



NORTHERN ELECTRIC



NEPTUNE - RSD-ready, Commercial 3-Phase Inverters

NEP-33~50kW

480Vac

Max efficiency 98.8% CEC efficiency 98.3%

150% DC/AC Ratio

Integrated “NEP Rapid Shutdown Transmitter ”

Compatible with NEP ‘Galaxy’ Data/Comms Solutions

Intelligent String Monitoring

Smart I-V Curve Trace Scan

NEP ‘Galaxy’ enabled panel level data granularity

AFCI Protection

Type 4X, C5 Anti-Corrosion Level

DC side supports “Y” connector

Support aluminum wire to reduce cost

Built-in PID recovery for better module performance

Model

NEP-33~50KW

Input DC	33K	50K
Max Input Voltage - V		1000
Rated voltage - V		720
Start-up Voltage - V		160
Mppt Voltage Range - V		160~1000
Max. Input Current - A	3*40	4*40
Max. Short Current - A	3*63	4*63
No. of MPPTs / Max number of string inputs	3/6	4/8
Output AC		
Rated Output Power - kW	33	50
Max. Apparent Output Power - kBA	36.3	55
Max. Output Power - kW	36.3	55
Rated Grid Voltage - V		480
Rated Grid Type		3Φ- PE
Rated Grid Frequency - Hz		60
Max. Output Current - A	43.7	66.2
Power Factor (Nominal,Adjustable Range)		>.99 (.8 leading - .8 lagging)
THDi		<3%
Efficiency		
Max. Efficiency - %		98.8
CEC Efficiency - %		98.3
Protection		
DC Reverse Polarity Protection		Yes
Surge Protection		DC:II, AC:II
Short-Circuit Protection	Grid Monitoring	Yes
Anti-islanding Protection	Temperature Protection	Yes
Strings Monitoring		Yes
I- V Curve Scanning		Yes
Integrated Pid Recovery		Yes
Integrated AFCI (DC arc-fault circuit protection)		Yes
Integrated DC Switch		Yes
Integrated AC Switch		Yes
General Data		
Dimensions (W*H*D) - in - mm		25.5*24.8*9.9 / 647*629*252
Weight - lbs - kg		81.6 / 37
Topology		Transformerless
Night Power Consumption - W		<1
Relative Humidity		0-100%
Operating Ambient Temperature Range - °F - °C		-22-140 / -30-60
Storage Environment - °F - °C		-13~176 / -25~80
Ingress Protection		Type 4X
Cooling Concept		Intellegent Redundant Cooling Fan
Max. Operation Altitude - ft - m		13,120 / 4000
Certifications	UL1741SB,UL1741SA,IEEE 1547-2018, UL1699B,UL1998,FCC Part15 ClassB,California Rule 21, HECO Rule 14H,NEC 690.12-2020,CAN- CSA C22.2107.1-1	
Features		
DC Connection	Staubli MC4 Connector	
AC Connection	OT Terminal (4AWG to 3- 0 AWG)	
Display	LCD	
Communication	Modbus RTU (Sunspec Compliant), RS485, Ethernet, Opetional: Cellular, Wi-Fi	