

S.M.P.S

LED Converter

Water Proof Converter

F20CH2 Series

20W single output with c.c circuit
and PFC function



- **Constant current design(C.C. mode)**
- **Built-in PFC function**
- **Protections: Over current / Short circuit**
- **IP68 design for outdoor installations**
- **100% full load burn-in test**
- **Suitable for LED lighting and street lighting applications**
- **Safety standards : K61347-1,K61347-2-13**
- **EMC standards : K61547**
- **Metal case**

IP68     SELV LPS   

ITEM		UPF20S24CH2
INPUT	VOLTAGE RANGE	AC180~264V
	FREQUENCY RANGE	47~63Hz
	POWER FACTOR	PF>0.9
	EFFICIENCY(typ.)	86%
	AC CURRENT(typ.)	0.09A/230VAC (typ)
	INRUSH CURRENT(typ.)	COLD START 5A/230VAC
	LEAKAGE CURRENT	<2.5mA / 230VAC
OUTPUT	RATED CURRENT	0.7A
	CONSTANT CURRENT REGION	18-26V
	RATED POWER	16.8W
	CURRENT ADJ. RANGE	0.5~0.8A
	CURRENT ACCURACY	±5%
	RIPPLE&NOISE(max.) Note2	3.0Vp-p
	SETUP,RISE TIME(max.)	3000ms,100ms/230VAC at full load
PROTEC-TION	OVER CURRENT Note3	95~108%
	SHORT CIRCUIT	Hiccup mode ; recovers automatically after fault condition is removed
ISOLA-TION	WITHSTAND VOLTAGE	I/P-O/P:AC3KV, I/P-F.G:AC1.5KV, O/P-F.G:AC0.5KV
	ISOLATION RESISTANCE	I/P-O/P, I/P-F.G, O/P-F.G:DC500V 100Mohms(At room temp. & humid.)
ENVIRON-MENT	WORKING TEMP.&HUMID.	-40~+70℃ (Refer to "DERATING CURVE"),20~95%RH
	STORAGE TEMP.&HUMID.	-40~+80℃,10~95%RH
	VIBRATION	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes
OTHERS	DIMENSION/WEIGHT	174*61.5*36.8mm(L*W*H)/0.67Kg
NOTE	1. All parameters not specially mentioned are measured at 220Vac input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pare-wire terminated with 0.1 uF & 47uF parallel capacitor. 3. Refer to "DRIVING METHODS of LED MODULE"	

AC IN

EMI Filter & Rectifier Circuit

Power Switch

Rectifier Circuit

DC OUT

FG

O.L.P.

PWM&PFC Control

Detection Circuit

O.C.P.

Technical drawing of the DC-DC converter showing top and side views with dimensions and labels.

Top View Dimensions:

- Overall width: 174
- Internal width: 143
- Overall height: 155.2
- Mounting tab width: 4-4.2
- Mounting hole diameter: 32.8
- Mounting hole offset: 9.4

Labels and Connections:

- AC_L(BROWN)** and **AC_N(BLUE)** are connected to the left AC input.
- FG(GREEN/YELLOW)** is connected to the left ground.
- DC-(BLACK)** and **DC+(RED)** are connected to the right DC output.
- A dashed box in the center is labeled **LABEL**.

Side View Dimensions:

- Overall height: 36.8
- Mounting tab height: 250 typ.
- The label **ADJ (A)** is located on the bottom right.

Ambient Temperature (°C)	Load (%)
-40	100
0	100
20	100
40	100
60	100
70	60
80	60
90	60

A line graph showing the relationship between Input Voltage (Vac) at 60Hz and Load (%). The x-axis represents Input Voltage (Vac), 60Hz, ranging from 180 to 264. The y-axis represents Load (%), ranging from 40 to 100. The load is constant at 100% for input voltages from 180V to 264V.

Input Voltage (Vac), 60Hz	Load (%)
180	100
264	100