



The Danfoss DLX UL inverter series

Performance and flexibility in a user-friendly design

Available in 2.0, 2.9, 3.8 and 4.4 kW



The DLX series of transformer based string inverters define a new level of efficiency, flexibility and user friendliness.

Flexibility gives more options

Galvanic isolation makes the DLX suitable for all PV cell technologies. The NEMA 3R die cast aluminum casing allows for indoor or outdoor mounting. Convection cooling gives consistent performance even under high ambient temperatures and reduces noise issues.

Weighing between 49 and 51 lbs, the DLX is easy to handle and mount. The two-way interactive display offers multiple languages for easy configuration.

Simple to monitor on or off site

The full-color screen has an intuitive user-interface with clear and easy to access graphs and diagrams. A full monitoring solution is built-in and no extra PC software is required. For larger sites, a single inverter acts as a monitoring hub, to provide a single point of access for performance checks – either remotely or on-site – at any time.

97.3%

Maximum efficiency

World class performance
in a transformer based solution

Performance

- World leading efficiency of 97.3%
- Transformer-based
- Robust design with NEMA 3R
- Convection cooled for consistent performance

Flexibility

- Suitable for all kinds of PV module types
- Low noise allows indoor locations
- Multiple language options

User-friendliness

- Full built-in monitoring
- No extra PC software is required
- Master inverter functionality
- SunSpec Alliance compliant



Nomenclature ¹⁾	Parameter	DLX 2.0 UL	DLX 2.9 UL	DLX 3.8 UL	DLX 4.4 UL
AC					
S	Rated apparent power	2000 VA	2900 VA	3800 VA	4450 VA
P	Rated active power ¹⁾	2000 W	2900 W	3800 W	4450 W
Q	Reactive power range ¹⁾	0 - 1200 VAR	0 - 1740 VAR	0 - 2280 VAR	0 - 2670 VAR
Controlled power factor range		0.8 over-excited, 0.8 under-excited			
V _{ac,r}	Rated output voltage	208/240 V			
V _{ac,min} , V _{ac,max}	AC voltage range (P-N)	208/240V (+10%, -12%) single phase			
I _{acmax}	Nominal current AC	10.0 A/8.5 A	14.0 A/12.0 A	18.5 A/16.0 A	21.5 A/18.5 A
	Max. current AC	10.5 A	15.2 A	19.7 A	21.5 A
	AC current distortion (THD %)	2.59 %		3.36 %	
cosphi _{ac,r}	Power factor @ 100% load	1			
	Night-time power loss (off grid)	< 1 W			
f _r	Rated grid frequency	60 Hz			
f _{min} , f _{max}	Grid frequency range	59.3-60.5 Hz			
DC					
	Nominal power DC	2100 W	3000 W	4000 W	4600 W
	Max power DC	2625 W	3750 W	5000 W	5750 W
	Max. recommended PV power at STC ²⁾	2360 Wp	3425 Wp	4485 Wp	5250 Wp
V _{dc,r}	Nominal MPP voltage @ max efficiency	350 V			
V _{mppmin} , V _{mppmax}	MPP voltage range at nominal power ³⁾	230 - 500 V			250-500 V
	MPP efficiency	99.9 %			
V _{dcmax}	Max. DC voltage	600 V			
V _{dcstart}	Turn on voltage	230 V			
V _{dcmin}	Turn off voltage	220 V			
I _{dcmax}	Max. current DC	9.5 A	13.5 A	18.0 A	21.0 A
	Max. short circuit current DC at STC	9.5 A	13.5 A	18.0 A	21.0 A
	Min. on grid power	7 W			
Efficiency					
	Max. efficiency	97.2 %		97.3 %	
	Euro efficiency	96.3 %	96.5 %	96.7 %	96.9 %
	CEC efficiency	96.8 %		97.0 %	
Other					
	Dimensions (H, W, D)	720 x 353 x 154 mm / 28.35 x 13.90 x 6.50 inches			
	Mounting method	wall bracket			
	Weight	22kg / 49lbs		23kg / 51lbs	
	Sealing grade	IP65 / NEMA 3R			
	Acoustic noise level ⁴⁾	<37db (A)			
	MPP tracker / Input per MPPT	1 / 3			
	Operational temperature range	-25 °C...65 °C / -13 °F ...+149 °F			
	Nom. temperature range	-25 °C...45 °C / -13 °F ...+113 °F			
	Storage temperature range	-25 °C...80 °C / -13 °F ...+176 °F			
	Relative humidity	4 % to 99 %			
	Protection against excessive PV power	yes			
	Over voltage category AC	Class B			
	Over voltage category DC	Class B			
	Cable access (conduit knockouts)	2 x 3/4" + 2 x 1"base / 1 x 3/4" + 1x1" sides and back			
	Ethernet connection	1 x RJ45			
	RS-485 connection	Screw terminals			
	CAN connection	Screw terminals			
	PV connection	Screw terminals			
	AC/grid connection	Screw terminals			
	Protection against reverse polarisation of PV	Yes			
	Ground fault monitoring	Yes			
	Integral DC switch	Yes			
	PV grounding	Field configurable, positive & negative grounded			
	Topology	High frequency transformer, galvanic isolation			
	Cooling concept	Convection			
	Performance monitoring	Graphical colour display with 6 touch sense buttons, 3x LED's for visual status indication, Built-in Web Server			
Functional Safety					
	Safety (protective class)	class I			
	Islanding detection – loss of mains	Active Frequency Shift			
	Voltage magnitude surveillance	included			
	Frequency surveillance	included			
	DC content of AC current surveillance	included			
	Insulation resistance surveillance	included			
	RCD Type A compliant	Yes			
	Indirect contact protection	Yes, (start class I, grounded)			
	DC short circuit protection	Yes			

¹⁾ At rated grid voltage (V_{ac,r}), cosphi=1

²⁾ For fixed systems with semi-optimal conditions

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