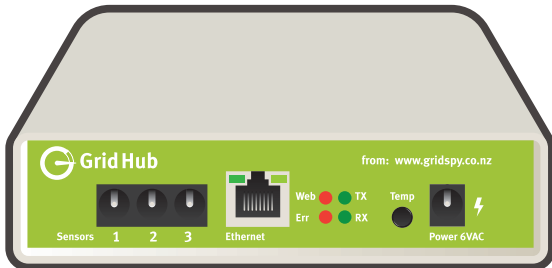# GridHub (5311)

Supply	180V to 265VAC 50Hz
Maximum power consumption	5VA @ 230VAC via 9VDC adapter
Communication network	Spread Spectrum 900MHz licence free ISM band
Enclosure	35mm H x 141mm W x 110mm D
Material	Flame retardant to UL94-V-0
Weight	190 gms

Indicators:

Web:	Flashes while acquiring server. Steady when link established.
TX:	Transmitting to GridNode.
RX:	Good data from GridNode.
Err:	Flashes if error detected.
2 x Ethernet LEDs:	Link active. Data packet received or sent.

Inputs:

3 CTs (Current Transformer inputs)*	0.333VRMS (scaled)
Measurement range as a % of the CT rating	0.1% to 120%
Current Measurement accuracy	To be tested
Over Current tolerance	To be tested
Current Input frequency range**	46 to 350Hz
Power factor range	0.1 ind .. 0.5 cap
1 temperature probe input	-50°C to +125°C
Temperature Accuracy	± 2°C
Ethernet for connection to web	

* Inputs can be 3 single phase or 1 group of 3 phase
** 50Hz fundamental plus harmonics

Misc:

Initial start-up time for GridHub*	< 5 seconds
Temperature Operating	-10°C to +65°C
Temperature Storage	-40°C to +85°C
Humidity	< 90% non-condensing
Laboratory Tests passed**	AS/NZS 4268: 2008
Data time stamping***	Set by central server via web

* EN 62053-21
** Plus Amendment 1:2008
*** Error < 5 seconds

Compliance:

NZ Electricity Governance Rules – 1 May 2008

- ✅ GridSpy detects any power loss exceeding 60 seconds
- ✅ Changes to software, status or time setting recorded
- ✅ Includes automatic self-checks such as memory integrity checking, hardware watchdog and auto-recovery.
- ✅ A GridHub stores far more than the required "50 events between interrogations"
- **6 mths** The GridHub stores 2GB of sensor readings (over 6 months of data @ 1 sec resolution). MARIA requires only 5 days. Data is automatically syncronised to the cloud.
- ✅ The GridHub syncronises its time to the cloud on powerup.
- ✅ GridSpy presents your power usage data referenced to either New Zealand Standard Time or local time.