

Direct current dimmable electronic drivers with DIP-SWITCH
Alimentatori elettronici regolabili in corrente continua con DIP-SWITCH

Made in Italy



PROFESSIONALE DALI



PROFESSIONALE DALI BI



Rated Voltage
Tensione Nominale
220 ÷ 240 V

Frequency
Frequenza
50-60 Hz

AC Operation range
Tensione di utilizzo AC
198 ÷ 264 V

DC Operation range
Tensione di utilizzo DC
(see page info15)
176 ÷ 275 V
(NO PUSH mode function)

Power - Potenza
3 ÷ 38 W

iTHD
≤ 10% ⁽¹⁾

Stand by power
≤ 0,5 W

Output current ripple
≤ 3% ⁽¹⁾

Standards compliance
EN 55015
EN 61000-3-2
EN 61000-3-3
EN 61347-1
EN 61347-2-13
EN 61547
EN 62386-101
EN 62386-102
EN 62386-207
EN 62386-251
EN 62386-252
EN 62386-253
VDE 0710-T14

Max. pcs for CB B16A
(see page info17)
50 pcs

In rush current
5A 50μsec



Article Articolo	Code Codice	P out W	V out DC	I out DC	U out V	ta °C	tc °C	λ max. Power Factor	η max. Efficiency ⁽¹⁾
PROFESSIONALE DALI ⁽²⁾	127490	16	10...54	300 mA cost.	59	-25...+45 ⁽²⁾ /50	85	0,95 ⁽³⁾	> 90 %
		18	10...54	350 mA cost.					
PROFESSIONALE DALI BI	127492	21	10...54	400 mA cost.					
		24	10...54	450 mA cost.					
		27	10...54	500 mA cost.					
		29	10...54	550 mA cost.					
		32	10...54	600 mA cost.					
		35	10...54	650 mA cost.					
		38	10...54	700 mA cost.					
		38	10...51	750 mA cost.					
		38	10...48	800 mA cost.					
		38	10...45	850 mA cost.					
		38	10...43	900 mA cost.					
		38	10...40	950 mA cost.					
		38	10...38	1 A cost.					
		38	10...36	1,05 A cost.					

⁽¹⁾ Referred to V_{in} = 230 V, 100% load - Riferito a V_{in} = 230 V, carico 100%

⁽³⁾ Pout > 15 W

⁽⁴⁾ 127492BIS: order code for BIS marked product - codice di ordine per il prodotto marchiato BIS

Light output level in DC operation: Factory default 100% EOfI=1

Livello di emissione luminosa in funzionamento DC: Impostazioni di fabbrica 100% EOfI=1

Features

- Multipower driver supplied with dip-switch for the selection of the output current.
- IP20 independent driver, for indoor use (PROFESSIONALE DALI).
- Class II protection against electric shock for direct or indirect contact (PROFESSIONALE DALI).
- Driver for built-in use (PROFESSIONALE DALI BI).
- It can be used for lighting equipment in protection class I and II (PROFESSIONALE DALI BI).
- Active Power Factor Corrector.
- Current regulation ±5 % including temperature variations.
- Input and output terminal blocks on opposite sides (wire cross-section up to 1,5 mm² / AWG15).
- Clamping screws on primary and secondary circuits for cables with diameter: min. 2 mm - max. 9 mm (PROFESSIONALE DALI).
- Driver can be secured with slot for screws.
- Protections:
 - against overheating and short circuits;
 - against mains voltage spikes;
 - against overloads.
- Thermal protection = C.5.a.

Caratteristiche

- Alimentatore multipotenza fornito di dip-switch per la selezione della corrente in uscita.
- Alimentatore indipendente IP20, per uso interno (PROFESSIONALE DALI).
- Protetto in classe II contro le scosse elettriche per contatti diretti e indiretti (PROFESSIONALE DALI).
- Alimentatore da incorporare (PROFESSIONALE DALI BI).
- Utilizzabile per apparecchi di illuminazione in classe di protezione I e II (PROFESSIONALE DALI BI).
- PFC attivo.
- Corrente regolata ±5 % incluse variazioni di temperatura.
- Morsetti di entrata e uscita contrapposti (sezione cavo fino a 1,5 mm² / AWG15).
- Serracavo su primario e secondario per cavi di diametro: min. 2 mm - max. 9 mm (PROFESSIONALE DALI).
- Fissaggio dell'alimentatore tramite asole per viti.
- Protezioni:
 - termica e cortocircuito;
 - contro le extra-tensioni di rete;
 - contro i sovraccarichi.
- Protezione termica = C.5.a.

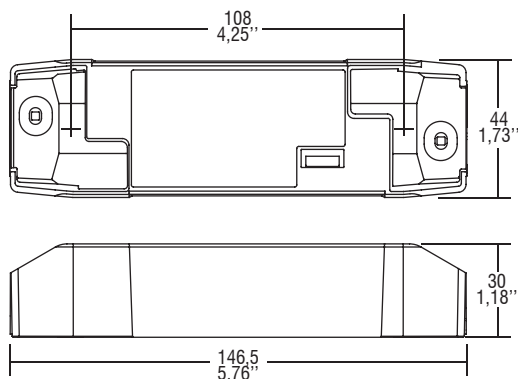
Direct current dimmable electronic drivers with DIP-SWITCH

Alimentatori elettronici regolabili in corrente continua con DIP-SWITCH

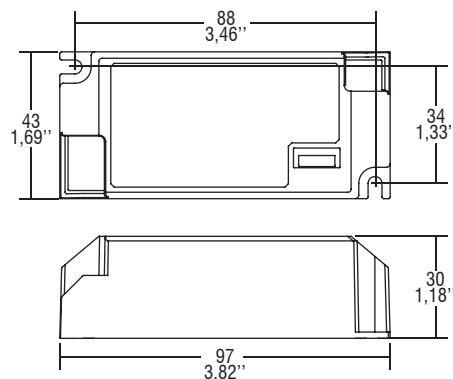
Made in Italy



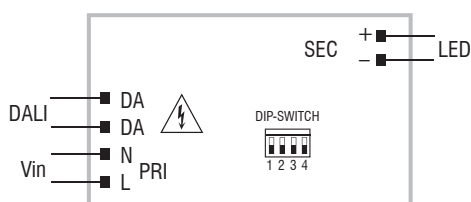
IP 20 **SCREW FIXING** **Ø54** 2,13" Weight - Peso gr. 137 / 4,8 oz.
Pcs - Pezzi 40



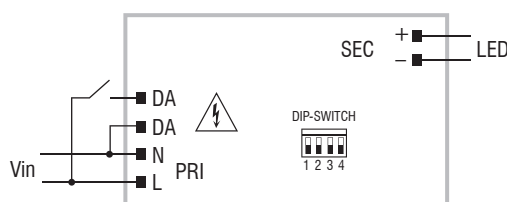
BUILT-IN **SCREW FIXING** Weight - Peso gr. 119 / 4,2 oz.
Pcs - Pezzi 50



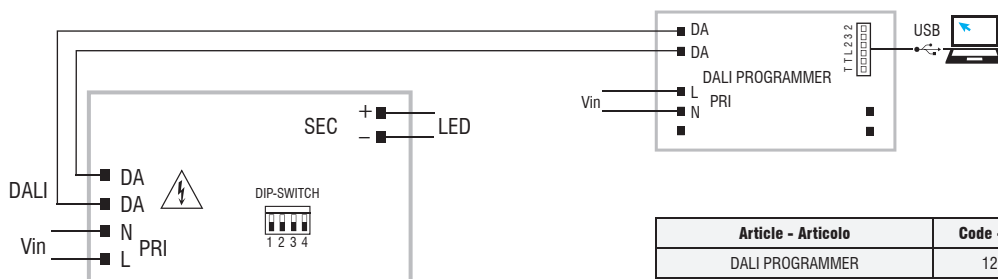
Wiring diagram - Schema di collegamento (Max. LED distance on page info8 - Massima distanza LED a pagina info8)



DALI diagram
Collegamento DALI



PUSH SWITCH diagram
Collegamento PUSH SWITCH



Article - Articolo	Code - Codice
DALI PROGRAMMER	127099
LINK TO DOWNLOAD PROGRAMMING SOFTWARE LINK PER SCARICARE SOFTWARE DI PROGRAMMAZIONE www.tci.it/TCI_tools/TCI_NFC_DALI_reader.zip	

Operation Mode

- Features DALI-2 dimming (0/1 - 100 %, minimum output current 7 mA):
 - memory function for sets or light groups;
 - recall of stored functions;
 - compatible with standard DALI interfaces.
- **Dimming method is AMPLITUDE.**
- Light regulation 0/1 - 100 % by means of PUSH SWITCH function (mains voltage):
 - a short push to turn on and off;
 - a longer push to increase or decrease light intensity;
 - regulation automatically stops at minimum and maximum values;
 - for another on, regulation or off command, release the push button and give the desired command again;
 - dimming level memory at mains restore.

For additional details for regulations see pages info12-14.

Modalità di funzionamento

- Caratteristiche della regolazione DALI-2 (0/1 - 100 %, corrente minima d'uscita 7 mA):
 - funzione di memoria per scenari o gruppi luminosi;
 - richiamo di funzioni memorizzate;
 - compatibilità con interfacce DALI standard.
- **La dimmerazione è in ampiezza.**
- Regolazione della luminosità 0/1 - 100 % mediante la funzione PUSH SWITCH (tensione di rete):
 - una pressione breve per accendere e spegnere;
 - una pressione prolungata per aumentare o diminuire l'intensità luminosa;
 - la regolazione si ferma automaticamente ai valori minimi e massimi;
 - per un nuovo comando accensione, regolazione o spegnimento, rilasciare il pulsante e dare nuovamente il comando desiderato;
 - ripristino del livello di dimming al ritorno alimentazione.

Per ulteriori dettagli sulle regolazioni vedi pagine info12-14.

3.1.2

Dimmable multipower drivers - Compact case - DALI
Alimentatori multipotenza regolabili - Formato compatto - DALI

INGRESSO

- Nominale AC: 220/240 Vac $-10/+10\%$ 50/60Hz.
- Range DC: 176/275 Vdc per applicazioni d'emergenza secondo EN 50171/EN 50172.
- Morsettiera 1 x 0.5... 1.5 mm².
- Corrente massima: 0.20 A.
- Fattore di potenza λ : 0.95 @ Pout >12W
- Armoniche corrente assorbita: secondo EN 61000-3-2.
- Inrush current: 5A 50uS.

USCITA

- Isolamento SELV.
- Morsettiera 1 x 0,5... 1.5 mm².
- Selezione corrente e tensione di uscita tramite DIP switch (vedi tabella).
- Potenza massima e precisione di corrente
 - 16W @ 300mA $\pm 6\%$ (10...54V)
 - 18W @ 350mA $\pm 6\%$ (10...54V)
 - 21W @ 400mA $\pm 6\%$ (10...54V)
 - 24W @ 450mA $\pm 6\%$ (10...54V)
 - 27W @ 500mA $\pm 5\%$ (10...54V)
 - 29W @ 550mA $\pm 5\%$ (10...54V)
 - 32W @ 600mA $\pm 5\%$ (10...54V)
 - 35W @ 650mA $\pm 5\%$ (10...54V)
 - 38W @ 700mA $\pm 5\%$ (10...54V)
 - 38W @ 750mA $\pm 5\%$ (10...51V)
 - 38W @ 800mA $\pm 5\%$ (10...48V)
 - 38W @ 850mA $\pm 5\%$ (10...45V)
 - 38W @ 900mA $\pm 5\%$ (10...43V)
 - 38W @ 950mA $\pm 5\%$ (10...40V)
 - 38W @ 1000mA $\pm 5\%$ (10...38V)
 - 38W @ 1050mA $\pm 5\%$ (10...36V)
- Tensione in uscita massima: <59 VDC.
- Efficienza massimo carico: 90%.

REGOLAZIONE

- Regolabile con segnale DALI (EN 62386 101/102 ed. 2).
- AM DIMMING 1-100% (corrente minima 7mA).
- Pulsante collegabile su lato primario tra fase e morsetto DA (impedenza 170Kohm).
- Ripristino del livello di regolazione al ritorno dell'alimentazione (regolazione PUSH-SWITCH).
- Possibilità di abilitare BILEVEL N.

PROTEZIONI

- All'ingresso, contro sovratensioni impulsive di rete (secondo EN 61547).
- Protezione al corto circuito e al circuito aperto.
- Protezione al sovraccarico e di temperatura (C.5.a della EN 61347-1).
- All'ingresso, contro sovratensioni impulsive di rete (secondo EN 61547) fino a 2KV N-L, 4KV N-GND e 4KV L-GND.

INPUT

- Nominal AC: 220/240 Vac $-10/+10\%$ 50/60Hz.
- Range DC: 176/275 Vdc for emergency application according to EN 50171/EN 50172.
- Terminal block for up to 1 x 0.5... 1.5 mm².
- Max Input Current: 0.20A.
- Power factor λ : 0.95 @ Pout >12W.
- Harmonic content of mains current: according to EN 61000-3-2.
- Inrush current: 5A 50uS.

OUTPUT

- SELV insulation on output.
- Terminal block for up to 1 x 0,5... 1.5 mm².
- Selection of current and voltage output through Dip switch (See table)
- Max output power and current precision
 - 16W @ 300mA $\pm 6\%$ (10...54V)
 - 18W @ 350mA $\pm 6\%$ (10...54V)
 - 21W @ 400mA $\pm 6\%$ (10...54V)
 - 24W @ 450mA $\pm 6\%$ (10...54V)
 - 27W @ 500mA $\pm 5\%$ (10...54V)
 - 29W @ 550mA $\pm 5\%$ (10...54V)
 - 32W @ 600mA $\pm 5\%$ (10...54V)
 - 35W @ 650mA $\pm 5\%$ (10...54V)
 - 38W @ 700mA $\pm 5\%$ (10...54V)
 - 38W @ 750mA $\pm 5\%$ (10...51V)
 - 38W @ 800mA $\pm 5\%$ (10...48V)
 - 38W @ 850mA $\pm 5\%$ (10...45V)
 - 38W @ 900mA $\pm 5\%$ (10...43V)
 - 38W @ 950mA $\pm 5\%$ (10...40V)
 - 38W @ 1000mA $\pm 5\%$ (10...38V)
 - 38W @ 1050mA $\pm 5\%$ (10...36V)
- Max. Output voltage: <59 VDC.
- Efficiency @full load: 90%.

DIMMING

- Dimmable by DALI (EN 62386 101/102 ed. 2).
- AM DIMMING 1-100% (minimum current 7mA).
- Terminal block on primary side for push button; connection between phase and DA terminal block (Impedance 170Kohm).
- Dimming level memory at mains restore (for PUSH-SWITCH dimming).
- BILEVEL N function as option.

PROTECTIONS

- Against input overvoltages from mains (according to EN61547).
- Against short circuit and open circuit.
- Thermal and overload protection (C.5.a EN 61347-1).
- Against input overvoltages from mains (according to EN61547) up to 2KV N-L, 4KV N-GND e 4KV L-GND.

ENTE EMITTENTE: DT Compilato _____ Visto _____

FILTRO ANTIDISTURBO EMI

- Secondo EN55015.

AMBIENTE

- Temp. ambiente: -25...50 °C.
- tc = 85 °C.
- tc life 50000H = 80°C.
- tc life 40000H = 85°C.

SICUREZZA

- Hi-pot test: 3.75 kV, 100% per 2 sec.

NORMATIVE

- EN 61347-1 ; EN 61347-2-13 ; EN 61547 ; EN 55015 ; EN 61000-3-2 ; EN62384
DIN VDE 0710 teil 14.
- KEMA KEUR / ENEC05.

EMI

- According to EN55015.

AMBIENT

- Ambient Temp.: -25....50 °C.
- Tc = 85 °C.
- tc life 50000H = 80°C.
- tc life 40000H = 85°C

SAFETY

- Hi-pot test: 3.75 kV, 100% for 2 sec.

STANDARDS

- EN 61347-1 ; EN 61347-2-13 ; EN 61547 ;
- EN 55015 ; EN 61000-3-2 ; EN62384
DIN VDE 0710 teil 14.
- KEMA KEUR / ENEC05.

PROFESSIONALE DALI BI
PRI. AC 220-240V 50-60Hz
 λ (Pout≥15W)=0,95 I_{max}=0,2A
SEC. 300-1050mA - 18-54V
38W_{max} V_{omax}=59V
Dimming: DALI / PushSwitch
ta= -25...50°C; tc=85°C
176-275Vdc emerg. range, I_{max}=0,24A

DALI 2 **EL**

SEE DIP SWITCH SETTINGS ON BOTTOM SIDE

CE **110** **EAC** **05** **M** **M** **28mm** **40mm** **tc**

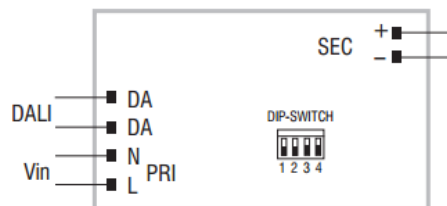
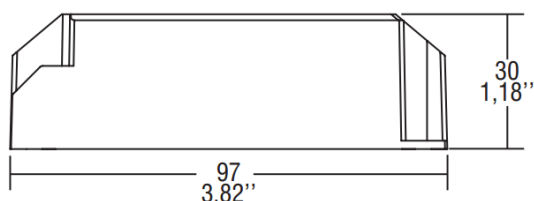
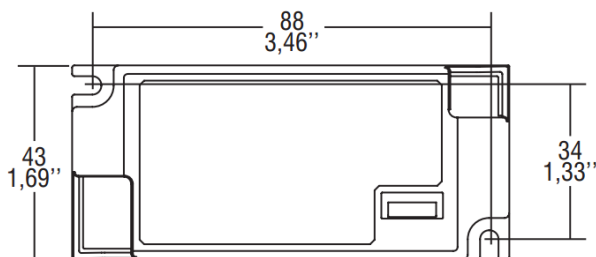
0,5 - 1,5 **SELV**
ON ← **SEC**
1 2 3 4
U_{out}= 59V

via Parma 14, 21047 Saronno(VA) Italy
TCI
MADE IN ITALY

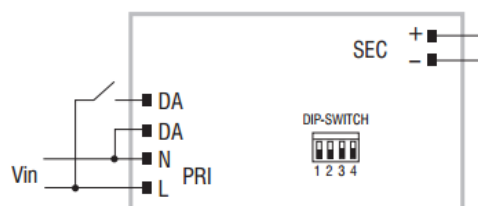
PROFESSIONALE DALI

Pout	SEC	1	2	3	4
16 W	300 mA	-	-	-	-
18 W	350 mA	ON	-	-	-
21 W	400 mA	-	ON	-	-
24 W	450 mA	ON	ON	-	-
27 W	500 mA	-	-	ON	-
29 W	550 mA	ON	-	ON	-
32 W	600 mA	-	ON	ON	-
35 W	650 mA	ON	ON	ON	-
38 W	700 mA	-	-	-	ON
38 W	750 mA	ON	-	-	ON
38 W	800 mA	-	ON	-	ON
38 W	850 mA	ON	ON	-	ON
38 W	900 mA	-	-	ON	ON
38 W	950 mA	ON	-	ON	ON
38 W	1000 mA	-	ON	ON	ON
38 W	1050 mA	ON	ON	ON	ON

Before use, always check S50 switch settings



DALI diagram
Collegamento DALI



PUSH SWITCH diagram
Collegamento PUSH SWITCH

REGOLAZIONE PUSH-SWITCH

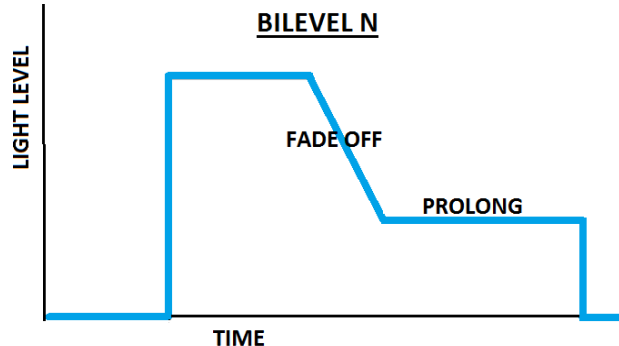
Regolazione della luminosità 0/1 - 100 % mediante la funzione PUSH SWITCH (tensione di rete):

- una pressione breve per accendere e spegnere;
- una pressione prolungata per aumentare o diminuire l'intensità luminosa;
- la regolazione si ferma automaticamente ai valori minimi e massimi;
- per un nuovo comando accensione, regolazione o spegnimento, rilasciare il pulsante e dare nuovamente il comando desiderato;
- ripristino del livello di dimming al ritorno alimentazione;
- tenendo abilitato lo SWITCH per almeno 10 secondi è possibile portare al 30% il livello di regolazione;
- tenendo abilitato lo SWITCH per almeno 60 secondi è possibile abilitare la funzione **BILEVEL N**:
 - tenere premuto per mantenere il 100%;
 - al rilascio il FADE OFF è di 30 secondi, con livello 10%;
 - il tempo di PROLONG è 30 minuti, poi OFF.

PUSH-SWITCH DIMMING

Light regulation 0/1 - 100 % by means of PUSH SWITCH function (mains voltage):

- a short push to turn on and off;
- a longer push to increase or decrease light intensity;
- regulation automatically stops at minimum and maximum values;
- for another on, regulation or off command, release the push button and give the desired command again;
- dimming level memory at mains restore;
- keep enabled the SWITCH for at least 10 seconds to reset the dimming level to 30%;
- keep enabled the SWITCH for at least 60 seconds to enable **BILEVEL N** function:
 - keep pressed for 100% level;
 - FADE OFF time is 30 seconds, light level 10%;
 - PROLONG time is 30 minutes, then OFF.



ENTE EMITTENTE: _____ Compilato: _____ Visto: _____

DALI Interface – supported commands

Com-	Command Name	Implemented / Reaction
–	DIRECT ARC POWER CONTROL	yes
0	OFF	yes
1	UP	yes
2	DOWN	yes
3	STEP UP	yes
4	STEP DOWN	yes
5	RECALL MAX LEVEL	yes
6	RECALL MIN LEVEL	yes
7	STEP DOWN AND OFF	yes
8	ON AND STEP UP	yes
9	ENABLE DAPC SEQUENCE	yes
10	GO TO LAST ACTIVE LEVEL	yes
16 – 31	GOTO SCENE	yes
32	RESET	yes
33	STORE ACTUAL LEVEL IN THE DTR	yes
34	SAVE PERSISTENT VARIABLES	yes
35	SET OPERATING MODE	yes
36	RESET MEMORY BANK	yes
37	IDENTIFY DEVICE	yes
42	STORE THE DTR AS MAX LEVEL	yes
43	STORE THE DTR AS MIN LEVEL	yes
44	STORE THE DTR AS SYSTEM FAILURE LEVEL	yes
45	STORE THE DTR AS POWER ON LEVEL	yes
46	STORE THE DTR AS FADE TIME	yes
47	STORE THE DTR AS FADE RATE	yes
48	SET EXTENDED FADE TIME	yes
64 – 79	STORE THE DTR AS SCENE	yes
80 – 95	REMOVE FROM SCENE	yes
96 – 111	ADD TO GROUP	yes
112 – 127	REMOVE FROM GROUP	yes
128	STORE DTR AS SHORT ADDRESS	yes
129	ENABLE WRITE MEMORY	yes
144	QUERY STATUS	yes
145	QUERY CONTROL GEAR	yes
146	QUERY LAMP FAILURE	yes
147	QUERY LAMP POWER ON	yes
148	QUERY LIMIT ERROR	yes
149	QUERY RESET state	yes

ENTE EMITTENTE: _____ Compilato: _____ Visto: _____

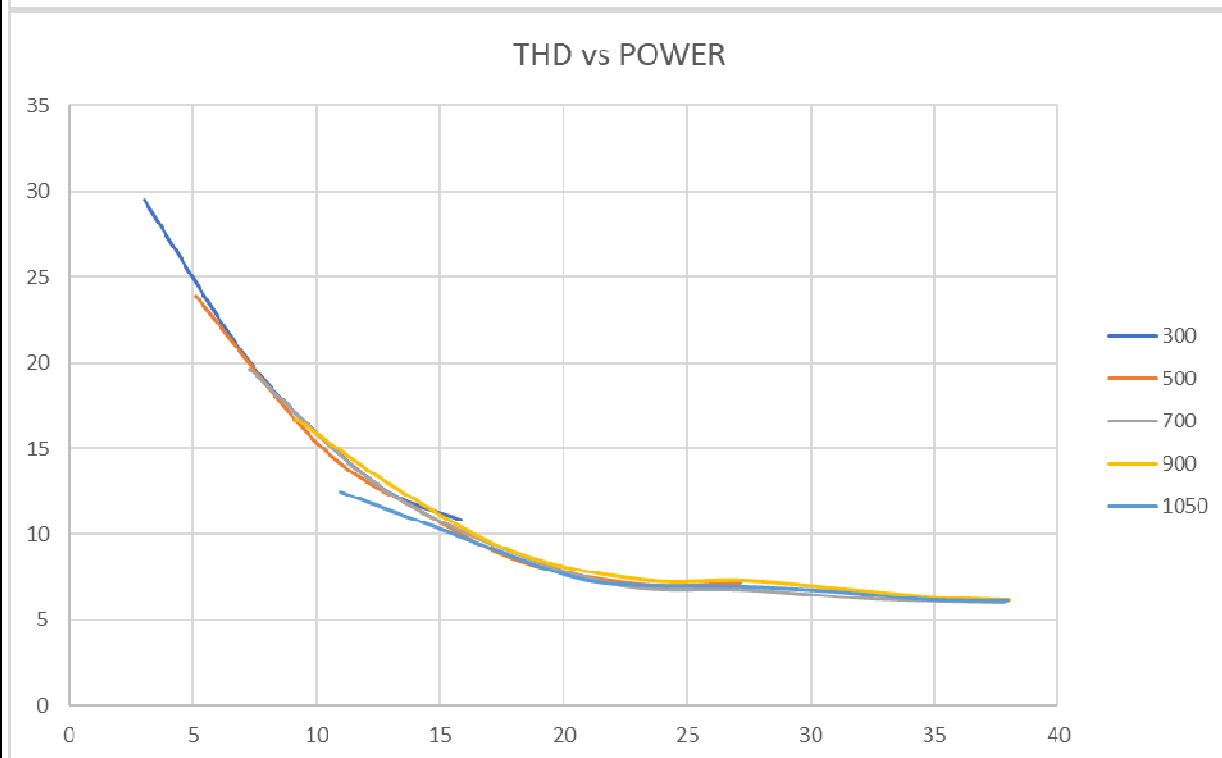
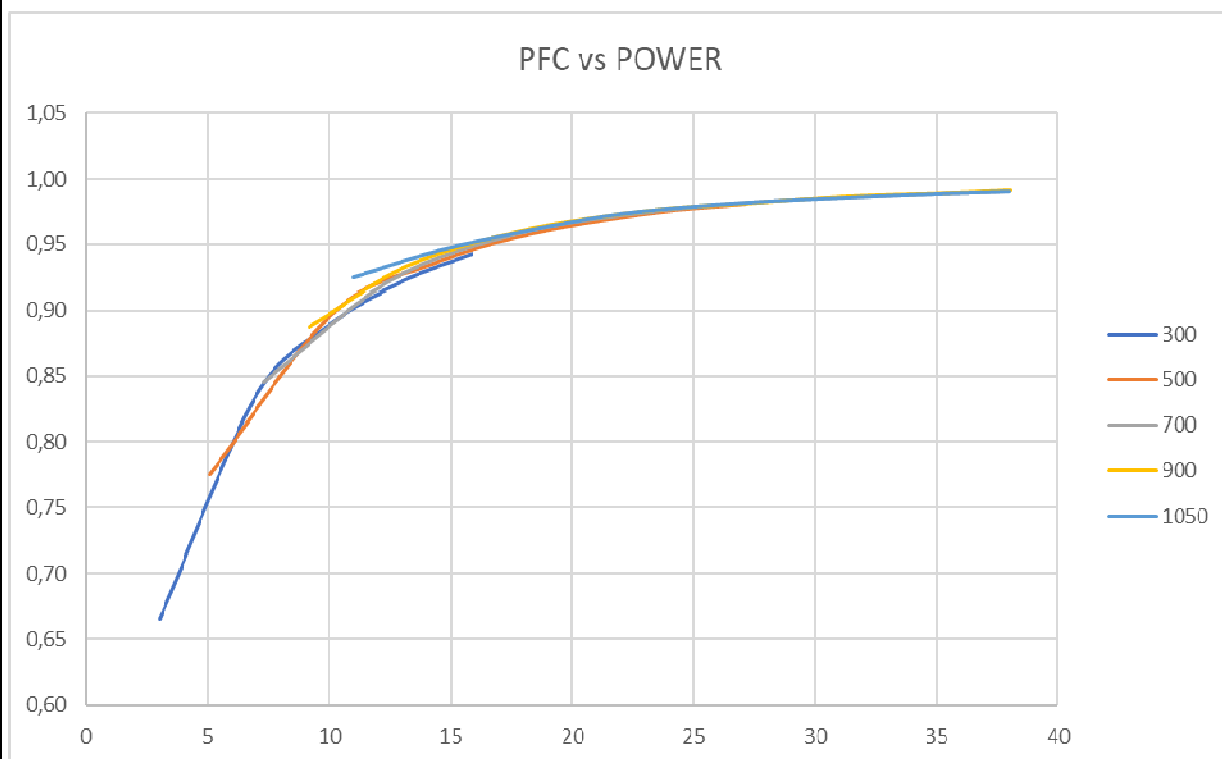
Com-	Command Name	Implemented / Reaction
150	QUERY MISSING SHORT ADDRESS	yes
151	QUERY VERSION NUMBER	yes
152	QUERY CONTENT DTR	yes
153	QUERY DEVICE TYPE	yes
154	QUERY PHYSICAL MINIMUM LEVEL	yes
155	QUERY POWER FAILURE	yes
156	QUERY CONTENT DTR1	yes
157	QUERY CONTENT DTR2	yes
158	QUERY OPERATING MODE	yes
159	QUERY LIGHT SOURCE TYPE	yes
160	QUERY ACTUAL LEVEL	yes
161	QUERY MAX LEVEL	yes
162	QUERY MIN LEVEL	yes
163	QUERY POWER ON LEVEL	yes
164	QUERY SYSTEM FAILURE LEVEL	yes
165	QUERY FADE TIME/FADE RATE	yes
166	QUERY MANUFACTURER SPECIFIC MODE	yes
167	QUERY NEXT DEVICE TYPE	yes
168	QUERY EXTENDED FADE TIME	yes
170	QUERY CONTROL GEAR FAILURE	yes
176 – 191	QUERY SCENE LEVEL (SCENES 0-15)	yes
192	QUERY GROUPS 0-7	yes
193	QUERY GROUPS 8-15	yes
194	QUERY RANDOM ADDRESS (H)	yes
195	QUERY RANDOM ADDRESS (M)	yes
196	QUERY RANDOM ADDRESS (L)	yes
197	READ MEMORY LOCATION	yes
224	REFERENCE SYSTEM POWER	No
225	ENABLE CURRENT PROTECTOR	No
226	DISABLE CURRENT PROTECTOR	No
227	SELECT DIMMING CURVE	yes
228	STORE DTR AS FAST FADE TIME	yes
229	---	NA
230	---	NA
231	---	NA
232	---	NA
233	---	NA
234	---	NA
235	---	NA
236	---	NA

ENTE EMITTENTE: _____ Compilato: _____ Visto: _____

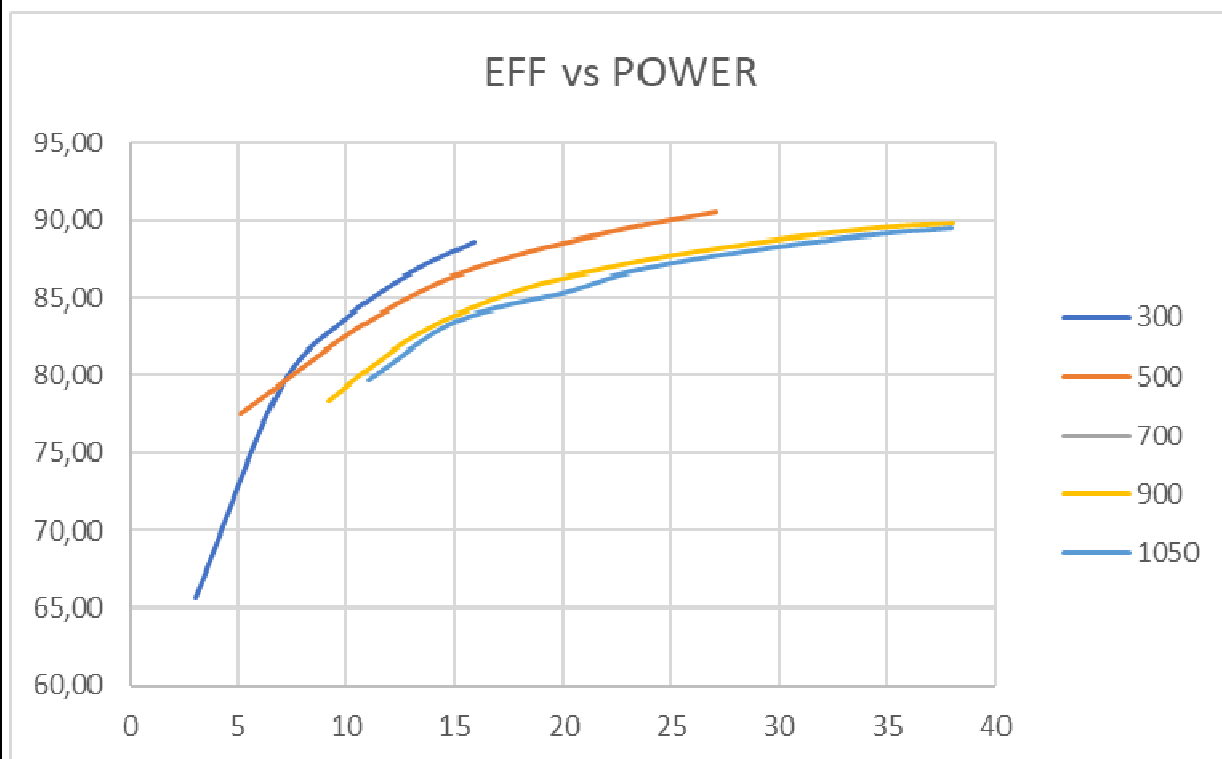
Com-	Command Name	Implemented / Reaction
237	QUERY GEAR TYPE	yes
238	QUERY DIMMING CURVE	yes
239	QUERY POSSIBLE OPERATING MODES	yes
240	QUERY FEATURES	yes
241	QUERY FAILURE STATUS	yes
242	QUERY SHORT CIRCUIT	yes
243	QUERY OPEN CIRCUIT	yes
244	QUERY LOAD DECREASE	no
245	QUERY LOAD INCREASE	no
246	QUERY CURRENT PROTECTOR ACTIVE	no
247	QUERY THERMAL SHUT DOWN	yes
248	QUERY THERMAL OVERLOAD	yes
249	QUERY REFERENCE RUNNING	no
250	QUERY REFERENCE MEASUREMENT FAILED	no
251	QUERY CURRENT PROTECTOR ENABLED	no
252	QUERY OPERATING MODE	yes
253	QUERY FAST FADE TIME	yes
254	QUERY MIN FAST FADE TIME	yes
255	QUERY EXTENDED VERSION NUMBER	yes
256	TERMINATE	yes
257	DATA TRANSFER REGISTER (DTR)	yes
258	INITIALISE	yes
259	RANDOMISE	yes
260	COMPARE	yes
261	WITHDRAW	yes
262	PING	yes
264	SEARCHADDRH	yes
265	SEARCHADDRM	yes
266	SEARCHADDRL	yes
267	PROGRAM SHORT ADDRESS	yes
268	VERIFY SHORT ADDRESS	yes
269	QUERY SHORT ADDRESS	yes
270	PHYSICAL SELECTION	Not implemented
272	ENABLE DEVICE TYPE 6	yes
273	DATA TRANSFER REGISTER 1(DTR1)	yes
274	DATA TRANSFER REGISTER 2(DTR2)	yes
275	WRITE MEMORY LOCATION	yes
276	WRITE MEMORY LOCATION NO REPLY	yes

*PS In assenza del segnale DALI l'alimentatore eroga la massima potenza.
The power supplier is at maximum power with DALI signal missing*

ENTE EMITTENTE: _____ Compilato: _____ Visto: _____



ENTE EMITTENTE: _____ Compilato: _____ Visto: _____



ENTE EMITTENTE: _____ Compilato: _____ Visto: _____