



150%

DC OVERLOADING

1100V

SYSTEM VOLTAGE



UP TO 98.5%
HIGHER YIELD



INDOOR
& OUTDOOR
INSTALLATION

≤50°C

FULL POWER
WITHOUT
DERATING



INTUITIVE NEW
USER INTERFACE



TYPE II
SURGE PROTECTION
DEVICES



INTEGRATED
DATALOGGER
FOR FAULT ANALYSIS

NEO

PHOTOVOLTAIC STRING INVERTER

- LUMEL presents the new range of PV inverters. The NEO range of inverters conforms to the most advanced international standards and meets the **requirements of the industrial and civil solar plant installations.**
- **The higher energy yields, long term reliability, plant monitoring and high level professional service** are the cornerstones of our range of inverters.

TECHNICAL DATA

NEO												
Inverter Type				3kW-1M/2M	4kW-1M/2M	5kW-1M/2M	6kW-1M/2M	8kW-1M/2M	10kW-1M/2M	12kW-1M/2M	15kW-2M	20kW-2M
Input data	Maximum DC voltage	V _{DC max}	[V]	1100								
	MPPT Operating Range		[V]	175..950								
	Start up voltage/Nominal Voltage		[V]	>200/600								
	Max. Recommended PV Power (balanced input)		[Wp]	4500	6000	7500	9000	12000	15000	18000	22500	30000
	MPPT number	No. MPPT		1/2	1/2	1/2	1/2	1/2	1/2	1/2	2	2
	Number of strings per each MPPT	No.		1/1	1/1	1/1	1/1	2/1	2/1	2/1	2	2
	Maxm DC current per MPPT	I _{max}		15/15	15/15	15/15	15/15	25/15	25/15	25/15	25	25
	Maxm Short Circuit Current	I _{sc}	[A]	20/20	20/20	20/20	20/20	32/20	32/20	32/20	32	32
Output data	Rated AC Power/ Maxm AC Power	P _{NOM/MAX AC}	[kW/kVA]	3.0/3.3	4.0/4.4	5.0/5.5	6.0/6.6	8.0/8.8	10.0/11.1	12.0/13.2	15.0/16.5	20.0/22.0
	AC rated current/Max current	I _{AC Norm/max}	[A]	4.3/4.7	5.7/6.3	7.2/7.9	8.6/9.5	11.5/12.7	14.4/16.0	17.3/19.2	21.7/23.9	28.9/32.0
	AC voltage	V _{AC}	[V]	{(239VLN /415VLL 3-phases + Neutral)/(230VLN /400VLL 3-phases + Neutral)} {output voltage Range (320 ... 480VLL) / (184...277VLN)} ¹⁾								
	Rated AC frequency	f _{AC}	[Hz]	50/60Hz (Output frequency range 47 ..53/57 ..63) ¹⁾								
	Grid connection			TN-C/TN-S/TN-C-S/TT								
	Current THD	THDi	[%]	≤ 3 ²⁾								
	Power factor (settable)	cosphi		+/- 0.8								
	Maximum efficiency		[%]	98.3	98.3	98.1	98.1	98.3	98.3	98.3	98.1	98.1
	European efficiency (Euro ETA)		[%]	97.7	97.7	97.7	97.7	98	97.6	97.6	97.6	97.6
Efficiency Protections	Interface protections(grid monitor)			Integrated								
	Anti-islanding			Integrated (Where required by local regulations)								
	Insulation control			Integrated								
	Residual current monitoring			Integrated								
	Reverse DC polarity protection			Integrated								
	AC/DC overvoltage			AC SPD : Type 2 Pluggable , DC SPD: Type 2 (SPD failure detection and indication through alarm)								
	DC injection control			Integrated								
	DC circuit breaker			Circuit breaker under load								
	DC fuses & string failure detection			20A/15A/12A fuses(Optional) + current sensors for each string								
	Night Consumption(Standby loss)			<1W								

⁽¹⁾ The output voltage and frequency interval may vary according to the network connection standard

⁽²⁾ For THDv < 1% and Pout > 50% of Prated

Note: In case of a SPD failure the inverter will stop the power generation, until the failed SPD is replaced to protect the inverter from damages due to overvoltage/surge.

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Interface	User Interface	BT									
		BT = LED indications/Display and Bluetooth App for onsite data monitoring and analysis									
	Communications	2 RS-485 ports (Port A for Wifi Dongle and Port B for local data monitoring(Optional)) 1 standard USB port (only for firmware updates and downloading of historical data In built GSM based remote monitoring system(optional)									
	Inputs/Outputs	24VOUT (50mA MAX)(Optional) Typically used to energize the external sensors of weather station									
	Cooling	Natural Convection									
Environmental Data	Temperature Range	-20...+60°C ³⁾									
	Noise Emission(Typical)	<35dB(A)									
	Vibration	1G									
	IP protection degree	IP 66									
	Environmental conditions	4K4H									
	Maximum permissible value for relative humidity, non condensing	100%									
	Pollution degree	EN 60721-3-4, free from direct solar radiation To avoid increase in the internal temperature of the inverter and cause a reduction of the output power (derating)									
Altitude	Up to 3000m with derating (1.2% each 1000m above 1000m)										
Dimension & Weight	Dimensions	WxHxD: 496 x 542 x 245mm									
	Weight(Kg) ⁴⁾	19/20	19/20	19/20	19/20	24/26	24/26	24/26	30	30	
Standards	Approvals	IEC 60068-2-1/2/14/30, IEC 61727, IEC 62109-1/2, IEC 62116, IEC 61683, IEC 60529, IEC 610006-3/2, CE									

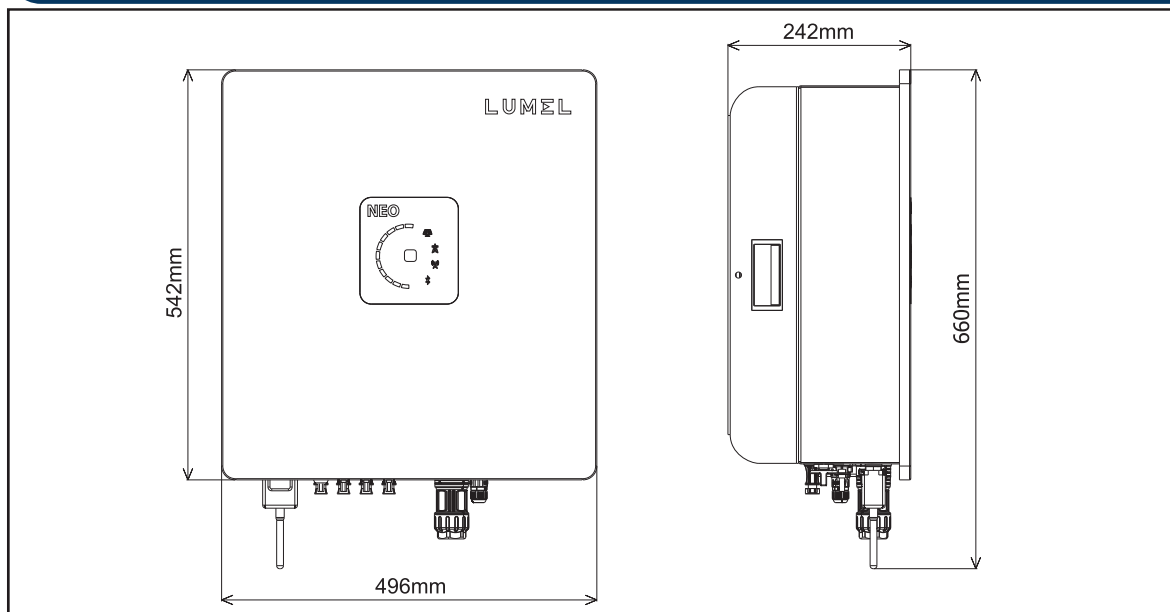
⁽³⁾ Refer user manual for power derating versus temperature curves

⁽⁴⁾ Weight without packaging and mounting bracket

⁽⁵⁾ Only PTPIREE certificates are available for 4kW and 6kW inverter models

NOTE: The OND files for all the above models are available in PVSyst software.

DIMENSIONS



ORDERING CODE

NEO	XXkW	XM	X
Inverter power:			
3 kW	03kW		
4 kW	04kW		
5 kW	05kW		
6 kW	06kW		
8 kW	08kW		
10 kW	10kW		
12 kW	12kW		
15 kW	15kW		
20 kW	20kW		
MPPT number:			
1 MPPT		1M	
2 MPPT		2M	
Version:			
with Ethernet communication module			E
with GSM communication module			G
with WiFi communication module			W
with RS-485 interface			R

Order example:

The Code **NEO 10kW2MW** means:

- NEO - inverter
- 10kW - nominal power 10kW
- 2M - 2 MPPT
- W - WiFi communication module

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