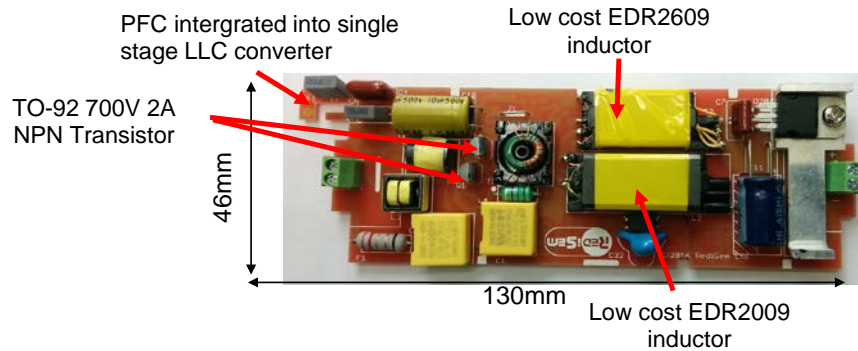




30W CV 12V 2.5A LED driver



RediSem IC	RED2541 SO8 LLC LED Driver IC
Output Power	30W
Output Voltage	12V constant voltage
Line regulation	0.17% (198 - 264VAC)
Load Regulation	<0.1% (2.5A - 0A)
Output Current range	2.5A - 0A
Low Freq. Ripple	0.34% @ 230V full load
Efficiency	87.46% @ 230V full load
Input	198-264VAC, 50Hz
Survive input range	170 - 320VAC
PF	0.97 @ 230V full load
THD	5.1% @ 230V full load
Time to Light	700ms
Size	112mm x 39mm x 15mm
Protection	Short circuit, Over Load, Over temperature, SELV
Converter	Dual boost PPFC CV LLC converter
Component Count	71



30W CV 12V 2.5A LED driver

Input voltage	198V		230V		264V	
Input Power	34.09	27.26	34.06	27.30	34.14	27.40
Output Power	29.85	23.94	29.78	23.88	29.68	23.84
Output Voltage	11.94	11.97	11.91	11.94	11.87	11.92
Output current	2500mA	2000mA	2500mA	2000mA	2500mA	2000mA
Efficiency	87.56%	87.82%	87.42%	87.47%	86.92%	87.01%
Power Factor	0.97	0.96	0.97	0.95	0.94	0.91
THD	15.00%	17.30%	5.80%	15.00%	16.00%	25.00%
LF Voltage Ripple in V (Pk-to-Pk)	100mV	30mV	50mV	25mV	50mV	21mV
LF Voltage Ripple (pk-pk) in %	0.8%	0.3%	0.4%	0.2%	0.4%	0.2%

Output low frequency ripple @ 230Vac

output current	2.5A	0.1A	0A
LF Voltage Ripple in V (Pk-to-Pk)	50mV	70mV	55mV
LF Voltage Ripple (pk-pk)/2 in %	0.21%	0.29%	0.23%

Line regulation

input voltage	198V	230V	264V	Max
output voltage at 2500mA	11.94V	11.91V	11.87V	
output voltage regulation at 2500mA	0.25%	0.00%	0.34%	0.34%
output voltage at 2000mA	11.97V	11.94V	11.92V	
output voltage regulation at 2000mA	0.25%	0.00%	0.17%	0.25%

Load regulation

input voltage	198V	230V	264V	Max
output load regulation	-0.25%	-0.25%	-0.42%	-0.25%

Time to light

Time to light	700ms
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Misc

Standby Power @ 230Vac	170mA
Over Current Protection @ 230Vac	2.7A
Short Circuit Protection	pass
Over Temperature Protection	pass
Conduction EMI	pass

Thermal Results (cased)	198V 2.5A 12V	264V 2.5A 12V
Ta	52.0C	52.0C
Q1	112.0C	111.0C
Q2	109.0C	106.0C
L2 core	110.0C	114.0C
L2 winding	103.0C	115.0C
T2 core	105.0C	116.0C
T2 winding	106.0C	116.0C
D20	112.0C	114.0C

