



VACON® 8000 SOLAR 125-1200 kW

VACON 8000 SOLAR 125-1200 kW series is a rugged cabinet assembled product line. The parallel inverter concept enables both cost and power efficient installations up to Megawatt range. This is your optimum choice for large centralized installations that cover a considerable area of land.

You can expect best-in-industry efficiency combined with the kind of ease and reliability that you would hope for in a product that is installed in remote areas. The VACON 8000 SOLAR 125-1200 kW series has been designed to be easy and fast to install and start up. For added convenience and ease, the design has also taken service needs into consideration, but thanks to its extreme reliability, that is a feature that you may never grow to appreciate.

FEATURES

- Multimaster-topology (≥ 400 kW)
- Wide DC-input range: 410-900 VDC
- Separate input (DC), inverter and output (AC) sections for safety and redundancy (≥ 400 kW)
- Safety built in: AC- and DC-protections, Ground fault monitoring, Overload and overtemperature protection, IP21 steel cabinet
- Options available for DC-positive or -negative pole grounding, different communication set-ups and BOS equipment
- Common DC- and AC-bus bars for safety and for minimizing BOS costs

BENEFITS

- Top of the industry efficiency
- Fast and easy commissioning and start up
- Additional reliability and redundancy
- Multimaster-topology increases life time and ensures top production yield
- Service friendly design
- Hot reconnect
- Thin film compatibility
- Available in MV Station
- Single configuration interface
- Connectivity to Vacon remote monitoring system
- Wide range of grid certifications
- Easy commissioning and start-up

Inverter type	Nominal output power kW		Nominal output current IAC A		Max no. of output connections		Recomm. max PV power kW		Max allowed input current A		Max allowed PV current I _{sc} ^{lb} A		Max no. of DC connections (1 MPPT)		Max. efficiency %		Euro efficiency %		Power cons. at night W		Inverter dimensions WxHxD mm		Inverter weight kg		Air flow requirement m ³ /h	
NXV01252A2T	125	256	2	150	305	353	4	96,8	95,2	0	800X2281X600	450	800													
NXV02002A2T	200	412	4	240	488	613	4	98,6	97,6	0	800X2281X600	645	1000													
NXV04002A2T	400	825	12 ^{la}	480	976	1226	20	98,6	98,0	60	2800X2281X600	1675	2000													
NXV06002A2T	600	1237	12 ^{la}	720	1463	1839	20	98,6	98,2	60	3600X2281X600	2285	3000													
NXV08002A2T	800	1650	12 ^{la}	960	1951	2452	32	98,6	98,2	60	4600X2281X600	3160	4000													
NXV10002A2T	1000	2062	12 ^{la}	1200	2439	3065	32	98,6	98,2	60	5400X2281X600	3770	5000													
NXV12002A2T	1200	2474	12 ^{la}	1440	2926	3678	32	98,6	98,2	60	6200X2281X600	4380	6000													

INPUT

MPP voltage range	410 - 800 VDC
Max input voltage	900 VDC
Max open circuit voltage	850 VDC

OUTPUT

Nominal output voltage	280 V, 3 phase
Output frequency	50 / 60
Power factor	Adjustable 0,8-1 leading/lagging
AC overvoltage protection	Yes
AC current harmonics at rated power	<3%
Step-up transformer requirement ^{lh}	Neutral not connected and short circuit voltage (Z%): >= 6%

AUX POWER

Aux Power Supply ^{lf}	1ph, 230VAC, 50/60Hz, 25A
Auxiliary power fuse	25A

AMBIENT

Temperature range	-10 C° to 40 C°
Temperature derating	1,5% / 1C° up to 50 C°
Relative humidity	95%, no condensation allowed
Installation altitude	2000m ^{lg}
Environment category	Indoor, conditioned
Pollution degree	PD2
Overvoltage category	AC (Mains) = OVCIII DC (Panel) = OVCII

SAFETY / PROTECTION

IP class	IP21
Ground fault monitoring	Yes
Overload behaviour	Power limiting
Over temperature behaviour	Power limiting
Forced stop	Yes
Circuit breaker AC side	Yes ^{le}
Circuit breaker DC side	Yes

CONTROL INTERFACE

Communication	RS485 (Modbus RTU) Ethernet (Modbus TCP) GPRS
Signalling	3 Potential free contacts to indicate faults and alarms (programmable)

CERTIFICATES

EMC	EN 61000-6-2, EN 61000-6-4
Safety	EN-62109-1
Grid Codes 125-200kW	VDE 0126-1-1, EN 50438, CEI 11-20, R.D. 1633/2000, AS 4777.2, AS 4777.3, IEC-62116
Grid Codes 125-1200kW	BDEW 2008, Arrêté du 23 avril 2008, Allegato 17. Terna Regolazione P.O. 12.2, P.O. 12.3

^{la} If AC Cubicle is left out, then 4 per inverter

^{lb} Maximum input current withstand of the inverter cabinet

^{lc} See manual for recommended cross sections of cables

^{ld} Efficiency measured at 410 VDC with external power supply for auxiliary components

^{le} >=400kW Units includes outgoing AC cubicle with circuit breaker. This can optionally be left out and will decrease the width and weight 600mm & 250kg for 400-600kW units and 600mm & 365kg for 800-1200kW respectively. Note! If AC cubicle is left out, then AC breaker functionality has to be taken care of during stop sleep state or inverter's LC filter capacitors will stay permanently connected to the grid.

^{lf} Auxiliary power supply required for inverters >=400kW. Note! UPS recommended

^{lg} Up to 3000m with derating of 1% per 100m. Hence 2600m would mean a derating of 6% of nominal output power. Note! EN-62109 certification is done only for European conditions up to 2000m

^{lh} Not included in delivery