



Product Specifications

GRID-FLEX



BI-DIRECTIONAL INVERTER

Product Highlights

GRID-FLEX is a modern, high performance, scalable bi-directional inverter system designed to supply distributed DC loads including batteries, microgrids, server equipment and EVSE.

400kW to 3.2MW DC distributed power delivery

Industry-leading power density

Highly efficient 50kW power modules with lifetime warranty

Advanced liquid cooled power electronics

IP65 sealed enclosure for harsh environments

Sophisticated grid support capabilities

Gateway to support range of distribution options



2 x 800kW GRID-FLEX inverters (front)
with doors open plus Gateway (right end)



2 x 800kW GRID-FLEX inverters (back)
with doors open plus Gateway (left end)

System Characteristics

Grid Voltage: 400VAC 3ph +10%/-15% | 480VAC 3ph +10%/-15%

Grid Frequency: 50Hz ± 10% | 60Hz ± 10%

Efficiency: 98.5%

Network Communications: Ethernet or Cellular SIM 4G/LTE

Earthing Systems: TT, TN-C-S, TN-S, TN-C

Power Factor: Dynamic correction from 0.0 lagging to 0.0 leading

Total Harmonic Distortion (THDi): <3%

Remote Management: MyTritium (customer web portal)

Remote management capabilities: Remotely configure, diagnose and apply software updates

Local Management: MODBUS TCP

Electrical Safety

Surge Protection: Type 1+2 SPD

Input Overvoltage Category: Category III

Short Circuit Current Rating: 85kA

Electrical Protections: Over current, over voltage, under voltage, short circuit, over temperature

Under-Voltage Relay or Shunt Trip: Optional

Environmental

Maximum Operating Altitude: 3000m (9840')

Operating Temperature: –35°C to +55°C (–31°F to +131°F)

Storage Temperature: –40°C to +60°C (–40°F to +140°F)

Impact Protection Rating: IK10

Ingress Protection Rating: IP65 | NEMA Type 3R enclosure

Dimensions

	Inverter	Gateway
Width:	650mm (25.6")	TBD
Height:	2300mm (90.6")	2300mm (90.6")
Depth:	1200mm (47.2")	1200mm (47.2")

Warranty

Product Warranty:
3 years warranty included
+1 year | +2 year extensions available

Power Module Warranty: Lifetime warranty included (10 years)

Service Level Agreements: Various options available

Standards

Europe CE: IEC 61851-1, IEC 61851-23, IEC 62311, IEC 61851-21-2, ETSI EN 303 446-1, ETSI, EN 301 489-1, ETSI EN 301 489-3, ETSI EN 301 489-52 VDE-AR-N 4110 (50Hz & 60Hz), IEEE-519 (50Hz & 60Hz)

North America UL/CSA: USA: UL 2202, 47 CFR § 1.130, FCC 47 CFR Part 15 B, FCC certified GSM (4G) Canada: CSA C22.2, RSS-210 and SPR-002, ICES-003, ISED certified GSM (4G)



	1 Inverter – 800kW	2 Inverters – 1600kW	3 Inverters – 2400kW	4 Inverters – 3200kW
AC INPUT				
Nominal Input Current	400V AC : 1234A 480V AC : 1028A	400V AC : 2467A 480V AC : 2056A	400V AC : 3701A 480V AC : 3084A	400V AC : 4935A 480V AC : 4112A
Max Input Current (Low line condition)	400V AC: 1259A 480V AC: 1082A	400V AC : 2518A 480V AC : 2164A	400V AC : 3776A 480V AC : 3246A	400V AC : 5036A 480V AC : 4329A
DC OUTPUT				
DC voltage	800-950VDC			
DC current (max)	1000 A	2000 A	3000 A	4000 A
DC output power	835 kW max (Vout > 835VDC) 800 kW (Vout = 800VDC)	1670 kW max (Vout > 835VDC) 1600 kW (Vout = 800VDC)	2505 kW max (Vout > 835VDC) 2400 kW (Vout = 800VDC)	3340 kW max (Vout > 835VDC) 3200 kW (Vout = 800VDC)
DIMENSIONS AND WEIGHTS				
Height	2300mm (90.5")	2300mm (90.5")	2300mm (90.5")	2300mm (90.5")
Width	650mm (25.6”) + Gateway	1335mm (52.6”) + Gateway	2002mm (78.8”) + Gateways	2670mm (105.1”) + Gateways
Depth	1200mm (47.2")	1200mm (47.2")	1200mm (47.2")	1200mm (47.2")
Weight	550kg (1210lbs) + Gateway	1100kg (2420lbs) + Gateway	1650kg (3630lbs) + Gateways	2200kg (4840lbs) + Gateways
Shipping Weight	640kg (1410lbs) + Gateway	1280kg (2820lbs) + Gateway	1920kg (4230lbs) + Gateways	2560kg (5640lbs) + Gateways



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