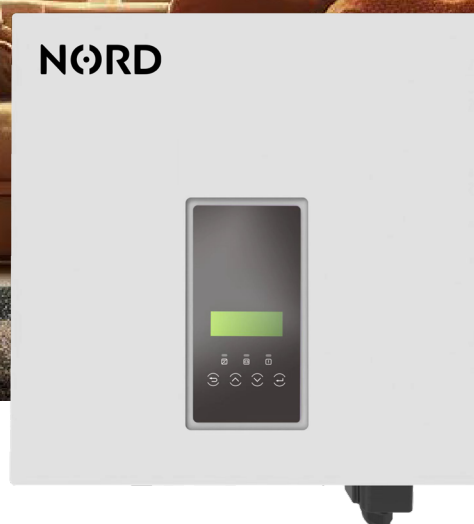


NORD EcoMaster

3-phases asymmetric hybrid
inverter



High efficiency asymmetric hybrid inverter ►



ECO-MODE OPERATION

With the unique functionality you can use pv-energy surplus with your heat pump as much you have available. Use the full capability of the system with EcoControl and EcoMaster devices and maximize your savings now!



SWITCHING TIME TO BACKUP < 10ms

NORD EcoMaster has its own internal contactors that allow safe switching between AC and BACKUP operation without using an external box. The output remains energized and the power source switch occurs within 10ms, which is sufficient for continuous operation of almost all applications.



RELAY CONTACT APPLIANCE CONTROL

The inverter has a potential-free relay output for signaling pv energy surplus. In this way, the inverter helps to use maximum available energy and various appliances in the house can be switched. An easy start for connecting photovoltaic sectors with home heating, water heating or electromobility. For extended setups and for use of up to 7 consumers simply use the Power Genius 3000 device and discover, how to make your system even smarter.



SUPER SPILLOVER ASYMMETRY

It allows you to transfer free AC capacity from one phase to a more loaded second phase. In practice, the asymmetry on one phase can reach up to 150% of the rated power, i.e. 5 kW per phase, instead of the usual 3.3 kW. This will significantly improve the user's own consumption from stored or directly used solar energy.



COMMISSIONING EVEN WITHOUT A NETWORK OR SOLAR

The innovative feature of NORD EcoMaster will delight installers in particular. Besides a quick installation within 30 minutes, the inverter does not require any mains or sun for start-up and initial setup. Thanks to the internal voltage received from the storage, the system can be commissioned at any time and work can be flexibly planned.



POWER RANGE UP TO 150 kW (AC)

The NORD EcoMaster comes in powerful ranges from 5 to 15 kW (AC) and can be loaded up to 18 kWp on the PV module side. It is also suitable for smaller industrial applications. For greater demands, the parallel operation function allows the connection of up to 10 inverters.



TECHNICAL DATA

INPUT (DC)	5.0	6.0	8.0	10.0	12.0	15.0
Max. recommended PV power [W]	10000	12000	16000	20000	24000	30000
Max. DC voltage [V]	1000	1000	1000	1000	1000	1000
Nominal DC operating voltage [V]	640	640	640	640	640	640
Max. input current (input A / input B) [A]	16/16	16/16	28/16	28/16	28/16	28/16
Max. short circuit current (input A / input B) [A]	20/20	20/20	35/20	35/20	35/20	35/20
MPPT voltage range [V]	180-950	180-950	180-950	180-950	180-950	180-950
Start operating voltage [V]	200	200	200	200	200	200
No. of MPPT / Strings per MPPT	2(1/1)	2(1/1)	2(2/1)	2(2/1)	2(2/1)	2(2/1)
INPUT (AC)						
Max. apparent AC power [VA]	10000	12000	16000	20000	20000	20000
Max. AC current [A]	16.1	19.3	25.8	32.0	32.0	32.0
Nominal grid voltage (AC voltage range) [V]	415/240; 400/230; 380/220					
Nominal Grid Frequency / range [Hz]	50/60					
OUTPUT (AC)						
Nominal AC power [VA]	5000	6000	8000	10000	12000	15000
Max. apparent AC power [VA]	5500	6600	8800	11000	13200	15000
Nominal grid voltage (AC voltage range) [V]	415/240; 400/230; 380/220					
Nominal grid frequency / range [Hz]	50/60					
Nominal AC current [A]	8.1	9.7	12.9	16.1	19.3	24.1
Max. AC current [A]	0.8 leading / 0.8 lagging					
Displacement power factor	<3					
OUTPUT (DC) BATTERY						
Battery type	Lead-acid / Lithium					
Battery voltage range [V]	120-800					
Recommended battery voltage [V]	400					
Max. continuous charge / discharge current [A]	30					
Communication interfaces	CAN / RS485					
Reverse connect protection	Yes					
OFF-GRID OUTPUT (WITH BATTERY)						
Max. continuous apparent power [VA]	5000	6000	8000	10000	12000	15000
Rated voltage [V]; Frequency [Hz]	400/230; 50/60					
Max. continuous current [A]	7.2	8.7	11.6	14.5	17.5	21.8
Peak apparent power [VA]; Duration [s]	7500; 60	9000; 60	12000; 60	15000; 60	15000; 60	16500; 60
Changeover time [ms]	<10					
EFFICIENCY						
MPPT efficiency [%]	99.9					
Euro efficiency [%]	97.7					
Max. efficiency [%]	98.0					
Battery charge / discharge efficiency [%]	98.5/97.5					
POWER CONSUMPTION						
Standby consumption (Night) [W]	< 40 W for hot standby; < 5 W for cold standby					
STANDARD						
Safety	IEC 62109-1 / IEC 62109-2					
EMC	EN61000-6-1/2/3/4; EN61000-3-2/3/11/12					
Certification	VDE4105, G99, G98, AS4777, EN50549, CEI 0-21, IEC61727, PEA/MEA, NRS-097-2-1, RD1699, TOR					
SYSTEM DATA						
Degree of protection	IP65					
Operating temperature range [°C]	-35 ~ +60 (derating at +45)					
Max. operation altitude [m]	<3000					
Humidity [%]	0-100					
Storage temperature[°C]	-40 ~ +70					
Typical noise emission [dB]	<35	<35	<35	<35	<45	<45
Dimensions (WxHxD) [mm]	503×503×199					
Weight [kg]	30					
Cooling concept	Natural	Natural	Natural	Natural	Fan	Fan
Communication interfaces	Meter / CT, external control RS485, Pocket series (optional), DRM, USB					
LCD display	Yes, backlight character					
Standard warranty [years]	10					