

TECHNICAL DATASHEET

NEENJAS ELECTRIC PVT LTD

EV Charger | 48V/40A | 2.2KW | Multi Stage Charging

Model: NEV-2000WP-LX-48_58.4V



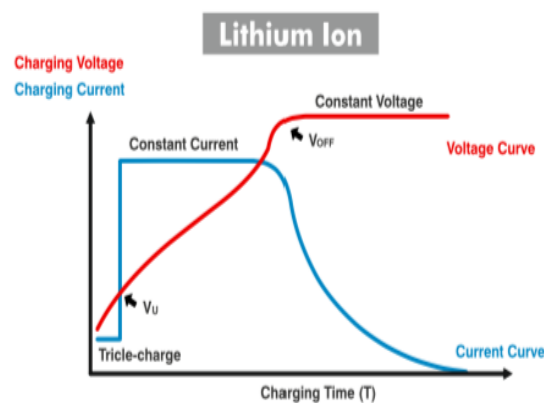
DESCRIPTION

MODEL NUMBER	BATTERY	VOLTAGE RANGE	CURRENT RANGE	MAX POWER	AMBIENT TEMP
NEV-2000WP-LX-48	51.2V	58.4V	Trickle Mode: 12A CC Mode: 40A CV Mode<40A	2200W	At Ta: 50°C At Tc: 65 °C

KEY FEATURES:

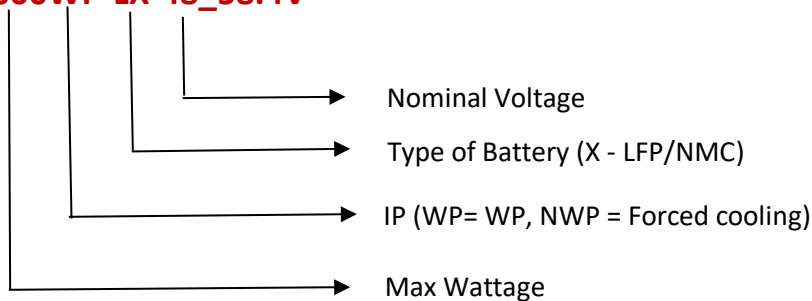
1. Multi Stage Charging (Pre charge, CC, CV & Custom Charging Profile).
2. Wide Input Range. (90V – 280V)
3. Automatic Output current De-rating at Lower Input Voltage.
4. LED for Charging Status and Error Status.
5. >91% efficiency at full load.
6. OCP, SCP, OVP, OTP, Reverse Battery Protection, Surge 4KV and EMI.
7. CAN Enabled.

CHARGING PROFILE



MODEL ENCODING

NEV-2000WP-LX-48_58.4V



GENERAL SPECIFICATIONS

SECTION	PRODUCT CODE	NEV-2000WP-LX-48_58.4V
<u>OUTPUT</u>	Battery Type	LFP
	DC Voltage	51.2V
	Output Current	40A
	Max Cut-off Voltage	58.4V (as requested by BMS)
	Soft Start	Soft start available with 1A/100ms ramp up rate of current on output to battery
	Maximum Rated Power	2200W
	Voltage Precision	± 2%
	Modes	TRICKLE-CC-CV
	Connectors	Anderson SBS75
<u>INPUT</u>	Input AC Voltage	90-280VAC Under Voltage cut off @90VAC Power Derating 180/190VAC Over Voltage cut off @290VAC
	Input Current at 230VAC	11.2A
	Input Power	2450W (max)
	Power Factor	>0.98
	Input Frequency	47-63 Hz
	Efficiency at 230VAC Full Load	> 91%
	Surge L/N, L/E	4 KV
	Connection	Input Wire: Mains Cord 2.5mm sq. 4m Length with Kaper PRCD Plug
<u>PROTECTIONS</u>	Output Over Current	Yes, above 110% of full load
	Output Short Circuit	Yes (built in)
	Output Over Voltage	Yes
	Reverse Polarity	Built-in
	Input Over Voltage (up to 440VAC)	Yes (built in)
<u>SAFETY & EMC</u>	Withstand Voltage	I/P-O/P: 3 KV, I/P-Earth: 2 KV, O/P-Earth: 2 KV for 1 minute
	Isolation Resistance	I/P-O/P, I/P-Earth, O/P-Earth: 250M Ohm/ 500VDC
	EMI & EMC	Inbuilt EMI Filter
<u>OTHERS</u>	Casing Dimensions(mm)	217 × 156 × 87
	Weight (Kgs)	4.5kg
NOTE: Unless otherwise stated, the data are based on 25°C ambient temperature, 230VAC input voltage and full load. Specification is subject to change without notice		

IN HOUSE SURGE TEST ANALYSIS

Voltage	Polarity	Status
2KV	Line – Neutral	PASS
2KV	Line – Earth	PASS
4KV	Line – Neutral	PASS
4KV	Line – Earth	PASS

IS-9000 TESTING

SUMMARY OF TEST	
Clause No.	Test(s) performed (name of test)
1	Free Fall (IEC 60068-2-31: 2008)
2	Vibration Test (IEC 60068-2-6:2007)
3	Impact Test (IEC 60068-2-75: 2014)
4	Dry Heat Test (IEC 60068-2-2: 2007)
5	Cold Test (IEC 60068-2-1: 2007)
6	Temperature & Humidity Test (IEC 60068-2-78: 2012)

SINGLE LED INDICATIONS

Stages	LED
Stand By	○ White Constant
Charging	● Green Blinking
Charge Complete/ Full charge	● Green Constant
Battery Error	● Red constant
Sleep Mode (Restart Charger)	No LED

Battery error: Battery not connected to charger or protection errors i.e., error from battery side.

PROTECTION RESPONSE

SECTION	PARAMETER
OVER CURRENT PROTECTION	Output is limited to 110% of rated output current.
SHORT CIRCUIT PROTECTION	When output is being shorted, the charger will stop charging and will automatically recover when short is removed.
OVER TEMPERATURE PROTECTION	When the internal temperature exceeds the defined limits, the charger does over temperature detection and the output charging current shall be limited. Once the temperature comes down charger will recovery to normal mode.
REVERSE BATTERY PROTECTION	If Battery connections are wrong, the charger will not give output.
INPUT OVER/UNDER VOLTAGE PROTECTION	When the input voltage exceeds the defined limits, the charger will not give output, once the voltage is normal the charger goes to normal mode.

