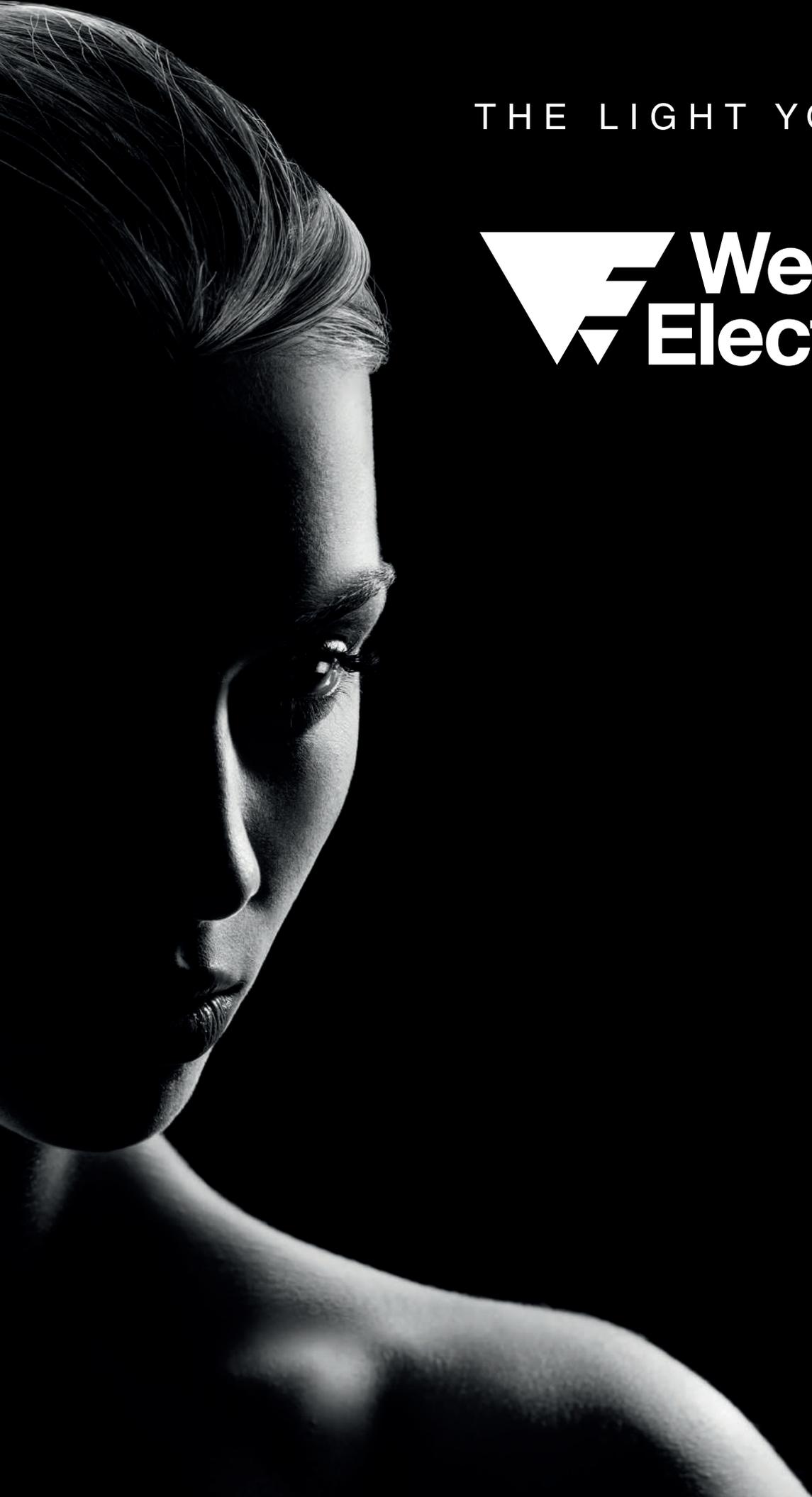


THE LIGHT YOU NEED

 **Welt  
Electronic**

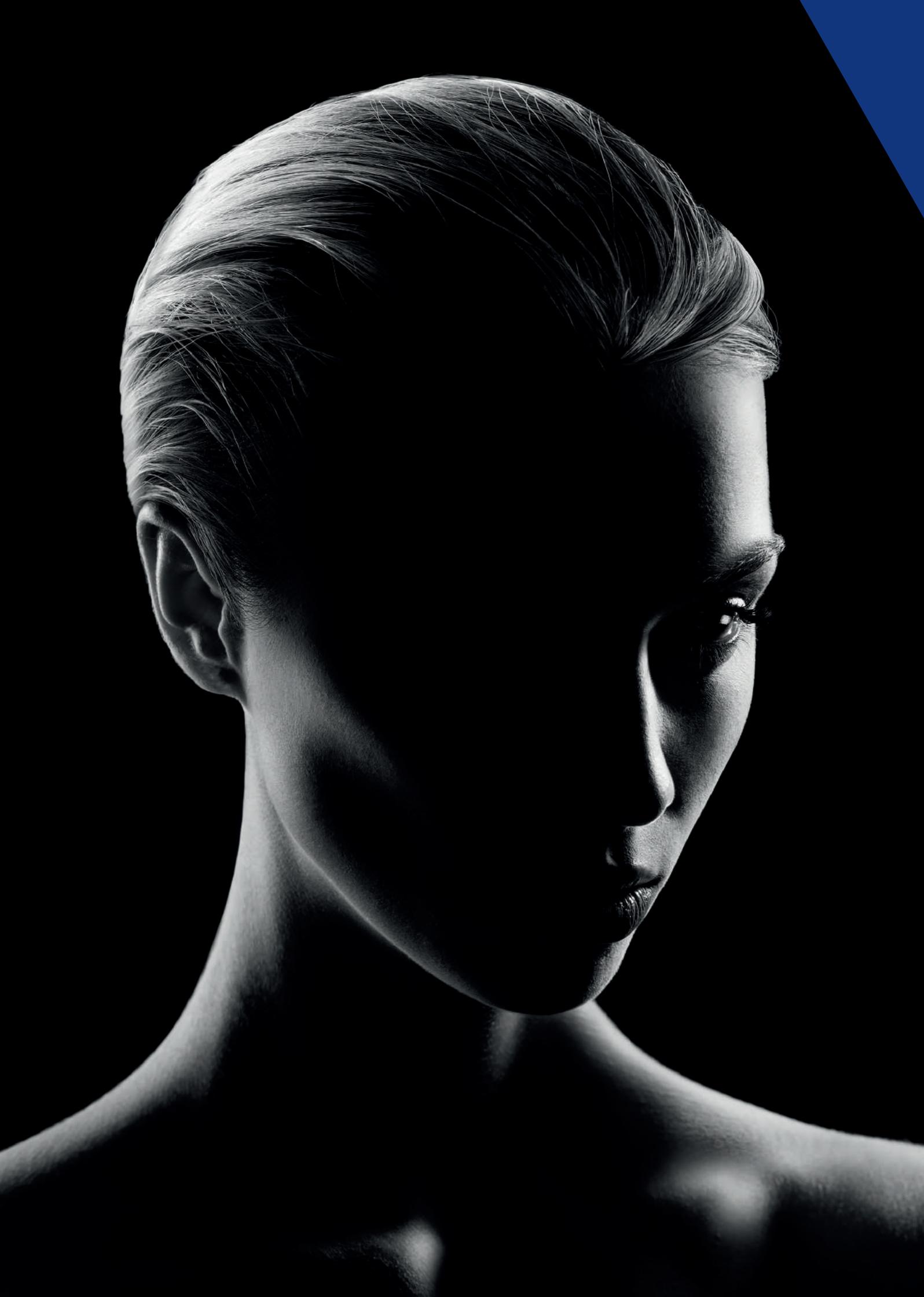






Welt Electronic, azienda leader nella distribuzione di componenti elettronici dal 1985, è da sempre un nome di riferimento nel settore Industrial. Un'esperienza basata su approfondite conoscenze di natura tecnica, grande professionalità e attenzione ai bisogni del cliente. Grazie alla sua rete internazionale di Partner Leader del settore la Divisione Industrial è sempre stata in grado di intravedere e anticipare le necessità e gli sviluppi del mercato. Forte di un'ampia gamma di prodotti standard e custom di alta qualità e un servizio tempestivo ed economico, soddisfa le richieste dei clienti più esigenti. Con il passare degli anni Welt ha ampliato e diversificato la sua offerta di prodotti e servizi affrontando anche il mercato delle applicazioni Lighting ad alto tasso tecnologico (dai Driver LED ai Dimmer e Strip LED, dai dissipatori ai COB LED fino ad arrivare ai complessi sistemi di controllo). Oggi, grazie alla sua Divisione Lighting e alla capacità di soddisfare le esigenze più svariate sia in ambito outdoor che indoor, è uno dei più importanti distributori di LED e soluzioni Lighting presente sul mercato Europeo. Welt Electronic, coniugando precisione, affidabilità, e cambiamento costante al servizio dei clienti è un'azienda in costante evoluzione. Sempre in grado di offrire soluzioni innovative che guardano al futuro.

Welt Electronic, a leading distributor of electronic components since 1985, has always been a point of reference for the Industrial sector. Its experience is based on a mix of technical know-how, great professionalism, and top-level customer care. Thanks to its Leading Partners in the Industrial Division, it has always succeeded in predicting and staying one-step ahead of future trends and the needs of the market. Moreover, it is capable of satisfying even the most demanding clientele, thanks to its wide range of high quality products that includes both standard and custom items, as well as a rapid and inexpensive service. Over time, Welt has expanded and diversified its products and services to include highly technological Lighting applications (from LED drivers to Dimmers and Strip LED, and from Heatsinks to COB LED and complex control systems). Today, Welt Electronic is considered one of the most important European leaders of LED distribution, thanks to its Lighting Division and its flexibility in providing indoor and outdoor lighting solutions. Welt Electronic is also a company that is in constant evolution, combining a strong commitment to precision with professionalism and flexibility, so that the needs of every customer are met in the best way possible. Welt offers the innovative solutions of tomorrow for every future customer need.



# I NOSTRI PARTNER/OUR PARTNERS





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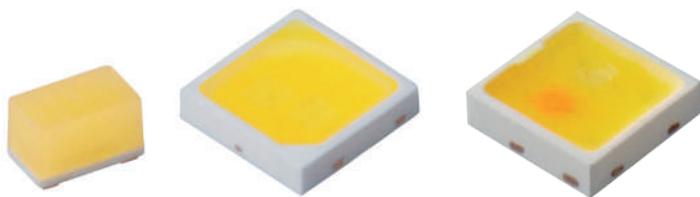
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Con il motto 'Sempre alla ricerca di un mondo più luminoso' il colosso giapponese Nichia si è sviluppato nel campo della produzione e vendita di prodotti chimici ad alto contenuto tecnologico, in particolare materiali luminescenti inorganici (fosfori). La continua ricerca ha portato Nichia a sviluppare e commercializzare il super LED blu ad alta luminosità, accolto con grande stupore dalle società del settore di tutto il mondo. Dal primo annuncio del LED blu nel 1993, i LED Nitride-based con i loro diversi colori di emissione, dall'ultravioletto al giallo, hanno contribuito alla diversificazione dei campi di applicazione. Oltre ai LED, attualmente molte risorse sono concentrate sulla ricerca e sviluppo dei diodi laser blu-viola, che sicuramente rivestiranno un ruolo estremamente importante nell'ulteriore espansione dell'industria dei mezzi di informazione. Nichia ritiene che, a breve, i semiconduttori Nitride-based diventeranno una delle aree più interessanti del settore.

Nichia has quickly grown in the field of manufacturing and sales of fine chemicals, and particularly inorganic luminescent materials (phosphors). In its endless pursuit of brighter luminescent and light-emitting materials, it succeeded in developing and marketing its super high brightness Blue LED in 1993, stunning the sector's global markets with its brilliance. Since Blue LED was first announced to the world in 1993, Nitride-based LEDs in different emission colors, ranging from Ultraviolet to yellow have been contributing to the diversification of LED application fields. In addition to LEDs, many resources are now being focused on the R/D of bluish purple laser diodes, which will definitely play a key role for the further expansion of the information media industry. Nichia believes that Nitride-based semiconductors will become one of the most exciting areas of the semiconductor industry in the near future.



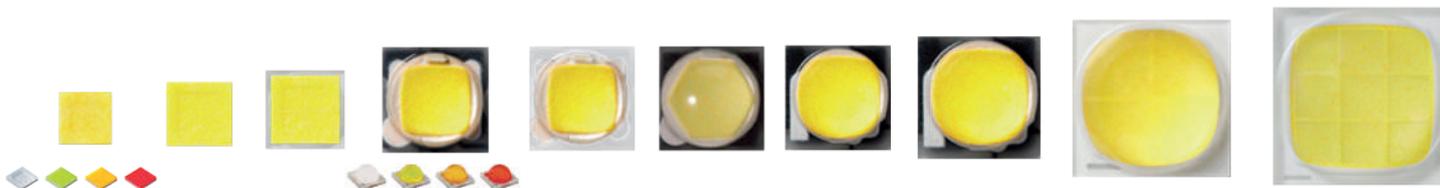
**LOW-MID POWER**

Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage	Forward Current		Package
		ANSI 3 SDCM	Min		Typ	Typ	Typ	Max	Size mm
NSSxT02A-V2	0.2 W (0.4 W Max)	2700-6500 K	80 <sup>(2)</sup>	2θ½	29.5 lm	2.94 V	65 mA	130 mA	1.2x0.7x0.75
Nxxx757G	0.3 W (0.5 W Max)	Colored	/	120°	(*)	(*)	(*)	*	3.0x3.0x0.65
NFSx757G-P5	0.2 W (0.4 W Max)	2000-6500 K	80 <sup>(3)</sup>	120°	33.3 lm	2.89 V	65 mA	180 mA	3.0x3.0x0.65
NF2W757G-MT	0.2 W (0.5 W Max)	Tunable	80	120°	32 lm / 31 lm	2.84 V	65 mA	180mA	3.0x3.0x0.75
NFSW757G-V3	0.2 W (0.5 W Max)	2000-6500 K	80 <sup>(1)(3)(4)</sup>	120°	36.0 lm	2.86 V	65 mA	180 mA	3.0x3.0x0.65
NF2x757GR-V3	0.95 W (1.2 W Max)	2000-6500 K	80 <sup>(1)(3)</sup>	120°	145 lm	6.24 V	150 mA	200 mA	3.0x3.0x0.65
NF2W757G-V3F1	0.2 W (0.5 W Max)	2000-6500 K	80 <sup>(1)(3)(5)</sup>	120°	36.4 lm	2.75 V	65 mA	180 mA	3.0x3.0x0.65
NFSW757H-V1	0.2 W (0.5 W Max)	2000-6500 K	80 <sup>(1)(3)</sup>	120°	39.5 lm	2.84 V	65 mA	180 mA	3.0x3.0x0.8
NF2W757H-F1	0.2 W (0.5 W Max)	2000-6500 K	80 <sup>(1)(3)</sup>	120°	39.6 lm	2.72 V	65 mA	180 mA	3.0x3.0x0.8

(\*) Valori differenti in funzione dei vari colori / Values can change in accordance with the different colors

Disponibile anche / Also available: <sup>(1)</sup> CRI > 70 / CRI > 70; <sup>(2)</sup> CRI > 90 / CRI > 90; <sup>(3)</sup> CRI > 90 R9>50 / CRI > 90 R9>50; <sup>(4)</sup> CRI > 95 / CRI > 95; <sup>(5)</sup>

Disponibile anche Optisolis™ / Optisolis™ version also available



**HIGH POWER**

Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage	Forward Current		Package
		ANSI 3 SDCM	Min		Typ	Typ	Typ	Max	Size mm
NCSxE17A	1 W (2 W Max)	Colored	-	120°	(*)	(*)	350 mA	700 mA	1.7x1.7x0.35
NCSxE17A	1 W (2 W Max)	2000-6500 K	80 <sup>(2)</sup>	120°	142.5 lm	3.0 V	350 mA	700 mA	1.7x1.7x0.27
NVSxE21A	2 W (4 W Max)	2000-6500 K	80 <sup>(2)</sup>	120°	290.5 lm	3.0 V	700 mA	1400 mA	2.1x2.1x0.27
NV4WB35AM	8.4 W (11 W Max)	3000-5700 K	80 <sup>(2)(4)</sup>	120°	1236 lm	5,93 V	1400 mA	1800 mA	3.65x3.65x0.73
NCSx219B-V1	1 W (4.5 W Max)	Colored	-	120°	(*)	(*)	350 mA	(*)	3.5x3.5x2.0
NCSx219B-V1	1 W (4.5 W Max)	2700-6500 K	80 <sup>(3)</sup>	120°	126.5 lm	2.96 V	350 mA	1500 mA	3.5x3.5x2.0
NVSx219B-V1	2 W (4.5 W Max)	2700-6500 K	80 <sup>(3)</sup>	120°	258.5 lm	2.98 V	700 mA	1500 mA	3.5x3.5x2.0
NVSx219C Impr.	2 W (5.4 W Max)	2700-6500 K	80 <sup>(3)</sup>	120°	290 lm	2.98 V	700 mA	1800 mA	3.5x3.5x2.0
NVSW219F	2 W (5.4 W Max)	2700-5700 K	70 <sup>(1)</sup>	120°	346 lm	2.96 V	700 mA	1800 mA	3.5x3.5x2.3
NVSW219F-V1	2 W (5.4 W Max)	2700-5700 K	80 <sup>(3)</sup>	120°	312 lm	2.96 V	700 mA	1800 mA	3.5x3.5x2.3
NVSx319B	3W (6 W Max)	2700-6500 K	80	120°	444 lm	3.02 V	1050 mA	2000 mA	3.5x3.5x2.1
NVSW519A	4.2 W (6 W Max)	3000-5000 K	80 <sup>(2)</sup>	120°	680 lm	3.03 V	1400 mA	2000 mA	3.5x3.5x2.35
NWSx229A	4.2 W (6 W Max)	2700-5000 K	80	120°	574 lm	3.0 V	1400 mA	2000 mA	4.0x4.0x2.3
NV4x144AR Impr.	8.4 W (18 W Max)	2700-6500 K	80 <sup>(2)</sup>	120°	1192.5 lm	11.9 V	700 mA	1500 mA	5.0x5.0x3.15
NV4x144AM Impr.	8.4 W (18 W Max)	2700-6500 K	80 <sup>(2)</sup>	120°	1192.5 lm	5.97 V	1400 mA	3000 mA	5.0x5.0x3.15
NV9W149AM	19 W (27 W Max)	5000-5600 K	80 <sup>(3)</sup>	130°	2720 lm	9.0 V	2100 mA	3000 mA	7.0x7.0x3.1

(\*) Valori differenti in funzione dei vari colori / Values can change in accordance with the different colors

Disponibile anche / Also available: <sup>(1)</sup> CRI < 70 / CRI < 70; <sup>(2)</sup> CRI > 70 / CRI > 70; <sup>(3)</sup> CRI > 90 R9>50 / CRI > 90 R9>50; <sup>(4)</sup> CRI > 90 R9>80 / CRI > 90 R9>80; <sup>(5)</sup> Disponibile anche Optisolis™ / Optisolis™ version also available

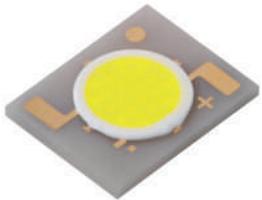
# SOLID STATE LIGHTING SOLUTION



## COB-B

Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage		Forward Current		Package
						Typ	Typ	Typ	Max	
		ANSI 3 SDCM	Min	2θ½	Typ	Typ	Typ	Max	Size mm	
NTCWT012B-V3	2.5 W (5.3 W Max)	2200-6500 K	80	120°	405 lm	35.0 V	70 mA	150 mA	15x12x2 LES5.9	
NTCWS024B-V4	4.7 W (10.5 W Max)	2200-6500 K	80	120°	860 lm	34.9 V	135 mA	300 mA	15x12x2 LES6.7	
NFCWL036B-V4	9 W (21 W Max)	2200-6500 K	80	120°	1700 lm	34.6 V	260 mA	600 mA	19x16x2 LES8.7	
NFCWL048B-V3	12.5 W (25 W Max)	2200-6500 K	80	120°	2155 lm	34.7 V	360 mA	800 mA	19x16x2 LES11.5	
NFCWL060B-V4	16 W (35 W Max)	2200-6500 K	80	120°	3020 lm	34.8 V	460 mA	1000 mA	19x16x2 LES11.5	
NFCWL072B-V3	18.8 W (37.5 W Max)	2200-6500 K	80	120°	3185 lm	34.7 V	540 mA	1200 mA	19x16x2 LES11.5	
NFCWD084B-V3	23.5 W (44 W Max)	2200-6500 K	80	120°	3935 lm	34.9 V	670 mA	1400 mA	24x19x2 LES13.4	
NFCWD096B-V3	26.6 W (50.5 W Max)	2200-6500 K	80	120°	4445 lm	34.9 V	760 mA	1600 mA	24x19x2 LES13.4	
NFCWJ108B-V4	30 W (63 W Max)	2200-6500 K	80	120°	5550 lm	34.9 V	860 mA	1800 mA	24x19x2 LES14.6	
NFCWJ120B-V3	37 W (63.5 W Max)	2200-6500 K	80	120°	6140 lm	35.2 V	1050 mA	2000 mA	24x19x2 LES14.6	
NFDWJ130B-V4	44 W (77 W Max)	2200-6500 K	80	120°	7890 lm	38.5 V	1150 mA	2000 mA	24x19x2 LES14.6	
NFEWH306B-V2	72.7 W (109 W Max)	2200-6500 K	80	120°	11970 lm	51.9 V	1400 mA	2100 mA	38x38x2 LES23	

Disponibile anche CRI > 70, > 90 R9>50, CRI > 95 R9>80 e Optisolis™ / Optisolis™, CRI > 70, > 90 R9>50 and CRI > 95 R9>80 also available  
 Disponibile anche COB Tunable White / COB Tunable White version also available



## COB-Z-V1

Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage		Forward Current		Package
						Typ	Typ	Typ	Max	
		ANSI 3 SDCM	Min	2θ½	Typ	Typ	Typ	Max	Size mm	
NVNWS007Z-V1	12 W (22.7 W Max)	2200-6500 K	80	120°	1680 lm	20.6 V	580 mA	1500 mA	15x12x2 LES5.9	
NJCWS024Z-V1	18 W (36 W Max)	2200-6500 K	80	120°	2310 lm	36.0 V	500 mA	1280 mA	15x12x2 LES7	
NVEWL016Z-V1	28.2 W (51.7 W Max)	2200-6500 K	80	120°	3915 lm	47.0 V	600 mA	1500 mA	19x16x2 LES8.9	
NVCWL024Z-V1	42.5 W (77.5 W Max)	2200-6500 K	80	120°	5970 lm	35.5 V	1200 mA	3000 mA	19x16x2 LES11	
NVEWJ048Z-V1	84.5 W (155 W Max)	2200-6500 K	80	120°	11765 lm	47.0 V	1800 mA	3300 mA	24x19x2 LES14.6	

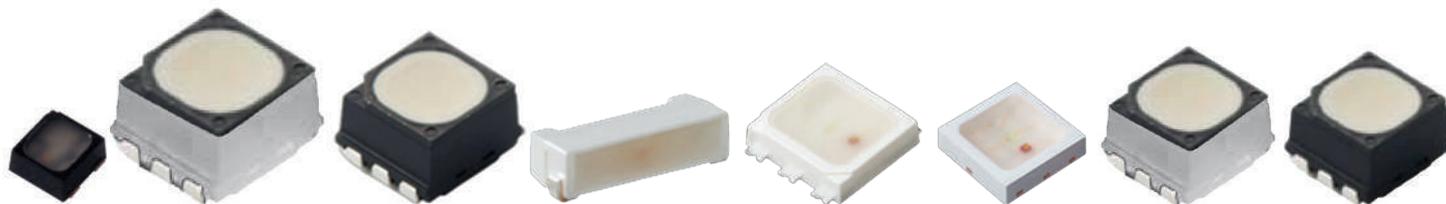
Disponibile anche CRI > 70, > 90 R9>50, CRI > 95 R9>80 e Optisolis™ / Optisolis™, CRI > 70, > 90 R9>50 and CRI > 95 R9>80 also available  
 Disponibile anche COB Tunable White / COB Tunable White version also available



**SMD HIGH POWER HIGH VOLTAGE**

Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage	Forward Current		Package
					Typ	Typ	Typ	Max	Size mm
NFMW481AR	4.6 W (5.7 W Max)	2000-6500 K	80	2θ½	625 lm	22.9 V	200 mA	250 mA	6.5x5.8x0.8
NFMW484AR	6.5 W (8.2 W Max)	2000-6500 K	80	120°	885 lm	32.8 V	200 mA	250 mA	6.5x5.8x0.8
NFMW486AR	7.8 W (9.8 W Max)	2000-6500 K	80	120°	1045 lm	39.3 V	200 mA	250 mA	6.5x5.8x0.8
NFMW488AR	9.2 W (11.5 W Max)	2000-6500 K	80	120°	1215 lm	45.9 V	200 mA	250 mA	6.5x5.8x0.8

Disponibile anche CRI > 90 R9>50 / CRI > 90 R9>50 version also available



**NICHIA RGB PACKAGE**

Model	Power	CCT	CRI	Beam	Iv	Forward Voltage	Forward Current		Package
						Typ	Typ	Max	Size mm
NESM180A <sup>(1)</sup>	0.14 W (0.23 W Max)	R - G - B	-	120°	280-440-45 mcd	2.1-3.5-2.9 V	10-10-20 mA	30-25-20 mA	1.8x1.8x0.85
NSSM016G <sup>(3)</sup>	0.17 W (0.3 W Max)	R - G - B	-	120°	780-1720-410 mcd	2.1-3.2-3.2 V	20-20-20 mA	50-35-25 mA	5.5x5.5x2.5
NSSM032A <sup>(2)</sup>	0.17 W (0.34 W Max)	R - G - B	-	120°	790-2300-430 mcd	2.2-3.2-3.1 V	20-20-20 mA	50-35-35 mA	4.5x4.0x2.7
NSSM038A	0.17 W (0.34 W Max)	R - G - B	-	120°	550-1100-240 mcd	2.1-3.2-3.2 V	20-20-20 mA	50-35-35 mA	4.7x1.5x1.2
NSSM124F	0.17 W (0.3 W Max)	R - G - B	-	120°	750-2400-530 mcd	2.2-3.2-2.9 V	20-20-20 mA	50-35-30 mA	3.3x3.0x0.75
NSSM240A	0.17 W (0.34 W Max)	R - G - B	-	120°	840-2700-640 mcd	2.2-3.3-2.9 V	20-20-20 mA	50-35-35 mA	2.4x2.4x0.6
NSSM225A <sup>(3)</sup>	0.17 W (0.3 W Max)	R - G - B	-	120°	760-2000-420 mcd	2.2-3.2-3.2 V	20-20-20 mA	50-35-25 mA	3.2x3.2x1.8
NSSM227A <sup>(2)</sup>	0.17 W (0.3 W Max)	R - G - B	-	120°	850-2000-400 mcd	2.2-3.2-3.2 V	20-20-20 mA	50-35-25 mA	3.2x3.2x1.8

<sup>(1)</sup> Package e ottica primaria colore nero / Black Package and Lens  
<sup>(2)</sup> Package colore nero / Black Package  
<sup>(3)</sup> Superficie colore nero / Black Surface

## SORAA<sup>®</sup>

Creando per prima lampade che utilizzano LED fabbricati a partire da substrati di nitruro di gallio puro (GaN on GaN<sup>™</sup>), Soraa ha reso gli ordinari apparecchi di illuminazione straordinariamente luminosi ed efficienti. Le lampade a LED GaN<sup>™</sup> a spettro completo realizzate da Soraa presentano una resa cromatica e caratteristiche del fascio superiori rispetto alle lampade che utilizzano LED fabbricati a partire da substrati non nativi. Fondata nel 2008, Soraa ha sede a Fremont, in California, dove fabbrica i LED GaN on GaN<sup>™</sup> in uno stabilimento all'avanguardia.

Soraa was founded in 2008 in Goleta, California, by a team of pioneering professors from the worlds of engineering and semiconductors. In 2007, they placed a bet on an LED technology platform that was completely different from those in use by other industries at that time, and even considered impossible to execute by most industry experts. The bet they placed was on Gallium GaN on GaN for their LEDs. Pioneering lamps using LEDs built from pure gallium nitride substrates (GaN on GaN<sup>™</sup>), Soraa has made ordinary lighting extraordinarily brilliant and efficient. Soraa's full spectrum GaN on GaN LED lamps have superior color rendering and beam characteristics compared to lamps using LEDs created from non-native substrates. Soraa is located in Fremont California, where it manufactures its GaN on GaN LEDs in the company's state-of-the-art facility.



## HIGH POWER

La corrente tipica dei Light Engines si riferisce al valore che assicura una durata di vita di 50.000 ore e misurato ad una temperatura ambiente di 25°C. I test termici sono necessari per garantire che il prodotto lavori entro il range di temperature come da specifica. Potrebbe essere utile abbassare il valore della corrente tipica, ma in accordo al tipo di prodotto utilizzato. Il valore di corrente massima indicato per i Light Engines si riferisce al massimo valore sopportato dai LED. Non significa che il prodotto può lavorare con questo valore di corrente nelle normali applicazioni, o comunque sarebbe eventualmente possibile solamente utilizzando un sistema di raffreddamento forzato. In ogni caso, i test sono necessari per assicurare che il prodotto lavori in un range di temperature approvato come da specifica.

The Typical current for Light Engines is the current that leads to a 50,000hrs life time, measured at a 25°C ambient and free air. Thermal testing is needed to ensure the product is working within the specified temperatures. Decreasing the driving current is possibly needed, depending on the type of fixture used. The max current stated for the Light Engines is the absolute physical maximum the LEDs can stand. It does not mean the product can operate at this driving currents in a normal application, and will likely be only possible if using active cooling. In any case, testing is needed to ensure the product works at an approved temperature.

Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage		Forward Current		Dimension Size mm
						Typ	Typ	Typ	Max	
SLE30 + heatsink	4.9 - 16.1 W	ANSI 3 SDCM 2700-3000-4000 K	VIVID 95	4°-9°-25°-36°	265-1050 lm	20-35V DC	175 mA	188 mA	Ø 95,25 x H 53,91	
SLE30 + heatsink	4.9 - 16.1 W	2700-3000 K	BRILLIANT 85	4°-9°-25°-36°	330-1250 lm	20-35V DC	580 mA	750 mA	Ø 95,25 x H 53,91	
SLE16 + heatsink	8.1 - 12.2 W	2700-3000-4000 K	VIVID 95	10°-15°-25°-36°	435-755 lm	20-35V DC	290 mA	375 mA	Ø 50,80 x H 53,84 Ø 50,80 x H 54,52	
SLE16 + heatsink	8.1 - 12.2 W	2700-3000 K	BRILLIANT 85	10°-15°-25°-36°	545-900 lm	20-35V DC	440 mA	750 mA	Ø 50,80 x H 53,84 Ø 50,80 x H 54,52	
SLE16 + larger heatsink	10.3 - 16.1 W	2700-3000 K	VIVID 95	10°-15°-25°-36°	510-1000 lm	20-35V DC	370 mA	375 mA	Ø 95,25 x H 52,82 Ø 95,25 x H 45,75	
SLE16 + larger heatsink	10.3 - 16.1 W	2700-3000 K	BRILLIANT 85	10°-15°-25°-36°	640-1250 lm	20-35V DC	580 mA	750 mA	Ø 95,25 x H 52,82 Ø 95,25 x H 45,75	
SLE11 + heatsink	6.7 W	2700-3000-4000 K	VIVID 95	25°-36°	405-450 lm	20-35V DC	240 mA	375 mA	Ø 34,90 x H 53,18	
SLE11 + heatsink	6.7 W	2700-3000 K	BRILLIANT 85	25°-36°	510-535 lm	20-35V DC	240 mA	375 mA	Ø 34,90 x H 53,18	
SLC30 (no heatsink)	4.2 - 16.7 W	2700-3000-4000 K	VIVID 95	4°-9°-25°-36°	235-1050 lm	Same as + heatsink, depending on thermals			Ø 95,25 x H 24,28	
SLC30 (no heatsink)	4.2 - 16.7 W	2700-3000 K	BRILLIANT 85	4°-9°-25°-36°	285-1210 lm	Same as + heatsink, depending on thermals			Ø 95,25 x H 24,28	
SLC16 (no heatsink)	8.3 - 16.7 W	2700-3000-4000 K	VIVID 95	10°-15°-25°-36°	475-1050 lm	Same as + heatsink, depending on thermals			Ø 50,80 x H 23,19 Ø 50,80 x H 16,12	
SLC16 (no heatsink)	8.3 - 16.7 W	2700-3000 K	BRILLIANT 85	10°-15°-25°-36°	570-1210 lm	Same as + heatsink, depending on thermals			Ø 50,80 x H 23,19 Ø 50,80 x H 16,12	
SLC11 (no heatsink)	8.3 W	2700-3000-4000 K	VIVID 95	25°-36°	475-525 lm	Same as + heatsink, depending on thermals			Ø 34,90 x H 18,95	
SLC11 (no heatsink)	8.3 W	2700-3000 K	BRILLIANT 85	25°-36°	570-605 lm	Same as + heatsink, depending on thermals			Ø 34,90 x H 18,95	

## GUIDA PER L'ORDINAZIONE / ORDERING GUIDE

Model Name	Power	Beam	CRI	CCT	GP	Rev
SLE30 SLC30	08 - 8 Watt	004D - 04° 009D - 09° 025D - 25° 036D - 36°	9 - 95 CRI    8 - 80 CRI	27 - 2700 K 30 - 3000 K 40 - 4000 K 50 - 5000 K  27 - 2700 K 30 - 3000 K	03 - PG	01 - Rev (SLE30) 00 - Rev (SLC30)

# SOLID STATE LIGHTING SOLUTION



**A60**  
OMNIDIRECTIONAL



**MR16 - GU5.3**



**MR16 - GU10**



**MR16 - CC**



**PAR20**



**PAR30L**



**PAR30S**



**PAR38**



**AR111**

## LAMPS

Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage	Forward Current		Package
					Typ	Typ	Typ	Max	Size mm
A60 OMNIDIRECTIONAL	11 W	2700 K	VIVID 95	360°	800 lm	230 V	**	**	Ø 64,00 x H 118,00
MR16 - GU5.3	7.5 - 9 W	2700-3000-4000 K	VIVID 95	10°-25°-36°	290-490 lm	12 V	**	**	Ø 50,10 x H 45,50
MR16 - GU5.3	7.5 - 9 W	2700-3000 K	BRILLIANT 85	10°-25°-36°	355-590 lm	12 V	**	**	Ø 50,10 x H 45,50
MR16 - GU10	7.5 - 9.5 W	2700-3000-4000 K	VIVID 95	10°-25°-36°-60°	245-490 lm	230 V	**	**	Ø 49,90 x H 53,50
MR16 - GU10	7.5 - 9.5 W	2700-3000 K	BRILLIANT 85	10°-25°-36°-60°	295-590 lm	230 V	**	**	Ø 49,90 x H 53,50
MR16 - CC	8.5 W	2700-3000-4000 K	VIVID 95	10°-25°-36°	485-580 lm	20-35 VDC*	300 mA*	350 mA*	Ø 50,10 x H 45,50
PAR20	10.8 W	2700-3000-4000 K	VIVID 95	8°-10°-25°-36°-60°	245-560 lm	230 V	**	**	Ø 64,00 x H 89,00
PAR30L - LONG NECK	18.5 W	2700-3000-4000 K	VIVID 95	8°-9°-25°-36°-50°-60°	575-1040 lm	230 V	**	**	Ø 96,00 x H 113,00
PAR30S - SHORT NECK	18.5 W	2700-3000-4000 K	VIVID 95	8°-9°-25°-36°-50°-60°	575-1040 lm	230 V	**	**	Ø 96,00 x H 82,00
PAR38	18.5 W	2700-3000-4000 K	VIVID 95	9°-25°-36°-60°	930-1040 lm	230 V	**	**	Ø 122,30 x H 124,60
AR111	6 - 12.5 - 18.5 W	2700-3000-4000 K	VIVID 95	4°-8°-9°-25°-36°-50°-60°	275-1040 lm	12 V	**	**	Ø 111,00 x H 57,00

\* La corrente tipica indicata per i prodotti MR16 a corrente costante, si riferisce al valore che assicura una durata di vita di 50.000 ore, misurato ad una temperatura ambiente di 25°C. I test termici sono necessari per garantire che il prodotto lavori entro il range di temperature come da specifica. Potrebbe essere utile abbassare il valore della corrente tipica, ma in accordo al tipo di prodotto utilizzato. / The Typical current for CC MR16 is the current that leads to a 50,000hrs life time, measured at a 25°C ambient and free air. Thermal testing is needed to ensure the product is working within the specified temperatures. Decreasing the driving current is possibly needed, depending on the type of fixture used.

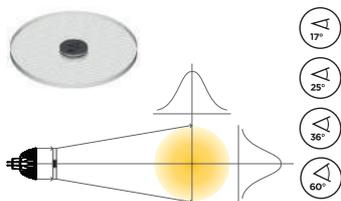
\*\* Il valore di corrente massima indicato per i prodotti MR16 CC si riferisce al massimo valore sopportato dai LED. Non significa che il prodotto può lavorare con questo valore di corrente nelle normali applicazioni, o comunque sarebbe eventualmente possibile solamente utilizzando un sistema di raffreddamento forzato. In ogni caso, i test sono necessari per assicurare che il prodotto lavori in un range di temperature approvato come da specifica. / The max current stated for CC MR16 is the absolute physical maximum the LEDs can stand. It does not mean the product can operate at this driving currents in a normal application, and will likely be only possible if using active cooling. In any case, testing is needed to ensure the product works at an approved temperature.

\*\* Pilotaggio in tensione costante, la corrente viene settata automaticamente. / Constant Voltage driving, so the current is set automatically.

SNAP SYSTEM™

**BEAM SPREADER SNAP**

Beam	Code
17°	AC-GC-1717-00
25°	AC-GC-2525-00
36°	AC-GC-3636-00
60°	AC-GC-6060-00



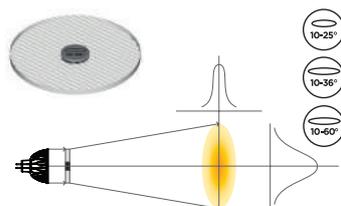
**LOUVER SNAP**

Cutoff Angle	Code
40°	AC-LU-4040-00



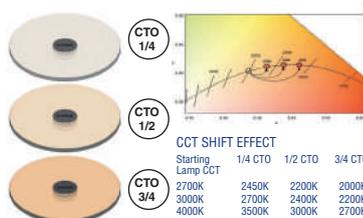
**LINEAR SNAP**

Beam	Code
10°-25°	AC-GE-1025-00
10°-36°	AC-GE-1036-00
10°-60°	AC-GE-1060-00



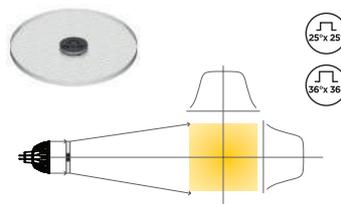
**CCT SHIFTER SNAP**

CTO	Code
1/4	AC-CC-0001-00
1/2	AC-CC-0002-00
3/4	AC-CC-0003-00



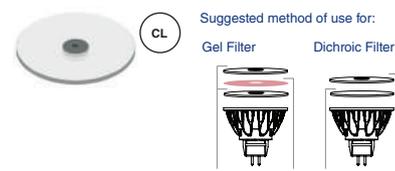
**FLAT TOP SNAP**

Beam	Code
25°x25°	AC-FR-2525-00
36°x36°	AC-FR-3636-00



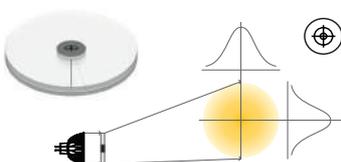
**CLEAR SNAP**

Code
AC-CL-0000-00



**AIM SNAP**

Beam	Code
13°-20°	AC-AM-0020-00



**ENHANCE**

Code
AC-EN-0001-00



**GUIDA PER L'ORDINAZIONE / ORDERING GUIDE**

Model Name	Power	Beam	CRI	CCT	GP	Rev
SM16	06 - 8 Watt	25D - 25°	9 - 95 CRI	27 - 2700 K	03 - PG	S3 - Internazionale
		36D - 36°	8 - 80 CRI	30 - 3000 K		
	07 - 7.5 Watt	10D - 10°	9 - 95 CRI	27 - 2700 K		
		25D - 25° 36D - 36°	8 - 80 CRI	27 - 2700 K 30 - 3000 K		
SR111GW	12 - 12.5 Watt	08D - 08°	9 - 95 CRI	27 - 2700 K	03 - PG	S3 - Internazionale
		25D - 25° 36D - 36° 50D - 50°	8 - 80 CRI	27 - 2700 K 30 - 3000 K		
	18 - 18.5 Watt	09D - 09°	9 - 95 CRI	27 - 2700 K		
		25D - 25° 36D - 36° 60D - 60°	8 - 80 CRI	27 - 2700 K 30 - 3000 K		

## Lextar

Lextar Electronics Corporation è leader mondiale nella produzione di LED capace di integrare upper stream epitaxial, middle stream chip e downstream package e LED lighting applications. Fondata nel maggio 2008, Lextar è una sussidiaria di AU Optronics, azienda leader nella produzione di pannelli solari e TFT-LCD. Con oltre 1500 brevetti nel mondo, Lextar è un importante innovatore di applicazioni del prodotto che includono: retroilluminazione LCD e varie soluzioni di illuminazione. Per allargare ulteriormente il suo mercato, nel marzo 2010 Lextar ha acquisito LightHouse Technology Inc. e nel febbraio 2013 Wellpower Optronics. Attualmente ha tre stabilimenti di produzione in Taiwan e due a Suzhou, in Cina. Il nuovo sito di produzione a Suzhou, inaugurato nel 2012, copre una superficie di oltre 240.000 metri quadrati ed è la più grande base di produzione di LED Lextar in Cina.

Lextar Electronics Corporation is a global leader in LED (Light Emitting Diode) solutions, characterized by a strategic ability to integrate upper stream epitaxial, middle stream chip, downstream package and LED lighting applications. Founded in May 2008, Lextar is a subsidiary of AU Optronics, the leading TFT-LCD and solar PV manufacturer. With over 1,500 patents worldwide, Lextar is an innovator of product applications, which include: LCD backlights, luminaire, and various lighting solutions. To further extend its market advantage, Lextar acquired LightHouse Technology Inc. in March 2010, and well power Optronics in February 2013. It currently has three manufacturing plants in Taiwan and two in Suzhou China. The new manufacturing site in Suzhou, China is the first flagship LED enterprise in Suzhou Science Industrial Park to integrate upper stream, middle stream, and downstream manufacturing. Covering a land area of over 240,000 square meters, the facility was officially launched for production in 2012 and today, it has become Lextar's biggest LED production base in mainland China.


**COB Ver.5 e SOLAR**

Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage	Forward Current		Package
		ANSI 3 SDCM	Min	2θ½	Typ	Typ	Typ	Max	Size mm
PB06H09 V2	6 W (15 W Max)	2700-6500 K	80	120°	989 lm	33.4 V	180 mA	450 mA	13.5x13.5 LES9.8
PB06U10 V1	6 W (15 W Max)	2700-4000 K	90	120°	831 lm	33.4 V	180 mA	450 mA	13.5x13.5 LES9.8
PB06V11 V0	6 W (15 W Max)	2700-6500 K	97 Typ (R9>90)	120°	755 lm	33.4 V	180 mA	450 mA	13.5x13.5 LES9.8
PB09H01 V1	9 W (23 W Max)	2700-6500 K	80	120°	1467 lm	33.4 V	270 mA	675 mA	13.5x13.5 LES9.8
PB09U02 V1	9 W (23 W Max)	2700-4000 K	90	120°	1232 lm	33.4 V	270 mA	675 mA	13.5x13.5 LES9.8
PB09V03 V0	9 W (23 W Max)	2700-6500 K	97 Typ (R9>90)	120°	1121 lm	33.4 V	270 mA	675 mA	13.5x13.5 LES9.8
PB13H01 V1	12 W (30 W Max)	2700-6500 K	80	120°	1908 lm	33.4 V	360 mA	900 mA	13.5x13.5 LES9.8
PB13U02 V1	12 W (30 W Max)	2700-4000 K	90	120°	1603 lm	33.4 V	360 mA	900 mA	13.5x13.5 LES9.8
PB13V03 V0	12 W (30 W Max)	2700-6500 K	97 Typ (R9>90)	120°	1458 lm	33.4 V	360 mA	900 mA	13.5x13.5 LES9.8
PB16H01 V1	15 W (37 W Max)	2700-6500 K	80	120°	2513 lm	33.4 V	450 mA	1125 mA	19.0x19.0 LES14.5
PB16U02 V1	15 W (37 W Max)	2700-4000 K	90	120°	2111 lm	33.4 V	450 mA	1125 mA	19.0x19.0 LES14.5
PB16V03 V0	15 W (37 W Max)	2700-6500 K	97 Typ (R9>90)	120°	1920 lm	33.4 V	450 mA	1125 mA	19.0x19.0 LES14.5
PB19H01 V1	18 W (45 W Max)	2700-6500 K	80	120°	2985 lm	33.4 V	540 mA	1350 mA	19.0x19.0 LES14.5
PB19U02 V1	18 W (45 W Max)	2700-4000 K	90	120°	2508 lm	33.4 V	540 mA	1350 mA	19.0x19.0 LES14.5
PB19V03 V0	18 W (45 W Max)	2700-6500 K	97 Typ (R9>90)	120°	2281 lm	33.4 V	540 mA	1350 mA	19.0x19.0 LES14.5
PB26H01 V1	24 W (59 W Max)	2700-6500 K	80	120°	3908 lm	33.4 V	720 mA	1800 mA	19.0x19.0 LES14.5
PB26U02 V1	24 W (59 W Max)	2700-4000 K	90	120°	3322 lm	33.4 V	720 mA	1800 mA	19.0x19.0 LES14.5
PB26V03 V0	24 W (59 W Max)	2700-6500 K	97 Typ (R9>90)	120°	2986 lm	33.4 V	720 mA	1800 mA	19.0x19.0 LES14.5
PB38H01 V1	36 W (89 W Max)	2700-6500 K	80	120°	6034 lm	33.6 V	1080 mA	2700 mA	28.0x28.0 LES22.0
PB38U02 V1	36 W (89 W Max)	2700-4000 K	90	120°	5069 lm	33.6 V	1080 mA	2700 mA	28.0x28.0 LES22.0
PB38V03 V0	36 W (89 W Max)	2700-6500 K	97 Typ (R9>90)	120°	4610 lm	33.6 V	1080 mA	2700 mA	28.0x28.0 LES22.0

Disponibile anche COB Tunable White / COB Tunable White version also available

# SOLID STATE LIGHTING SOLUTION



## LOW-MID POWER 1

Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage		Forward Current		Package
						Typ	Typ	Typ	Max	
		ANSI 3 o 5 SDCM	Min	2θ½	Typ	Typ	Typ	Max	Size mm	
PC13x01	0.3 W (0.45 W Max)	Colored	-	160°	<sup>(1)</sup>	<sup>(1)</sup>	100 mA	150 mA	1.3x1.3x0.75	
PC13H01 V0	0.2 W (0.57 W Max)	2700-6500 K	80	160°	31 lm	2.85 V	65 mA	200 mA	1.3x1.3x0.75	
PC13U02 V0	0.2 W (0.57 W Max)	2700-6500 K	90	160°	28 lm	2.85 V	65 mA	200 mA	1.3x1.3x0.75	
PC20H01 V0	0.2 W (0.35 W Max)	2700-6500 K	80	120°	26 lm	3.15 V	65 mA	100 mA	2.0x1.6x0.55	
PC20U06 V0	0.2 W (0.35 W Max)	2700-4000 K	90	120°	22 lm	3.15 V	65 mA	100 mA	2.0x1.6x0.55	
PC35H12 V0	0.2 W (0.25 W Max)	2700-6500 K	80	120°	27.1 lm	3.05 V	60 mA	80 mA	2.8x3.5x0.7	
PC35H11 V0	0.45 W (0.55 W Max)	2700-6500 K	80	120°	63 lm	2.95 V	150 mA	180 mA	2.8x3.5x0.7	
PC35H11 V1	0.2 W (0.55 W Max)	2700-6500 K	80	120°	32.3 lm	2.95 V	65 mA	180 mA	2.8x3.5x0.7	
PC35U16 V1	0.2 W (0.55 W Max)	2700-6500 K	90	120°	27.6 lm	2.95 V	65 mA	180 mA	2.8x3.5x0.7	
PC30H08 V1	0.2 W (0.45 W Max)	1800-6500 K	80 <sup>(2)</sup>	120°	30.2 lm	3.04 V	65 mA	150 mA	3.0x1.4x0.67	
PC30H08 V4	0.2 W (0.3 W Max)	1800-6500 K	80	120°	27 lm	3.15 V	65 mA	100 mA	3.0x1.4x0.67	
PC30U12 V1	0.2 W (0.45 W Max)	1800-6500 K	90	120°	26 lm	3.03 V	65 mA	150 mA	3.0x1.4x0.67	
PC38H01 V0	0.057 W (0.10 W Max)	2700-6500 K	80	120°	8.5 lm	2.85 V	20 mA	30 mA	3.8x0.6x1.0	
PC38U0x V0	0.057 W (0.10 W Max)	2700-6500 K	90	120°	7.7 lm	2.85 V	20 mA	30 mA	3.8x0.6x1.0	
PC40H03 V0	0.18 W (0.25 W Max)	2700-6500 K	80	120°	25 lm	2.96 V	60 mA	80 mA	4.0x1.4x0.65	
PC33H23 V0	0.2 W (0.6 W Max)	1800-6500 K	80	120°	30.7 lm	2.95 V	65 mA	200 mA	3.2x3.0x0.6	
PC33U28 V2	0.2 W (0.6 W Max)	1800-6500 K	90	120°	28.25 lm	2.75 V	65 mA	200 mA	3.2x3.0x0.6	
PC33H05 V1	1.2 W (1.7 W Max)	1800-6500 K	80	120°	145 lm	48 V	25 mA	35 mA	3.2x3.0x0.6	
PC33H13 V1	1.3 W (1.6 W Max)	1800-6500 K	80	120°	155 lm	32 V	40 mA	50 mA	3.2x3.0x0.6	
PC33H07 V0	1 W (1.3 W Max)	1800-6500 K	80	120°	130 lm	6.2 V	150 mA	200 mA	3.2x3.0x0.6	
PC33U30 V0	1 W (1.3 W Max)	1800-6500 K	90	120°	105 lm	6.2 V	150 mA	200 mA	3.2x3.0x0.6	

<sup>(1)</sup> Valori differenti in funzione dei vari colori / Values can change in accordance with the different colors

<sup>(2)</sup> Disponibile anche Solar™ / Solar™ version also available


**LOW-MID POWER 2**

Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage		Forward Current		Package
						Typ	Typ	Typ	Max	
		ANSI 3 o 5 SDCM	Min	2θ½	Typ					Size mm
PC56H19 V0	0.2 W (0.5 W Max)	1800-6500 K	80	120°	30.75 lm	2.95 V	65 mA	180 mA		5.6x3.0x0.65
PC56U21 V0	0.2 W (0.5 W Max)	1800-6500 K	90	120°	28.25 lm	2.95 V	65 mA	180 mA		5.6x3.0x0.65
PC56H14 V0	0.45 W (0.77 W Max)	1800-6500 K	80	120°	60 lm	22 V	20 mA	35 mA		5.6x3.0x0.65
PC55N13 V0	5.5 W (8.5 W Max)	1800-6500 K	70	120°	800 lm	36.8 V	150 mA	240 mA		5.8x5.2x0.7
PC55N13 V1	5.5 W (8.5 W Max)	1800-6500 K	70	120°	800 lm	18.5 V	300 mA	480 mA		5.8x5.2x0.7
PC55N13 V2	5.5 W (8.5 W Max)	1800-6500 K	70	120°	800 lm	12.5 V	450 mA	720 mA		5.8x5.2x0.7
PC55H10 V0	5.5 W (8.5 W Max)	1800-6500 K	80	120°	735 lm	36.8 V	150 mA	240 mA		5.8x5.2x0.7
PC55H10 V1	5.5 W (8.5 W Max)	1800-6500 K	80	120°	690 lm	18.1 V	300 mA	480 mA		5.8x5.2x0.7
PC55H10 V2	5.5 W (8.5 W Max)	1800-6500 K	80	120°	735 lm	12.3 V	450 mA	720 mA		5.8x5.2x0.7
PC55N17 V0	5.5 W (7.4 W Max)	1800-6500 K	70	120°	880 lm	36.8 V	150 mA	200 mA		5.0x5.0x0.7
PC55N17 V1	5.5 W (7.4 W Max)	1800-6500 K	70	120°	880 lm	18.5 V	300 mA	400 mA		5.0x5.0x0.7
PC55N17 V2	5.5 W (7.4 W Max)	1800-6500 K	70	120°	880 lm	12.5 V	450 mA	600 mA		5.0x5.0x0.7
PC50XA1 VY	0.2 W (0.3 W Max)	RGB	-	120°	(1)	(1)	20 mA	30 mA		5.0x5.0x1.6
PC50X01 V0	0.9 W (1.1 W Max)	RGB	-	120°	(1)	(1)	100 mA	120 mA		5.4x5.2x0.7
PC50X02 V0	1.5 W (1.9 W Max)	RGBWW	-	120°	(1)	(1)	100 mA	125 mA		5.4x5.0x1.65

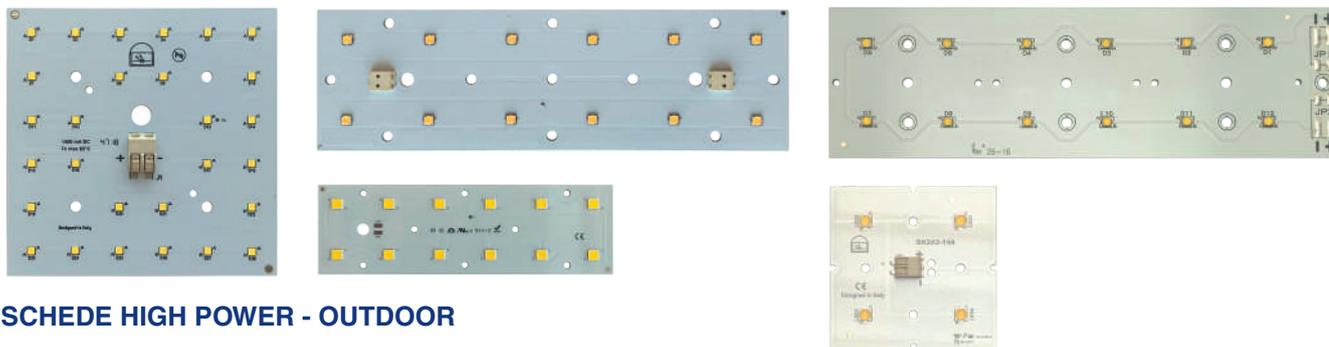
(1) Valori differenti in funzione dei vari colori / Values can change in accordance with the different colors

# SOLID STATE LIGHTING SOLUTION



I progetti di illuminazione non sono tutti uguali. I nuovi moduli LED firmati LuxLucis nascono per garantire la soluzione ottimale e personalizzata in ogni specifica applicazione: dall'illuminazione per retail o per uffici fino all'ospitalità, l'intrattenimento e la creazione di scenari di luce dinamici per aree specifiche. I moduli Led LuxLucis, efficienti, affidabili e di lunga durata, sono altamente customizzabili e assemblati con una progettazione ben accurata, tramite una verifica puntuale di quattro parametri fondamentali: dissipazione termica, compatibilità elettromagnetica, prestazioni di illuminamento, analisi spettrale. LuxLucis cura tutti i parametri per ottenere un prototipo perfettamente funzionale a garantire la soluzione desiderata ad un prezzo vantaggioso.

Lighting projects are not all the same. The new LED modules designed by LuxLucis are created to guarantee the optimal and personalized solution for each specific application: from lighting for retail or offices to hospitality, the entertainment and the creation of dynamic light scenarios for specific areas. The LuxLucis LED modules, efficient, reliable and long-lasting, are highly customizable and assembled with an accurate design, through the examination of four fundamental parameters: heat dissipation, electromagnetic compatibility, lighting performance, spectral analysis. LuxLucis takes care of all the parameters to obtain a perfectly functional prototype and guarantee the desired solution at the best price.



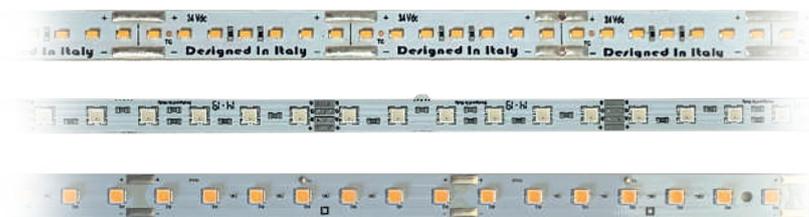
## SCHEDE HIGH POWER - OUTDOOR

Materiali: IMS alta conducibilità  
Spessori 1-1,6 mm  
Spessore Copper foil 35-70 um  
Solder color: White  
Finiture OSP, HASL

Materials: high conductivity IMS  
Thickness: 1-1,6 mm  
Copper foil thickness 35-70 um  
Solder color: White  
Finishing OSP, HASL

Model	N° LED	LED Type	Total Power	Constant Current	Working voltage	Luminous Flux	Efficiency	Comp. Optics
@Tj=25°C								
IP2x6-A	12	Nichia 219F 5000K R70	25 W	700 mA	35,5 V	4150	167 lm/W	LEDIL STRADA-IP2x6 HB IP2x6
IP2x6-B	12	Lextar 5050B 5000K R70	68 W	1800 mA	36,0 V	10500	156 lm/W	LEDIL STRADA-IP2x6 HB IP2x6
OUTD12	12	Nichia 219F 5000K R70	25 W	700 mA	35,5 V	4150	167 lm/W	LEDIL STRADA 2x2 50x50 non IP
IP2x2	4	Nichia 144AR 5000K R70	33 W	700 mA	47,6 V	5370	161 lm/W	LEDIL STRADA IP2x2 MXS 90x90
SRDIP28	28	Nichia DMC E21A 5000K R70	58 W	1400 mA	42,0 V	9150	156 lm/W	LEDIL STRADELLA IP28

Tutti i modelli sono fornibili con le seguenti CCT: 2700K, 3000K, 4000K, 5000K, 5700K, 6500K / All products are available in the following CCT: 2700K, 3000K, 4000K, 5000K, 5700K, 6500K



## SCHEDE MID POWER - INDOOR

Materiali: FR4 multilayer, CEM3, FPC  
Spessori 1-1,6 mm  
Solder color: White  
Spessore Copper foil 35-70 um  
Finiture OSP

Materials: FR4 multilayer, CEM3, FPC  
Thickness: 1-1,6 mm  
Solder color: White  
Copper foil thickness 35-70 um  
Finishing OSP

Model	N° LED	LED Type	Total Power	Constant Voltage	Input Current	Luminous Flux	Efficiency	Max Length
@Tj=25°C								
TS140	140	Nichia T02-V2 3000K R90	12 W	24 V	600,0 mA	1700	144 lm/W	2,5m
TSRGB	60	Nichia 240	4 W*	24 V	200,0 mA*	-	-	2,5m
LB49	49	Nichia 757G-V3 3000K R9050	7,5 W	24 V	385,0 mA	1210	160 lm/W	4m
200IP20	200**	Lextar 3014 / 2835 R80/R90	20 W**	12/24 V	840,0 mA**	3000**	150 lm/W**	5m

\* Valori per singolo canale / \* Values for single channel

\*\* Valori riferiti ad ogni metro di prodotto / \*\* Values referred to each meter of products

Tutti i modelli con Led white sono fornibili con le seguenti CCT: 2700K, 3000K, 3500K, 4000K, 5000K, 5700K, 6500K / All products with white Led are available in the following CCT: 2700K, 3000K, 3500K, 4000K, 5000K, 5700K, 6500K

## LEDiL<sup>®</sup>

LEDiL è un fornitore finlandese, produttore di ottiche LED secondarie di alta qualità. L'azienda è caratterizzata da un atteggiamento innovativo finalizzato a fornire ai propri clienti le migliori soluzioni anche personalizzate. La gamma standard conta oltre 1800 prodotti e comprende lenti, riflettori e le combinazioni per diverse luci a LED. Con una rete globale di distributori, LEDiL offre supporto tecnico gratuito a tutti i suoi clienti per fornire la migliore soluzione disponibile.

LEDiL products and solutions bring out the best in lighting. It offers a wide range of high-quality standard products and custom solutions that meet the needs and requirements of lighting and electronic manufacturers. Its wide standard product range of over 1800 products includes lenses, and reflectors and their combinations for various LED lights. With a global network of distributors and free of charge technical support to all customers LEDiL provides the most competitive solutions available today.



### SINGLE LENSES

BILLIE, CARMEN-50, CARMEN-70, CRYSTAL, EMERALD, EMILY, EMMA, EVA, FLARE, GABRIELLA, GERI, HEIDI, HELENA, ILONA, IRENE, IRIE, IRIS, JULIA, KIKI, LARISA, LAURA-G2, LAURA, LEIA, LEILA-G2, LEILA, LISA, LOTTA, MIRA, MOLLY, OLGA, OLIVIA, RGBX, RONDA, ROSE, SAGA, SAKURA, SEANNA, SIRI, SPUTNIK, SURI, STRADA-S, TINA, TITANUM, TWIDDLE, VERONICA, VENLA, WINNIE, ZORYA, ZOWIE



### MULTI-LENS ARRAYS

ANGIE, ANNA, CUTE, FLORENTINA, GT3, GT4, IDA, LUCIA, MARTHA, MELODY, PETUNIA, QUAK, SANDRA, SATU, TAMPA, TUIJA, VICTORIA, VIRPI



### LINEAR LENSES

CLAUDIA, DAHLIA, DAISY, FLORENCE, LILIAN, LINDA, LINNEA, SHELLY, VANESSA



### REFLECTORS

ALISE, ANGELA, ANGELETTE, ANGELINA, BARBARA, BLONDIE, BOOM, BRIDGET, BROOKE, ELISE, ELLA, LENA, LENINA, MINNIE, MIRELLA, REGINA, RITA, TYRA, VENLA



### STREET & AREA LIGHTING

JENNY, SITARA, STELLA, STRADA, STRADELLA, TATIANA



### HIGH BAY LIGHTING

HB

# OPTICAL MANAGEMENT

## PRODUCT FAMILIES & SUGGESTED APPLICATIONS

	RETAIL & TRACK	DECORATIVE & STAGE	LINEAR	OFFICE	EMERGENCY & SECURITY	WASH LIGHTING	ARCHITECTURAL	RETROFIT	INDUSTRIAL & TECHNICAL	DOWNLIGHT	GENERAL	HORTICULTURAL	STREET LIGHTING	AREA & PARKING LOT	CANOPY	TUNNEL & TRANSPORTATION	FLOOD LIGHT	WASH LIGHTING	ARCHITECTURAL	RETROFIT	
	INDOOR												OUTDOOR								
ALISE	•																				
ANGELA / ANGELETTE / ANGELINA	•	•		•		•			•	•	•									•	
ANGIE								•		•											
ANNA	•						•	•		•										•	•
BARBARA	•	•					•	•		•	•										
BILLIE						•													•	•	
BOOM											•						•				
BRIDGET											•						•				
BROOKE	•	•					•	•		•	•						•		•		
CARMEN							•														
CLAUDIA	•																				
CRYSTAL		•			•		•														
CUTE								•			•										
DAISY			•	•																	
DAHLIA												•									
ELISE	•																				
ELLA	•						•														
EMERALD					•								•								
EMILY						•	•				•						•	•	•		
EMMA					•				•												
EVA	•						•				•						•				
FLARE					•	•	•		•							•					
FLORENCE-1R			•	•		•	•		•												
FLORENCE (3R)	•		•	•		•	•		•		•					•					
FLORENCE-3R-IP			•					•	•		•				•	•			•		•
FLORENTINA (12X1)			•	•			•														
FLORENTINA-1, -2X2, -4X1	•			•			•			•											
GABRIELLA		•					•				•									•	
GERI	•																				
GT3 / GT4								•			•										
HB-SQ									•	•											
HB-2X2									•	•				•	•		•				
HB-IP-2X6									•	•											
HB-2X2MX / MXS									•	•				•	•		•				
HEIDI							•				•						•		•		
HELENA	•				•					•	•										
IDA				•					•	•	•										
ILONA	•						•														
IRENE					•																
IRIE									•												
IRIS		•					•		•		•									•	
JENNY									•		•			•	•		•				
JULIA				•	•		•				•			•							
KIKI				•	•		•				•			•							
LARISA							•				•										
LAURA						•	•				•						•	•	•		
LEIA		•					•				•									•	
LEILA						•	•				•							•	•		
LENA/ LENINA	•			•		•	•			•	•						•	•			
LILIAN			•			•	•														
LINDA	•		•																		
LINNEA	•		•	•			•	•	•		•										
LISA							•				•									•	
LOTTA				•	•		•				•			•							

**PRODUCT FAMILIES &  
SUGGESTED APPLICATIONS**

	RETAIL & TRACK	DECORATIVE & STAGE	LINEAR	OFFICE	EMERGENCY & SECURITY	WASH LIGHTING	ARCHITECTURAL	RETROFIT	INDUSTRIAL & TECHNICAL	DOWNLIGHT	GENERAL	HORTICULTURAL	STREET LIGHTING	AREA & PARKING LOT	CANOPY	TUNNEL & TRANSPORTATION	FLOOD LIGHT	WASH LIGHTING	ARCHITECTURAL	RETROFIT
	INDOOR											OUTDOOR								
MINNIE							•	•		•	•							•		
MIRA							•	•		•	•							•		
MIRELLA	•	•					•	•		•	•									
MOLLY	•			•			•													
OLGA	•						•			•	•									
OLIVIA	•									•	•									•
RGBX		•									•									
RITA		•				•	•													
RONDA	•			•		•	•		•	•	•									•
ROSE							•				•							•	•	
SAGA									•	•	•			•			•			
SAKURA	•																			
SANDRA	•				•		•			•	•									
SATU		•						•			•									
SEANNA		•							•											
SHELLY		•				•	•											•	•	
SIRI											•						•			
SITARA													•							
SPORT-2X2														•		•				
STELLA									•		•		•	•	•		•			
STRADA (single)					•				•				•	•		•				
STRADA-SQ					•				•				•	•	•	•				
STRADA-2X2													•	•	•	•				
STRADA-2X2CSP													•	•	•					
STRADA-2X2-5050													•							
STRADA-IP-2X6									•				•	•	•		•			
STRADA-IP-8MX													•							
STRADA-IP-16MX													•							
STRADA-2X2MX/MXS									•				•	•	•		•			
STRADA-6X1													•	•						
STRADELLA (single), -8									•				•	•	•		•			
STRADELLA -16									•								•			
STRADELLA-IP-16																				
STRADELLA-IP-28/64													•	•			•			
SURI									•											
TAMPA								•			•									
TATIANA													•							
TINA						•	•		•	•	•							•	•	
TITANUM								•			•									
TUIJA								•			•									
TWIDDLE		•									•									
VANESSA			•			•	•				•									
VENLA	•									•	•									
VERONICA							•		•		•						•		•	
VICTORIA									•											
VIOLET												•								
VIRPI									•	•	•									
WINNIE	•						•	•		•	•						•		•	
YASMEEN	•			•			•			•										
ZORYA		•					•	•	•					•						•
ZORYA-MINI		•					•	•												

## eldoLED

*your product | our drive*

EldoLED è leader mondiale nella progettazione e produzione di soluzioni driver intelligenti per sistemi di illuminazione a LED. Le sue tecnologie permettono ai nostri clienti di realizzare sistemi di illuminazione a LED intelligenti, eleganti e più efficienti, per soddisfare le esigenze di un mondo sempre più attento alle problematiche energetiche.

EldoLED is a world leader in the design and manufacture of intelligent drive solutions for LED based lighting systems. Its technologies empower our customers to deliver the promise of LED lighting: smarter, sleeker and more efficient systems to meet the needs of an ever more energy conscious world. Colour is its nature, light is its passion, your product its drive.

## ECODRIVE

### VALORE GARANTITO

Prestazioni premium per l'illuminazione generale. Oscuramento regolare e senza sfarfallio fino all'1% con impostazione di corrente programmabile.

### VALUE DELIVERED

Premium performance for general lighting. Smooth and flicker-free dimming down to 1% with programmable current setting.



- Natural dimming – Dim to 1%
- Constant current
- DALI-2 or 0-10V controls
- LEDcode for in-luminaire intelligence
- Power levels from 10W to 100W
- For indoor applications

- Natural dimming – Dim to 1%
- Constant current
- DALI-2 or 0-10V controls
- LEDcode for in-luminaire intelligence
- Power levels from 10W to 100W
- For indoor applications

## SOLODRIVE

### OTTIMA DIMMERAZIONE A LED.

La dimmerazione più uniforme fino all'oscuramento, con qualsiasi controller, per qualsiasi applicazione. In più LightShape ti consente di personalizzare la curva di attenuazione per adattarsi perfettamente ad ogni specifica applicazione.

### LED DIMMING MADE BEAUTIFUL

The smoothest dimming all the way to dark. With any controller, in any application. What's more, LightShape allows you to tailor the dimming curve to perfectly match your lighting application.



- Natural dimming – Dim to Dark (0.1%)
- Constant current
- DALI-2 or 0-10V controls, single channel
- LightShape for Dim to Warm applications
- LEDcode for in-luminaire intelligence
- Power levels from 10W to 100W
- For indoor applications

- Natural dimming – Dim to Dark (0.1%)
- Constant current
- DALI-2 or 0-10V controls, single channel
- LightShape for Dim to Warm applications
- LEDcode for in-luminaire intelligence
- Power levels from 10W to 100W
- For indoor applications

## DUALDRIVE

### OGNI SFUMATURA DI BIANCO

Progettato per illuminazione dinamica e tunable con LED bianchi. DUALdrive eccelle per la sua configurabilità, l'oscuramento regolabile il controllo digitale a due vie.

### EVERY SHADE OF WHITE

Designed for dynamic and Tunable White LED lighting. DUALdrive excels in configurability, deep dimming, and two-way digital control.



- Natural dimming – Dim to Dark (0.1%)
- Constant current
- DALI-2 controls, dual channel
- LightShape for Tunable White applications
- LEDcode for in-luminaire intelligence
- Power levels from 20W to 120W
- For indoor applications

- Natural dimming – Dim to Dark (0.1%)
- Constant current
- DALI-2 controls, dual channel
- LightShape for Tunable White applications
- LEDcode for in-luminaire intelligence
- Power levels from 20W to 120W
- For indoor applications

# LED DRIVER

## POWERDRIVE

### OLTRE IL COLORE

Ottieni più del corretto colore e la migliore sfumatura. POWERdrive è compatibile DMX e DALI. Inoltre, ti permette di creare il tuo colore o il tuo spettacolo dinamico senza nessun controller esterno. La risposta dinamica di POWERdrive ti consente di perfezionare la tua applicazione come nessun'altra unità!

### BEYOND COLOR

Achieve more than the right color and the smoothest fade. POWERdrive is DMX and DALI compatible. In addition, it allows you to create your color or dynamic show without an external controller. POWERdrive's dynamic response allows you to fine-tune your application like no other drive!



- Natural dimming – Dim to Dark (0.1%)
- Constant current
- DMX / RDM or DALI controls
- Designed for 3 or 4-channel, RGBW
- Application-specific dynamic response
- Power levels from 50W to 100W
- For indoor applications

- Natural dimming – Dim to Dark (0.1%)
- Constant current
- DMX / RDM or DALI controls
- Designed for 3 or 4-channel, RGBW
- Application-specific dynamic response
- Power levels from 50W to 100W
- For indoor applications

## LINEARDRIVE

### INFINITO CONTROLLO DEL COLORE

Tutto il colore di cui hai bisogno per applicazioni con LED a bassa tensione. I prodotti LINEARdrive sono progettati per le applicazioni in cui si voglia accentuare i singoli colori e per l'illuminazione fino a RGBW per soluzioni di prodotti per l'intrattenimento a colori. Tutti i protocolli di controllo del settore sono coperti: DALI, DMX/RDM e 0-10 V - con LINEARdrive non ti mancheranno le opzioni di controllo!

### INFINITE COLOR CONTROL

All the color you will ever need for low-voltage LED applications. LINEARdrive products cover applications from single colors for accent and cove lighting right up to RGBW for full-color entertainment product solutions. All industry control protocols are covered: DALI, DMX/RDM and 0-10V – you'll not run out of control options with LINEARdrive!



- Natural dimming – Dim to Dark (0.1%)
- Constant voltage
- DALI-2, DMX / RDM or 0-10V controls
- Designed for 12V or 24V LED tape lighting
- Application-specific dynamic response
- Power levels up to 720W
- For indoor applications
- LightShape for Dim to Warm or Tunable White applications

- Natural dimming – Dim to Dark (0.1%)
- Constant voltage
- DALI-2, DMX / RDM or 0-10V controls
- Designed for 12V or 24V LED tape lighting
- Application-specific dynamic response
- Power levels up to 720W
- For indoor applications
- LightShape for Dim to Warm or Tunable White applications

## PANORAMICA TIPOLOGIE DI FORMA / FORM FACTOR OVERVIEW

### A



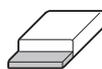
20W, single channel driver: 161 x 42 x 31 mm



20W, dual channel driver: 183 x 42 x 31 mm



30W: 210 x 41 x 34 mm



50W: 153 x 76 x 31 mm



100W: 388 x 42 x 30 mm



POWERdrive 45W, 90W, 180W (DC product): 193 x 50 x 23 mm



ECOdrive 15W, 45W and LINEARdrive 180W, 200W, 720W (DC product): 153 x 50 x 23 mm

### B

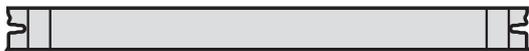


10W, 20W, 30W, 50W: 130 x 72 x 35 mm



75W: 174 x 72 x 29 mm

### L



30W, 50W: 320 x 30 x 26 mm



75W: 424 x 30 x 27 mm

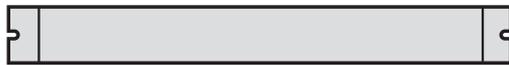
### M



20W, single channel driver: 129 x 42 x 31 mm



20W dual channel driver: 184 x 42 x 31 mm



100W, 120W: 370 x 41 x 30 mm

### S



10W, 20W, 30W: 130 x 72 x 35 mm



50W: 130 x 76 x 30 mm



100W: 230 x 80 x 30 mm

### U



20W, 30W: 280 x 30 x 21 mm



50W: 444 x 30 x 21 mm

# LED DRIVER

## LED DRIVER CERTIFICATI ENEC / ENEC CERTIFIED LED DRIVERS

		Constant current									
		ECOdrive					SOLOdrive				
Form factor		A	M	L	S	U	A	M	L	S	U
Output power	10W				● 6					● 6	
	20W	● 6 ● PD	● 6 ● PD		● 6	● 6	● 6 ● PD	● 6 ● PD		● 6	● 6
	30W	● 6 ● PD		● 6 ● PD	● 6	● 6	● 6	● 6 ● PD	● 6	● 6	● 6
	45W										
	50W	● 6		● 6 ●	● 6	● 6	● 6		● 6 ●	● 6	● 6
	75W			● 6 ●					● 6 ●		
	90W										
	100W		● 6 ●		● 6		● 6	● 6 ●		● 6	
	120W										
	180W										
	200W										
	600W										
	720W										

- 0 - 10V
- DMX
- LEDcode2 only

- DALI version-1
- 6 DALI-2 Device Type 6 (DT6)
- 8 DALI-2 Device Type 8 (DT8)
- PD PulseDimming

										Constant voltage		
DUALdrive					POWERdrive					LINEARdrive		
A	M	L	S	U	A	M	R	S	U	A	M	S
6 8	6 8			6 8								
				6 8								
					● ●							
6 8		6 8	6 8	6 8	●			●	●			
		6 8										
					● ●							
●	6 8		6 8		● ● ● ●	● ●		● ● ●		● ●		● ● ● ●
	●											
					● ●					●		
										● ● ● ●	6 8	
										● ●		
							● ●					
										● ●		

- DC powered product (needs a separate power supply)
- LightShape: for Tunable White applications
- LightShape: for Dim to Warm applications

# LED DRIVER

## LED DRIVER CERTIFICATI UL, CLASSE P / UL LISTED, CLASS P CERTIFIED LED DRIVERS

		Constant current							
		POWERdrive				SOLOdrive			
Form factor		B	L	S	U	B	L	S	U
Output power	20W	● 6 CA		● 6 CA	● 6 ●	● 6 CA		● 6 CA	● 6 ● CA
	30W	● 6 ● CA	● 6 ● CA	● 6 ● CA	● 6 ● CA	● 6 ● CA	● 6 ● CA	● 6 ● CA	● 6 ● CA
	50W	● 6 CA	● 6 ● CA	● 6 CA	● 6 ● CA	● 6 CA	● 6 ● CA	● 6 CA	● 6 ● CA
	75W	● 6 ●	● 6 ●			● 6 ●	● 6 ●		
	100W			● 6 ●		● 6		● 6 ●	
	600W								

- 0 - 10V
- DMX
- LEDcode2 only

- DALI version-1
- 6 ● DALI-2 Device Type 6 (DT6)
- 8 ● DALI-2 Device Type 8 (DT8)
- PD ● PulseDimming

- CA ● CA Title 24 compliant (start-up time)

							Constant voltage
DUALdrive				POWERdrive		LINEARdrive	
B	L	S	U	R	S	S	
			8				
8		8	8				
	8	8	8		●		
8	8						
		8			● ●	● ●	
				● ●			

- DC powered product (needs a separate power supply)
- LightShape: for Tunable White applications
- LightShape: for Dim to Warm applications

# LED DRIVER

## LED DRIVER RICONOSCIUTI UL / UL RECOGNIZED LED DRIVERS

		Constant current												
		ECOdrive						SOLOdrive						
Form factor		A	B	M	L	S	U	A	B	M	L	S	U	
Output power	10W		● 6 ● TL ● CA			● 6 ● TL ● CA			● ● ● 6 ● TL ● CA			● ● ● 6 ● TL ● CA		
	15W	●												
	20W		● 6 ● TL ● CA			● 6 ● TL ● CA	● 6 ● TL ● CA		● ● ● 6 ● TL ● CA			● ● ● 6 ● TL ● CA	● ● ● 6 ● TL ● CA	
	30W	● ● 6 ● ● CA	● 6 ● TL ● CA	●	● ● 6 ● ● TL ● CA	● ● 6 ● ● TL ● CA		● ● 6 ● ● TL ● CA	● ● 6 ● ● TL ● CA					
	45W	●												
	50W	● ● 6 ● ● CA	● ● 6 ● ● TL ● CA	● ●	● ● 6 ● ● TL ● CA		● ● 6 ● ● TL ● CA	● ● 6 ● ● TL ● CA	● ● 6 ● ● TL ● CA					
	75W				● ● 6 ● ● TL							● ● 6 ● ● TL		
	90W													
	100W			● ● 6 ● ● TL		● ● 6 ● ● TL			● ●	● ● 6 ● ● TL			● ● 6 ● ● TL	
	180W													
	200W													
	600W													
	720W													

- 0 - 10V
- DMX
- LEDcode2 only

- DALI version-1
- 6 DALI-2 Device Type 6 (DT6)
- 8 DALI-2 Device Type 8 (DT8)
- PD PulseDimming

- TL Type TL certification
- CA CA Title 24 compliant (start-up time)



# LED DRIVER

## LED DRIVER CERTIFICATI BIS / BIS CERTIFIED LED DRIVERS

		Constant current									
		ECOdrive					SOLOdrive				
Form factor		A	B	M	L	S	A	B	M	L	S
Output power	20W	● ● ●		● ●			● ● ●		● ●		
	30W	● ●				● ●	● ●				
	50W	● ●	●		●		● ●	● ●		●	● ●
	100W						● ●		● ●		● ●
	180W										
	200W										
	720W										

## LED DRIVER CERTIFICATI TISI / TISI CERTIFIED LED DRIVERS

		Constant current										
		ECOdrive						SOLOdrive				
Form factor		A	B	M	L	S	U	A	B	M	L	S
Output power	20W	● ● ●		● ●				● ● ●		● ●		
	30W	● ●						● ●				
	50W	● ●	●		● ●	● ●	●	● ●	● ●		● ●	● ●

- 0 - 10V
- DALI version-1
- DMX
- DALI-2 Device Type 6 (DT6)
- LEDcode2 only
- DALI-2 Device Type 8 (DT8)

								Constant voltage
DUALdrive				POWERdrive				LINEARdrive
A	L	S	U	A	M	S	U	A
6	6	8	6	●		●	●	
				●	●	●	●	●
								●
								●
								●

DUALdrive			
A	L	S	U
6	6	8	6

- DC powered product (needs a separate power supply)
- LightShape: for Tunable White applications
- LightShape: for Dim to Warm applications



LED DRIVER CERTIFICATI RCM / RCM CERTIFIED LED DRIVERS\*\*

		Constant current										Constant voltage			
		ECOdrive		SOLOdrive		DUALdrive		POWERdrive				LINEARdrive			
Form factor		A	M	A	M	A	M	A	M	S	U	A	M	S	
Output power	15W	●													
	20W	● ● 6	● ● 6	● ● 6	● ● 6	6	8								
	30W	●						●	●						
	45W	●						●		●	●				
	90W							●	●						
	100W							●	●	●	●	●	●	●	●
	120W							●							
	180W							●	●				●		
	200W												●	●	
	720W												●	●	

\*\* For our DC drivers RCM certification is not required according to the official guide lines.

- DC powered product (needs a separate power supply)
- LightShape: for Tunable White applications
- LightShape: for Dim to Warm applications



Nata dall'acquisizione del marchio Harvard e oggi parte della Gallant Lighting, compagnia mondiale del settore lighting, Harvard Power Systems Ltd è un'azienda specializzata nella produzione di LED Driver di alta qualità. Alla produzione consolidata in India, si aggiunge il supporto di un gruppo di ingegneri di pluriennale esperienza a Leeds, in Inghilterra.

Owned by Gallant Lighting, Harvard Power Systems Ltd was formed to re-establish sales of the popular and respected Harvard brand, specialized in high quality LED Drivers. The manufacturing, located in India, is supported by a team of experted engineers in Leeds, UK.



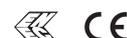
## CLI SERIES



Model	Type	Input	Output Current Range	Output Voltage Range	Max Power	Ambient Temperature	Dimming	IP Rating
CLi15-D01-240/xxxx	CC	220-240 VAC	100 ~ 1050 mA	2.5-38 V	15 W	-25°C ~ +50°C	DALI+PUSH	IP20
CLi15-D02-240/xxxx	CC	220-240 VAC	100 ~ 700 mA	4.5-52 V	15 W	-25°C ~ +50°C	DALI+PUSH	IP20
CLi15-D05-240/xxxx	CC	220-240 VAC	100 ~ 1050 mA	2.5-38 V	15 W	-25°C ~ +50°C	DALI+PUSH	IP20
CLi15-D06-240/xxxx	CC	220-240 VAC	100 ~ 700 mA	4.5-52 V	15 W	-25°C ~ +50°C	DALI+PUSH	IP20
CLi15-A01-240/xxxx	CC	220-240 VAC	100 ~ 1050 mA	2.5-38 V	15 W	-25°C ~ +50°C	0-10 / 1-10 V	IP20
CLi15-A02-240/xxxx	CC	220-240 VAC	100 ~ 700 mA	4.5-52 V	15 W	-25°C ~ +50°C	0-10 / 1-10 V	IP20
CLi40-D01-240/xxxx	CC	220-240 VAC	100 ~ 1400 mA	2.5-38 V	40 W	-25°C ~ +50°C	DALI+PUSH	IP20
CLi40-D02-240/xxxx	CC	220-240 VAC	100 ~ 1050 mA	4.5-52 V	40 W	-25°C ~ +50°C	DALI+PUSH	IP20
CLi40-A01-240/xxxx	CC	220-240 VAC	100 ~ 1400 mA	2.5-38 V	40 W	-25°C ~ +50°C	0-10 / 1-10 V	IP20
CLi40-A02-240/xxxx	CC	220-240 VAC	100 ~ 1050 mA	4.5-52 V	40 W	-25°C ~ +50°C	0-10 / 1-10 V	IP20



## CLK SERIES



Model	Type	Input	Output Current	Output Voltage Range	Max Power	Ambient Temperature	Dimming	IP Rating
CLK10-500-240-B/C	CC	220-240 VAC	500 mA	4-20 V	10 W	-40°C ~ +60°C	ON/OFF	IP20
CLK10-700-240-B/C	CC	220-240 VAC	700 mA	2.8-14 V	10 W	-40°C ~ +60°C	ON/OFF	IP20
CLK10-1050-240-B/C	CC	220-240 VAC	1050 mA	2-10 V	10 W	-40°C ~ +60°C	ON/OFF	IP20
CLK10-300P-240-B/C	CC	220-240 VAC	300 mA	16-38 V	11 W	-25°C ~ +50°C	TRIAC	IP20
CLK10-350P-240-B/C	CC	220-240 VAC	350 mA	12-32 V	11 W	-25°C ~ +50°C	TRIAC	IP20
CLK10-700P-240-B/C	CC	220-240 VAC	700 mA	7-15 V	11 W	-25°C ~ +50°C	TRIAC	IP20
CLK10-1050P-240-B/C	CC	220-240 VAC	1050 mA	7-12 V	13 W	-25°C ~ +50°C	TRIAC	IP20
CLK20-700-240-B/C	CC	220-240 VAC	700 mA	6-29 V	20 W	-40°C ~ +60°C	ON/OFF	IP20
CLK20-260P-240-B/C	CC	220-240 VAC	260 mA	30-52 V	13.5 W	-25°C ~ +50°C	TRIAC	IP20
CLK20-350P-240-B/C	CC	220-240 VAC	350 mA	30-52.5 V	18.2 W	-25°C ~ +50°C	TRIAC	IP20
CLK20-400P-240-B/C	CC	220-240 VAC	400 mA	27-44 V	17.6 W	-25°C ~ +50°C	TRIAC	IP20
CLK20-500P-240-B/C	CC	220-240 VAC	500 mA	20-40 V	20 W	-25°C ~ +50°C	TRIAC	IP20
CLK20-700P-240-B/C	CC	220-240 VAC	700 mA	14-28.5 V	20 W	-25°C ~ +50°C	TRIAC	IP20
CLK20-1050P-240-B/C	CC	220-240 VAC	1050 mA	10-19 V	20 W	-25°C ~ +50°C	TRIAC	IP20
CLK20-1400P-240-B/C	CC	220-240 VAC	1400 mA	7-13 V	18 W	-25°C ~ +50°C	TRIAC	IP20
CLK175S2-240-B/C	CC	220-240 VAC	150-175 mA	9-48 V	7-8.4 W	-25°C ~ +50°C	ON/OFF	IP20
CLK275S2-240-B/C	CC	220-240 VAC	200-275 mA	9-48 V	9.6-13 W	-25°C ~ +50°C	ON/OFF	IP20
CLK700S-240-B/C/AB*	CC	220-240 VAC	350-700 mA	9-48 V	17-33 W	-25°C ~ +50°C	ON/OFF	IP20
CLK450S2-240-B/C	CC	220-240 VAC	325-450 mA	9-48 V	15.6-17 W	-25°C ~ +50°C	ON/OFF	IP20
CLK700S2-240-B/C	CC	220-240 VAC	500-700 mA	9-48 V	24-33 W	-25°C ~ +50°C	ON/OFF	IP20
CLK1000S-240-B/C/AB*	CC	220-240 VAC	500-1000 mA	9-48 V	24-33 W	-25°C ~ +50°C	ON/OFF	IP20
CLK850S2-240-B/C	CC	220-240 VAC	550-850 mA	9-48 V	26.4-32 W	-25°C ~ +50°C	ON/OFF	IP20
CLK1050S2-240-B/C	CC	220-240 VAC	700-1050 mA	9-48 V	33-33 W	-25°C ~ +50°C	ON/OFF	IP20

\* AB in versione Hybrid ha un rivestimento conforme e il part number terminante con AB-CC / AB Hybrid version is conformal coated and the part code will end AB-CC

# LED DRIVER



## CL SERIES



Model	Type	Input	Output Current Range	Output Voltage Range	Max Power	Ambient Temperature	Dimming	IP Rating
CL250L-240-A/B/C	CC	220-240 VAC	250 mA	6-40	10 W	-25°C ~ +50°C	ON/OFF	IP20
CL350L-240-A/B/C	CC	220-240 VAC	350 mA	6-30	10 W	-25°C ~ +50°C	ON/OFF	IP20
CL500L-240-A/B/C	CC	220-240 VAC	500 mA	6-20	10 W	-25°C ~ +50°C	ON/OFF	IP20
CL700L-240-A/B/C	CC	220-240 VAC	700 mA	6-15	10 W	-25°C ~ +50°C	ON/OFF	IP20
CL350DL-240-B/C	CC	220-230 VAC	350 mA	6-20 V	7 W	-25°C ~ +65°C	DALI	IP20
CL500DL-240-B/C	CC	220-230 VAC	500 mA	6-20 V	10 W	-25°C ~ +65°C	DALI	IP20
CL700DL-240-B/C	CC	220-230 VAC	700 mA	6-20 V	14 W	-25°C ~ +65°C	DALI	IP20
CL1050DL-240-B/C	CC	220-230 VAC	1050 mA	6-20 V	21 W	-25°C ~ +65°C	DALI	IP20
CL350-240-56V-A/B/C	CC	220-240 VAC	350 mA	24-56 V	20 W	-25°C ~ +50°C	ON/OFF	IP20
CL500-240-56V-A/B/C	CC	220-240 VAC	500 mA	24-56 V	28 W	-25°C ~ +50°C	ON/OFF	IP20
CL500S-240-B/C	CC	220-240 VAC	350 - 500 mA	9-48 V	17 - 24 W	-25°C ~ +50°C	ON/OFF	IP20
CL700S-240-B/C	CC	220-240 VAC	350 - 700 mA	9-48 V	17 - 33 W	-25°C ~ +50°C	ON/OFF	IP20
CL700S2-240-B/C	CC	220-240 VAC	500 - 700 mA	9-48 V	24 - 33 W	-25°C ~ +50°C	ON/OFF	IP20
CL900S-240-B/C	CC	220-240 VAC	450 - 900 mA	9-33 V	17 - 30 W	-25°C ~ +50°C	ON/OFF	IP20
CL1000S-240-A/B/C	CC	220-240 VAC	500 - 1000 mA	9-33 V	24 - 33 W	-25°C ~ +50°C	ON/OFF	IP20
CL1400S-240-A/B/C	CC	220-240 VAC	1200 - 1400 mA	20-22 V	26 - 28 W	-25°C ~ +50°C	ON/OFF	IP20
CL700P-240-HV-A/B/C	CC	220-240 VAC	700 mA	28-47 V	33 W	-25°C ~ +50°C	TRIAC	IP20
CL1000P-240-C	CC	220-240 VAC	1000 mA	17-30 V	30 W	-25°C ~ +50°C	TRIAC	IP20
CL250D2-240-B/C	CC	220-240 VAC	250 mA	15-48 V	12 W	-25°C ~ +55°C	DALI	IP20
CL270D2-240-A/B/C	CC	220-240 VAC	270 mA	15-48 V	13 W	-25°C ~ +55°C	DALI	IP20
CL350D2-240-A/B/C	CC	220-240 VAC	350 mA	15-48 V	17 W	-25°C ~ +60°C	DALI	IP20
CL450D2-240-A/B/C	CC	220-240 VAC	450 mA	15-48 V	21.6 W	-25°C ~ +60°C	DALI	IP20
CL500D2-240-A/B/C	CC	220-240 VAC	500 mA	15-48 V	24 W	-25°C ~ +60°C	DALI	IP20
CL600D2-240-A/B/C	CC	220-240 VAC	600 mA	15-48 V	29 W	-25°C ~ +50°C	DALI	IP20
CL700D2-240-A/B/C	CC	220-240 VAC	700 mA	15-48 V	33 W	-25°C ~ +50°C	DALI	IP20
CL900D2-240-A/B/C	CC	220-240 VAC	900 mA	15-37 V	33 W	-25°C ~ +50°C	DALI	IP20
CL1050D2-240-A/B/C	CC	220-240 VAC	1050 mA	15-32 V	33 W	-25°C ~ +50°C	DALI	IP20
CL40-350S2D-PROG-240-LD-B-PUSH CL40-350S2D-PROG-240-LD-C CL40-350S2D-PROG-240-LD-OF*	CC	220-240 VAC	200 ~ 350 mA	12-57 V	13.11 - 19.95 W	-25°C ~ +50°C	DALI	IP20
CL40-500S2D-PROG-240-LD-B-PUSH CL40-500S2D-PROG-240-LD-C CL40-500S2D-PROG-240-LD-OF*	CC	220-240 VAC	100 ~ 500 mA	12-57 V	20.3 - 28.5 W	-25°C ~ +50°C	DALI	IP20
CL40-1050S2D-PROG-240-LD-B-PUSH CL40-1050S2D-PROG-240-LD-C CL40-1050S2D-PROG-240-LD-OF*	CC	220-240 VAC	500 ~ 1050 mA	12-38 V / 12-57 V	40 - 40 W	-25°C ~ +50°C	DALI	IP20

\* Prodotto non verificato / Unverified product



## CLP SERIES



Model	Type	Input	Output Current Range	Output Voltage Range	Max Power	Ambient Temperature	Dimming	IP Rating
CLP2-350A-58V-240-B/C	CC	220-240 VAC	350 mA	18-58 V	20 W	-25°C ~ +50°C	TRIAC	IP20
CLP2-500A-58V-240-B/C	CC	220-240 VAC	500 mA	18-58 V	24 W	-25°C ~ +50°C	TRIAC	IP20
CLP2-700A-240-B/C	CC	220-240 VAC	700 mA	18-48 V	33 W	-25°C ~ +50°C	TRIAC	IP20
CLP2-1000A-240-B/C	CC	220-240 VAC	1000 mA	18-33 V	33 W	-25°C ~ +50°C	TRIAC	IP20
CLP2-350D-58V-240-B/C	CC	220-240 VAC	350 mA	18-58 V	20 W	-25°C ~ +65°C	DALI	IP20
CLP2-500D-58V-240-B/C	CC	220-240 VAC	500 mA	18-58 V	29 W	-25°C ~ +65°C	DALI	IP20
CLP2-700D-240-B/C	CC	220-240 VAC	700 mA	18-48 V	33 W	-25°C ~ +65°C	DALI	IP20
CLP2-1000D-240-B/C	CC	220-240 VAC	1000 mA	18-33 V	33 W	-25°C ~ +65°C	DALI	IP20
CLP2-350-58V-240-B-CC-SN*	CC	220-240 VAC	350 mA	18-58 V	20 W	-25°C ~ +50°C	Smart Night	IP20
CLP2-500-58V-240-B-CC-SN*	CC	220-240 VAC	500 mA	18-58 V	29 W	-25°C ~ +50°C	Smart Night	IP20
CLP2-700-240-B-CC-SN*	CC	220-240 VAC	700 mA	18-48 V	33 W	-25°C ~ +50°C	Smart Night	IP20
CLP2-1000-240-B-CC-SN*	CC	220-240 VAC	1000 mA	18-33 V	33 W	-25°C ~ +50°C	Smart Night	IP20

\* Ogni canale deve avere un carico collegato. Funzionamento a canale singolo non è supportato / Each channel must have a load connected. Single channel operation is not supported



## CLQ SERIES



Model	Type	Input	Output Current Range	Output Voltage Range	Max Power	Ambient Temperature	Dimming	IP Rating
CLQ21-240-B/C	CC	220-240 VAC	2100 mA	9-29.5 V	62 W	-25°C ~ +45°C	ON/OFF	IP20
CLQ1050-59V-240-B/C	CC	220-240 VAC	1050 mA	12-59 V	62 W	-25°C ~ +50°C	ON/OFF	IP20
CLQ2500-240-B/C	CC	220-240 VAC	500 mA	12-48 V	48 W	-25°C ~ +50°C	ON/OFF	IP20
CLQ2600-240-B/C*	CC	220-240 VAC	600 mA	12-48 V	58 W	-25°C ~ +50°C	ON/OFF	IP20
CLQ2700-240-B/C	CC	220-240 VAC	700 mA	12-48 V	66 W	-25°C ~ +50°C	ON/OFF	IP20
CLQ2700S-240-B/C	CC	220-240 VAC	350/700 mA	12-48 V	34/66 W	-25°C ~ +50°C	ON/OFF	IP20
CLQ21000S-240-B/C	CC	220-240 VAC	500/1000 mA	12-33 V	48/66 W	-25°C ~ +50°C	ON/OFF	IP20
CLQ21000S2-240-B/C	CC	220-240 VAC	700/1000 mA	12-33 V	66 W	-25°C ~ +50°C	ON/OFF	IP20

# LED DRIVER



## CLX SERIES



Model	Type	Input	Output Current Range	Output Voltage Range	Max Power	Ambient Temperature	Dimming	IP Rating
CLX40-700D-UNI-B/C	CC	120-277 V	200-700 mA	24-58 V	40 W	-25°C ~ +50°C	DALI	IP20
CLX50-1400D-UNI-B/C	CC	120-277 V	700-1400 mA	16-58 V	50 W	-25°C ~ +50°C	DALI	IP20



## CLS SERIES



Model	Type	Input	Output Current Range	Output Voltage Range	Max Power	Ambient Temperature	Dimming	IP Rating
CLS40-350S2-UNI-B-NI	CC	120-277 V	200-250-300-350 mA	40-125 V	25-31.25-37.5-43.75 W	-25°C ~ +50°C	ON/OFF	IP20
CLS40-350S2D-UNI-B-NI	CC	120-277 V	200-250-300-350 mA	40-220/40-175/ 40-145/40-125 V	44-43.75-43.5-43.75 W	-25°C ~ +50°C	DALI	IP20
CLS40-325D-B-NI	CC	120-277 V	325 mA	60-135 V	44 W	-25°C ~ +50°C	DALI	IP20
CLS40-350S2A-UNI-B-NI	CC	120-277 V	200-250-300-350 mA	40-125 V	25-31.25-37.5-43.75 W	-25°C ~ +50°C	1-10 V	IP20
CLS40-700A-UNI-B-I	CC	120-277 V	200-700 mA	15-58 V	40 W	-25°C ~ +50°C	1-10 V	IP20
CLS40-700D-UNI-B-I	CC	120-277 V	200-700 mA	15-58 V	40 W	-25°C ~ +50°C	DALI	IP20
CLS40-700A-UNI-B-I/F*	CC	120-277 V	700 mA	15-58 V	40 W	-25°C ~ +50°C	1-10 V	IP20
CLS50-1400A-UNI-B-I	CC	120-277 V	700-1400 mA	15-58 V	50 W	-25°C ~ +50°C	0-10 / 1-10 V	IP20
CLS50-1400D-UNI-B-I	CC	120-277 V	700-1400 mA	15-58 V	50 W	-25°C ~ +50°C	DALI	IP20
CLS50-1400A-UNI-B-I/F*	CC	120-277 V	1400 mA	15-58 V	50 W	-25°C ~ +50°C	0-10 / 1-10 V	IP20
CLS80-350S2-240-B-NI	CC	220-240 VAC	200-250-300-350 mA	100-240 V	48-60-72-84 W	-25°C ~ +50°C	ON/OFF	IP20
CLS80-350S2D-240-B-NI	CC	220-240 VAC	200-250-300-350 mA	100-240 V	48-60-72-84 W	-25°C ~ +50°C	DALI	IP20
CLS80-350S2A-240-B-NI	CC	220-240 VAC	200-250-300-350 mA	100-240 V	48-60-72-84 W	-25°C ~ +50°C	1-10 V	IP20
CLS90-500S2-240-B-NI	CC	220-240 VAC	220-350-400-500 mA	66-182 V	40-64-73-91 W	-25°C ~ +50°C	ON/OFF	IP20
CLS90-700S2-240-B-NI	CC	220-240 VAC	400-500-600-700 mA	60-130 V	52-65-78-91 W	-25°C ~ +50°C	ON/OFF	IP20
CLS90-500S2D-240-B-NI	CC	220-240 VAC	220-350-400-500 mA	66-240/66-220/ 66-182 V	53-84-88-91 W	-25°C ~ +50°C	DALI	IP20
CLS90-700S2D-240-B-NI	CC	220-240 VAC	400-500-600-700 mA	60-227/60-182/ 60-151/60-130 V	91 W	-25°C ~ +50°C	DALI	IP20
CLS90-700S2A-240-B-NI	CC	220-240 VAC	400-500-600-700 mA	60-130 V	52-65-78-91 W	-25°C ~ +50°C	1-10 V	IP20
CLS150-N01-240-B-NI	CC	220-240 VAC	200-700 mA	216-300 V	70-150 W	-25°C ~ +50°C	ON/OFF	IP20
CLS150-D01-240-B-NI	CC	220-240 VAC	200-700 mA	216-300 V	70-150 W	-25°C ~ +50°C	DALI	IP20
CLS150-Z01-240-B-NI	CC	220-240 VAC	200-700 mA	216-300 V	70-150 W	-25°C ~ +50°C	Wireless	IP20



## CLH SERIES



Model	Type	Input	Output Current Range	Output Voltage Range	Max Power	Ambient Temperature	Dimming	IP Rating
CLH150-500S2A-305-B		120-277 V	500-350 mA	80-430 V	150 W	-25°C ~ +50°C	1-10 V	IP20
CLH150-700S2A-305-B		120-277 V	700-500 mA	55-300 V	150 W	-25°C ~ +50°C	1-10 V	IP20
CLH150-1000S2A-350-B		120-277 V	1000-700 mA	40-215 V	150 W	-25°C ~ +50°C	1-10 V	IP20
CLH150-500S2D-305-B		120-277 V	500-350 mA	80-430 V	150 W	-25°C ~ +50°C	DALI	IP20
CLH150-700S2D-305-B		120-277 V	700-500 mA	55-300 V	150 W	-25°C ~ +50°C	DALI	IP20
CLH150-1000S2D-350-B		120-277 V	1000-700 mA	40-215 V	150 W	-25°C ~ +50°C	DALI	IP20
CLH200-500A-UNI-B		120-277 V	500 mA	75-400 V	200 W	-25°C ~ +50°C	1-10 V	IP20
CLH200-700A-UNI-B		120-277 V	700 mA	55-286 V	200 W	-25°C ~ +50°C	1-10 V	IP20
CLH200-1000A-UNI-B		120-277 V	1000 mA	40-200 V	200 W	-25°C ~ +50°C	1-10 V	IP20
CLH200-1400A-UNI-B		120-277 V	1400 mA	26.6-142 V	200 W	-25°C ~ +50°C	1-10 V	IP20
CLH200-500D-UNI-B		120-277 V	500 mA	75-400 V	200 W	-25°C ~ +50°C	DALI	IP20
CLH200-700D-UNI-B		120-277 V	700 mA	53.4-285 V	200 W	-25°C ~ +50°C	DALI	IP20
CLH200-1000D-UNI-B		120-277 V	1000 mA	37.5-200 V	200 W	-25°C ~ +50°C	DALI	IP20
CLH200-1400D-UNI-B		120-277 V	1400 mA	26.6-142 V	200 W	-25°C ~ +50°C	DALI	IP20
CLH200-1650D-UNI-B		120-277 V	1650 mA	25-121 V	200 W	-25°C ~ +50°C	DALI	IP20



## EMERGENCY



Model	Type	Input	Output Current Range	Output Voltage Range	Max Power	Ambient Temperature	Dimming	IP Rating
MEMO-D-02-2W-170-3-2000-NiMH	CC	220-240 VAC	170 mA	12-56 V	2 W	-25°C ~ +50°C	DALI	IP20
MEMO-D-01-1W/-350-3-2000-NiMH	CC	220-240 VAC	350 mA	2-14 V	1 W	-25°C ~ +50°C	DALI	IP20
MEMO-D-01-2W/-700-3-2000-NiMH	CC	220-240 VAC	700 mA	2-14 V	2 W	-25°C ~ +50°C	DALI	IP20
CEMX-D01-B	CC	220-240 VAC	350-1400 mA	9-52 V	36 W	-25°C ~ +50°C	DALI	IP20
CEMX-D01-C	CC	220-240 VAC	350-1400 mA	9-52 V	36 W	-25°C ~ +50°C	DALI	IP20



Moso Power Supply Technology Co. è un'azienda supportata dal National Twelfth Five-year Plan, si occupa di nuove tecnologie avanzate e risparmio energetico e produce alimentatori. Tecnologia e qualità sono l'anima dell'azienda, MOSO Power Supply ha portato avanti le sue ricerche industriali collaborando con molte università e molti College, fondando il MOSO Power Supply Technology Research Institute. L'Istituto è riconosciuto per affidabilità e sicurezza dei propri laboratori, che guidano l'industria con macchinari per produzione e test, incluso il computer tester completamente automatizzato con il quale ha sviluppato il commutatore elettrico ad alta efficienza. MOSO Power Supply ha acquistato più di 100 brevetti nazionali in pochi anni.

Moso Power Supply Technology Co. is a national hiand-new-tech/energy-saving enterprise supported by the National Twelfth Five-year Plan. It is also a professional power supply manufacturer with a far-ranging sphere of influence on a national level. Several years after its establishment in 2006, it managed to create a number of strategic partnerships with various fortune-500 companies worldwide. With technology and quality at the heart of the company, MOSO power Supply has also undertaken a number of industrial studies in collaboration with universities and colleges, in order to create the MOSO Power Supply Technology Research Institute. This Institute has been recognized for the reliability and safety of its laboratories, which have set an example for the industry through its production and testing machinery. Among the machines, is a completely automated computer tester that has been used to develop the world-leading highly-efficient switching power supply products of MOSO and LED intelligent drivers for a number of categories. MOSO Power Supply has been granted more than one hundred national patents in just a few years time.



LDP / LUP / LCP / LHP / LSV / LDC / LUC / EHC / X6 / XCP / PHC Series **BIS SAA CB CE**      

Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating
LDP (CL I)	CC+CP	90-305 VAC	Current Programmable	42, 60, 75, 105, 120, 150, 200, 240, 320 W	-40°C ~ +60°C	1-10V, PWM, Timing, DALI	IP67
LUP (CL I)	CC+CP	90-305 VAC	Current Programmable	75, 120, 150, 200, 240 W	-40°C ~ +60°C	0-10V, PWM, Timing, DALI	IP67
LCP (CL II)	CC+CP	90-305 VAC	Current Programmable	75, 120, 150, 200, 240 W	-40°C ~ +60°C	0-10V, PWM, Timing, DALI	IP67
LHP (CL I)	CC+CP	249-528 VAC	Current Programmable	60, 105, 150, 200 W	-40°C ~ +60°C	1-10V, PWM, Timing	IP67
LSV (CL I)	CV	90-305 VAC	12, 24, 36, 48 Vdc	35, 50, 75, 100, 150, 200, 264, 320 W	-40°C ~ +60°C	NO	IP67
LDC (CL I)	CC	90-305 VAC	0,5 ~ 1,20 A	42 W	-40°C ~ +60°C	1-10V	IP67
LUC (CL I)	CC	90-264 VAC	Current Programmable	19, 37 W	-40°C ~ +60°C	DALI	IP67
EHC (CL I)	CC	108-305 VAC	0,35 ~ 1,05 A	26, 42, 60, 105, 150 W	-40°C ~ +60°C	NO	IP67
<b>NEW</b> X6	CC+CP	90-305 VAC	Current Programmable	26, 30, 35, 42, 60, 75, 105, 150, 200, 240, 320, 600 W	-40°C ~ +60°C	0-10V, PWM, Timing	IP67
<b>NEW</b> XCP	CC+CP	90-305 VAC	Current Programmable	75, 105, 150, 200, 240 W	-40°C ~ +60°C	0-10V, PWM, Timing	IP67
PHC	CC	90-305 VAC	Current Programmable	42, 60 W	-40°C ~ +60°C	0-10V, PWM	IP67



LTP / MTP / MTN / RTN Series

**SAA CB CE**      

Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating
LTP (CL I)	CC+CP	90-305 VAC	Current Adjustable	100, 160, 200, 240 W	-40°C ~ +60°C	0-10V, PWM, DALI	IP65
MTP (CL I)	CC+CP	90-305 VAC	Current Programmable	60, 120, 160, 200, 240 W	-40°C ~ +60°C	0-10V, PWM	IP65
MTN (CL I)	CC	90-305 VAC	Current Programmable	96, 120, 160, 200, 240 W	-40°C ~ +60°C	0-10V, PWM	IP65
RTN	CC	90-305 VAC	0,37 - 0,92A	96, 120, 160, 200, 240 W	-40°C ~ +60°C	NO	IP65

# LED DRIVER



## U6 Series



Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating
U6 (CL I - CL II)	CC+CP	176-264 VAC	Current Programmable	40, 80, 120, 165, 200 W	-40°C ~ +60°C	Dim to off, Timing, DALI	IP20

## PROGRAMMING CONNECTION DIAGRAMS

### PROGRAMMING CONNECTION DIAGRAM 1



APP



LED Driver

### PROGRAMMING CONNECTION DIAGRAM 2



PC



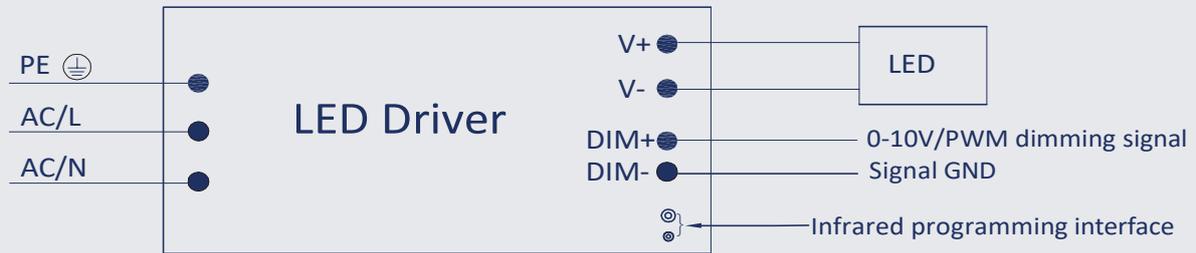
Programmer



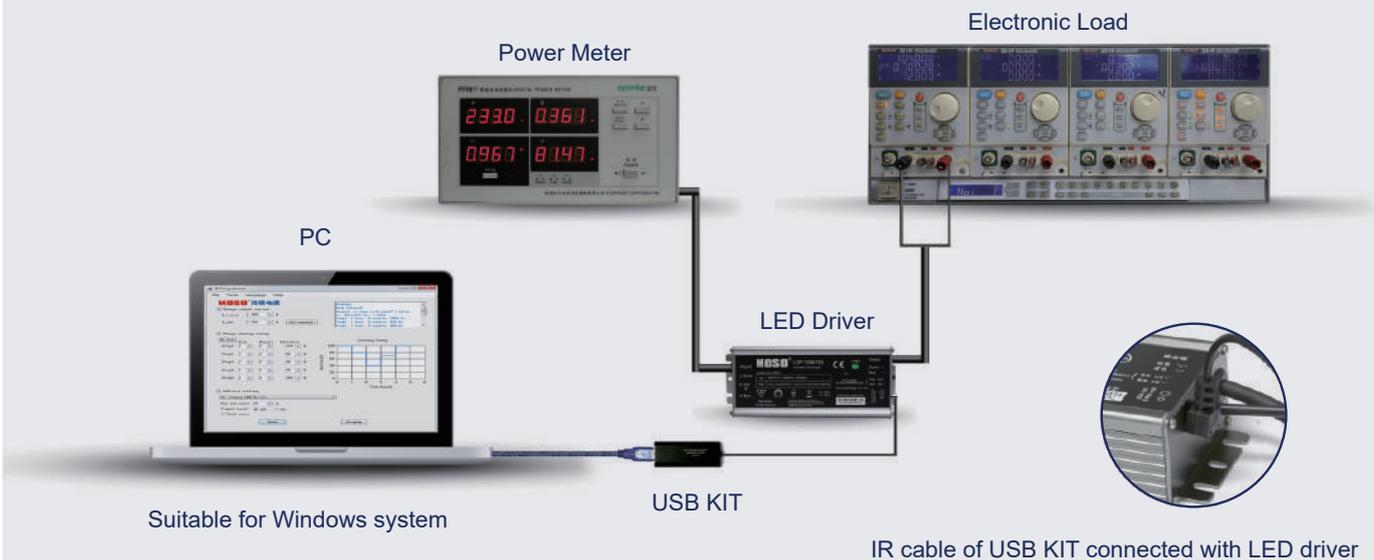
LED Driver

## CONTROLLO INTELLIGENTE / INTELLIGENT CONTROL (LDP, LUP, LCP, LHP Series)

### Intelligent Control Interface

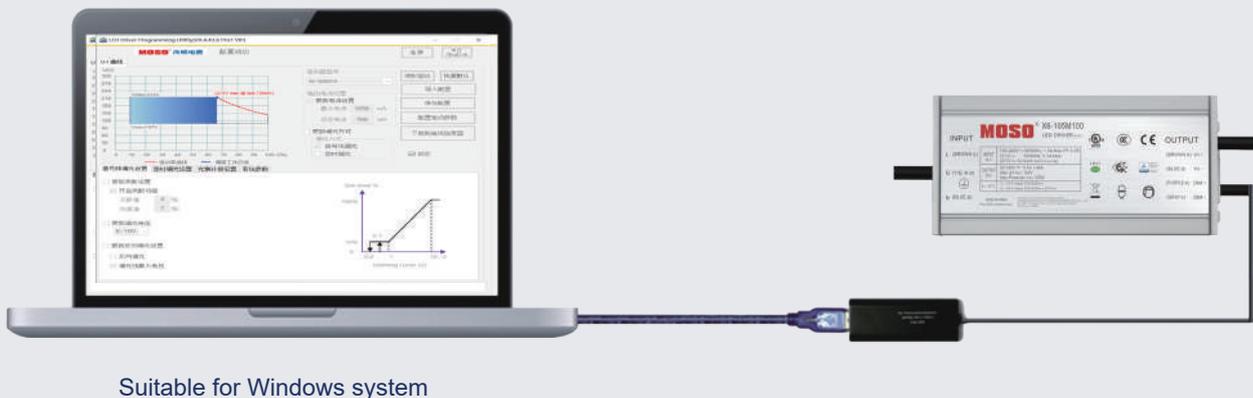


## PROGRAMMING OPERATION GUIDE



## OFF-LINE PROGRAMMING (X6, XCP Series)

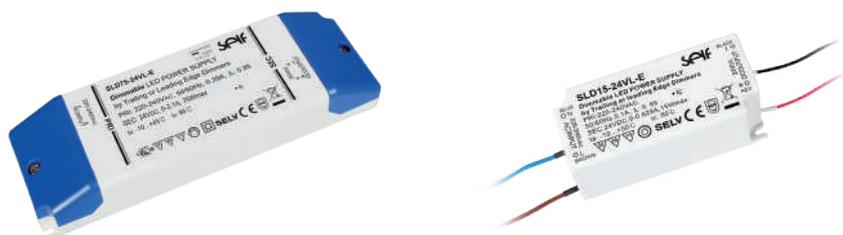
Collegamento intuitivo della programmazione senza necessità di accendere il dispositivo  
*User-friendly connection of programming without necessary to power on device*





Fondata a Ningbo in Cina nel 1993, Self Electronics iniziò come piccola ditta manifatturiera di sensori IR esterni. Nel 1996, sviluppò trasformatori elettronici per il mercato europeo guadagnandosi così una buona reputazione anche nel Vecchio Continente. In seguito Self sviluppa una linea di alimentatori elettrici. Nel 2000 arriva la prima linea di componenti e illuminazioni LED. Nel 2003 arriva l'apertura di un ufficio vendite a ShenZhen e nel 2008 una nuova struttura di circa 32000mq. Gli uffici vendite vengono trasferiti in Germania e negli USA nel 2009. La visione di Self è diventare un punto di riferimento nel campo internazionale per la produzione e sviluppo di illuminazioni a LED e alimentatori elettrici per LED.

Established in Ningbo, China in 1993, Self Electronics began as a small manufacturer of outdoor IR sensor lighting. In 1996, SELF developed electronic transformers for the European market, creating a reliable reputation for itself in the European market. SELF then went on to develop additional lines of electronic power supply. In 2000, SELF developed its first lines of LED drivers and LED lighting. In 2003, it opened up a sales office in Shenzhen, followed by the creation of a new 32,000 square meter facility in 2008. Last but not least, sales offices were established in Germany and the US in 2009. SELF's vision is to become a leading international developer and manufacturer of LED Lighting and LED power supply.



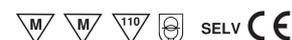
## CLASSIC SERIES



Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating	Dimension LxWxH mm
SLT15-12VF-2s	CV	220-240 VAC	12 VDC	15 W	-20°C ~ +45°C	-	IP20	121x45x16
SLT15-24VF-2s	CV	220-240 VAC	24 VDC	15 W	-20°C ~ +45°C	-	IP20	121x45x16
SLT30-12VLG-Es	CV	220-240 VAC	12 VDC	30 W	-20°C ~ +50°C	-	IP20	165x40x30
SLT30-24VLG-Es	CV	220-240 VAC	24 VDC	30 W	-20°C ~ +50°C	-	IP20	165x40x30
SLT30-48VLG-Es	CV	220-240 VAC	48 VDC	30 W	-20°C ~ +50°C	-	IP20	165x40x30
SLT60-12VLG-E	CV	220-240 VAC	24 VDC	60 W	-20°C ~ +45°C	-	IP20	188x45x30
SLT60-24VLG-E	CV	220-240 VAC	48 VDC	60 W	-20°C ~ +50°C	-	IP20	188x45x30
SLT75-24VL-2	CV	100-240 VAC	24 VDC	75 W	-20°C ~ +50°C	-	IP20	180x60x30
SLT75-24VL-E	CV	220-240 VAC	24 VDC	75 W	-20°C ~ +50°C	-	IP20	185x60x31
SLT100-12VL-E	CV	220-240 VAC	12 VDC	100 W	-20°C ~ +40°C	-	IP20	185x60x31
SLT100-24VL-E	CV	220-240 VAC	24 VDC	100 W	-20°C ~ +40°C	-	IP20	185x60x31
SLT150-24VL-E	CV	220-240 VAC	24 VDC	150 W	-20°C ~ +40°C	-	IP20	223x64x32
SLT150-24VLG-E	CV	220-240 VAC	24 VDC	150 W	-20°C ~ +45°C	-	IP20	185x60x31
SLT150-48VLG-E	CV	220-240 VAC	48 VDC	150 W	-20°C ~ +45°C	-	IP20	185x60x31
SLD75-24VLD-E	CV	220-240 VAC	24 VDC	75 W	-20°C ~ +45°C	DALI	IP20	185x60x31
SLD15-24VL-E	CV	220-240 VAC	24 VDC	15 W	-10°C ~ +50°C	TRIAC	IP20	83x37x34
SLD30-12VL-E	CV	220-240 VAC	12 VDC	30 W	-10°C ~ +45°C	TRIAC	IP20	145x50x20
SLD30-24VL-E	CV	220-240 VAC	24 VDC	30 W	-10°C ~ +45°C	TRIAC	IP20	145x50x20
SLD75-12VL-E	CV	220-240 VAC	12 VDC	75 W	-10°C ~ +45°C	TRIAC	IP20	185x60x31
SLD75-24VL-E	CV	220-240 VAC	24 VDC	75 W	-10°C ~ +45°C	TRIAC	IP20	185x60x31
SLD120-24VL-E	CV	220-240 VAC	24 VDC	120 W	-10°C ~ +45°C	TRIAC	IP20	223x64x32



## BASIC SERIES



Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating	Dimension LxWxH mm
SLT3-350IS-1	CC	220-240 VAC	350 mA	3 W	-20°C ~ +50°C	-	IP20	50x30x20
SLT3-700IS-1	CC	220-240 VAC	700 mA	3 W	-20°C ~ +45°C	-	IP20	50x30x20
SLT3-350ISC	CC	220-240 VAC	350 mA	3 W	-20°C ~ +50°C	-	IP20	52x30x23
SLT3-700ISC	CC	220-240 VAC	700 mA	3 W	-20°C ~ +50°C	-	IP20	52x30x23
SLT4-500ISC	CC	220-240 VAC	500 mA	4 W	-20°C ~ +50°C	-	IP20	52x30x23
SLT6-350ILs	CC	220-240 VAC	350 mA	6 W	-20°C ~ +45°C	-	IP20	66x35x20
SLT6-700ILs	CC	220-240 VAC	700 mA	6 W	-20°C ~ +45°C	-	IP20	66x35x20
SLT6-350IL-4	CC	100-240 VAC	350 mA	6 W	-20°C ~ +50°C	-	IP20	66x35x20
SLT6-500IL-4	CC	100-240 VAC	500 mA	6 W	-20°C ~ +50°C	-	IP20	66x35x20
SLT6-700IL-4	CC	100-240 VAC	700 mA	6 W	-20°C ~ +40°C	-	IP20	66x35x20

# LED DRIVER



## ULTRATHIN SERIES



Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating	Dimension LxWxH mm
SLT15-12VFG	CV	220-240 VAC	12 VDC	15 W	-20°C ~ +50°C	-	IP20	138x40x12
SLT15-24VFG	CV	220-240 VAC	24 VDC	15 W	-20°C ~ +50°C	-	IP20	138x40x12
SLT20-12VFGs	CV	220-240 VAC	12 VDC	20 W	-20°C ~ +50°C	-	IP20	168x40x14
SLT20-24VFGs	CV	220-240 VAC	24 VDC	20 W	-20°C ~ +50°C	-	IP20	168x40x14
SLT30-12VFG	CV	220-240 VAC	12 VDC	30 W	-20°C ~ +50°C	-	IP20	246x30x16
SLT30-24VFG	CV	220-240 VAC	24 VDC	30 W	-20°C ~ +50°C	-	IP20	240x30x16
SLT60-12VFG-UN	CV	120-240 VAC	12 VDC	60 W	-20°C ~ +45°C	-	IP20	298x29,8x16
SLT60-24VFG-UN	CV	120-240 VAC	24 VDC	60 W	-20°C ~ +45°C	-	IP20	298x29,8x16
SLT60-48VFG-UN	CV	120-240 VAC	48 VDC	60 W	-20°C ~ +45°C	-	IP20	298x29,8x16
SLT75-12VFG	CV	220-240 VAC	12 VDC	75 W	-20°C ~ +45°C	-	IP20	298x29,8x16,5
SLT75-24VFG	CV	220-240 VAC	24 VDC	75 W	-20°C ~ +50°C	-	IP20	298x29,8x16,5
SLT100-12VFG	CV	220-240 VAC	12 VDC	100 W	-20°C ~ +45°C	-	IP20	298x29,8x16,5
SLT100-24VFG-UN	CV	120-240 VAC	24 VDC	100 W	-20°C ~ +45°C	-	IP20	298x29,8x16
SLT100-48VFG-UN	CV	120-240 VAC	48 VDC	100 W	-20°C ~ +45°C	-	IP20	298x29,8x16
SLT200-24VFG-UN	CV	120-240 VAC	24 VDC	200 W	-20°C ~ +45°C	-	IP20	384x30x22
SLT200-48VFG-UN	CV	120-240 VAC	48 VDC	200 W	-20°C ~ +45°C	-	IP20	384x30x22
SLT250-24VFG-UN	CV	120-240 VAC	24 VDC	250 W	-20°C ~ +40°C	-	IP20	384x30x22
SLT250-48VFG-UN	CV	120-240 VAC	48 VDC	250 W	-20°C ~ +40°C	-	IP20	384x30x22
SLT80-350IL-EU	CC	110-270 VAC	200 ~ 350 mA step 10 mA	80 W	-20°C ~ +50°C	-	IP20	280x30x22
SLT80-700IL-EU	CC	120-246 VAC	325 ~ 700 mA step 25 mA	80 W	-20°C ~ +50°C	-	IP20	280x30x22
SLT160-700IL-EU	CC	120-228 VAC	350 ~ 700 mA step 50 mA	160 W	-20°C ~ +50°C	-	IP20	280x30x22
SLD160-700ILD-EU	CC	220-240 VAC	350 ~ 700 mA step 50 mA	160 W	-20°C ~ +50°C	DALI	IP20	280x30x22
SLD20-500ILA-UN	CC	110-227 VAC	350 ~ 500 mA step 50 mA	20 W	-20°C ~ +50°C	YES	IP20	278x29,8x21
SLD40-1050ILA-UN	CC	110-227 VAC	700, 800, 900, 1050 mA	40 W	-20°C ~ +50°C	YES	IP20	278x29,8x21



## METALSLIM SERIES



Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating	Dimension LxWxH mm
SLT75-12VFC-UN	CV	120-240 VAC	12 VDC	75 W	-20°C ~ +50°C	-	IP67	333x30x16,5
SLT75-24VFC-UN	CV	120-240 VAC	24 VDC	75 W	-20°C ~ +50°C	-	IP67	333x30x16,5
SLT100-24VFC-UN	CV	120-240 VAC	24 VDC	100 W	-20°C ~ +50°C	-	IP67	333x30x16,5
SLT96-12VLC-UN	CV	120-240 VAC	12 VDC	96 W	-40°C ~ +60°C	-	IP67	262x40x23
SLT96-24VLC-UN	CV	120-240 VAC	24 VDC	96 W	-40°C ~ +60°C	-	IP67	262x40x23
SLD96-12VCA-UN	CV	120-277 VAC	12 VDC	96 W	-40°C ~ +60°C	YES	IP67	262x40x23
SLD96-24VCA-UN	CV	120-277 VAC	24 VDC	96 W	-40°C ~ +60°C	YES	IP67	262x40x23



## COMPACT SERIES



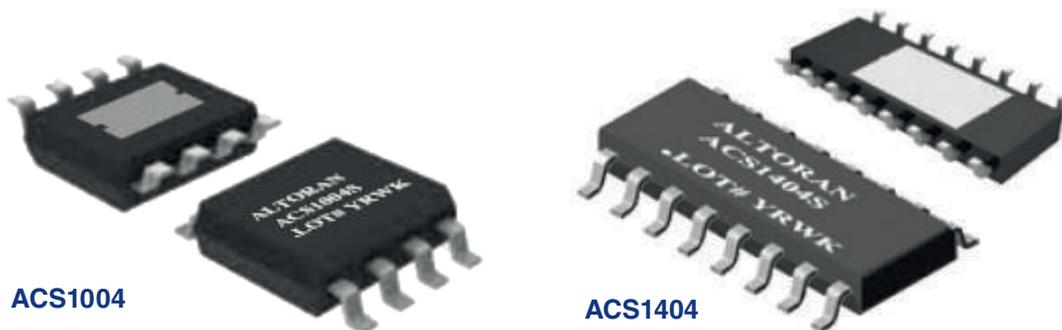
Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating	Dimension LxWxH mm
SLT20-500IB-UN	CC	110-277 VAC	150 ~ 500 mA step 50 mA	20 W	-25°C ~ +50°C	--	IP20	66,7x41x22
SLT20-500IL-UN	CC	110-277 VAC	150 ~ 500 mA step 50 mA	20 W	-25°C ~ +50°C	-	IP20	85,3x41x22
SLT25-600IB-E	CC	220-240 VAC	250 ~ 600 mA step 50 mA	25 W	-20°C ~ +50°C	-	IP20	66,7x41x22
SLT25-600IL-E	CC	220-240 VAC	250 ~ 600 mA step 50 mA	25 W	-20°C ~ +50°C	-	IP20	85,3x41x22
SLT35-1000IB-UN	CC	110-277 VAC	250, 350, 450, 600, 750, 850, 1000 mA	35 W	-25°C ~ +50°C	-	IP20	95,5x39x30
SLT35-1000IL-UN	CC	110-277 VAC	250, 350, 450, 600, 750, 850, 1000 mA	35 W	-25°C ~ +50°C	-	IP20	135,5x39x30
SLT45-1050IB-E	CC	220-240 VAC	700 ~ 1050 mA step 50 mA	45 W	-25°C ~ +50°C	-	IP20	96x42x29,8
SLT45-1050IL-E	CC	220-240 VAC	700 ~ 1050 mA step 50 mA	45 W	-25°C ~ +50°C	-	IP20	139x42x29,8
SLD20-500IBD-UN	CC	110-277 VAC	150 ~ 500 mA step 50 mA	20 W	-25°C ~ +50°C	DALI2	IP20	78,7x41x22
SLD20-500ILD-UN	CC	110-277 VAC	150 ~ 500 mA step 50 mA	20 W	-25°C ~ +50°C	DALI2	IP20	97,3x41x22
SLD35-1000IBD-UN	CC	110-277 VAC	250 ~ 1000 mA step 50 mA	35 W	-20°C ~ +50°C	DALI2	IP20	96x42x30
SLD35-1000ILD-UN	CC	110-277 VAC	250 ~ 100 mA step 50 mA	35 W	-20°C ~ +50°C	DALI2	IP20	139x42x30
SLD20-500IBA-UN1	CC	110-277 VAC	150 ~ 500 mA step 50 mA	20 W	-20°C ~ +50°C	YES	IP20	78,7x41x22
SLD20-500ILA-UN1	CC	110-277 VAC	150 ~ 500 mA step 50 mA	20 W	-20°C ~ +50°C	YES	IP20	97,3x41x22
SLD35-1000IBA-UN1	CC	110-277 VAC	250 ~ 1000 mA step 50 mA	35 W	-20°C ~ +50°C	YES	IP20	96x42x30
SLD35-1000ILA-UN1	CC	110-277 VAC	250 ~ 100 mA step 50 mA	35 W	-20°C ~ +50°C	YES	IP20	139x42x30
SLD15-300IB-Es	CC	220-240 VAC	300 mA	15 W	-25°C ~ +50°C	TRIAC	IP20	66,7x41x22
SLD15-350IB-Es	CC	220-240 VAC	350 mA	15 W	-25°C ~ +50°C	TRIAC	IP20	66,7x41x22
SLD15-500IB-Es	CC	220-240 VAC	500 mA	15 W	-25°C ~ +50°C	TRIAC	IP20	66,7x41x22
SLD15-700IB-Es	CC	220-240 VAC	700 mA	15 W	-25°C ~ +50°C	TRIAC	IP20	66,7x41x22
SLD15-300IL-Es	CC	220-240 VAC	300 mA	15 W	-25°C ~ +50°C	TRIAC	IP20	85,3x41x22
SLD15-350IL-Es	CC	220-240 VAC	350 mA	15 W	-25°C ~ +50°C	TRIAC	IP20	85,3x41x22
SLD15-500IL-Es	CC	220-240 VAC	500 mA	15 W	-25°C ~ +50°C	TRIAC	IP20	85,3x41x22
SLD15-700IL-Es	CC	220-240 VAC	700 mA	15 W	-25°C ~ +50°C	TRIAC	IP20	85,3x41x22
SLD20-350IL-Es	CC	220-240 VAC	350 mA	20 W	-20°C ~ +40°C	TRIAC	IP20	121x45x20
SLD20-500IL-Es	CC	220-240 VAC	500 mA	20 W	-20°C ~ +40°C	TRIAC	IP20	121x45x20
SLD20-700IL-Es	CC	220-240 VAC	700 mA	20 W	-20°C ~ +40°C	TRIAC	IP20	121x45x20

# Altoran

## Chips & Systems

Altoran Chip & Systems Inc. è stata fondata nel 2010 come azienda per la commercializzazione di semiconduttori per lo sviluppo di soluzioni semplici, affidabili e competitive nel mercato del LED lighting. Altoran ha sede a Santa Clara in California, nel centro della Silicon Valley. La soddisfazione del cliente è alla base della filosofia di lavoro dell'azienda che assolve alla sua mission grazie a un'offerta di prodotti di alta qualità, e un supporto alla clientela tempestivo e altamente professionale.

Altoran Chip & Systems Inc. was founded in 2010 as a fabless semiconductor company dedicated to the development of highly reliable, simple, and cost effective solutions for LED lighting. Altoran is based in Santa Clara, California, in the heart of the Silicon Valley, and strives to satisfy its customers by delivering quality products and offering reliable customer support.



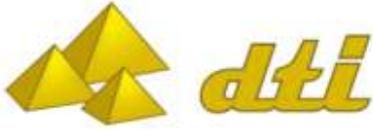
**COMPACT LED DRIVER MODULE SIZE DUE TO MINIMAL NUMBER OF EXTERNAL COMPONENTS**

Driver integrato a 4 canali in corrente costante. Pilotaggio diretto tramite tensione di rete. Si tratta di una soluzione con costi molto ridotti. Non sono richiesti trasformatori o condensatori elettrolitici, così come altri componenti esterni per il filtraggio EMI, o ottimizzazione del fattore di potenza o del THD. Efficienza massima fino al 97% con valore di THD estremamente basso (<15%) e fattore di potenza di 0,99. Compatibile con dimmer Triac o segnale 0-10V e PWM (quest'ultimo disponibile solo su ACS1404). Il settaggio della corrente è possibile tramite resistenza esterna. Curva di dimmerazione smooth da 100% fino a 0%. Protezioni contro sovra correnti e sovra temperature.

Integrated 4 Ultra High Voltage Constant Current Sink. Direct drive from AC mains, Lowest solution cost, No electrolytic caps or transformers, No need for EMI filtering, PFC or THD reducing components, Up to 97% efficiency, Extremely Low THD <15%, Near unit Power Factor: 0,99. Compatible with Triac and 0-10V dimmers and digital PWM (only on ACS1404). Adjustable LED Power with External Current Sense Resistor. Smooth Monotonic Dimming from 100% to 0%. Over Current / Over Temperature Protection.

Model	Input Voltage Range	Output Current	Package
ACS1004	90-280 VAC	75 mA (max 17 W*)	SOIC 8LD
ACS1404	90-280 VAC	150 mA (max 33 W*)	SOIC 16LD / QFN 7x7 48L

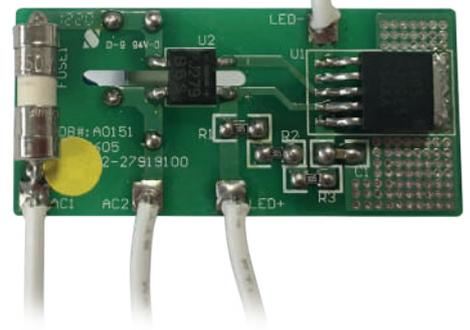
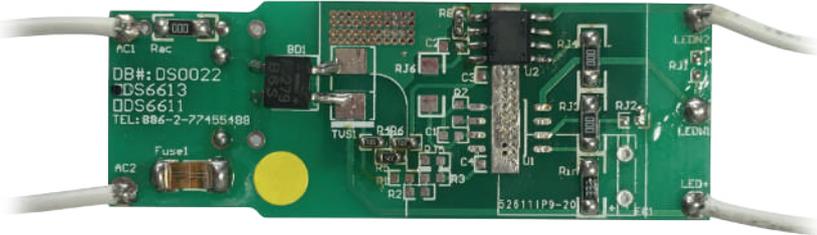
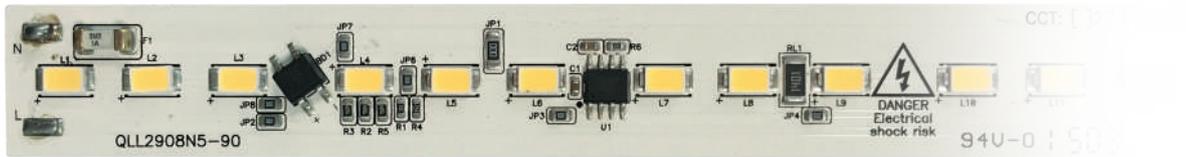
\* I driver possono essere collegati per soddisfare requisiti di potenza più elevati. Il valore della potenza massima si riferisce alla tensione di 220Vac in ingresso. / IC's can be linked to enable higher power designs. Max output power is referred to 220 VAC input voltage.



**DASHINGTEK INC.**

DashingTek Inc. è una casa specializzata nella progettazione di circuiti integrati per il controllo dei LED per le applicazioni Lighting. Con un team RD ampiamente sperimentato impegnato nella ricerca, nell'innovazione e nel miglioramento continuo, DTI ha ottenuto molti brevetti anche a livello internazionale. L'azienda offre consulenza tecnica di alto livello e soluzioni su misura per le applicazioni dei clienti. Un team di supporto tecnico eccezionalmente competente è dedicato a servire con efficacia e rapidità la clientela.

DashingTek Inc. is a design house specialized in LED Lighting IC design. It is dedicated to designing, testing, and marketing LED driver ICs. With a highly experienced RD team committed to continuous innovation and improvement, DTI has been granted many patents internationally and domestically and offers superior technical consulting, total solution, and customized design for its customers' applications. An exceptionally knowledgeable technical support team is dedicated to serving customers with effective and direct communication and quick answers.



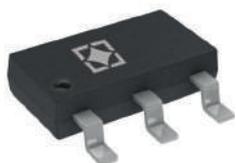
## AC/DC DRIVER - DEMO BOARD

Model	Input Voltage Range	Output Current	Type	Package
DS6602	220 VAC	20, 25, 30 mA	Adaptive Conduction Linear Driver	SOP-8
DS6622	110 - 220 VAC	Adjustable: 20 - 50 mA	Adaptive Conduction Linear Driver	SOP-8
DS6624	110 - 220 VAC	Adjustable: 50 - 100 mA	Adaptive Conduction Linear Driver	SOP-8
DS6605	220 VAC	20, 30 mA	Constant Current Regulator	SOP-8, TO252-5
DS6611	110 - 220 VAC	Adjustable: 15 - 60 mA	Constant Current Regulator	SOP-8
DS6613	110 - 220 VAC	Adjustable: 60 - 100 mA	Constant Current Regulator	SOP-8
DS6615	110 - 220 VAC	Adjustable: up to 300 mA	Constant Current Regulator	SOP-8
DS6632	110 - 220 VAC	Adjustable: 15 - 50 mA	TRIAC Dimmable Ad. Cond.	SOP-16, TSSOP-16
DS6634	110 - 220 VAC	Adjustable: 50 - 100 mA	TRIAC Dimmable Ad. Cond.	SOP-16, TSSOP-16
DS6638	110 - 220 VAC	Adjustable: 60 - 150 mA	TRIAC Dimmable Ad. Cond.	TSSOP-16
DS6692	110 - 220 VAC	Adjustable: 30 - 60 mA	TRIAC Dimmable Const. Current	SOP-8
DS6694	110 - 220 VAC	Adjustable: 60 - 120 mA	TRIAC Dimmable Const. Current	SOP-8
DS6684	110 - 220 VAC	Adjustable: 60 - 150 mA	Flicker Free Adaptive Conduction	TSSOP-16
DS2516	7 - 36 V	1200 mA	Buck Converter	SOP-8, SOT23-6



Le principali attività del Gruppo Silicon Touch Technology Inc. sono la ricerca, lo sviluppo, la produzione e la vendita di chip di azionamento di ventole elettroniche motorizzate senza spazzole, chip per il controllo di macchine fotografiche digitali, chip per la gestione di computer secondari, chip per circuiti misti analogico-digitali e circuiti integrati per il pilotaggio Led.

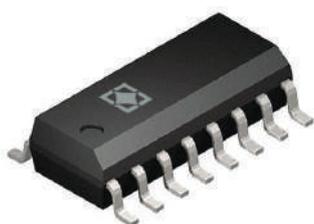
The Silicon Touch Technology Inc. Group is specialized in the research, development, manufacturing, and sales of electronic fan motor drive chips without brushes, digital camera control chips, subordinate computer manage chips, mix-digital chips, and analog chips.



### DD313-4

Il dispositivo DD313-4 è un LED driver lineare con corrente programmabile e con tensione di lavoro fino a 40V. Si tratta di un prodotto molto versatile, economico e affidabile, progettato per fornire una soluzione a basso costo per la regolazione della corrente costante in applicazioni come il lighting, con un ampio range di tensioni di alimentazione. Questi valori vanno da 4,5V fino a 40V e pertanto sono compatibili con gli standard industriali a 5V, 12V, 18V, 24V e 36V. Questo dispositivo è progettato per operare come una sorgente in corrente costante.

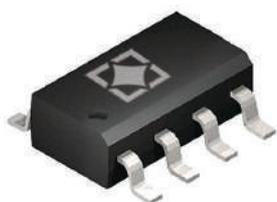
40V Adjustable Current Sink Linear LED driver. The DD313-4 IC is an economical, versatile, and robust device designed to provide cost-effective solution for regulating constant current in applications such as LED lighting over a 4.5 V to 40 V wide range of supply voltage which allows for single supply voltage operation from industry standard 5V, 12 V, 18 V, 24 V, 36 V power rails. The device is designed to operate as a constant current source.



### DD313

Il prodotto DD313 è un driver in corrente costante progettato per applicazioni con LED di potenza. Al suo interno, sono integrati 3 circuiti indipendenti in corrente costante, programmabili separatamente tramite tre resistenze di controllo. I tre pin di enable sono specificatamente studiati per abilitare o disabilitare l'uscita dei tre canali in modo indipendente. La risposta molto veloce della corrente in uscita permette l'utilizzo in applicazioni con dimmerazione ad elevata risoluzione ed alta frequenza di refresh. Un sistema integrato di rilevazione di eventuali circuiti aperti sulla stringa LED alimentata e di protezione contro sovra correnti e sovra temperature, lo rendono un dispositivo molto affidabile.

3-channels Constant Current LED driver with independent dimming control and current adjustment. DD313 is a high constant current driver designed for power LED applications. It incorporates three-channel constant current circuitry with current value set by three external resistors. The three enable pins are specifically designed for independent control over each of the three output terminals. The fast response of the output current can adapt to high dimming resolution and high refresh rate applications. Built-in LED open detection, over temperature and over current protection functions ensure the system reliability.



### DD312

L'integrato DD312 implementa un driver in corrente costante a singolo canale, progettato per applicazioni lighting di potenza. Comprende un singolo circuito a corrente costante impostabile tramite una resistenza esterna. Il pin di enable relativo al canale di uscita, permette la funzionalità di dimming da parte di un sistema esterno di controllo. La risposta molto veloce della corrente in uscita permette l'utilizzo in applicazioni con dimmerazione ad elevata risoluzione ed alta frequenza di refresh. Un sistema integrato di rilevazione di eventuali circuiti aperti sulla stringa LED alimentata e di protezione contro sovra correnti e sovra temperature, lo rendono un dispositivo molto affidabile.

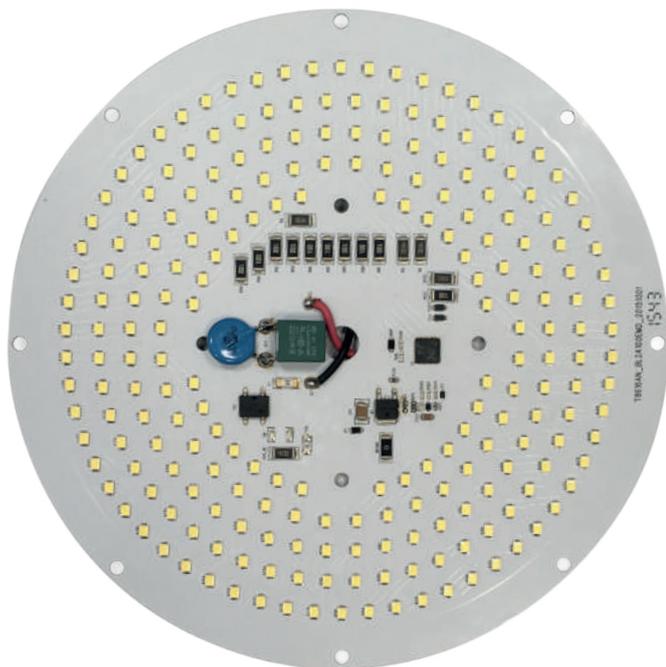
High Constant Current LED driver with error detection. DD312 is a high constant current driver designed for LED lighting application and power LEDs. It incorporates a constant current circuitry with current value set by an external resistor. The output enable terminal allows dimming control by system. The fast response of output current can adapt to high dimming resolution and high refresh rate applications. Built-in LED open detection, over temperature and over current protection functions ensure the system reliability.

Model	Input Voltage Range	Output Current	Package
DD313-4	4,5 to 40 VDC	Up to 150 mA	SOT26
DD312	5-18 VDC	Up to 1000 mA	TO-252, SOP8, MSOP8
DD313	5-18 VDC	Up to 500 mA	SOP16, TSSOP16



TM Technology Inc. è stata fondata nel luglio 1994 al Parco della Scienza di Hsinchu, a Taiwan. Il 1° ottobre 2007 si è fusa con iCreate Technologies Corporation. TM Tech è uno dei principali produttori di circuiti integrati, dotato di professionisti di alto calibro.

TM Technology Inc. was founded in July 1994 in Hsinchu Science Park, Taiwan. On October 1, 2007 it merged with iCreate Technologies Corporation. Tm tech is a fables IC company supported by professionals of the highest caliber.



AC-DC Linear LED Driver



DC-DC Step Down Converters



Buck - Boost and Low Dropout Constant Current Controller

Model	Input Voltage Range	Output Current	Type	Package
T6333A	7 - 42 V	up to 1500 mA	DC-DC Step Down Converter <sup>(1)</sup>	SOP-8, SOT-23
T6322A	7 - 30 V	up to 1500 mA	DC-DC Step Down Converter <sup>(1)</sup>	SOP-8, SOT-23
T8308	7 - 30 V	up to 800 mA	DC-DC Step Down Converter <sup>(1)</sup>	SOP-8, SOT-89
T8302	6 - 60 V	up to 1000 mA	DC-DC Step Down Converter <sup>(1)</sup>	SOP-8, SOT-89
T8306	7 - 36 V	up to 3000 mA	DC-DC Step Down Converter <sup>(1)</sup>	SOT-23
T6331A	1,8 - 5,5 V	up to 1000 mA <sup>(2)</sup>	Buck/Boost Low Dropout	SOP-8, SOT-23-6
T8341AD	2,5 - 6 V	up to 1000 mA	Buck/Boost Low Dropout	SOP-8
T8332FI	5 - 60 V	up to 2000 mA	Buck-Boost external MOSFET	TSSOP-16
T8382GN	5 - 60 V	up to 3000 mA <sup>(3)</sup>	Buck-Boost external MOSFET	PQFN26L
T8616AI	110 - 220 VAC	300 mA (max 60W)	AC-DC Linear driver	TSSOP-28
T8616AN	110 - 220 VAC	500 mA (max 100W)	AC-DC Linear driver	QFN7X7-48

<sup>(1)</sup> Controllabile tramite PWM, Alta efficienza fino al 97% / PWM control, High efficiency up to 97%

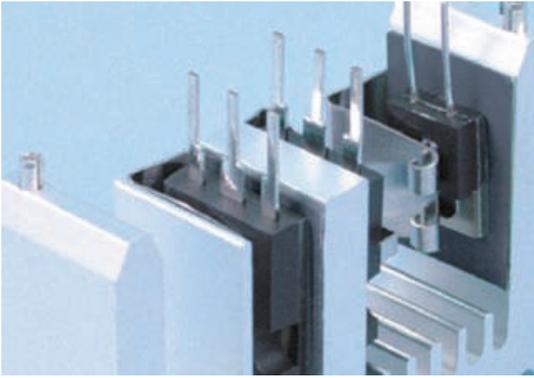
<sup>(2)</sup> Le modalità Buck e Boost vengono automaticamente cambiate in accordo con la tensione / The Buck and Boost function is automatically switched

<sup>(3)</sup> Valido per topologie Buck/Boost / For Buck/Boost topology



Nata nel 1960, Bergquist (acquisita nel 2016 da Henkel), è leader mondiale nella produzione di interfacce termiche e substrati metallici isolati atti a risolvere i problemi di conduzione del calore su schede o assemblaggi elettronici. I prodotti Bergquist hanno una vasta gamma di applicazioni nei settori Automotive, Computer, Power Supply, e controlli motore. Oggi, Bergquist rifornisce il mondo con alcuni dei marchi più noti del settore: Sil-Pad, Gap Pad, Hi-Flow, Bond-Ply e Thermal Clad.

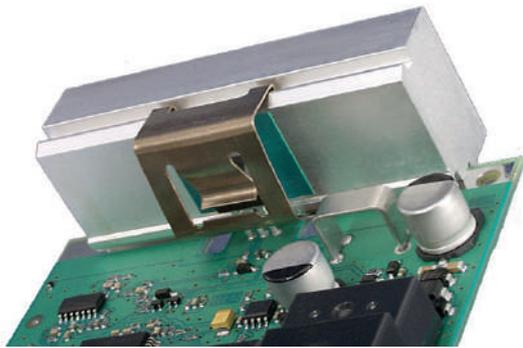
Founded in 1960, innovation, performance and customer satisfaction are Bergquist's guiding principles. In 2016 the company was acquired by Henkel. Today Bergquist supplies the world with some of the best-known brands in the business: Sil-Pad thermally conductive interface materials, Gap Pad electrically insulating and non-insulating gap fillers, Hi-Flow phase change grease replacement materials, Bond-Ply thermally conductive adhesive tapes, and Thermal Clad insulated metal substrates.



## HI-FLOW 225F-AC

Materiale a cambiamento di fase applicato su foglio di alluminio per incentivare lo scambio termico. Prodotto adesivizzato su un lato per assemblaggi "difficili". Temperatura di transizione di fase: 55°C

Phase change thermal interface material applied to the top surface of an aluminum carrier to improve heat transfer performance. A soft thermally conductive adhesive compound coat is applied to the bottom surface to improve adhesion to the heat sink for more difficult applications. Phase change temperature: 55°C



## HI-FLOW 300P

Materiale a cambiamento di fase con carrier poli-immidico (Kapton) che assicura un eccellente isolamento elettrico. Prodotto non adesivo. Temperatura di transizione di fase: 55°C

Phase change thermal interface material applied on a thermally conductive polyimide film (Kapton), which ensures excellent electrical insulation. Non-adhesive. Phase change temperature: 55°C

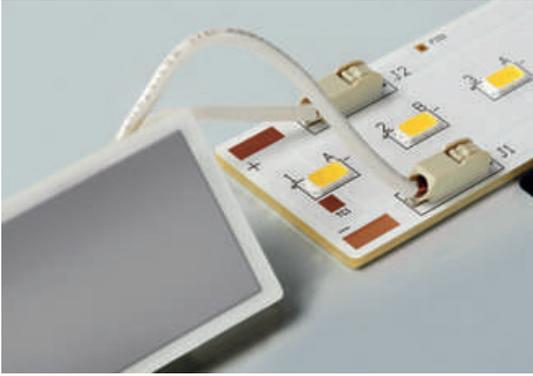


Product	Thickness	Thermal Conductivity*	Thermal Impedance**	Dielectric Breakdown Voltage	Continuous Use Temperature
Hi- Flow 225F-AC	0,10 mm	1,0 W/mK	0,09 °C*in2/W	Not insulating	up to + 120 °C
Hi- Flow 300 P	0,10 mm 0,115 mm 0,13 mm	1,6 W/mK	0,12 °C*in2/W 0,16 °C*in2/W 0,19 °C*in2/W	5000 V	up to + 150 °C

\* ASTM D5470

\*\*ASTM D5470 @50psi

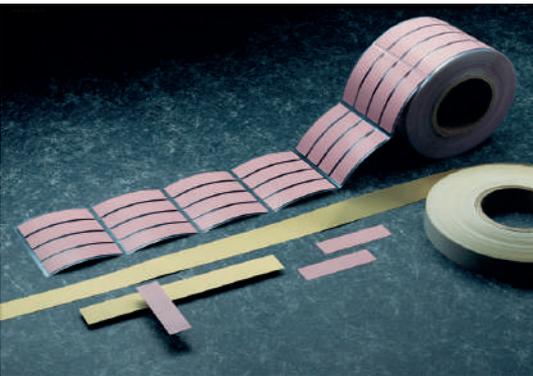
# THERMAL MANAGEMENT



## BOND-PLY 800

Biadesivo presso-sensibile con rinforzo in fibra di vetro per fissaggi permanenti. Ottimo isolamento elettrico e scambio termico. Ideale per settore illuminotecnico.

Pressure sensitive double side adhesive tape, fiberglass reinforced for permanent fastening. Excellent electrical insulation and heat dissipation. Ideal for lighting applications.



## SILPAD 800

L'isolante termoconduttivo "General Purpose" adatto per tutte le applicazioni di potenza.

General purpose high-performance thermal conductive insulator, suitable for all power applications.



Product	Thickness	Thermal Conductivity*	Thermal Impedance**	Dielectric Breakdown Voltage	Continuous Use Temperature
Bond-Ply 800	0.127 mm 0.203 mm	0.8 W/m*K	0.60 °C*in <sup>2</sup> /W 0.72 °C*in <sup>2</sup> /W	6000 V	-40 / +125°C
Silpad 800	0,13 mm	1,6 W/mK	0,45 °C*in <sup>2</sup> /W	3000 V	- 60 / + 180 °C

\* ASTM D5470

\*\*ASTM D5470 @50psi

APPLICAZIONI / APPLICATIONS

**STREET / OUTDOOR LIGHTING**

Bond Ply 800  
Hi Flow 225F-AC  
Hi Flow 300P



**INDOOR LIGHTING**

Bond Ply 800  
Hi Flow 225F-AC



**HI BAY LIGHTING**

Silpad 800  
Hi Flow 300P

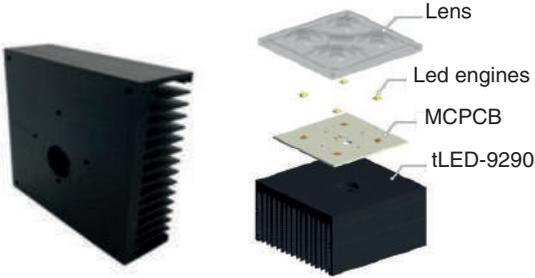


# THERMAL MANAGEMENT

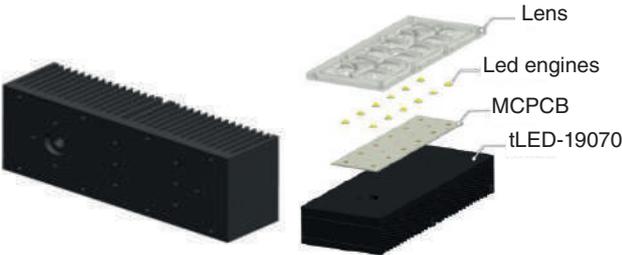


Mingfa Tech è designer e produttore di dissipatori per soluzioni LED. Da molti anni lavora con molti dei famosi OEM di illuminazione a LED in tutto il mondo fornendo supporto per l'analisi termica, il calcolo del dissipatore, la prototipazione e la produzione di massa.

Mingfa Tech is a LED heat sink designer and manufacturer. It has also worked with many famous LED lighting OEMs around the world for years, while assisting customers in led thermal analysis and management, heat sink calculations, prototyping and mass production for LED coolers.



tLED-9290



tLED-19070

Product	Thermal Res	Lumen	Dimensions (LxW)	Standard height*
t-LED-9290 <sup>(1)</sup>	0,34 °C/W	7000 - 16000	L92 x W90 mm	30 / 50 mm
t-LED-19070 <sup>(2)</sup>	0,25 °C/W	12000 - 22000	L190 x W70 mm	30 / 50 mm

\* Altre altezze su richiesta / Other heights available upon request  
<sup>(1)</sup> Compatibile con Ledil IP Lens STRADA 2x2MX / Compatible with Ledil IP Lens STRADA 2x2MX  
<sup>(2)</sup> Compatibile con Ledil IP Lens HB-IP-2x6 / Compatible with Ledil IP Lens HB-IP-2x6

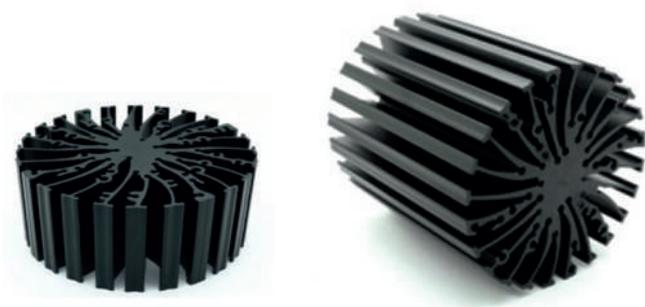


GOOLED

Product	Thermal Res	Lumen	Dimensions (LxW)	Standard height*
GooLED-48	5,60 - 3,47 °C/W	300 - 1800	48 mm Ø	30 / 50 / 68 / 80 mm
GooLED-68	3,50 - 2,27 °C/W	500 - 2800	68 mm Ø	30 / 50 / 60 / 80 mm
GooLED-78	2,70 - 1,67 °C/W	800 - 3800	78 mm Ø	30 / 50 / 80 mm
GooLED-110	1,30 - 0,92 °C/W	1800 - 6500	110 mm Ø	50 / 80 mm

\* Altre altezze su richiesta / Other heights available upon request

# THERMAL MANAGEMENT



## ETRALED

Product	Thermal Res	Lumen	Dimensions (LxW)	Standard height*
EtraLED-48	6,25 - 3,60 °C/W	300 - 1800	48 mm Ø	20 / 50 / 80 mm
EtraLED-70	3,57 - 1,80 °C/W	800 - 3700	70 mm Ø	20 / 50 / 80 mm
EtraLED-85	2,00 - 1,30 °C/W	1200 - 5000	85 mm Ø	20 / 50 / 80 mm
EtraLED-110	1,50 - 0,90 °C/W	2000 - 7200	110 mm Ø	20 / 50 / 80 mm

\* Altre altezze su richiesta / Other heights available upon request



## XLED

Product	Thermal Res	Lumen	Dimensions (LxW)	Standard height*
XLED-45	6,40 - 4,20 °C/W	300 - 1600	45 mm Ø	30 / 50 / 68 mm
XLED-60	4,20 - 3,30 °C/W	500 - 2000	60 mm Ø	30 / 50 mm
XLED-70	3,30 - 2,56 °C/W	500 - 2500	70 mm Ø	30 / 50 mm
XLED-80	2,70 - 1,96 °C/W	500 - 3300	80 mm Ø	30 / 50 mm

\* Altre altezze su richiesta / Other heights available upon request



## ELED

Product	Thermal Res	Lumen	Dimensions (LxW)	Standard height*
ELED-46	6,25 - 3,80 °C/W	300 - 1600	46 mm Ø	20 / 50 / 80 mm
ELED-70	3,00 - 1,77 °C/W	500 - 3600	70 mm Ø	20 / 50 / 80 mm
ELED-95	1,72 - 1,10 °C/W	1500 - 6300	95 mm Ø	20 / 50 / 80 mm

\* Altre altezze su richiesta / Other heights available upon request



## BuLED

Product	Thermal Res	Lumen	Dimensions (LxW)	Standard height*
BuLED-30E/50E	3,70 - 4,20 °C/W	400 - 1200	48 mm Ø	30 / 50 mm
BuLED-30F/50F/68F	3,70 - 4,20 °C/W	500 - 1800	48 mm Ø	30 / 50 / 68 mm
BuLED-30Fx/50Fx/68Fx	3,80 - 6,40 °C/W	500 - 1200	48 mm Ø	30 / 50 / 68 mm

\* Altre altezze su richiesta / Other heights available upon request

# THERMAL MANAGEMENT



Zaward Corporation è stata fondata nel 1996 come agente esclusivo in tutto il mondo di Globefan Technology Co., uno dei principali produttori di ventilatori a corrente continua che opera a Taiwan dal 1986 rifornendo le maggiori aziende produttrici di dispositivi per l'alimentazione di personal computer con prodotti di qualità. Negli ultimi 10 anni Zaward si è costruita una solida reputazione, guadagnandosi la fiducia dei clienti per l'alto standard tecnico e l'efficiente sistema di controllo qualità.

Zaward Corporation was founded in 1996 as the sole worldwide agent of Globefan Technology Co., one of the leading manufacturers of DC fans, which has been supplying the top personal computer power supply companies with the best quality products, since it was first established in Taiwan, in 1986. Over the last 10 years, Zaward has created a reliable reputation for itself, winning the trust of customers for its high engineering standards and effective quality control system.



AC

Model	Starting Voltage	Rated Voltage	Rated Current	Rated Input Power	Speed	Max Air Flow		Max Air Pressure		Noise	Dimension	Net Weight
					RPM	CMM	CFM	mmAq	inchAq			
ZAA08025C series	100~240	115~220	0.07~0.12	8.0-14.0	L2000-2200 M2300-2600 H2550-2900	0.37-0.62	0.40-22	2.70-4.83	0.12-2.60	20-33	80x80x38	260
ZAA08038C01 series	100~240	115~220	0.07~0.15	9.0-16.0	L1600-1800 M2200-2600 H2400-2900	0.48-0.88	17-31	2.70-4.83	0.10-0.19	17-35	80x80x38	340
ZAA09225C Series	100~240	115~220	0.07~0.12	8.0-14.0	L2000-2200 M2300-2600 H2550-2900	0.60-1.05	21-37	2.60-4.83	0.10-0,19	22-37	92x92x25	280
ZAA09238C Series	100~240	115~220	0,07~0.16	9.0-16.0	L1600-1800 M2200-2400 H2400-2900	0.65-1.42	23-50	2.70-5.50	0.10-0.22	18-36	92x92x25	350
ZAA12038C01 series	100~240	115~220	0.11~0.22	10.5-22.0	L1800-2000 M2200-2400 H2650-3100	1.70-3.25	66-115	4.50-9.65	0.18-0.38	30-47	120x120x38	530



DC

Model	Starting Voltage	Rated Voltage	Rated Current	Rated Input Power	Speed	Max Air Flow		Max Air Pressure		Noise	Dimension	Net Weight
					RPM	CMM	CFM	mmAq	inchAq			
ZDA04010B SERIES	3.5~6	5~12	0.05~0.20	0.60-1.92	L 4400 M 5500 H 6600 V8000-9000	0.10-0.26	3.88-9.23	2.00-5.56	0.08-0.22	25-38.4	40x40x10	20
ZDA06015B SERIES	3.5~16	5~24	0.10~0.24	0.75-2.88	L 2800 M3300 H3800 V4300	0.31-0.48	11.25-17.21	2.52-5.65	0.10-0.22	24,3-35.6	60x60x15	40
ZDA08015B series	3.5~12	5~24	0.08~0.33	1.20-3.12	L 2500 M 2700 H 3000 V2700-3300	0.69-0.98	24.70-34.67	2.20-3.95	0.10-0.88	27,5-36.5	80x80x15	52
ZDA09225B SERIES	3.5~24	5~48	0.05~0.40	0.80-5.28	L2100 M 2450 H 3200 V 3800	1.04-1.91	37.08-67.80	2.53-7.67	0.10-0.3	25-45	92x92x25	88
ZDA12025A02 SERIES	6~10.8	12	0.18~0.65	2.16-7.80	L 1800 M 2400 H 2800	1.20-3.53	42.33-124.8	0.83-5.33	0.03-0.21	15.2-44.9	120x120x25	134
ZDA12038B SERIES	6~24	12~48	0.15~0.90	3.60-12.0	L2000 M2300 H2600 V2900	2.40-3.40	84.76-120.07	0.18-120.07	32.5-120.07	32.5-120.07	120x120x38	243

# LIGHTING CONNECTOR



Nei suoi 25 anni di attività, Amtek Technology Co. si è evoluta come uno dei maggiori produttori di connettori del mondo. L'ampia gamma di prodotti offerti consente all'azienda di rispondere ad ogni esigenza di connessione e progettazione. Oltre alle versioni standard, Amtek offre la possibilità di customizzazioni e di molteplici personalizzazioni. Un team di tecnici qualificati è costantemente impegnato nella ricerca e nello sviluppo di nuove soluzioni in grado di rispondere in modo flessibile e a basso costo alle più svariate esigenze del mercato.

In the 25 years since it was first founded, Amtek Technology Co. has evolved into a leading worldwide professional manufacturer of various connectors. Its connectors are supplied in a wide range of styles and configurations to suit any design requirements. In addition to standard ranges, custom-built connectors can be designed, developed, and manufactured to meet individual requirements. Its experienced Research and Development team makes constant efforts to research and develop new solutions that are capable of replying, in a flexible and low-cost way, to the most diversified needs of the market.



### LEDM-XXTWR-U

Connettore ermafrodita; passo 4,00 mm; da 2 a 6 vie. Sistema a connettori ermafroditi per comandi LED. Connessione “wire-to-board” e “board-to-board”. Possibilità di connessione anche su piani inclinati da 45°.

Hermaphroditic connector, pitch 4,00 mm, from 2 to 6 pins. Hermaphroditic connector system for LED command. Wire-to-board and board-to-board connections. Can also be connected on planes with an inclination of 45 degrees.

Product	Rated Voltage	Rated Current	Wire range	Withstanding Voltage	Operating Temperature
LEDM-02TWT-U	300 VAC/DC	6A AC,DC	-	1500 V	-40°C ~ + 105°C
LEDM-02TWR-U	300 VAC/DC	6A AC,DC	-	1500 V	-40°C ~ + 105°C
LEDM-04TWT-U	300 VAC/DC	6A AC,DC	-	1500 V	-40°C ~ + 105°C
LEDM-04TWR-U	300 VAC/DC	6A AC,DC	-	1500 V	-40°C ~ + 105°C



### 5LED30ACM-XXT0WUH-A1

Connettore lighting; passo 3,00 mm; insertion push wire. L'altezza di montaggio ridotta di soli 2,65 mm riduce la formazione di ombre in caso di applicazioni LED. Azionamento con pulsante a molla che rende facile “inserzione/disinserzione”. Confezionamento in reel per montaggio con “pick and place”.

Lighting connectors; pitch 3,00 mm with push wire insertion. The connector height, only 2.65 mm, reduces shadows on board for LED lighting application. Push button for easy insertion and disconnection operations. Reel package available for SMD “Pick-and-Place” assembly.

Product	Rated Voltage	Rated Current	Wire range	Withstanding Voltage	Operating Temperature
5LED40ACM-01T0WUH-D1	300 VAC/DC	7A	0,75mm (24-18AWG)	1500 V	-30°C ~ + 105°C
5LED40ACM-01T0WUH-D2	300 VAC/DC	7A	0,75mm (24-18AWG)	1500 V	-30°C ~ + 105°C
5LED30ACM-01T0WUH-D1	320 VAC/DC	3A	26-22 AWG	2500 V	-40°C ~ + 105°C
5LED30ACM-01T0WUH-D2	320 VAC/DC	3A	26-22 AWG	2500 V	-40°C ~ + 105°C

# LIGHTING CONNECTOR



Fondata nel 2012, Ningbo MKX Electronic Technology CO., LTD. è un produttore professionale di Terminal Block, attualmente impiega 200 dipendenti, i prodotti principali di noi sono: morsettiere, dip switch. Esistono migliaia di prodotti ampiamente utilizzati in vari settori quali convertitori di frequenza, controllo dei servoazionamenti, alimentazione elettrica di commutazione, lighting e automazione industriale. Con lo sviluppo della nostra fabbrica, abbiamo istituito un centro di ricerca e sviluppo, officine per stampi, punzonatura, iniezione, taglio di precisione, assemblaggio, macchine automatiche, il goal è “attenzione, professionalità, credibilità...”

Founded in 2012, Ningbo MKX Electronic Technology CO., LTD. is a professional manufacturer of Electronic Connectors, now we employed 200 workers, the main products of us are: Terminal blocks, Dip Switches. There are thousands products which are widely used in frequency converters, the control of servo drives, switching power supply, electric lighting and industry automation. With the development of our factory, we set research and development center, workshops for Moulds, Punching, Injection, Precise Cutting, Assembling, Automatic Machines, we always keep “Attentive, Professional, Credibility...”



### MX3858-XP

Product	Rated Voltage	Rated Current	Wire range	Withstanding Voltage	Operating Temperature
MX3858-2P	600 V	20 A	16-12 AWG	2000 V	-40°C ~ + 105°C
MX3858-3P	600 V	20 A	16-12 AWG	2000 V	-40°C ~ + 105°C
MX3858-4P	600 V	20 A	16-12 AWG	2000 V	-40°C ~ + 105°C
MX3858-5P	600 V	20 A	16-12 AWG	2000 V	-40°C ~ + 105°C



### MX3258-XP

Product	Rated Voltage	Rated Current	Wire range	Withstanding Voltage	Operating Temperature
MX3258-2P	600 V	20 A	28-12 AWG	2000 V	-40°C ~ + 105°C
MX3258-3P	600 V	20 A	28-12 AWG	2000 V	-40°C ~ + 105°C
MX3258-4P	600 V	20 A	28-12 AWG	2000 V	-40°C ~ + 105°C
MX3258-5P	600 V	20 A	28-12 AWG	2000 V	-40°C ~ + 105°C

# CIRCULAR PLASTIC CONNECTOR



Fondata nel 1986, Techno nasce come partner tecnologico di grandi gruppi internazionali nel settore elettrodomestico e automotive. Specializzata nella progettazione e produzione di articoli tecnici di piccole dimensioni e in particolare soluzioni di connessione elettrica a elevato contenuto tecnico (resistenza alle temperature estreme e agli agenti chimici, resistenza meccanica e grado di protezione fino a IP68, immersione continua in acqua), ha come mission contribuire allo sviluppo dei partner offrendo soluzioni innovative nel campo della connessione elettrica ad elevato grado di protezione (IP68).

Con un'organizzazione snella e rapidità nelle risposte alle esigenze di mercato, Techno riesce ad avere flessibilità operativa e commerciale insieme ad un'elevata qualità di prodotto e di processo, esportando i propri prodotti in 60 paesi nel mondo. L'innovazione è un valore fondamentale del team Techno, questo gli consente di essere all'altezza di un mercato in continua evoluzione.

Zaward Corporation was founded in 1996 as the sole worldwide agent of Globefan Technology Co., one of the leading manufacturers of DC fans, which has been supplying the top personal computer power supply companies with the best quality products, since it was first established in Taiwan, in 1986. Over the last 10 years, Zaward has created a reliable reputation for itself, winning the trust of customers for its high engineering standards and effective quality control system.



## TEETUBE®

**GIUNTI CIRCOLARI DI DERIVAZIONE:** La famiglia di connettori TEETUBE® include un'ampia gamma di soluzioni protette di connessione fissa particolarmente adatte per giunzioni e derivazioni in spazi ridotti e con grado di protezione elevato.

Phase change thermal interface material applied to the top surface of an aluminum carrier to improve heat transfer performance. A soft thermally conductive adhesive compound coat is applied to the bottom surface to improve adhesion to the heat sink for more difficult applications. Phase change temperature: 55°C



## TEEBOX®

**SCATOLE DI DERIVAZIONE E DISTRIBUTORI DI CORRENTE:** La famiglia TEEBOX® include una serie di morsettiere e contenitori di piccole e medie dimensioni a 3 e 4 vie particolarmente adatte per giunzioni e derivazioni in spazi ridotti e con grado di protezione elevato.

Phase change thermal interface material applied to the top surface of an aluminum carrier to improve heat transfer performance. A soft thermally conductive adhesive compound coat is applied to the bottom surface to improve adhesion to the heat sink for more difficult applications. Phase change temperature: 55°C



## TEEPLUG®

**CONNETTORI PRESA-SPINA:** La famiglia TEEPLUG® raggruppa soluzioni di connettori presa-spina volanti, da parete e speciali, per applicazioni interne ed esterne e particolarmente adatte per connessioni con grado di protezione elevato.

Phase change thermal interface material applied to the top surface of an aluminum carrier to improve heat transfer performance. A soft thermally conductive adhesive compound coat is applied to the bottom surface to improve adhesion to the heat sink for more difficult applications. Phase change temperature: 55°C



## TEEBLOCK® e TEEDRUM®

**CONNESSIONI COMPATTE:** Le famiglie TEEBLOCK® e TEEDRUM® includono un'ampia gamma di morsettiere compatte multipolari utilizzabili singolarmente o installabili in contenitori protetti TEEBOX® e TEETUBE® con grado di protezione fino a IP68.

Phase change thermal interface material applied to the top surface of an aluminum carrier to improve heat transfer performance. A soft thermally conductive adhesive compound coat is applied to the bottom surface to improve adhesion to the heat sink for more difficult applications. Phase change temperature: 55°C



## TEEGLAND®

**PRESSACAVI INNOVATIVI IP68:** La famiglia TEEGLAND® include una serie di pressacavi brevettati da Techno e realizzati con un innovativo sistema di co-stampaggio della gomma sulla plastica. Sono disponibili nelle versioni metriche e PG.

Phase change thermal interface material applied to the top surface of an aluminum carrier to improve heat transfer performance. A soft thermally conductive adhesive compound coat is applied to the bottom surface to improve adhesion to the heat sink for more difficult applications. Phase change temperature: 55°C



## TEEBOND®

**FISSACAVI RAPIDI:** La famiglia TEEBOND® raggruppa una serie di fissacavi e passacavi ad aggancio rapido con eccellente modulo elastico ed elevata resistenza meccanica e termica.

Phase change thermal interface material applied to the top surface of an aluminum carrier to improve heat transfer performance. A soft thermally conductive adhesive compound coat is applied to the bottom surface to improve adhesion to the heat sink for more difficult applications. Phase change temperature: 55°C

# STANDARD & CERTIFICAZIONI

## STANDARDS & CERTIFICATIONS

IS 15885  
(Part 2/Sec 13)



R-41136530

### BIS (INDIA)

Certificazione di sicurezza per l'India. La figura nella parte inferiore dell'etichetta indica il numero del certificato.  
Safety certification for India. The figure at the bottom of the label indicates the number of the certificate.



### ENEC (EUROPE)

La certificazione europea di sicurezza ENEC definisce i requisiti per prevenire le scosse elettriche e gli incendi. Vi sono due categorie:  
• L'etichetta standard ENEC indica che il LED driver ha superato il test di sicurezza ENEC con tensione di rete AC.  
Il riferimento standard è EN61347-1. Le cifre sull'etichetta ("05") indicano il numero di identificazione del laboratorio.  
• L'etichetta EL indica che il driver ha superato il test anche con tensione di rete DC per l'illuminazione di emergenza.  
Il riferimento standard è EN-61347-2-13.



The ENEC European safety certification and defines requirements for preventing electrical shock and fire.  
There are two categories:

- A standard ENEC label indicates that the LED driver has passed the standard ENEC safety test with AC mains voltage. The standard reference is EN61347-1. The digits in the label ('05') are the lab identification number.
- An EL label indicates that the driver has also passed the test with DC mains voltage for emergency lighting. The standard reference is EN-61347-2-13.



### PSE (JAPAN)

PSE è lo standard di sicurezza per il Giappone. I prodotti certificati PSE hanno questa etichetta.  
PSE is the safety standard for Japan. PSE certified products have this label.



### RCM (AUSTRALIA/NZ)

RCM è la certificazione per la Nuova Zelanda. Si compone della certificazione ENEC di base con test aggiuntivi per RCM.  
I riferimenti standard sono SAA 61347.1 e SAA 61347.2.13.

Ci sono due etichette RCM:

- l'etichetta RCM standard
- l'etichetta per i driver indipendenti

Il LED driver è un driver autonomo e non deve essere coperto con materiale di isolamento.



RCM is a certification for New Zealand and Australia. This consists of basic ENEC certification with additional testing for RCM.  
The standard references are SAA 61347.1 and SAA 61347.2.13.

There are two RCM labels:

- The standard RCM label
- The label for independent drivers

The LED driver is a standalone driver and should not be covered with isolation material.



TIS 1955-2551

### TISI (THAILAND)

TISI è lo standard di sicurezza per la Thailandia. Le cifre nella parte inferiore dell'etichetta indicano il numero del certificato.  
TISI is the safety standard for Thailand. The digits below the label are the certificate number.



E333135

### UL

UL è uno standard di sicurezza nordamericano che definisce i requisiti per prevenire scosse elettriche e incendi da parte dei LED driver. Vi sono tre categorie:

- UL recognized: certificazione UL di base.

Il LED driver è un componente approvato UL e destinato esclusivamente per l'utilizzo in altri prodotti finiti.

I riferimenti standard sono UL8750 e UL1310.

L'etichetta "C" è per il Canada e "US" per gli Stati Uniti.

Il codice "Exxxxxx" in fondo è il numero di identificazione dell'azienda.

- UL recognized, tipo TL.

Il LED driver è un componente riconosciuto UL. Oltre alla certificazione standard UL, il LED driver è stato testato per il valore Tref e Trefmax.

- UL listed, Classe P.

Il LED driver è un prodotto UL listed che può essere utilizzato come prodotto finale.

Oltre alla certificazione UL standard, il LED driver è stato testato sulla protezione in temperatura.

UL is a North American safety standard that defines requirements for preventing electrical shock and fire from LED drivers.

There are three categories:

- UL recognized. This is the basic UL certification.

The LED driver is a UL recognized component and only intended for use in other end-use products.

The standard references are UL8750 and UL1310.

In the label, 'C' is for Canada and 'US' for United States of America.

The code 'Exxxxxx' at the bottom is the company identification number.

- UL recognized, type TL

The LED driver is a UL recognized component. In addition to standard UL certification, the LED driver has been tested and Tref and TrefMax value.

- UL listed, Class-P

The LED driver is a UL listed product that can be used as end-use product.

In addition to standard UL certification, the LED driver has been tested on temperature protection.

# PROTOCOLLI DI CONTROLLO PER L'ILLUMINAZIONE

## LIGHTING CONTROLS PROTOCOLS

### DALI-2

DALI-2 è uno standard internazionale per il protocollo di dimmerazione DALI. Rispetto alla versione-1 dei dispositivi DALI attualmente disponibili sul mercato, i componenti certificati DALI-2 permettono di migliorare significativamente l'interoperabilità e integrano delle funzionalità aggiuntive.

DALI-2 is an international standard for the DALI dimming protocol.

Compared to DALI version-1 devices current on the market, DALI-2 certified components bring the promise of significantly improved interoperability and additional functionality.

### DMX

Il riferimento standard internazionale per la dimmerazione DMX è ANSI E1.20 and E1.11 – 2008, USITT DMX512-A.

The international standard reference for DMX dimming is ANSI E1.20 and E1.11 – 2008, USITT DMX512-A.

### 0-10V DIMMING

Lo standard internazionale per la dimmerazione 0-10V è IEC 60929 annex E; per l'Europa EN 60929 annex E.

Conformità dei driver eldoLED:

Fino a 0.6V: abilitazione della modalità standby.

Da 0.6V a 10V: con IEC/EN 60929 annex E.

Per caratteristiche dettagliate di dimmerazione consultare la tabella di risposta 0-10V nella sezione Caratteristiche di Controllo delle schede tecniche del prodotto.

The international standard for 0-10V dimming is IEC 60929 annex E; for Europe EN 60929 annex E.

Compliance of eldoLED drivers:

Below 0.6V: enabling standby mode.

From 0.6V to 10V: with IEC/EN 60929 annex E.

For detailed dimming characteristics see the 0-10V response chart in the Control Characteristics section of the product datasheets.

### PULSE DIMMING

Pulse dimming è una funzione nei driver DALI eldoLED che consente una facile dimmerazione e accensione/spegnimento. Pulse dimming utilizza per il controllo dell'illuminazione interruttori di tensione di rete standard (max 250 V CA).

Pulse dimming is a feature on eldoLED DALI drivers that enables easy switching and dimming. Pulse dimming uses standard mains voltage (max 250V AC) switches for lighting control.











#### SEDE OPERATIVA

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