

Dantherm Battery eXtender - DBX2000

TECHNOLOGY

Dantherm Power systems are power generating solutions designed and configured to be installed in both in- or outdoor hybrid applications for telecom and related networks. The solutions can be configured as both integrated and stand-alone.

The Battery extender uses hydrogen fuel cell technologies with fully integrated power management and various configurations possible.

WHERE TO USE BATTERY EXTENDER SOLUTIONS?

The Dantherm Battery eXtender (DBX) is installed in hybrid parallel with batteries. The DBX is ideal in environments with unstable mains (grid), where equipment must be protected from power outages and where business continuity demands reliable backup power. In case of mains power outage the batteries will provide backup instantly and the DBX-module provides support when the DC bus voltage drops.

FEATURES

- ✦ Very low maintenance cost (site visits only required every 5 years)
- ✦ Prevents batteries from deep discharge, thereby extending life
- ✦ Very low noise, can be installed almost anywhere
- ✦ No lead pollution and no harmful substances or emissions
- ✦ Backup duration related to hydrogen availability
- ✦ Compact, modular and scalable systems for network growth
- ✦ Programmable Self-test ensures system readiness
- ✦ Floating GND – can work in both -48VDC and +48VDC
- ✦ Light weight. One module weighs less than one battery
- ✦ Fuel storage in up to three strings for hot-swap and easy monitoring

CONFIGURATIONS

- ✦ Mounts in 19" and 23" racks, 2 or 4 post cabinets/racks
- ✦ Parallel with batteries and other modules for redundancy and higher capacity
- ✦ Can be mounted in outdoor cabinets, shelters or similar
- ✦ Easy to install on existing shelter sites

PRODUCT CODE – DBX2000H48-B-HH

- ✦ DBX: Dantherm Battery eXtender
- ✦ 2000: Nominal stack output power – End of Life
- ✦ H: Hydrogen fuelled
- ✦ 48: 48 VDC range (fixed voltage within (45 - 57 VDC))
 - ✦ 48 VDC DC input for standby operation
- ✦ AC input
 - ✦ A: 110 VAC
 - ✦ B: 230 VAC
- ✦ Air-flow: (Please clarify on order)
 - ✦ HH: Horizontal in – Horizontal out
 - ✦ VV: Vertical in – Vertical out
 - ✦ HV: Horizontal in – Vertical out (Optional at higher volumes)
 - ✦ VH: Vertical in – Horizontal out (Optional at higher volumes)
- ✦ Inlet filter
 - ✦ F7A

OPTIONS

- ✦ Dantherm Instant Backup (DIB) Upgrade kit with battery-free bridge power
- ✦ Fuel Regulators with fittings for local thread types
- ✦ Hoses and tubing, fuel manifolds
- ✦ Hydrogen storage cabinets in various sizes
- ✦ Cold climate kit (for operation below -20°C and/or low load)



DATA SHEET: DBX2000



TECHNICAL DATA:

DBX2000			
Important Note	DBX requires fresh air supply and ducting of exhaust air to outside ambient. DBX can only work when equipped with Dantherm Power Valve Block and a fuel regulator supplied by or approved by Dantherm Power		
System capacity			
Power output	W_e	Continuous	1676
Voltage output	VDC	Fixed within	45 - 57
Voltage input	VAC	For Standby operation	90 - 264 / 50-60 Hz
Fuel			
Hydrogen purity (H ₂)	%	Commercial grade 3.5	Min. 99,95
Inlet Pressure	Barg	Nominal to Valve Block	5
Consumption	Nm ³ /kWh	Average at max. load	0,87
Physical			
Ambient Temp.	°C	Operational (optional)	-20 (-40) - +40 (+45)
Integration cabinet temp.	°C	Operational	0 - +60
Storage Temp.	°C	Weather protected	-45 - +70
Unit dimensions	mm	H x W x D	355 x 446 x 628 (8U)
Weight	kg	Each module	40
Ingress Protection	IP-class	External to internal	55
Air flow direction		Horizontal or vertical (In-Out)	HH - VV - (HV - VH)
Air flow	m ³ /h	Exhaust to outside	200-600
Backup start up time	Sec.	Depends on batteries	Customer dependent
Communication			
Interface/System Monitoring	- -	Standard (optional)	RJ45 with TCP/IP RJ45 with CAN-bus
Alarms			
Voltage free outputs	-	Open on fault	DB15 with 4 channels
Visual indication	-	LED's	4
Interface			
DC	Plug	On front panel	Anderson sbs500 blue
PM Connection	Plug	On front Panel	Anderson SB50 Black
AC	Plug	On front panel	IEC 320 C14
Hydrogen	Fitting	Backside or under	8 mm Tube