



Naskon

Power Conversion products





Naskon's NKC1321H Power Charger

Naskon's NKC161321H Hybrid Power Charger Series has two outputs: one to feed the load and the other to charge battery. It meets low ripple and noise for powering FWT, CCTV, GPON ONT and other equipments. High frequency switching technology along with appropriate thermal management makes this power supply highly reliable, cost effective, efficient and compact in size. It is designed to operate with AC input as well as DC (solar) input. The power supply will switch to solar mode automatically if AC is unavailable. In presence of both the ac mains and Solar power the priority is given to AC mains. Metal enclosure that houses the battery provides ruggedness to the unit. All necessary visual indications for battery monitoring and mains availability are present in this unit.

Features:

- ✓ Robust design
- ✓ SMPS based design
- ✓ Over 75% efficiency at typical loading in AC mode and more than 80% efficiency in solar mode
- ✓ Natural convection cooled
- ✓ Visual indications for battery charging, full charge, and battery low.
- ✓ Inbuilt 12V, 7Ah battery

Protections:

- ✓ Output Overload Protection: During over load, output folds back and resumes to normal operation after the removal of over load.
- ✓ Short Circuit Protection: During short circuit at output, the power supply protests and resumes normal operation on removal of short circuit.
- ✓ Input AC Brown out: SMPS shuts down at low input voltage (87 Vac) and SMPS automatically recovers at input (92 Vac). SMPS shuts down at high input voltage (305 Vac) and SMPS automatically recovers at input (295 Vac).
- ✓ Battery Reverse Polarity Protection
- ✓ Over temperature Protection: In case of over temperature the power supply shuts down and resumes to normal when the temperature reduces.

Specifications

PARAMETER		NKC161321H	NOTES AND CONDITIONS
INPUT	Operating Input Voltage	230 Vac	-
	Voltage Range	90-300 Vac	-
	Maximum Input Current	1.0 A	100% Load
	Operating Frequency	50 Hz	-
	Frequency Range	48-52 Hz	-
	Inrush Current	20 A	Cold start
DC INPUT	Solar	17 V	-
	Voltage Range	11-22 V	-
OUTPUT	Voltage and Regulation	"13.5 V on Device side 13.5 V on Battery side"	-
	Voltage Range	13.35-13.65 V	-
	Operating Output Current	"0.75 A on Device side 1.4 A on Battery side"	Optional: Battery charging with 0.7A also available
	Ripple	Max: 75 mV	Measured with 10 µF/35 Electrolytic cap and 0.1µF ceramic cap in parallel
	Noise	Max: 2 mV	-
	Output power	30 W	-
	Rise Time	10 ms	At full load
	Hold up time	30 ms	At full load
ENVIRONMENT	Operating Temperature	0-50 °C	-
	Storage Temperature	-40 °C to 70 °C	-
	Operating Humidity	0-95 %RH	Non condensing
	Cooling	-	Natural Convention cooling
EFFICIENCY	100% Load	80%	At input of 230Vac and 50Hz
ISOLATION	"Shorted Line and Neutral to Earth"	1.5k Vac	-
	Ground Leakage Current	3 mA	-
Safety, EMI & EMC	Safety	Designed to meet IEC 60950	-
	EMI / EMC	CISPR22/IEC61000	-
GENERAL	DC JACK	"2.1/5.5, 2.5/5.5"	-
	Adapter Type	Tabletop / Wallmountable	-
	Output DC cable length	1.8 m	-
	Dimensions	175x135x110 mm	-
	Weight	3500 grams	Includes 7AH battery