

# LED Versorger Relco / VLM

2018



# Informazioni tecniche - Technical information

	Alimentatore di sicurezza resistente al cortocircuito (protezione incorporata). <i>Safety driver resistant to short circuits (integrated protection).</i>
	Alimentatore provvisto di Correttore del Fattore di Potenza attivo. <i>Controlgear equipped with active Power Factor Corrector.</i>
	Alimentatore provvisto di selettore per la selezione di differenti configurazioni di uscita. <i>Controlgear equipped with dip-switch to select different output settings.</i>
	Tensione ELV in un circuito isolato dalla rete di alimentazione da un isolamento non inferiore a quello tra i circuiti primario e secondario di un trasformatore di sicurezza conforme alla IEC 61558-2-6 o equivalente; può essere specificata una massima tensione inferiore a 50 V di valore efficace in c.a. o a 120 V in c.c. piatta, specialmente quando sia previsto il contatto diretto con parti conduttrici; per le applicazioni bisogna riferirsi ai limiti della IEC 60598-1. <i>ELV in a circuit which is insulated from the mains supply by an insulation not less than that between the primary and secondary circuits of a safety isolating transformer according to IEC 61558-2-6 or equivalent; a maximum voltage which is lower than 50 V a.c. r.m.s. or 120 V ripple free d.c. may be specified, especially when direct contact with conductive parts is allowed; please refer to limits of IEC 60598-1 for the final applications.</i>
	Tutti i prodotti sono costruiti nel rispetto della Direttiva Europea 2011/65/UE come riportato nella dichiarazione di conformità EU. <i>All products are manufactured in compliance with European Directive 2011/65 / EU as reported in the EU declaration of conformity.</i>
	La regolazione mediante l'interfaccia digitale DALI (Digital Addressable Lighting Interface) rappresenta l'evoluzione della regolazione analogica. Questa interfaccia è stata sviluppata comunemente dai più importanti produttori di alimentatori elettronici per realizzare uno standard di regolazione comune all'industria mondiale illuminotecnica. <b>Caratteristiche principali della REGOLAZIONE DALI</b> - Memorizzazione di scenari luminosi; - Messaggi per lampada guasta o a fine vita; - Nessun problema con le fasi della rete; - Nessuna necessità di rispettare la polarità dei cavi di regolazione; - Possibilità di assegnare un indirizzo univoco ad ogni dispositivo connesso. <i>Regulation by means of DALI (Digital Addressable Lighting Interface) digital interface represents an evolution in analogical regulation. This interface has been jointly developed by the most important producers of electronic drivers to create a standard regulation for the lighting engineering industry all over the world.</i> <b>Main features of the DALI REGULATION</b> - Memory function of light scenes; - Messages for breakdown or end of life of the lamp; - No problem with the phases of the supply mains; - No need to observe the polarity of the regulation cables; - Possibility to assign a unique address to each connected device.
	Il simbolo EL è utilizzato per indicare "elettronico" nelle seguenti applicazioni: - Alimentatore elettronico d'emergenza permanente in c.a. - Alimentatore elettronico d'emergenza permanente in a.c./d.c. - Alimentatore elettronico d'emergenza permanente in d.c. <i>The EL symbol is used for "electronic" in the following applications:</i> - a.c. maintained emergency electronic controlgear. - a.c./d.c. maintained emergency electronic controlgear. - d.c. maintained emergency electronic controlgear.

**RIPPLE FREE**

Il RIPPLE FREE è un esempio dello sviluppo e ricerca sui prodotti L.C. RELCO. I driver LED L.C. RELCO sono forniti di un circuito multistadio per alimentare i LED con una corrente perfetta. Con il termine RIPPLE si fa infatti riferimento alla dimensione della forma d'onda della corrente d'uscita del driver LED, dove quando questo è presente causa una deformazione della forma d'onda stessa con conseguente surriscaldamento del LED con diminuzione della vita media, inoltre questo fenomeno causa delle oscillazioni della luce provocano effetti durante le riprese video, dove le immagini risultano essere tagliate con numero se linee nere rendendo quindi impossibile la ripresa. Quando si alimentano i LED con DRIVER LED **RIPPLE FREE** è possibile raggiungere le massime prestazioni ed efficienza luminosa, con la minima dissipazione di calore.  
*The RIPPLE FREE is an example of R&D on the L.C RELCO products. The L.C. RELCO LED drivers are provided with multistage circuit to feed the LEDs with a perfect current. The term RIPPLE refers to the dimension of the wave form of the LED driver output current, when present this deforms the same wave form with consequent overheating of the LED with reduced average life. Also this phenomenon, cause of light oscillations, results in effects while shooting videos, where the images appear to be cut with several black lines making shooting impossible. When you feed the LEDs with DRIVER LED RIPPLE FREE you can achieve maximum performance and light efficiency, with minimal heat dissipation.*

Sicurezza e prestazioni Enti di certificazione <i>Safety and performance of certification organization</i>			
	IMQ	ITALIA / ITALY	
	NEMKO	NORVEGIA / NORWAY	
	VDE	GERMANIA / GERMANY	

Sicurezza - Safety	
	IMQ
	NEMKO (sicurezza+compatibilità elettromagnetica) (safety + electromagnetic compatibility)
	VDE

**CE**

Tutti i prodotti sono costruiti nel rispetto delle Normative Europee (2014/35/UE, 2006/95/CE, 2014/30/UE, 2004/108/CE, 2009/125/CE) come riportato nella dichiarazione di conformità UE.  
*All products are manufactured in compliance with European Directives (2014/35/UE, 2006/95/CE, 2014/30/UE, 2004/108/CE, 2009/125/CE) as reported in the UE conformity declaration.*

**Tutti i driver sono conformi alle seguenti norme: All drivers are compliant at the following standards:**

Esposizione umana ai campi elettromagnetici - <i>Human exposure to electromagnetic fields</i>	EN 62493
Immunità EMC - <i>EMC immunity</i>	EN 61547
Limiti di emissioni armoniche - <i>Limits for harmonic emissions</i>	EN 61000-3-2
Compatibilità elettromagnetica - <i>Electromagnetic compatibility</i>	EN 61000-3-3
Disturbi condotti irradiati - <i>Conducted noise radiated</i>	EN 55015

Relco Group persegue una politica di continua ricerca e sviluppo, quindi si riserva di variare in qualsiasi momento e senza preavviso le caratteristiche dei prodotti illustrati  
*Relco Group pursues a policy of continuous research and development, and reserves the right to change at any time and without prior notice, the characteristics of the products*

# TABELLA DI SCELTA LED DRIVERS - LED DRIVERS CHOICE TABLE

## Driver LED a corrente costante - Constant current Led Driver

Pag.	Articolo Article	Codice Code	W	Regolabile - Dimmable					Tensione Vdc (VTD) - Voltage Vdc (CTD)								
				Pulsante Push	0±10Vdc	L/C	DALI	DYNA	200	250	300	325	350	375	400	425	
126	PTDCC/3/350/N	PTDCC/3/350/N	3											X			
126	PTDCC3R500N	PTDCC3R500N	3														
126	POWERLED 350-6W	RN1436	6											X			
126	POWERLED 700-6W	RN1437	6														
124	MINIPOWERLED 8W	RN1393	8											X			
124	MINIPOWERLED 8W	RN1397	8														
125	POWERLED DIM 350-12W	RN1471	12											X			
125	POWERLED DIM 700-12W	RN1472	12				X										
126	POWERLED 350-14W IP66	RN1415/350	14											X			
126	MINIHOLE POWERLED 350-15W	RN1311	15											X			
139	SPINA JOLLY DIM	RN1515/N	15	X						X	X	X		X		X	
122	MUPOWER	RN9150	15											X			
126	PTRDCC15350B	PTRDCC15350B	17											X			
125	POWERLED DIM 350-18W	RN1406	18				X							X			
125	POWERLED DIM 700-36W	RN1408	18				X										
126	POWERLED 500-20W IP66	RN1415/500	20														
126	POWERLED 700-20W	RN1415/700	20														
116	JOLLY KLEIN DIM	RN9160	20	X	X					X	X	X		X		X	
116	JOLLY KLEIN	RN9161	20							X	X	X		X		X	
116	JOLLY KLEIN DIM DALI	RN9160/DALI	20					X			X			X		X	
122	MINIBRAVO POWERLED	RN1398	22											X			
124	JOLLY POWERMINILED DIM 25	PTDCMD/30/B	25	X	X									X			
124	JOLLY POWERMINILED 25/SL	RN9000	25											X			
123	POWERLED 200-950	RN1439	30							X	X	X		X		X	
122	ICE LED	RN9163	30														
117	JOLLY POWERMINILED DIM 35	PTDCMD/35	35	X	X									X			
117	JOLLY POWERMINILED 35	PTDCM/35	35											X			
125	POWERLED DIM 1050-36W	RN1427	36				X										
119	PTDCMD40/DALI	PTDCMD40/DALI	40	X				X						X			
119	JOLLY POWERLED DIM DALI 40	RN9166/DALI	40	X				X									
122	ICE LED	RN9164	40														
118	MID JOLLY DIM	RN9168	55	X	X												
118	MID JOLLY	RN9170	55														
118	MID JOLLY DIM	RN9168/DYNA	55						X								
119	JOLLY POWERLED DIM DALI	RN9168/DALI	55	X				X									
118	MID JOLLY 60 AV	RN9170/AV	60								X	X		X		X	
118	MID JOLLY 60 DIM AV	RN9168/AV	60	X	X						X	X		X		X	
118	JOLLY POWERLED DIM DALI AV	RN9168AV/DALI	60	X				X			X	X		X		X	
120	BIG JOLLY DIM	RN9167	65	X	X												
120	BIG JOLLY DIM/BI	RN9167/BI	65	X	X												
120	BIG JOLLY DIM/BI	RN9167BI/DYNA	65						X								
120	BIG JOLLY DIM	RN9167/DYNA	65						X								
120	BIG JOLLY	RN9171	65														
120	BIG JOLLY/BI	RN9162/BI	65														
123	POWERLED	RN9133	80										X	X	X	X	X
123	POWERLED 350-700mA	RN9133/DALI	80	X				X						X	X	X	X
124	ICE LED 150/700mA	RN9163/AV	150							X	X	X		X		X	
124	ICE LED 150/1050mA	RN9164/AV	150									X		X		X	

## Driver LED a tensione costante - Constant voltage Led Driver

Pag.	Articolo Article	Codice Code	W	Regolabile - Dimmable			Tensione Vdc (VTD) - Voltage Vdc (CTD)										
				Pulsante Push	0±10Vdc	L/C	10	12	24								
127	PTDC/3/12V/N	PTDC/3/12V/N	3														
127	MINILED 12-10W	RN9112	10											X			
127	MINILED 12-15W	RN1367	15											X			
127	MINILED 12-30W	RN9014	30											X			
127	BRAVO MINILED 12-40W	RN1474	40											X			
127	MINILED 12-60W	PTDC/50/12V	60											X			
127	MINILED 12-100W	RN9175	100											X			
127	MINILED 12-150W - IP67	RN1431	150											X			
128	PTDC/3/24V/N	PTDC/3/24V/N	3														X
128	MINILED 24-12W	RN9124	15														X
128	MINILED 68 - IP68	RN1361	15														X
128	MINILED 24-25W	RN1366	25														X
128	BRAVO MINILED 24-40W	RN1475	40														X

Corrente costante mA (CTD) - Constant current mA (CTD)

	450	475	500	525	550	575	600	625	650	675	700	750	800	850	900	950	1000	1050	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	Pag	
																															126
			X																												126
												X																			126
												X																			124
												X																			124
												X																			125
												X																			126
												X																			126
	X		X		X		X		X		X	X	X	X	X	X															139
			X								X																				122
																															126
												X																			125
			X																												126
											X																				126
	X		X		X		X		X		X	X	X	X	X	X															116
	X		X		X		X		X		X	X	X	X	X	X															116
	X		X		X		X				X																				116
			X								X																				122
			X								X																				124
			X								X																				124
	X		X		X		X		X		X	X	X	X	X	X															123
			X				X		X		X																				122
			X								X			X																	117
			X								X			X																	117
			X								X							X													125
			X								X							X				X		X							119
													X				X					X		X							119
													X		X																122
							X				X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	118
							X				X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	118
							X				X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	118
							X				X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	119
	X		X		X		X		X		X																				118
	X		X		X		X		X		X																				118
	X		X		X		X		X		X																				118
							X				X		X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	120
							X				X		X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	120
							X				X		X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	120
							X				X		X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	120
							X				X		X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	120
	X	X	X	X	X	X	X	X	X	X	X																				123
	X	X	X	X	X	X	X	X	X	X	X																				123
	X		X		X		X		X		X																				124
	X		X		X		X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	124

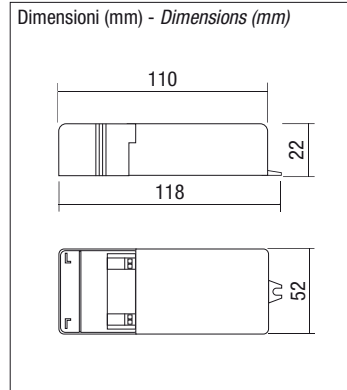
Alimentatori LED - Strisce LED - LED Driver - Strip LED

Components

Pag.	Articolo Article	Codice Code	W	Regolabile - Dimmable			Tensione Vdc (VTD) - Voltage Vdc (CTD)			
				Pulsante Push	0÷10Vdc	L/C	10	12	24	
128	MINILED 24-60W	RN1428	60							X
128	MINILED 24-120W	RN9175/24	120							X
128	MINILED 24-200W	RN1431/24	200							X
128	MINILED 20-25W	RN1392	25				X	X	X	X
140	RN1339/N	SPINA LED MULTITENSIONE	20							
			25					X		X
129	PTDC/80/B	PTDC/80/B	50							X
			80							X
129	PTDC/100/B	PTDC/100/B	60							X
			100							X
129	PTDCD/80	PTDCD/80	50	X	X					X
			80	X	X					X
128	PTDCD/100	PTDCD/100	60	X	X					X
			100	X	X					X

# JOLLY KLEIN 20

Alimentatore elettronico multipower DIM/NO DIM - LED Driver multipower DIM/NO DIM



Code Code	LPH mm	Vdc IN	DIM	Vac IN	DIM	Hz	ST10?	iC	ta °C	tc °C	PFC	Euro Cad.
RN9161	110x52x22	176÷264	NO	110÷240	NO	50/60	25	20A 170µS	-20..40	75	OK	20,00
RN9160	110x52x22	176÷264	P - R - 10	110÷240	P - R - S10	50/60	25	20A 170µS	-20..40	75	OK	24,00
<b>NEW</b> RN9160/DALI	110x52x22	176÷264	DALI	110÷240	DALI	50/60	25	20A 170µS	-20..40	75	OK	56,00

RN9160 - RN9161		CDT															
out	mA	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
Vout	Vdc	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
Power	W	8	10	12	15	17 (15)	19 (15)	20 (15)	20 (15)	20 (15)	20 (15)	20 (15)	20 (15)	20 (15)	20 (15)	20 (15)	20 (15)
N° LED typical VF 3,2V	min-max	1÷12	1÷12	1÷12	1÷12	1÷11	1÷8	1÷8	1÷8	1÷7	1÷7	1÷6	1÷6	1÷5	1÷5	1÷4	1÷4

COB - Typical VF 37V

RN9160/DALI		CDT DALI								
out	mA	250	350	400	450	500	550	600	700	
Vout	Vdc	42	42	42	42	42	42	42	42	
Power	W	10	15	17 (15)	19 (15)	20 (15)	20 (15)	20 (15)	20 (15)	
N° LED typical VF 3,2V	min-max	1÷13	1÷13	1÷13	1÷13	1÷13	1÷11	1÷10	1÷9	

COB - Typical VF 37V

**Norme di riferimento - Reference norms**  
 EN 55015  
 EN 61000-3-2  
 EN 61000-3-3  
 EN 61347-1  
 EN 61347-2-13  
 EN 61547  
 EN62384

### Caratteristiche tecniche

- Alimentatore multipotenza fornito di dip-switch per la selezione della corrente in uscita
- Alimentatore indipendente IP20, per uso interno.
- Protetto in classe II contro le scosse elettriche per contatti diretti e indiretti.
- Uscita in corrente costante (CDT).
- Protezioni: al cortocircuito, contro le extra-tensioni di rete, contro i sovraccarichi.
- Morsetti di entrata e uscita sullo stesso lato.
- Non è possibile l'accensione e lo spegnimento sul secondario.
- CDT connessione moduli led in serie.

### Sistemi di regolazione (RN9160)

- 1.S10= tramite segnale di controllo 1-10Vdc
- 2.R= tramite dimmer serie DIM34 (L.C. Relco)
- 3.P= tramite pulsante NA (non fornito)

### Technical features

- Multipower power supply unit equipped with a dip-switch to select the output current
- IP20 independent power supply unit, for indoor use.
- Class II protection against electric shocks by direct and indirect contact.
- Constant current output (CDT).
- Protections: against short circuit, against extra network voltage, against overloads.
- Input and output terminals on the same side.
- Ignition and switch off is not possible on the secondary side.
- LED modules CDT connection in series.

### Regulation systems (RN9160)

1. S10 = by means of control signal 1-10Vdc
2. R = by means of DIM34 series dimmer (L.C. Relco)
3. P = by means of NA push button (not included)

Fig. 1 - RN9161  
Schema collegamento - Wiring diagram

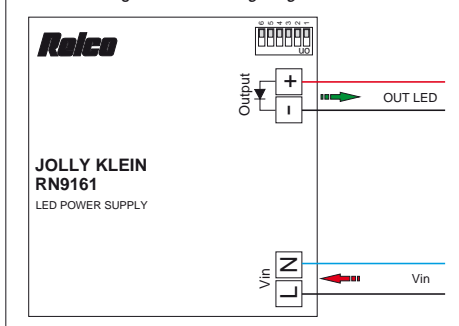


Fig. 2 - RN9160  
Schema collegamento - Wiring diagram

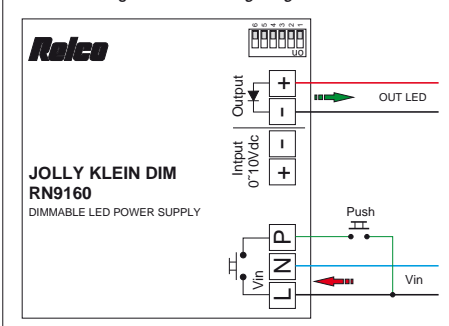
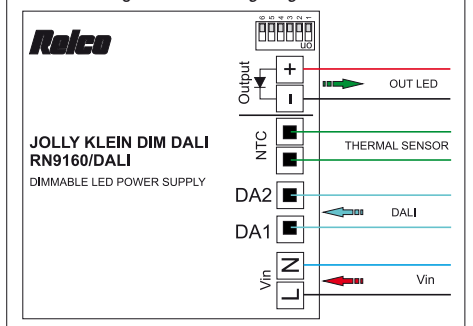
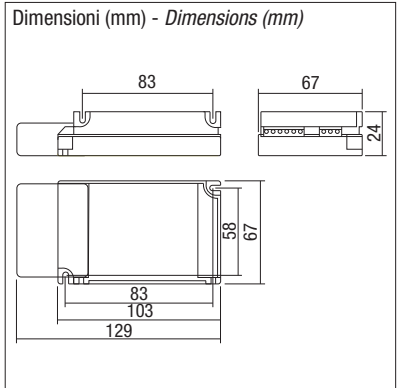


Fig. 2 - RN9160/DALI  
Schema collegamento - Wiring diagram



# JOLLY POWERMINILED 35

Alimentatore elettronico multifunzione DIM/NO DIM - LED Driver multifunction DIM/NO DIM



Code Code	LPH ↓↑ mm	Vdc IN	DIM	Vac IN	DIM	Hz	150V	iC	ta °C	tc °C	PFC	Euro Cad.
PTDCM/35	129x67x24	176÷264	NO	110÷240	NO	50/60	25	20A 170µs	-20..40	70	OK	25,00
PTDCMD/35	129x67x24	176÷264	P R S10	110÷240	P R S10	50/60	25	20A 170µs	-20..40	70	OK	28,00

PTDCMD/35 - PTDCM/35		CDT				VDT		
Iout	mA	350	500	700	850	800	830	830
Vout	Vdc	45	45	50	50	10	12	24
Power	W	15	22	35 (25)	35 (25)	10	10	20
N° LED typical VF 3,2V	min-max	1-12	1-12	1-11	1-11	-	-	-
COB - Typical VF 37V								

### Caratteristiche tecniche

- Alimentatore multifunzione fornito di dip-switch per la selezione della corrente (CDT) e della tensione (VDT), in uscita
- Alimentatore indipendente IP20, per uso interno
- Protetto in classe II contro le scosse elettriche per contatti diretti e indiretti
- Uscita in corrente costante (CDT)
- Uscita in tensione costante (VDT)
- Protezioni:
  - al cortocircuito;
  - contro le extra-tensioni di rete;
  - contro i sovraccarichi.
- Morsetti di entrata e uscita sullo stesso lato
- Non è possibile l'accensione e lo spegnimento sul secondario in funzionamento CDT
- CDT connessione moduli led in serie
- VDT connessione moduli led in parallelo

### Sistemi di regolazione (PTDCMD/35)

1. S10= tramite segnale di controllo 1-10Vdc
2. R= tramite dimmer serie DIM34 (L.C. Relco)
3. P= tramite pulsante NA (non fornito)

### Technical features

- Multipower power supply unit equipped with a dip-switch to select the output current (CDT) and voltage (VDT).
- IP20 independent power supply unit, for indoor use
- Class II protection against electric shocks by direct and indirect contacts
- Constant current output (CDT)
- Constant output voltage (VDT)
- Protections:
  - against short circuit;
  - against extra network voltage;
  - against overloads.
- Input and output terminals on the same side
- Ignition and switch off is not possible on the secondary side in CDT functioning
- LED modules CDT connection in series
- LED modules VDT connection in parallel

### Regulation systems (PTDCMD/35)

1. S10 = by means of control signal 1-10Vdc
2. R= by means of DIM34 series dimmer (L.C. Relco)
3. P= by means of NA push button (not included)

### Norme di riferimento - Reference norms

- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 61347-1
- EN 61347-2-13
- EN 61547
- EN62384

Fig. 1 - PTDCMD/35 - Schema collegamento - Wiring diagram

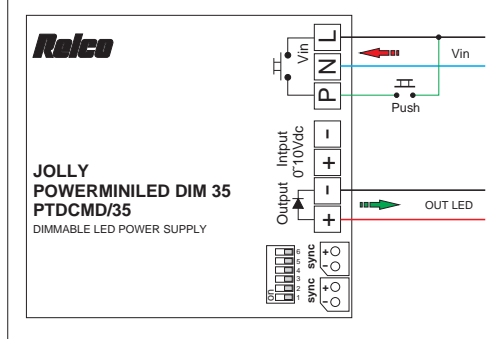
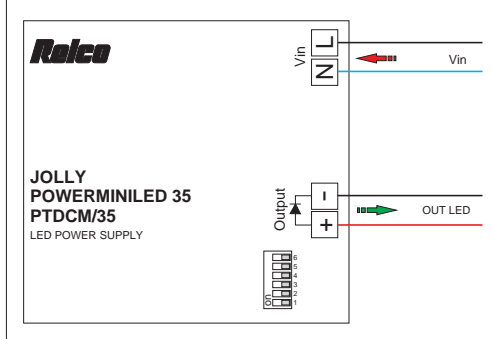


Fig. 1 - PTDCM/35 - Schema collegamento - Wiring diagram



Alimentatori LED - Strisce LED - LED Driver - Strip LED

Components



# MID JOLLY

Alimentatore elettronico multipower DIM/NO DIM - LED Driver multipower DIM/NO DIM



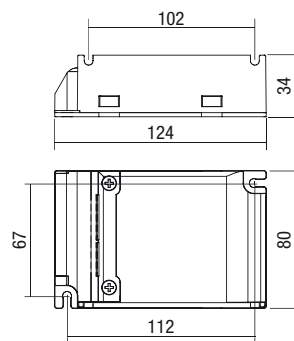
MID JOLLY 55 - Cod. RN9170  
MID JOLLY 60 AV - Cod. RN9170/AV



MID JOLLY 55 DIM - Cod. RN9168  
MID JOLLY 60 DIM AV - Cod. RN9168/AV



Dimensioni (mm) - Dimensions (mm)



MID JOLLY 55 DIM - Cod. RN9168/DYNA



MULTIPOWERLED DIM DALI 40 - Cod. PTDCMD40/DALI  
JOLLY POWERLED DIM DALI 40 - Cod. RN9166/DALI  
JOLLY POWERLED DIM DALI 55 - Cod. RN9168/DALI  
JOLLY POWERLED DIM DALI 60 AV - Cod. RN9168AV/DALI



Norme di riferimento - Reference norms

- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 61347-1
- EN 61347-2-13
- EN 61547
- EN62384

Alimentatori LED - Strisce LED - LED Driver - Strip LED

Codice Code	LPH mm	Vdc IN	DIM	Vac IN	DIM	Hz	?	IC	ta °C	tc °C	PFC	Euro Cad.
RN9170	124x80x34	176-264	NO	110-240	NO	50/60	15	25A 200µS	-20..45	80	OK	26,00
<b>NEW</b> RN9170/AV	124x80x34	176-264	NO	110-240	NO	50/60	15	25A 200µS	-20..45	80	OK	30,00
RN9168	124x80x34	176-264	S10 - R - P	110-240	S10 - R - P	50/60	15	25A 200µS	-20..45	80	OK	36,00
RN9168/DYNA	124x80x34	176-264	DYNA SYSTEM	110-240	DYNA SYSTEM	50/60	15	25A 200µS	-20..45	80	OK	36,00
<b>NEW</b> RN9168/AV	124x80x34	176-264	S10 - R - P	110-240	S10 - R - P	50/60	15	25A 200µS	-25..50	90	OK	38,00

RN9168 - RN9168/DYNA - RN9170		<b>CDT</b>															
Iout	mA	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100
Vout	Vdc	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Power	W	20	27	28	32 (30)	35 (30)	38 (30)	42 (30)	45 (30)	49 (30)	52 (30)	55 (30)	55 (30)	55 (30)	55 (30)	55 (30)	55 (30)
N° LED typical VF 3,2V	min-max	1÷10	1÷12	1÷11	1÷11	1÷11	1÷11	1÷11	1÷11	1÷11	1÷11	1÷11	1÷10	1÷10	1÷9	1÷9	1÷8
COB - Typical VF 37V																	

RN9170/AV - RN9168/AV <b>NEW</b>		<b>CDT</b>									
Iout	mA	250	300	350	400	450	500	550	600	650	700
Vout	Vdc	112	112	112	112	112	112	110	100	92	86
Power	W	28	34	39	45 (40)	50 (40)	56 (40)	60 (40)	60 (40)	60 (40)	60 (40)
N° LED typical VF 3,2V	min-max	6÷35	6÷35	6÷35	6÷35	6÷35	6÷35	6÷34	6÷31	6÷29	6÷27
COB - Typical VF 37V											

# MID JOLLY

Alimentatore elettronico multipower DIM/NO DIM - LED Driver multipower DIM/NO DIM



Codice Code	LPH ↓↑mm	Vac IN	DIM	Hz	W	n°LED min-max	REGA?	ic	Vout Vdc	ta °C	tc °C	PFC	Iout mA	Euro Cad.
PTDCMD40/DALI 	123x75x30	220-240	DALI P	50/60	28	3-26	25	20A 170µS	10-80	-20...50	80	OK	350	39,00
					40	3-20	25		10-80				500	
					40	3-13	25		10-60				700	
RN9166/DALI 	123x75x30	220-240	DALI P	50/60	40	1-12	25	20A 170µS	2-38	-20...50	80	OK	1050	42,00
						1-9	25		2-28				1400	
						1-8	25		2-25				1600	
<b>NEW</b> RN9168/DALI 	123x75x30	220-240	DALI P	50/60	55	Tabella 1 Table 1	15	25A 200µS	65	-20...45	80	OK	Tabella 1 Table 1	50,00
<b>NEW</b> RN9168AV/DALI 	123x75x30	220-240	DALI P	50/60	60	Tabella 2 Table 2	15	25A 200µS	112	-20...55	90	OK	Tabella 2 Table 2	60,00

Tabella 1 - Table 1

RN9168/DALI <b>NEW</b>		CDT															
Iout	mA	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100
Vout	Vdc	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Power	W	20	27	28	32 (30)	35 (30)	38 (30)	42 (30)	45 (30)	49 (30)	52 (30)	55 (30)	55 (30)	55 (30)	55 (30)	55 (30)	55 (30)
N° LED typical VF 3,2V	min-max	1÷10	1÷12	1÷11	1÷11	1÷11	1÷11	1÷11	1÷11	1÷11	1÷11	1÷11	1÷10	1÷10	1÷9	1÷9	1÷8
COB - Typical VF 37V																	

Tabella 2 - Table 2

RN9168AV/DALI <b>NEW</b>		CDT									
Iout	mA	250	300	350	400	450	500	550	600	650	700
Vout	Vdc	112	112	112	112	112	112	110	100	92	86
Power	W	28	34	39	45 (40)	50 (40)	56 (40)	60 (40)	60 (40)	60 (40)	60 (40)
N° LED typical VF 3,2V	min-max	6÷35	6÷35	6÷35	6÷35	6÷35	6÷35	6÷34	6÷31	6÷29	6÷27
COB - Typical VF 37V											

## Caratteristiche tecniche

- Alimentatore multipotenza fornito di dip-switch per la selezione della corrente in uscita
- Alimentatore indipendente IP20, per uso interno
- Protetto in classe II contro le scosse elettriche per contatti diretti e indiretti
- Uscita in corrente costante (CDT)
- Protezioni: al cortocircuito, contro le extra-tensioni di rete, contro i sovraccarichi.
- Morsetti di entrata e uscita sullo stesso lato
- Non è possibile l'accensione e lo spegnimento sul secondario
- CDT connessione moduli led in serie

## Sistemi di regolazione (RN9168 - RN9168/AV)

1. S10 = tramite segnale di controllo 1-10Vdc
2. R = tramite dimmer serie DIM34 (L.C. Relco)
3. P = tramite pulsante NA (non fornito)

## Sistemi di regolazione

DYNA Control (vedi Pag. 121)  
(RN9168/DYNA)

## Sistemi di regolazione

Sistema DALY  
(PTDCMD40/DALI - RN9166/DALI - RN9168/DALI - RN9168AV/DALI)

## Technical features

- Multipower power supply unit equipped with a dip-switch to select the output current
- IP20 independent power supply unit, for indoor use
- Class II protection against electric shocks by direct and indirect contact
- Constant current output (CDT)
- Protections: against short circuit, against extra network voltage, against overloads.
- Input and output terminals on the same side
- Ignition and switch off is not possible on the secondary side
- LED modules CDT connection in series

## Regulation systems (RN9168 - RN9168/AV)

1. S10 = by means of control signal 1-10Vdc
2. R = by means of DIM34 series dimmer (L.C. Relco)
3. P = by means of NA push button (not included)

## Regulation systems

DYNA Control (see Page 121)  
(RN9168/DYNA)

## Regulation systems

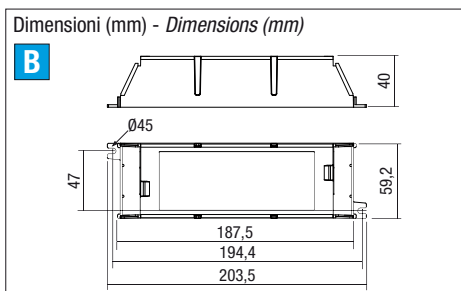
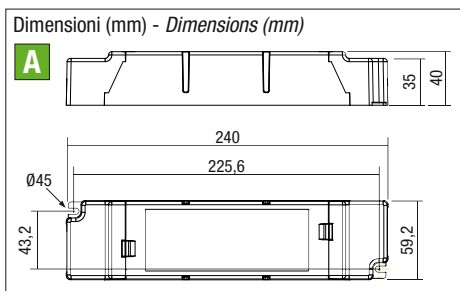
DALI system  
(PTDCMD40/DALI - RN9166/DALI - RN9168/DALI - RN9168AV/DALI)





# BIG JOLLY 65

Alimentatore elettronico multipower DIM/NO DIM - LED Driver multipower DIM/NO DIM



**Norme di riferimento - Reference norms**

- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 61347-1
- EN 61347-2-13
- EN 61547
- EN62384

Codice Code	LPH ↓mm	Vdc IN	DIM	Vac IN	DIM	Hz	TGA?	iC	ta °C	tc °C	PFC	Euro Cad.
RN9171	240x59x40	176-264	NO	110-240	NO	50/60	15	25A 200µS	-20..45	80	OK	40,00
RN9162/BI	204x59x40	176-264	NO	110-240	NO	50/60	15	25A 200µS	-20..45	80	OK	38,00
RN9167	240x59x40	176-264	S10 - R - P	110-240	S10 - R - P	50/60	15	25A 200µS	-20..45	80	OK	50,00
RN9167/BI	204x59x40	176-264	S10 - R - P	110-240	S10 - R - P	50/60	15	25A 200µS	-20..45	80	OK	48,00
RN9167/DYNA	240x59x40	176-264	DYNA SYSTEM	110-240	DYNA SYSTEM	50/60	15	25A 200µS	-20..45	80	OK	50,00
RN9167BI/DYNA	204x59x40	176-264	DYNA SYSTEM	110-240	DYNA SYSTEM	50/60	15	25A 200µS	-20..45	80	OK	48,00

RN9171 - RN9162/BI RN9167 - RN9167/BI RN9167/DYNA - RN9167BI/DYNA		CDT																
Iout	mA	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	
Vout	Vdc	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	
Power	W	30	35 (30)	40 (30)	45 (30)	50 (30)	55 (30)	60 (30)	65 (30)	65 (30)	65 (30)	65 (30)	65 (30)	65 (30)	65 (30)	65 (30)	65 (30)	
N° LED typical VF 3,2V	min-max	1÷16	1÷16	1÷16	1÷16	1÷16	1÷16	1÷16	1÷16	1÷15	1÷14	1÷13	1÷12	1÷11	1÷11	1÷10	1÷10	
COB - Typical VF 37V																		

# BIG JOLLY 65

## Alimentatore elettronico multipower DIM/NO DIM - LED Driver multipower DIM/NO DIM



### Caratteristiche tecniche

- Alimentatore multipotenza fornito di dip-switch per la selezione della corrente in uscita
- Alimentatore indipendente IP20, per uso interno (RN9171 - RN9167 - RN9167/DYNA)
- Alimentatore da incorporare (RN9162/BI - RN9167/BI - RN9167BI/DYNA)
- Protetto in classe II contro le scosse elettriche per contatti diretti e indiretti (RN9171 - RN9167 - RN9167/DYNA)
- Uscita in corrente costante (CDT)
- Protezioni: cortocircuito, contro le extra-tensioni di rete, contro i sovraccarichi.
- Morsetti di entrata e uscita contrapposti
- Non è possibile l'accensione e lo spegnimento sul secondario
- CDT connessione moduli led in serie

### Sistemi di regolazione (RN9167 - RN9167/BI)

1. S10 = tramite segnale di controllo 1-10Vdc
2. R = tramite dimmer serie DIM34 (L.C. Relco)
3. P = tramite pulsante NA (non fornito)

### Sistemi di regolazione (RN9167/DYNA - RN9167BI/DYNA)

DYNA Control

### Technical features

- Multipower power supply unit equipped with a dip-switch to select the output current
- IP20 independent power supply unit, for indoor use (RN9171 - RN9167 - RN9167/DYNA)
- Power supply unit to be incorporated (RN9162/BI - RN9167/BI - RN9167BI/DYNA)
- Class II protection against electric shocks by direct and indirect contacts (RN9171 - RN9167 - RN9167/DYNA)
- Constant current output (CDT)
- Protections: against short circuit, against extra network voltage, against overloads.
- Opposite input and output terminals
- Ignition and switch off is not possible on the secondary side
- LED modules CDT connection in series

### Regulation systems (RN9167 - RN9167/BI)

1. S10 = by means of control signal 1-10Vdc
2. R = by means of DIM34 series dimmer (L.C. Relco)
3. P = by means of NA push button (not included)

### Regulation systems (RN9167/DYNA - RN9167BI/DYNA)

DYNA Control

# DYNA CONTROL - CLO (MID JOLLY 55 - BIG JOLLY 65)

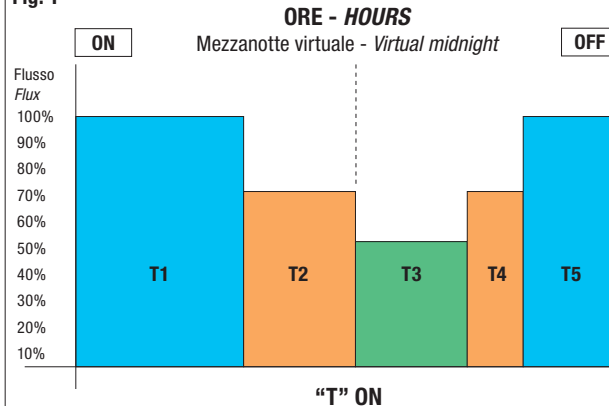
## LED Driver regolazione DYNA/CLO - LED Driver DYNA/CLO control

### DYNA CONTROL

DYNA CONTROL è un sistema automatico di controllo del flusso luminoso delle lampade de (non programmabile dall'utente finale). Il sistema entra in funzione alla prima accensione calcolando in modo autonomo la mezzanotte virtuale eseguendo una regolazione del flusso regolando la lampada come indicato sullo schema di Fig. 1;

*DYNA CONTROL is an automatic system to control lamp brightness (Not programmable by the end user). The system starts working when first switched-on calculating switch-on times for 3 days, on the fourth day the system autonomously calculates the virtual midnight, adjusting the brightness of the lamp as indicated in Fig. 1.*

Fig. 1



T1	= 30% "T" - 100% Flusso luminoso - Luminous flux
T2	= 20% "T" - 70% Flusso luminoso - Luminous flux
T3	= 20% "T" - 50% Flusso luminoso - Luminous flux
T4	= 10% "T" - 70% Flusso luminoso - Luminous flux
T5	= 20% "T" - 100% Flusso luminoso - Luminous flux

Minimo tempo di accensione per funzionamento automatico 4 ore (3 giorni).  
Accensioni di 1 ora ignorate.  
Accensioni da 1 a 4 ore oppure superiori alle 23 ore resettano il sistema.

*The minimum ignition time for automatic operation is 4 hours (three days).  
Ignitions 1 hour ignored.  
Switching from 1 to 4 hours or higher with 23 hours reset the system.*

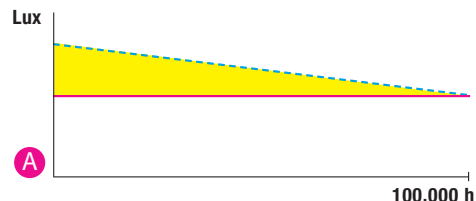
### CLO - Constant Light Output

Tutte le fonti di luce (anche i LED) hanno una riduzione del flusso luminoso nel corso del tempo. Per garantire il minimo richiesto di livelli di luce in un impianto, la maggior parte dei progetti di illuminazione sono calcolati in base al livello di luce alla fine della vita utile della lampada.

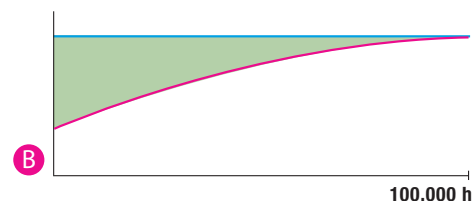
Ciò significa che il sistema consuma più potenza del necessario, sprecando in media 15% di energia durante la sua vita (Fig.A). L'emissione di flusso costante (CLO) compensa questa perdita di luce, in modo che i LED siano in grado di fornire sempre lo stesso livello di luce. L'alimentatore può essere programmato per erogare corrente costante ad un livello ridotto per un nuovo apparecchio, ed aumentare gradualmente compensando il decadimento del flusso luminoso. Ciò influisce positivamente sulla vita della sorgente luminosa, sul risparmio energetico, prolungando la durata del sistema. In questo modo il flusso luminoso dell'apparecchio rimane costante per tutta la sua vita.

*All light sources (including LEDs) produce less light over time. In order to guarantee the minimum required levels of light of a system, most lighting projects are planned taking into account the level of light at the end of the useful life of the lamp.*

*This means that the system consumes more power than necessary, wasting on average 15% of energy throughout its life (Fig.A). The constant lumen output (CLO) compensates for this loss of light to ensure that the LEDs supply the same level of light at all times. The power supply unit can be programmed to supply direct current at a reduced level for a new appliance, and to gradually increase this to compensate for the decline in luminous flux. This positively increases the lifespan of the light source and of the system, while ensuring energy savings. In this way, the luminous flux of the appliance remains constant during its entire life-span.*



— Livelli di illuminazione LED standard  
— Livelli di illuminazione richiesti = Livelli di illuminazione LED con CLO  
■ Illuminazione in esubero



— Consumo energetico standard dell'illuminazione  
— Consumo energetico dell'illuminazione LED con CLO  
■ Risparmio energetico

# MULTIPOWERLED



CDT CE EMC 300MHz SELV RoHS compliance Multipower RIPPLE FREE

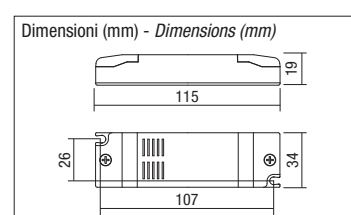


**Mu Power 15W**

\* Per potenze inferiori a 24W non è richiesto dalle normative - For lower powers to 24W is not required by the regulations

Codice Code	LPH ↓↑ mm	Vdc IN	Vac IN	Hz	REG?	iC	ta °C	tc °C	PFC	Euro Cad.
RN9150	115x34x19	176-264	220-240	50/60	30	10A 40µS	-20..40	75	*	13,00

RN9150		CDT			
Iout	mA	350	500	700	
Vout	Vdc	43	43	43	
Power	W	15	15	15	
N° LED typical VF 3,2V	min-max	1÷12	1÷9	1÷6	
COB - Typical VF 37V					



CDT CE EMC 300MHz SELV RoHS compliance Multipower RIPPLE FREE

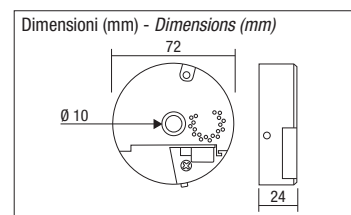


**MINIBRAVO POWERLED 350 - 500 - 700**

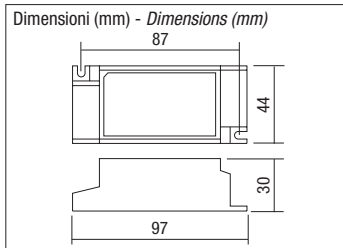
\* Per potenze inferiori a 24W non è richiesto dalle normative - For lower powers to 24W is not required by the regulations

Codice Code	LPH ↓↑ mm	Vdc IN	Vac IN	Hz	REG?	iC	ta °C	tc °C	PFC	Euro Cad.
RN1398	Ø72x24	176-264	220-240	50/60	25	20A 170µS	-20..40	80	*	18,00

RN1398		CDT			
Iout	mA	350	500	700	
Vout	Vdc	48	48	48	
Power	W	14	20	22	
N° LED typical VF 3,2V	min-max	1÷10	1÷10	1÷10	
COB - Typical VF 37V					



CDT CE EMC 300MHz SELV RoHS compliance Multipower DIP-SWITCH NEW



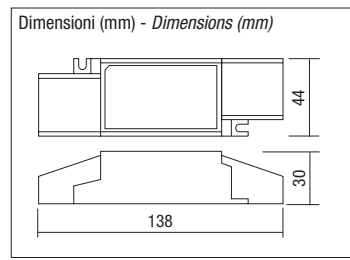
Codice Code	LPH ↓↑ mm	Vdc IN	Vac IN	Hz	REG?	iC	ta °C	tc °C	PFC	Euro Cad.
RN9163	97x44x30	-	220-240	50/60	25	20A 170µS	-20..50	75	OK	17,00
RN9164	97x44x30	-	220-240	50/60	25	20A 170µS	-20..50	75	OK	19,00

RN9163		CDT			
Iout	mA	500	600	650	700
Vout	Vdc	25-42	25-42	25-42	25-42
Power	W	21	25	27	30
N° LED typical VF 3,2V	min-max	7÷13	7÷13	7÷13	7÷13
COB - Typical VF 37V					

RN9164		CDT			
Iout	mA	800	900	950	1050
Vout	Vdc	25-40	25-40	25-40	30-40
Power	W	33	36	38	42
N° LED typical VF 3,2V	min-max	7÷13	7÷13	7÷13	7÷13
COB - Typical VF 37V					



Accessorio NON incluso  
NOT included accessory



Coprimorsetto (2 pezzi)  
Terminal cover (2 pieces)  
Cod. 60408000  
Euro: 0,3

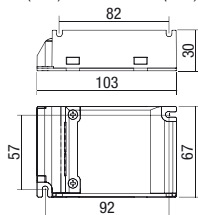
# MULTIPOWERLED



## POWERLED 200 - 950



Dimensioni (mm) - Dimensions (mm)



Codice Code	LPH ↓↑mm	Vdc IN	Vac IN	Hz	TEGAL?	iC	ta °C	tc °C	PFC	Euro Cad.
RN1439	103x67x30	176-264	220-240	50/60	25	20A 170µS	-20..50	85	OK	20,00

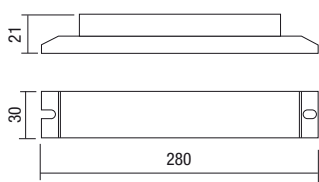
RN1439		CDT																
Iout	mA	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	
Vout	Vdc	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	
Power	W	9	12	14	16	19	21	24	26	28	30	30	30	30	30	30	30	
N° LED typical VF 3,2V	min	1÷15	1÷15	1÷15	1÷15	1÷15	1÷15	1÷15	1÷15	1÷15	1÷14	1÷13	1÷12	1÷11	1÷11	1÷10	1÷9	
	max	COB - Typical VF 37V																

Codice Code	LPH ↓↑mm	Vdc IN	DM	Vac IN	DM	Hz	TEGAL?	iC	ta °C	tc °C	PFC	Euro Cad.
RN9133	280x30x21	176-264	NO	220-240	NO	50/60	15	25A 200µS	-20..50	85	OK	26,00
<b>NEW</b> RN9133/DALI	360x30x21	176-264	DALI	220-240	P - DALI	50/60	15	25A 200µS	-25...50	85	OK	75,00

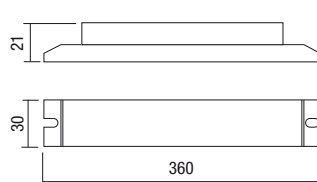
## POWERLED 325 - 700



RN9133 - Dimensioni (mm) - Dimensions (mm)



RN9133/DALI - Dimens. (mm) - Dimens. (mm)



RN9133		CDT																
Iout	mA	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700	
Vout	Vdc	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	
Power	W	20÷52	20÷56	20÷60	20÷64	20÷68	20÷72	20÷76	20÷80	20÷80	20÷80	20÷80	20÷80	20÷80	20÷80	20÷80	20÷80	
N° LED typical VF 3,2V	min	10÷48	10÷48	10÷48	10÷48	10÷45	10÷45	10÷45	10÷45	10÷45	10÷40	10÷40	10÷40	10÷35	10÷35	10÷30	10÷30	
	max	COB - Typical VF 37V																

RN9133/DALI		CDT DALI																
Iout	mA	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700		
Vout	Vdc	120	120	120	120	120	120	120	120	120	120	120	120	118	114			
Power	W	42	45	48	51	54	57	60	63	66	69	72	75	78	80	80		
N° LED typical VF 3,2V	min	9÷37	9÷37	9÷37	9÷37	9÷37	9÷37	9÷37	9÷37	9÷37	9÷37	9÷37	9÷37	9÷37	9÷37	9÷35		
	max	COB - Typical VF 37V																

Alimentatori LED - Strisce LED - LED Driver - Strip LED

Components



# MULTIPOWERLED

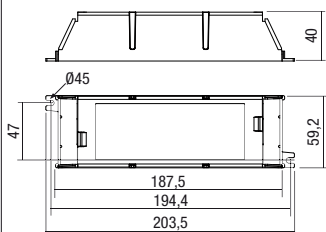


CDT CE EMC 300MHz RoHS compliance 100 DIP-SWITCH Multipower RIPPLE FREE NEW

ICE LED 150/700  
ICE LED 150/1050



Dimensioni (mm) - Dimensions (mm)



	Codice Code	LPH ↓↑mm	Vdc IN	Vac IN	Hz	18VA?	iC	ta °C	tc °C	PFC	Euro Cad.
<b>NEW</b>	RN9163/AV	204x59x40	-	220-240	50/60	15	20A 200µS	-40...55	80	OK	75,00
<b>NEW</b>	RN9164/AV	204x59x40	-	220-240	50/60	15	20A 200µS	-40...55	80	OK	75,00

RN9163/AV		CDT										
<b>Iout</b>	mA	200	250	300	350	400	450	500	550	600	650	700
<b>Vout</b>	Vdc	270	270	270	270	270	270	270	265	265	265	265
<b>Power</b>	W	54	67	80	94	108	121	135	145	150	150	150
<b>N° LED typical F 3,2V</b>	min-max	33÷84	33÷84	33÷84	33÷84	33÷84	33÷84	33÷84	33÷82	33÷78	33÷72	33÷67

COB - Typical VF 37V

RN9164/AV		CDT															
<b>Iout</b>	mA	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
<b>Vout</b>	Vdc	165	165	165	165	165	165	165	165	165	165	165	165	165	157	150	142
<b>Power</b>	W	50	57	66	74	82	90	99	107	116	123	132	140	148	150	150	150
<b>N° LED typical F 3,2V</b>	min-max	23÷50	23÷50	23÷50	23÷50	22÷50	22÷50	22÷50	22÷50	22÷50	22÷50	22÷50	22÷50	22÷50	22÷48	22÷46	22÷44

COB - Typical VF 37V

# MULTIFUNZIONE DIM/NO DIM - MULTIFUNCTION DIM/NO DIM



CDT VDT CE EMC 300MHz SELV RoHS compliance 100 Multipower RIPPLE FREE

JOLLY POWERMINILED 25/SL  
JOLLY POWERMINILED DIM 25



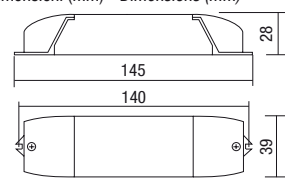
\* Per potenze inferiori a 24W non è richiesto dalle normative - For lower powers to 24W is not required by the regulations

	Codice Code	LPH ↓↑mm	Vdc IN	DRM	Vac IN	DRM	Hz	18VA?	iC	ta °C	tc °C	PFC	Euro Cad.
	RN9000	145x39x28	176-264	NO	110-240	NO	50/60	25	20A 170µS	-20..40	75	*	17,00
	PTDCMD/30/B	145x39x28	176-264	S10 - R P	110-240	S10 - R P	50/60	25	20A 170µS	-20..40	75	*	19,00

RN9000 - PTDCMD/30/B		CDT				VDT		
<b>Iout</b>	mA	350	500	700	800	830	830	
<b>Vout</b>	Vdc	45	45	43	10	12	24	
<b>Power</b>	W	15	20	25 (20)	8	10	20	
<b>N° LED typical VF 3,2V</b>	min-max	1÷12	1÷10	1÷10	-	-	-	

COB - Typical VF 37V

Dimensioni (mm) - Dimensions (mm)



CDT VDT CE EMC 300MHz SELV RoHS compliance 100 Multipower

MINIPOWERLED 350 - 8W  
MINIPOWERLED 700 - 8W

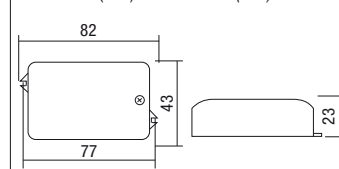


\* Per potenze inferiori a 24W non è richiesto dalle normative - For lower powers to 24W is not required by the regulations

	Codice Code	LPH ↓↑mm	Vdc IN	Vac IN	Hz	18VA?	iC	ta °C	tc °C	PFC	Euro Cad.
	RN1393	82x43x23	-	220-240	50/60	30	10A 40µS	-15..45	70	*	9,50
	RN1397	82x43x23	-	220-240	50/60	30	10A 40µS	-15..45	70	*	9,50

RN1393		CDT	VDT	RN1397		CDT	VDT
<b>Iout</b>	mA	350	350	<b>Iout</b>	mA	700	700
<b>Vout</b>	Vdc	24	24	<b>Vout</b>	Vdc	12	12
<b>Power</b>	W	8	8	<b>Power</b>	W	8	8
<b>N° LED</b>	min-max	1÷6	-	<b>N° LED</b>	min-max	1÷2	-

Dimensioni (mm) - Dimensions (mm)



# DIM POWERLED

Per dimmer TRIAC o IGBT - For TRIAC or IGBT dimmer



Codice Code	LPH ↓ 1mm	Vac IN	DM	Hz	W	n°LED min-max	IGBT	iC	Vout Vdc	ta °C	tc °C	PFC	Iout mA	Euro Cad.
RN1471 (N)	98x39x22	220-240	L - C	50/60	12	6÷11	30	10A 40µS	18-35	-20...50	80	OK	350	14,00
RN1472 (N)	98x39x22	220-240	L - C	50/60	12	3÷6	30	10A 40µS	9-18	-20...50	80	OK	700	14,00
RN1406	133x44x28	220-240	L - C	50/60	18	4÷13	30	10A 40µS	15-52	-20...50	80	OK	350	18,00
RN1408	133x44x28	220-240	L - C	50/60	18	3÷5	30	10A 40µS	6-26	-20...40	80	OK	700	18,00
RN1427	167x55x25	220-240	C	50/60	36	4÷8	25	20A 170µS	15-35	-20...50	80	OK	1050	18,00

**POWERLED DIM 12W**  
Cod. RN1471 - RN1472

**A**



**POWERLED DIM 18W**  
Cod. RN1406 - RN1408

**B**



**POWERLED DIM 36W**  
Cod. RN1427

**C**



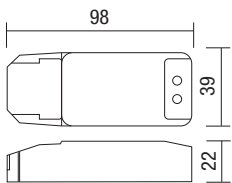
**Norme di riferimento**

**Reference norms**

- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 61347-1
- EN 61347-2-13
- EN 61547
- EN62384

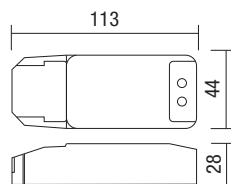
Dimensioni (mm) - Dimensions (mm)

**A**



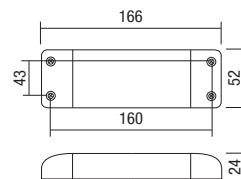
Dimensioni (mm) - Dimensions (mm)

**B**



Dimensioni (mm) - Dimensions (mm)

**C**



Alimentatori LED - Strisce LED - LED Driver - Strip LED

Components



# POWERLED 350mA / 500mA / 700mA

Alimentatori non dimmerabili con uscita in corrente - *Not dimmabel power supply with output current*













Articolo Article	Codice Code	LPH mm	Vdc IN	Vac IN	Hz	W	n°LED min-max	16A	iC	Vout Vdc	ta °C	tc °C	PFC	Iout mA	Euro Cad.
PTDCC/3/350/N	PTDCC/3/350/N	42x40x21	176-264	95-240	50/60	3 (3)	1-3	30	10A 40µS	12,5	-20..60	80	*	350	9,63
POWERLED 350-14W IP66	RN1415/350	∅ 97x75	176-264	220-240	50/60	14	3-12	30	10A 40µS	10-45	-20..50	60	OK		30,00
MINIHOLE POWERLED 350-15W	RN1311	∅ 52,5x17	176-264	100-240	50/60	15 (6)	1-12	30	10A 40µS	50	-20..40	80	*		12,00
POWERLED 350 - 8W	RN1436	82x43x23	-	220-240	50/60	8	3-6	30	10A 40µS	20	-15...45	70	*	500	9,50
PTRDCC15350B	PTRDCC15350B	∅ 72x24	176-264	220-240	50/60	17	4-12	30	10A 40µS	49	-20..40	90	*		12,00
PTDCC3R500N	PTDCC3R500N	30x50x21	176-264	95-240	50/60	3 (3)	1	30	10A 40µS	5	-20..60	80	*		6,00
POWERLED 500-20W IP66	RN1415/500	∅ 97x75	176-264	220-240	50/60	20	3-10	30	10A 40µS	10-45	-20..50	60	OK	700	30,00
POWERLED 700 - 8W	RN1437	82x43x23	-	220-240	50/60	8	1-2	30	10A 40µS	8	-15...45	70	*		9,50
POWERLED 700-20W IP66	RN1415/700	∅ 97x75	176-264	220-240	50/60	20	3-8	30	10A 40µS	10-45	-20..50	60	OK		30,00

# MINILED 12V

Alimentatori non dimmerabili con uscita in tensione - *Not dimmable power supply with output voltage*



Articolo Article	Codice Code	LPH ↓↑7mm	Vdc IN	Vac IN	Hz	W	16A?	iC	ta °C	tc °C	PFC	Vout Vdc	Euro Cad.
	PTDC/3/12V/N 	PTDC/3/12V/N	40x42x21	176-264	95-264	50/60	<b>3 (3)</b>	30	10A 40µS	-20...60	70	*	8,82
	MINILED 12-10W 	RN9112	115x34x19	176-264	220-240	50/60	<b>10</b>	30	10A 40µS	-20...40	85	*	10,00
	MINILED 12-15W	RN1367	123x38x28	176-264	90-264	50/60	<b>15 (15)</b>	30	10A 40µS	-15...40	85	*	15,00
	MINILED 12-30W	RN9014	170x41x35	176-264	220-240	50/60	<b>10÷30</b>	25	20A 170µS	-20...50	85	OK	13,00
	BRAVO MINILED 12-40W	RN1474	∅ 101x40	176-264	220-240	50/60	<b>13÷40</b>	25	20A 170µS	-20...50	85	OK	15,00
	MINILED 12-60W	PTDC/50/12V	180x52x30	-	220-240	50/60	<b>60</b>	25	20A 170µS	-15...45	80	OK	35,00
	MINILED 12-100W	RN9175	230x51x40	176-264	220-240	50/60	<b>100</b>	15	25A 200µS	-20...40	75	OK	55,00
	MINILED 12-150W <b>IP67</b>	RN1431	225x65x35	-	220-240	50/60	<b>150</b>	15	25A 200µS	-15...45	85	OK	80,00

Alimentatori LED - Strisce LED - LED Driver - Strip LED

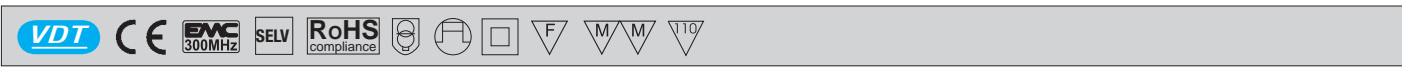
Components





# MINILED 24V

Alimentatori non dimmerabili con uscita in tensione - *Not dimmabel power supply with output voltage*



Articolo Article	Codice Code	LPH ↓mm	Vdc IN	Vac IN	Hz	W	16A?	iC	ta °C	tc °C	PFC	Vout Vdc	Euro Cad.
PTDC/3/24V/N	PTDC/3/24V/N	40x42x21	176-264	95-240	50/60	3 (3)	30	10A 40µS	-20..60	70	*	24	8,00
MINILED 24-15W	RN9124	115x34x19	176-264	220-240	50/60	15	30	10A 40µS	-20..40	75	*		12,00
MINILED 68 24-15W IP68	RN1361	215x89x44	-	220-240	50/60	15	30	10A 40µS	-20..40	75	*		15,00
MINILED 24-25W	RN1366	123x38x28	176-264	90-240	50/60	25 (20)	25	20A 170µS	-15..40	85	*		18,00
BRAVO MINILED 24-40W	RN1475	∅ 101x40	176-264	220-240	50/60	13+40	25	20A 170µS	-20..50	85	OK		20,00
MINILED 24-60W	RN1428	230x51x40	176-264	220-240	50/60	60	15	25A 200µS	-15..45	80	OK		30,00
MINILED 24-120W	RN9175/24	300x40x30	176-264	220-240	50/60	120	15	25A 200µS	-15..45	80	OK		55,00
MINILED 24-200W IP67	RN1431/24	249x70x40	-	220-240	50/60	200	15	25A 200µS	-20..50	80	OK		80,00

\* Per potenze inferiori a 24W non è richiesto dalle normative  
For lower powers to 24W is not required by the regulations

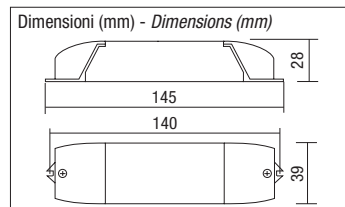
# MULTIMINILED 12V / 24V DIM/NO DIM



Articolo Article	Codice Code	LPH ↓mm	Vdc IN	Vac IN	Hz	W	16A?	iC	ta °C	tc °C	PFC	Euro Cad.
MINILED 20-25W	RN1392	145x39x28	176-264	220-240	50/60	25	25	20A 170µS	-20..40	80	*	25,00



RN1392				
Vout	Vdc	10	12	24
Power	W	20	25	25



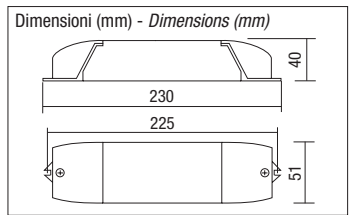
\* Per potenze inferiori a 24W non è richiesto dalle normative - For lower powers to 24W is not required by the regulations

# MULTIMINILED 12V / 24V DIM/NO DIM



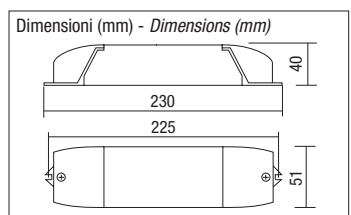
Codice Code	LPH ↓↑mm	Vdc IN	DIM	Vac IN	DIM	Hz	REGA?	IC	ta °C	tc °C	PFC	Euro Cad.
PTDC/80/B	230x51x40	176-264	NO	220-240	NO	50/60	15	25A 200µS	-20..40	75	OK	66,00
PTDCD/80	230x51x40	176-264	S10 - R P	220-240	S10 - R P	50/60	15	25A 200µS	-20..40	75	OK	68,00

PTDC/80/B - PTDCD/80		VDT	
Vout	Vdc	12	24
Power	W	50	80



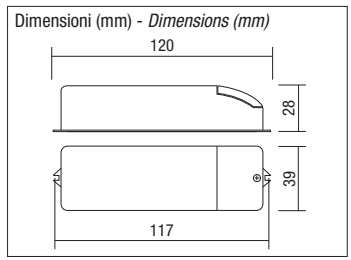
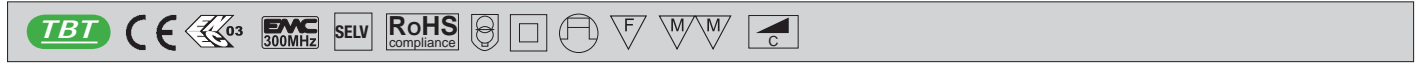
Codice Code	LPH ↓↑mm	Vdc IN	DIM	Vac IN	DIM	Hz	REGA?	IC	ta °C	tc °C	PFC	Euro Cad.
PTDC/100/B	230x51x40	176-264	NO	220-240	NO	50/60	15	25A 200µS	-20..40	75	OK	68,00
PTDCD/100	230x51x40	176-264	S10 - R P	220-240	S10 - R P	50/60	15	25A 200µS	-20..40	75	OK	70,00

PTDC/100/B - PTDCD/100		VDT	
Vout	Vdc	12	24
Power	W	60	100



## TRAF0 LED TBT 12V

Trasformatore elettronico dimmerabile per lampade LED e alogene 12Vac  
Dimmable electronic transformer for LED and HALO 12Vac lamps



Codice Code	LPH ↓↑mm	Vac IN	DIM	Carico Load	W	Hz	ta °C	tc °C	Vout Vac	Euro Cad.
RN9140	120x39x28	220-240	C	HALO	20±105	50/60	-15...50	80	12	16,50
				LED *	3÷55					



Alimentatori LED - Strisce LED - LED Driver - Strip LED

Components



# DALI CONVERTER

Convertitore segnale DALI in PWM - *Signal converter DALI PWM*



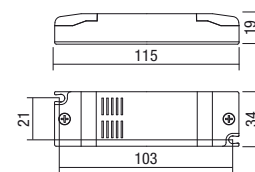
## DALI CONVERTER



Codice Code	LPH mm	Vdc IN	DIM	Vac IN	DIM	Hz	W	ta °C	tc °C	PFC	Euro Cad.
RN1300	115x34x19	8 - 13	DALI	100-240	DALI	50/60	Max 10 drivers in serie	-20..50	65	OK	48,50

Interfaccia in grado di convertire il segnale con protocollo DALI in segnale PWM  
*Interface which can convert a signal with DALI protocol into a PWM signal*

Dimensioni (mm) - Dimensions (mm)



# LIMITATORE DI SOVRATENSIONE - SURGE PROTECTOR



IEEE C62.41 - Forme d'onda di corrente / tensione per varie località di esposizione  
*Current/Voltage waveforms for various exposure locations*

Codice Code	LPH mm	Categoria Category	Livello Level	Tensione Voltage (kV)	1,2 x 50µs (V) - 8 x 20µs (A) Combination wave Current (A)	Euro Cad.
R00640/N	42x40x21	C2	Medio - Medium	10	5	16,00

### Categoria C - Category C

- Linea di servizio dalla rete elettrica  
*Service drops from pole to building*
- Collegamento tra centrale e quadro elettrico  
*Runs between meter and panel*
- Linee aeree a edificio indipendente  
*Overhead lines to detached building*
- Sistemi di illuminazione in grandi edifici  
*Lines della metropolitana a pompa nel pozzo*

### Limitatore di sovratensione

In un impianto elettrico standard un apparecchio a LED può essere sottoposto a sbalzi di tensione e disturbi esterni dovuti a fattori quali carichi discontinui sulla linea, guasti sulle linee a monte o a valle e, soprattutto, scariche atmosferiche (negli impianti esterni).  
 Nei nostri proiettori, dove l'elettronica è fondamentale, la resistenza alle sovratensioni è sinonimo di affidabilità e corretta funzionalità.

### Surge protector

In a standard electrical system an LED luminaire can be subjected to voltage fluctuations and external disturbances due to factors such as discontinuous loads on the line, faults on the lines upstream or downstream and, especially, atmospheric discharges (in External Plants). In our projectors, where electronics is very important, the surge resistance is synonymous with reliability and proper functionality.

# RGB

Sistemi RGB per LED in tensione e in corrente - *RGB LED systems in voltage and current*



## PTDLDC/RGB/B Master



Codice Code	LPH mm	Vac IN	DIM	Hz	W	W min.	Vout Vdc	ta °C	tc °C	PFC	Iout mA	Euro Cad.
PTDLDC/RGB/B	71x157x34	110-240	TC/RGB/N	50/60	12,5x3	4x3	39	-20..40	75	OK	350x3	134,00

Alimentatori dimmerabili con uscita (Vout) in tensione **IMPOSTABILE**

*Dimmable power supply with output (Vout) voltage **ADJUSTABLE***

## PTDLDCRGSBLB Slave



Codice Code	LPH mm	Vac IN	DIM	Hz	W	W min.	Vout Vdc	ta °C	tc °C	PFC	Iout mA	Euro Cad.
PTDLDCRGSBLB	71x157x34	110-240	Solo con Master Only with Master	50/60	12,5x3	4x3	39	-20..40	75	OK	350x3	142,00

Alimentatori dimmerabili con uscita (Vout) in tensione **IMPOSTABILE**

*Dimmable power supply with output (Vout) voltage **ADJUSTABLE***



Codice Code	LPH	Vdc IN	DIM	W	W min.	ta °C	tc °C	PFC	Vout Vdc	Euro Cad.
DLDCIRERGB24	67x103x30	24	TC/RGB/N	20x3	5x3	-20...50	70	OK	24	41,00

Modulo di controllo colore a 3 canali RGB  
Professional RGB three channel control



Codice Code	LPH	Vdc IN	DIM	W	W min.	ta °C	tc °C	PFC	Vout Vdc	Euro Cad.
DLDCRBSLX24	67x103x30	24	Solo con Master Only with Master	20x3	5x3	-20...50	70	OK	24	30,00

Modulo di controllo colore a 3 canali RGB  
Professional RGB three channel control



Telecomando a raggi infrarossi - IR remote control			
Codice Code	LPH	Euro Cad.	
TC/RGB/N	230x51x40	Non incluso, da ordinare a parte Not included, to be ordered separately	
		4,35	



Codice Code	LPH	Vdc IN	DIM	W	mA	ta °C	tc °C	Vout Vdc	Euro Cad.
30938	184x45x37	12	P	65x3	5500x3	-20...40	80	12	88,00
		24	P	130x3				24	

Controller per STRISCE LED RGB o Monocromatiche KZQ-2 KZQ-2 è un controller per uso indipendente sia per strisce LED RGB che Monocromatiche. Il comando avviene tramite pulsante ESTERNO (non fornito).

**RGB**

KZQ-2, in abbinamento agli alimentatori della serie MINILED, è in grado di gestire come singola apparecchiatura fino ad un massimo di 195W (12V) - 390W (24V) di potenza di strisce RGB.

**MONOCROMATICO**

KZQ-2, in abbinamento agli alimentatori della serie MINILED, è in grado di gestire come singola apparecchiatura fino ad un massimo di 195W (12V) - 390W (24V) di potenza di strisce MONOCROMATICHE.

Controller for LED RGB STRIPS or Monochromatic KZQ-2 KZQ-2 is a controller for independent use both for LED RGB STRIPS or Monochromatic. The command is made by OUTER push button (not supplied)

**RGB**

KZQ-2 combined with the power supplies of the MINILED (L.C. RELCO), series is able to manage up to a maximum of 195W (12V) - 390W (24V) supply of the RGB strips as a single appliance

**MONOCROMATICO**

KZQ-2 combined with the power supplies of the MINILED (L.C. RELCO), series is able to manage up to a maximum of 195W (12V) - 390W (24V) supply of the MONOCHROMATIC strips as a single appliance.

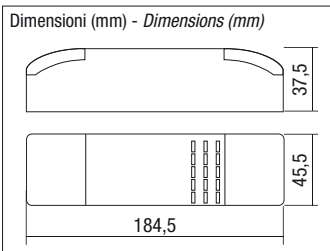


Fig. 1 - Schema di collegamento RGB - RGB wiring diagram

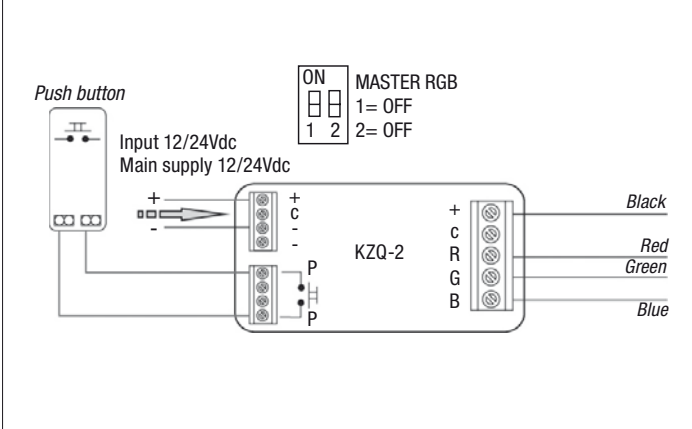
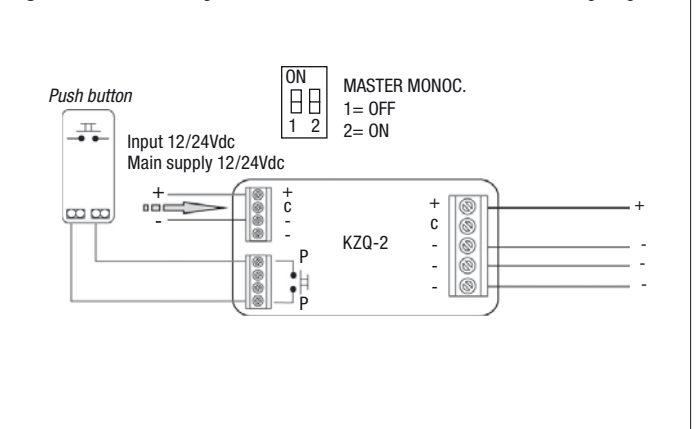


Fig. 2 - Schema di collegamento monocromatico - Monochromatic wiring diagram



# STRIP LED



CE III IP20 IP67

## LED FLEX MONOCROMATICA



12Vdc CRI >80 DRIVER NOT INCLUDED Pag. 127

colour	W/m	L (mm)	IP	Led/mt	Beam	K	Lm/m	pcs	Kg	S+L	Euro
T	4,8	5000	20	30 LED 2835	120°	3000	240	1	0,30	30937	20,00
T	9,6	5000	20	60 LED 2835	120°	3000	920	1	0,26	30904/ECO	25,00
T	19,2	5000	20	120 LED 2835	120°	3000	1.380	1	0,26	30904	30,00
T	4,8	5000	67	30 LED 2835	120°	3000	240	1	0,30	90.001/012	40,00
T	9,6	5000	67	60 LED 2835	120°	3000	880	1	0,36	90.011/012	50,00
T	19,2	5000	67	120 LED 2835	120°	3000	1.300	1	0,26	90.001/012/ECO	60,00
T	19,2	5000	67	120 LED 2835	120°	3000	1.380	1	0,26	90.001/012PLUS •	120,00
T	9,6	5000	20	60 LED 2835	120°	4000	960	1	0,26	90.011/010	25,00
T	9,6	5000	67	60 LED 2835	120°	4000	912	1	0,36	90.011/011	50,00
T	19,2	5000	67	120 LED 2835	120°	4000	1.360	1	0,36	90.001/011/ECO	60,00
T	19,2	5000	67	120 LED 2835	120°	4000	1.440	1	0,36	90.001/011PLUS •	120,00
T	4,8	5000	20	30 LED 2835	120°	6000	210	1	0,30	OSF8P201201	20,00
T	19,2	5000	20	120 LED 2835	120°	6000	1.020	1	0,30	30903	30,00

### Striscia LED ad emissione verticale - LED strip with vertical light emission

T	5	5000	20	60 LED	120°	3000	480	1	0,36	30919/S	95,00
T	10	10000	20	120 LED	120°	3000	800	1	0,36	30919/PLUS •	150,00

• CRI >90

24Vdc CRI >80 DRIVER NOT INCLUDED Pag. 128

colour	W/m	L (mm)	IP	Led/mt	Beam	K	Lm/m	pcs	Kg	S+L	Euro
T	9,6	5000	20	120 LED 2835	120°	3000	1.020	1	0,36	30904/ECO/24	25,00
T	19,2	5000	20	120 LED 2835	120°	3000	1.400	1	0,36	30904/24	35,00
T	24	5000	20	300 LED 2216	120°	3000	1.628	1	0,36	90.001/012/24 •	115,00
T	19,2	5000	20	120 LED 2835	120°	3000	1.020	1	0,36	30904/24/PLUS •	90,00
T	19,2	5000	20	120 LED 2835	120°	4000	1.020	1	0,36	30670/24/PLUS •	90,00

• CRI >90

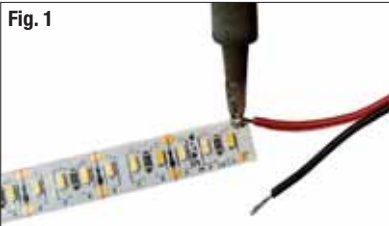
## LED FLEX RGB



12Vdc CRI >80 DRIVER NOT INCLUDED

colour	W/m	L (mm)	IP	Led/mt	Lm/m	pcs	Kg	S+L	Euro
T	7,2	5000	67	30 LED RGB 5050 FULLCOLOR	90	1	0,38	90.001/RGB	90,00
T	14,4	5000	67	60 LED RGB 5050 FULLCOLOR	2200	1	0,38	90.001/RGBPLUS	160,00

Fig. 1



In caso sia necessario saldare dei nuovi cavi utilizzarli prestagnati e delle sezioni opportune; filo di stagno senza piombo con fluossante no clean.

La saldatura deve essere eseguita con saldatore a 350°C per un tempo massimo di contatto di 2 sec per evitare la delaminazione della piazzola di saldature. Per la saldatura fare riferimento alla Fig. 1.

If it is necessary to weld eventual new cables, just use pre-solder and appropriate section cables, lead-free tin wire, with no-clean fluxing.

The welding must be done through 350° C solder, for a maximum of 2 seconds contact, in order to avoid delamination of the pitches of weld. For proper welding, just refer to picture 1.