

LED Driver Linear non-SELV NFC 40W, 80W & 170W

Product description

- Constant current LED driver
- Fixed current output, adjustable in 1 mA steps by NFC
- Built-in type, for class I luminaire
- Safety according to EN 61347-1, 61347-2-13
- Performance according to EN 62384
- Harmonic current emission according to EN 61000-3-2
- Immunity according to EN 61547
- Non-isolated (non-SELV) versions
- Low output ripple current - high quality of light
- Long lifetime - 100 000 hours
- Metal housing
- Optimized for indoor MST LED modules
- Possibility of programming entire carton - quick programming (current setting)
- Increased surge immunity (170W)
- Increased temperature range (170W)



Electrical data

Specification item	Unit	LED Driver 40W 65-200V 0.1-0.42A NFC-L280	LED Driver 80W 90-220V 0.1-0.42A NFC-L280	LED Driver 170W 100-300V 0.4-1.05A NFC-L360
Rated input voltage range	[V]	220...240	220...240	220...240
Rated input current ¹	[A]	0.20	0.38	0.78
Rated input power ¹	[W]	45	88	180
Rated input frequency	[Hz]	50/60	50/60	50/60
Power factor ²	[-]	0.99	0.99	0.99
Total harmonic distortion ¹	[%]	≤7	≤8	≤7
Efficiency ⁴	[%]	91	92	94
Output voltage range ²	[V]	65...200	90...220	100...300
Maximum output voltage U-OUT	[V]	250	270	350
Output current range ²	[A]	0.1...0.42	0.1...0.42	0.4...1.05
Output current tolerance	[%]	±5	±5	±5
Output power range	[W]	12...40	20...80	40...170
Current ripple (LF) ³	[%]	≤4	≤4	≤4
PstLM	[-]	≤1	≤1	≤1
SVM	[-]	≤0.4	≤0.4	≤0.4
Dimmable	[-]	no	no	no
Control method	[-]	NFC	NFC	NFC

¹ at 230V, 50Hz, full load

² see operating window

³ ripple = peak / average; ≤120 Hz

Lifetime

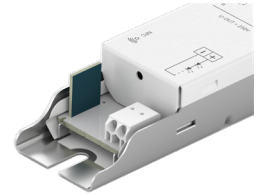
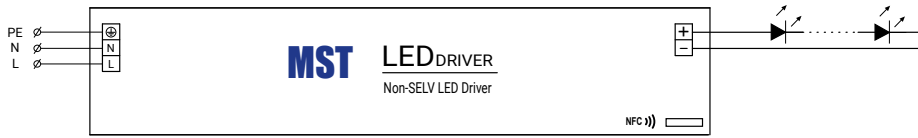
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Lifetime at T _p (max 10% failures)	[h]	100 000	100 000	100 000
T _p - temperature measured at T _c point	[°C]	65	60	65

Wiring (solid wire only)

Specification item	Unit	Value
Wire cross section	[mm ²]	0.5...1.5
Strip length	[mm]	8...9

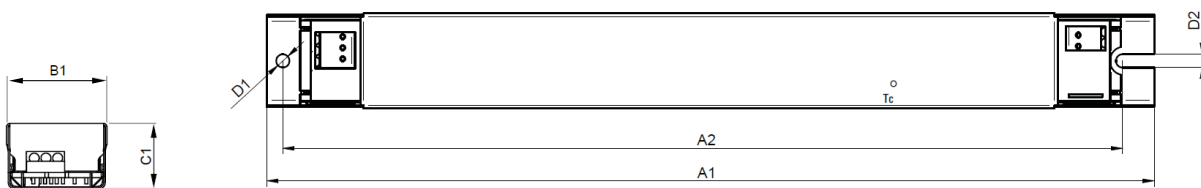
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Wiring



Mechanical

Specification item	Unit	LED Driver 40W 65-200V 0.1-0.42A NFC-L280	LED Driver 80W 90-220V 0.1-0.42A NFC-L280	LED Driver 170W 100-300V 0.4-1.05A NFC-L360
Length (A1)	[mm]	280	280	360
Width (B1)	[mm]	30	30	30
Height (C1)	[mm]	21	21	21
Fixing hole diameter (D1)	[mm]	4.2	4.2	4.2
Fixing hole distance (A2)	[mm]	265	265	345
Weight	[g]	166	185	295
Ingress protection	[-]	IP20	IP20	IP20



Temperature & humidity

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Ambient temperature	[°C]	-20...+50	-20...+45	-40...+50
Tcase	[°C]	75	75	85
Relative humidity (non-condensing)	[%]	10...90	10...90	10...90
Storage relative humidity (non-condensing)	[°C]	-25...+85	-25...+85	-25...+85
Relative humidity (non-condensing)	[%]	10...90	10...90	10...90

Surge immunity

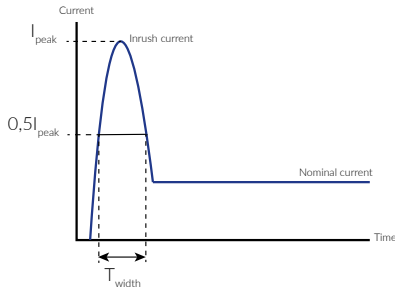
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Mains surge immunity - differential mode	[kV]	1	1	2
Mains surge immunity - common mode	[kV]	2	2	4
Surge voltage at output side (against PE)*	[kV]	≤3.5	≤3.5	≤6

* common mode

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Inrush current

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Inrush current I_{peak}	[A]	18	28	50
Inrush current T_{width}	[μ s]	260	240	250



Maximum number of drivers

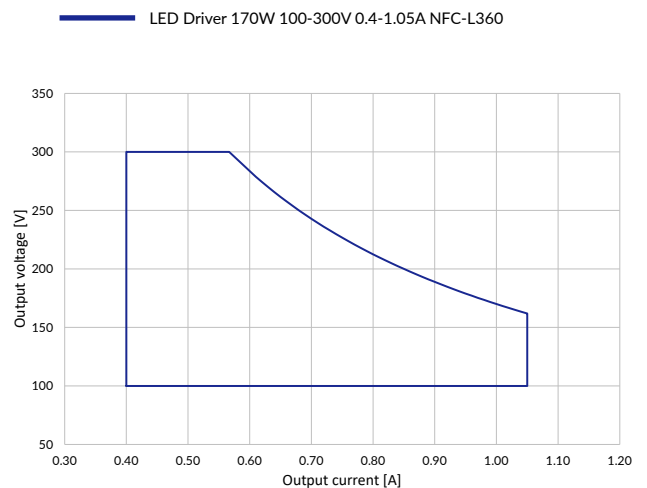
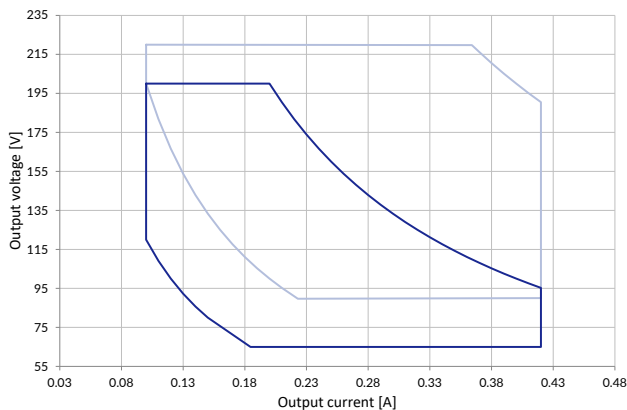
Type of circuit breaker	Unit	LED Driver 40W 65-200V 0.1-0.42A NFC-L280	LED Driver 80W 90-220V 0.1-0.42A NFC-L280	LED Driver 170W 100-300V 0.4-1.05A NFC-L360
B10	[pcs]	13	9	5
B13	[pcs]	16	12	6
B16	[pcs]	20	14	8
B20	[pcs]	25	18	10
B25	[pcs]	32	22	12
C10	[pcs]	21	15	8
C13	[pcs]	27	19	10
C16	[pcs]	34	24	13
C20	[pcs]	42	30	16
C25	[pcs]	53	37	20

Measurements of inrush and continuous current were taken at rated input voltage. Calculations are based on ABB series S200 circuit breakers as reference. The values shown in the table above are for guidance purpose only. Actual values may differ due to installation environment and used MCBs.

Protections / Approvals

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Open load protection	yes	yes	yes
Short circuit protection	yes	yes	yes
Over power protection	no	no	yes
Approval marks	CE / ENEC	CE / ENEC	CE / ENEC

Operating window

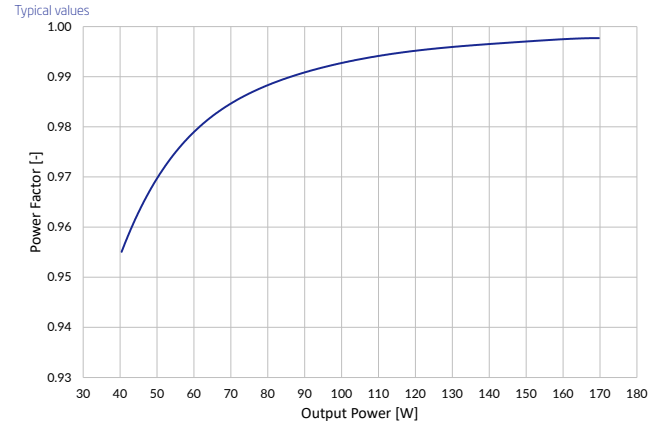
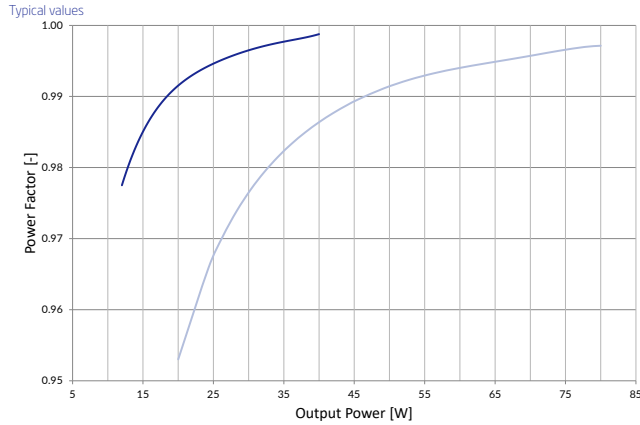


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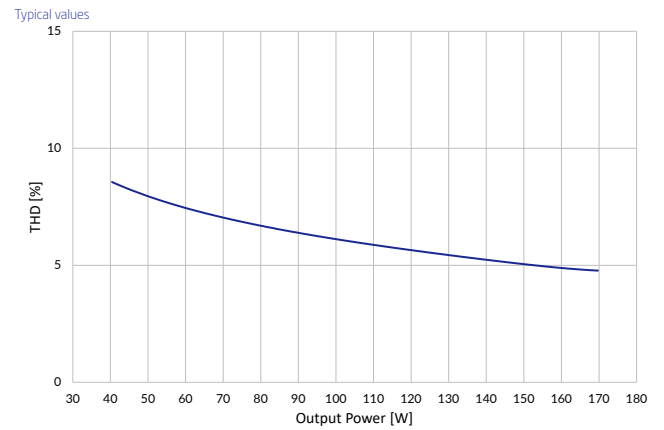
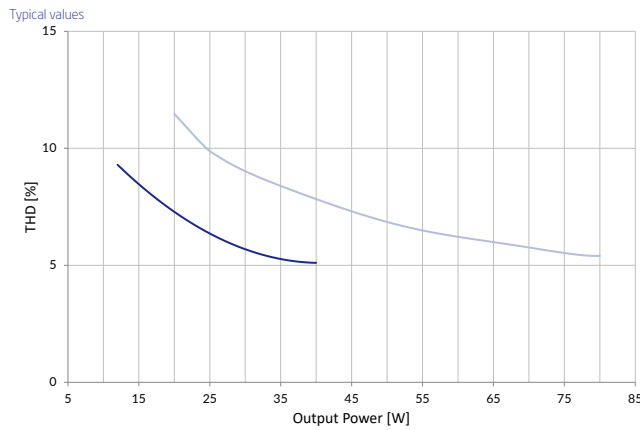
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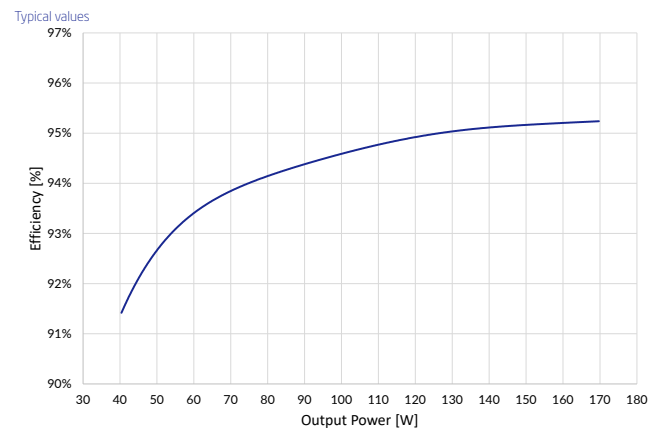
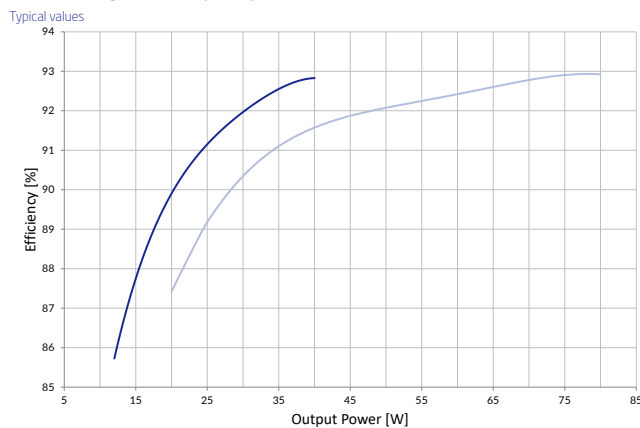
Power factor vs output power



THD vs output power



Efficiency vs output power



Ordering codes

Specification item	Unit	LED Driver 40W 65-200V 0.1-0.42A NFC-L280	LED Driver 80W 90-220V 0.1-0.42A NFC-L280	LED Driver 170W 100-300V 0.4-1.05A NFC-L360
Ordering code	[-]	1010 120 12346	1010 120 12446	1010 120 12946
Pieces per box	[pcs]	24	24	24
Pieces per pallet	[pcs]	2880	2880	2160
Box dimensions	[mm]	293 x 133 x 146	293 x 133 x 146	373 x 133 x 154
Product weight	[g]	166	185	295
Pallet gross weight	[kg]	600	630	700