## VYC 沙 ${ }^{N}$

## DIRECT CONNECT VDC140

BREAKTHROUGH FLYWHEEL TECHNOLOGY. RELIABLE, ON DEMAND POWER.

The VYCON flywheel stores kinetic energy in the form of a rotating mass and is designed for high power, short discharge applications. VYCON's patented high-speed motor/generator and contact-free magnetic bearings levitate and sustain the rotor during operation. These breakthrough technologies enable the VYCON flywheel to charge and discharge at high rates for countless cycles making conventional technologies obsolete.



Magnetic Bearing
Fully active 5-axis

## Stator

Dual mode
motor/generator

Rotor
Integral with hub

Hub
Aerospace high performance steel


Supports a typical
150 kVA (0.8 pf) UPS

Parallel operation for UPS above 150 kVA

Reliable on demand power for:

- Generator set ride-through
- Battery replacement
- Battery hardening
- Glitch protection

Features

- Low maintenance
- Environmentally friendly
- Small footprint
- Solid-state reliability
- Charge/discharge cycle every 15 minutes
- DSP controls
- Simple installation


## VYCON DIRECT CONNECT VDC140

140 kW 15 Second Ride Through DC Power Source

## Specifications

| Rated Power | 140 kW |
| :--- | :--- |
| Duration | 15 seconds |
| Useable Energy Storage | 2244 kW -sec max. |
| Flywheel Rotational Speed | 36 to 24 kRPM |

Input

| Input Voltage | $420-600$ VDC |
| :--- | :--- |
| Recharge Rate | Factory Adjustable* per application <br>  <br>  <br> Stand by losses |

Output

| Voltage Discharge | $400-500$ VDC** <br> Adjustable per application |
| :--- | :--- |
| Voltage Regulation | $+/-1 \%$ |
| DC Ripple | less than $2 \%$ |

Environmental

| Operating Temperature | $-4^{\circ} \mathrm{F}$ to $104^{\circ} \mathrm{F}\left(-20^{\circ} \mathrm{C}\right.$ to $\left.40^{\circ} \mathrm{C}\right)$ |
| :--- | :--- |
| Humidity | $95 \%$ non-condensing |
| Altitude | $5,000 \mathrm{ft}$. max without derating |
| Audible Noise | 66 dBA at $3.3 \mathrm{ft} .(1 \mathrm{~m})$ |

Dimensions and Weight

| Height | $78.0 \mathrm{in} .(1981 \mathrm{~mm})$ |
| :--- | :--- |
| Width | $48.0 \mathrm{in} .(1219 \mathrm{~mm})$ |
| Depth | $24.0 \mathrm{in} .(610 \mathrm{~mm})$ |
| Weight | $1922 \mathrm{lbs} .(872 \mathrm{~kg})$ |

* Dependent upon UPS recharge rate **Derated below 480 VDC


