



## Maximum Solar Energy using Femtogrid Solar Power Optimizers

Femtogrid optimizes and monitors the energy generated per module generating full visibility for the system owner and alerts for the installer and system integrator in order to perform problem-free service. The parallel system architecture combined with our internal software controls makes Femtogrid the safest system.

### Femtogrid Vestas Controller Box VTC 25-002

- Makes it possible to use Femtogrid Solar Power Optimizers to set up an DC Grid
- Makes it possible to combine a non-Femtogrid inverter with a Femtogrid system (AC Grid)

#### Advantages of a Femtogrid Solar system (AC or DC Grid):

- Superior MPPT efficiency >99.9%
- Maximum Power Point Tracking (MPPT) per module
- Up to 30% more energy for faster return on investment
- Early start and late shutdown per module
- Module level monitoring
- Module level safety
- Solves the negative system impact of shading conditions, module mismatch, aging mismatch, soiling mismatch and temperature variance



We are Femtogrid. We provide **renewable energy solutions**. Our products generate more energy and measurably higher efficiency per system. We achieve these results by applying unique and patented technology in our products.

The Femtogrid Vestas Controller Box VTC 25-002 is our smart solution for solar and wind installations in combination with a DC Grid. It also is a necessary supplement module for non-Femtogrid Inverters in combination with an AC Grid and is meant to be used together with:

- Femtogrid Solar Power Optimizers (PO 300 / 310 / 330) / Femtogrid Wind Optimizers
- Femtogrid Cabling
- Femtogrid Monitoring (optional)

## Specifications Femtogrid Vestas Controller Box VTC 25-002

<b>Power Input (AC or DC from Grid)</b>		
Nominal AC voltage	230	V
Nominal AC input power / current	25 / 0.11	W / A
Maximum AC input power / current	30 / 0.13	W / A
Maximum DC input voltage	400	V
Maximum DC input power / current	30 / 0.075	W / A
Inrush current	neglectable	A
<b>Power Output Safety (F2G components)</b>		
Nominal DC power	25	W
Nominal DC output voltage / current	48 / 0.52	V / A
Maximum DC power	30	W
Maximum DC output voltage / current	45 / 0.67	V / A
Open DC output voltage (no load)	51	V
<b>Control Output (F2G Slaves)</b>		
Slave Nominal DC (max 10 Slaves)	48	V
<b>Control Inputs</b>		
P-Safety/Ctrl_ON/OFF (Typical AC/DC)	2.5	mA
<b>Sensor Input</b>		
HOT (DC Bus min / max)	329 / 400	V
<b>USB Power / Data lines</b>		
Power (@100 mA) / Data	5 / D+,D-	V
<b>Standard Compliance</b>		
Safety class	Class I	
Degree of protection	IP21	
<b>General</b>		
Relative humidity (non-condensing)	0 - 95	% RH
Dimensions with bracket (LxWxH)	158x90x58	mm
Ambient temperature	0/+40	°C
Weight	0.30	kg
Mounting	TS35	DIN rail
Input/Output connections	Terminals	Type
Switch-on power usage (@ 24 mA)	5.52	W
Stand-by power usage (@ 13.2 mA)	3.04	W