RISHABH

Data Sheet

RADIUS NEO

PHOTOVOLTAIC STRING INVERTERS

Generate Measure Control Record Analyze

DESCRIPTION

Rishabh, a leader in industrial sector with vast experience and knowhow, presents the new range of PV inverters RADIUS-NEO. 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 corner--stones of the RADIUS range of inverters.

150%
DC OVERLADING

1100V
System Voltage

Higher Yield 98.5%

IP66
Indoor & Outdoor Installation

50°C
Full Power without Derating

Natural Ventilation Minimizes Breakdown

PV string Analysis & Comparision

Google play
Intuitive New User Interface

Type II Surge Protection Devices

Integrated Datalogger for fault analysis

Optimize Your Cost Choose between 1MPPT or 2MPPT model

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CHOOSING THE INVERTER - TECHNICAL DATA

RADIUS - NEO														
				3kW-1/2M	5kW-1/2M	7kW-1/2M	8kW-1/2M	9kW-1/2M	10kW-1M	10kW-2M	12kW-1M	12kW-2M	15kW-1/2M	18kW-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	7500	10500	12000	13500	15000	15000	18000	18000	22500	27000	30000
	MPPT number	No. MPPT		1/2	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	2/1	2/1	2	1	2	1	2/2	2	2
	Maxm DC current per MPPT	Imax		15.0/15.0	15.0/15.0	15.0/15.0	25.0/15.0	25.0/15.0	25.0	15.0	25.0	15.0	25.0/25.0	25.0	25.0
	Maxm Short Circuit Current	Isc	[A]	20.0/20.0	20.0/20.0	20.0/20.0	32.0/20.0	32.0/20.0	32.0	20.0	32.0	20.0	32.0/32.0	32.0	32.0
Output data	Rated AC Power/ Maxm AC Power	$P_{NOM/MAX}$ AC	[kW/kVA]	3.0/3.3	5.0/5.5	7.0/7.7	8.0/8.8	9.0/9.9	10.0/11.0	10.0/11.0	12.0/13.2	12.0/13.2	15.0/16.5	18.0/19.8	20.0/22.0
	AC rated current/Max current	I_{AC} Nom/max	[A]	4.3/4.7	7.2/7.9	10.1/11.1	11.5/12.7	13.0/14.3	14.4/15.9	14.4/15.9	17.3/19.2	17.3/19.2	21.7/23.9	26.1/28.6	28.9/31.8
	AC voltage	V_{AC}	[V]	{(239V_{LN} /415V_{LL} 3-phases + Neutral)/(230V_{LN} /400V_{LL} 3-phases + Neutral)} {output voltage Range (320 ... 480V_{LL}) / (184...277V_{LN})}[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	98.2	98.3	98.3	98.3	98.3	98.1	98.1	98.1
	European efficiency (Euro ETA)		[%]	97.7	97.7	97.7	97.7	97.8	98	98	97.6	97.6	97.6	97.6	97.6
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 + current sensors for each string											
Efficiency	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 > 80% 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.

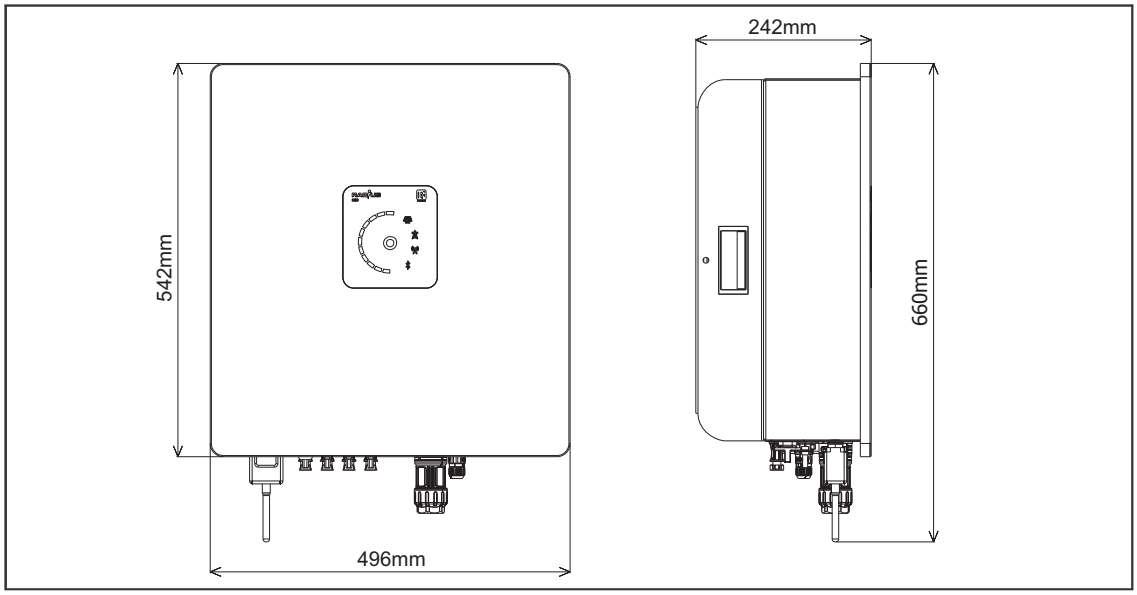
CHOOSING THE INVERTER - TECHNICAL DATA

RADIUS - NEO													
Interface	User Interface	3kW-1/2M	5kW-1/2M	7kW-1/2M	8kW-1/2M	9kW-1/2M	10kW-1M	10kW-2M	12kW-1M	12kW-2M	15kW-2M	18kW-2M	20kW-2M
		BT											
		BT = LED indications/Display and Bluetooth App for onsite data monitoring and analysis											
	Communications	2 Rs485 ports (Port A for Wifi Dongle and Port B for local data monitoring) 1 standard USB port (only for firmware updates and downloading of historical data In built GSM based remote monitoring system(optional)											
	Inputs/Outputs	24V OUT (100mA MAX)											
	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 240mm											
	Weight(Kg)	17	17	18	18	20	20	25	20	25	28	28	28
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

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

RADIUS - NEO MODEL DIMENSION



CODE DESCRIPTION

RNEO -XXXk -XM T X B X X X X

Reserved	X = Reserved
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Remote Monitoring system	G = Integrated GSM Module (Marccloud Web portal) W = Wifi Dongle (SOLARMAN Web portal)
Bluetooth and LED Indication	B = Bluetooth included
DC fuses and String Analysis	F = included
Transformer:	TL = Transformer Less
MPPT numbers	1 = 1 MPPT 2 = 2 MPPT
Inverter power in kW:	010k = 10kW/11.1 kVA 009k = 9 kW/9.9 kVA 012k = 12 kW/13.2 kVA 008k = 8 kW/8.8 kVA 015k = 15 kW/16.5 kVA 007k = 7 kW/7.7 kVA 018k = 18 kW/19.8 kVA 005k = 5 kW/5.5 kVA 020k = 20 kW/22 kVA 003k = 3 kW/3.3 kVA
Photovoltaic string inverter, NEO series	

NOTE: Final order number must be confirmed by our sales team before placing the order.

RADIUS

SOLAR ON-GRID INVERTERS
from

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These specifications may be changed without notice.