



QLX Photovoltaic Inverter Series

Outdoor Rated US Version

Harsh Weather Operation — Up to 50° C Operation Without Derating

30%

Better cooling of IGBT's

ShowerPower® Stack provides better heat transfer for cooling IGBT's

QLX Series grid-tied inverters for utility scale applications are ground up designs using proven modules and reliable building blocks to deliver a high performance, reliable system with lifetime of 20+ years.

Installation

High power density unit up to 1.5 MVA simplifies installation. Add the optional skid mounted solution with one or two inverters for a 3 MVA AC power station.

Transformer close coupling option minimizes losses leaving more kW for revenue.

Operation

QLX Series is designed for outdoor environments and associated harsh conditions that come with the installation.

Liquid cooling of power modules and key magnetic components do not require any outside air to enter the inverter enclosure.

Full output at 50° C / 122° F with operation up to 60° C / 140° F with derating.

Power modules are rated for operation at 1000 Vdc with wide MPPT ranges to maximize energy production.

Grid Interface

Power controls for grid support including anti-islanding or fault ride through, active / reactive power control during grid voltage and frequency events. Parameters are configurable to meet specific needs for the installation.

Reliability

QLX Series control is based on a field tested control for Danfoss string inverters that has been in use for 10 years. Power modules rated to 1700 V give additional headroom to operate at high MPPT voltages reliably.

Effective liquid cooling of power modules using ShowerPower® maintains power module temperature within a tight band minimizing temperature swings.

Bus bar connections used throughout the power circuit for additional reliability.

Support

QLX Series is delivered by the Danfoss Power Electronics organization with 45 years of experience in designing, manufacturing and supplying throughout the world.

Five year North American warranty with options to purchase up to 20 years delivered by the Danfoss Power Electronics service and support organization. With over 120 service partners in place to provide preventative maintenance and extended warranty .

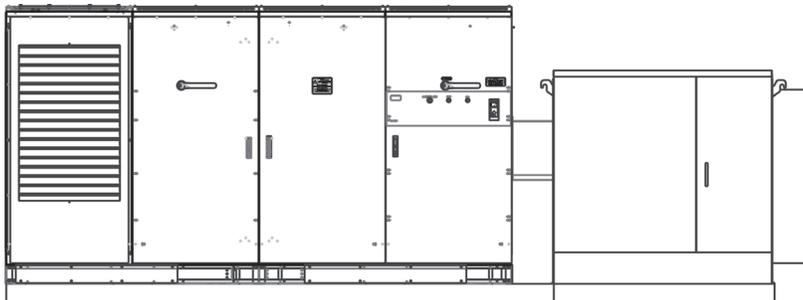


QLX Series Benefits

- NEMA 3R painted aluminum enclosure to withstand environmental conditions
- Built in communication via Danfoss Etherlynx protocol supported by several third party SCADA providers
- Configurable grid interface
- Skid solution with one or two QLX Series units
- Ride through capability to meet FERC 661A requirements
- Completely sealed inverter unit to withstand the harshest environmental conditions



	QLX 1000	QLX 1250	QLX 1350	QLX 1500
DC Power Rating [kWp]	1250	1500	1650	1750
Max. Input Voltage [V _{dc}]	1000			
MPP Voltage Range [V _{dc}]	450 - 950	560 - 950	610 - 950	680 - 950
Rated Input Voltage [V _{dc}]/ MPP Inputs	470 / 1	590 / 1	630 / 1	710 / 1
Max. Input Current (A)	2500			
Number of DC Inputs/Connections	1; 9+ / 9-		1; 12+ / 12-	
Array Configuration	Ungrounded, grounded -DC or +DC			Ungrounded
Rated AC Power @ 50°C [kVA]	1000	1250	1350	1500
Rated Grid Voltage [V _{AC}]	285	355	385	430
Max. Output Current (A)	2025			
AC Current Distortion at Rated Power	<3%			
Power Factor at Rated Power	.85 leading to .85 lagging			
Max Efficiency/ CEC Efficiency	98% / 97.5%			
DC Disconnect / AC Disconnect	Switch + Contactor / Switch + Circuit Breaker			
Dimensions (WxHxD) mm/inches / Weight kg/ Pounds	4000 x 2200 x 1100 / 157.5 x 86.6 x 43.3 / 3100/6860			
Operating Temperature Range (with derating to 60°C / 140°F)	-20°C to +50°C (-4°F to 122°F)			
Acoustic Noise [dBA] (at 10 meters)	< 70			
Self-consumption (Watts during night time)	< 100			
Cooling System- built in heat exchanger	Sealed liquid cooled - no air exchange in inverter cabinet			
Enclosure protection: inverter cabinet/cooling cabinet	NEMA 3R			
Installation	Outdoor			
Relative Humidity (dehumidifier used)	5% ... 100%			
Max. Operating altitude above sea level (meters/feet)	2000 / 6500			
Communication / Protocols	ComLynx / Etherlynx			
Communication with SCADA	RS485 / Ethernet			
Warranty	5 year standard, 5 year optional extensions to 20 years			
UL 1741 / IEEE 1547/ IEC62109	Pending			



QLX Series Skid Mounted Solution-Consult factory for more information

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