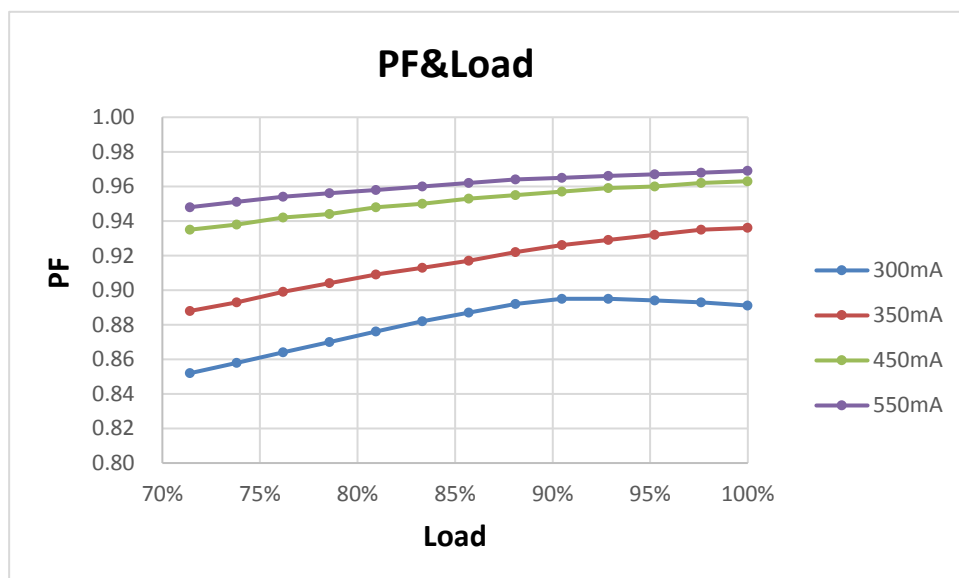
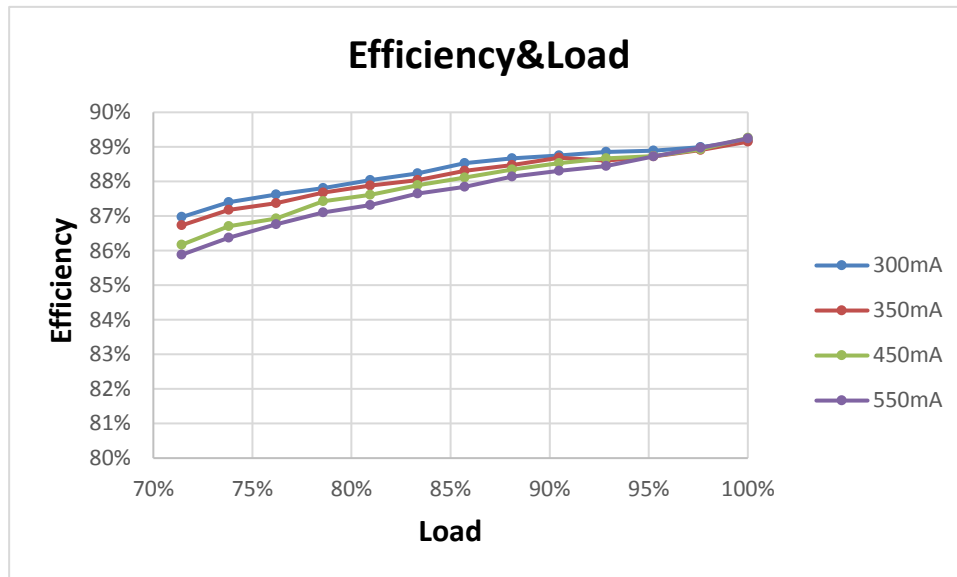
Press down the "push button" and remove the cable from front.



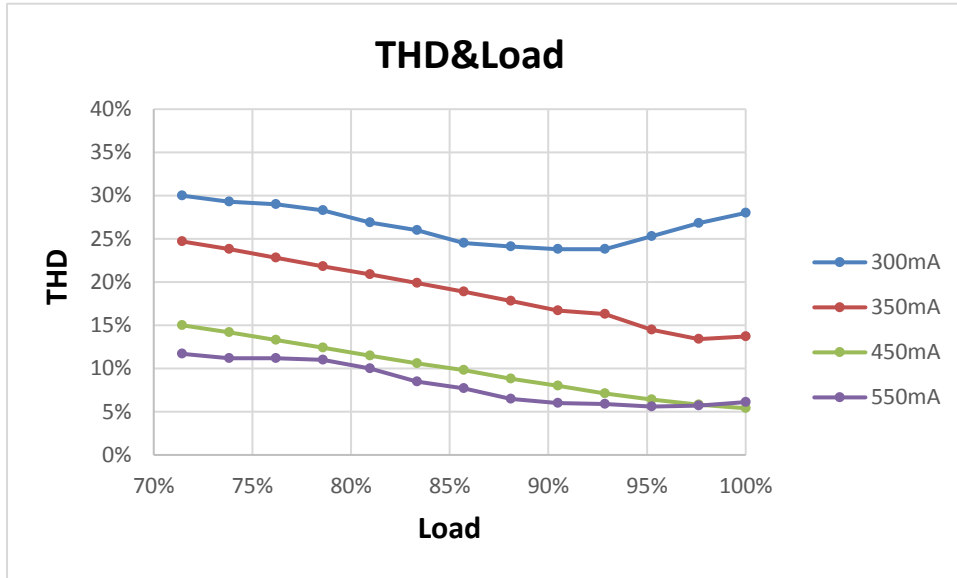
### Inrush current

Model No.	I peak <sup>⑤</sup>	Duration T <sub>width</sub> <sup>⑤</sup>	Number on single-pole power circuit breakers (CB)				Inrush current profile	
			CB-type	10 A	13 A	16 A		20 A
ECD23WCC0300-0550 ECO2	27 A	100 μs	B	21 pcs	27 pcs	33 pcs	41 pcs	
			C	34 pcs	44 pcs	56 pcs	68 pcs	
Installation Ø				1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	

### Electrical values



Electrical values



Expected Life-time

Model No.	Ta	40 °C	50 °C
ECD23WCC0300-0550 ECO2	Tc <sup>Ⓞ</sup>	55 °C	75 °C
	Life-time	50000 h	35000 h

Note:ⓄTest result at 36V Output voltage.

The LED Drivers are designed for a life-time stated above under reference conditions and with a failure probability of less than 10%.

