



5 Design Choices Making the PCR-WE Possible

New Design Concept for Global Expansion

Kikusui Electronics has provided the highest standard of PWM inverter type power supplies for over 20 years. Overseas competition has pushed us even further, with demand for products of the smallest size, highest quality and most competitive pricing at an all time high. Thus, the PCR-WE/WE2 series was born; combining next-level performance with ultra-compact design. The brand new PCR-WE/WE2 AC/DC power supply was designed to solve the complex problems of the ever evolving modern world.



High Density Structural Design

Compact, high density design structure!

Wireless	Improved connection between boards
Insulation & Shield	Minimized clearance with insulation sheets Anti-noise shield for increased proximity
Large (L)	Integrated power system boards reducing connector and wire kit requirements

gh power, High mobility.

Component Upgrades

State-of-the-art power devices!

SiC Semiconductor

Improved: Power capacity

Power loss efficiency

Reduced parallel components

Improved mounting density

Heat sink area reduction

Brand new transformer and choke coil design!

Redesigned Circuits

DCDC converter redesigned from the ground up!

LLC **Resonant Converter**

Reduced total components

Improved mounting density

Decreased transformer size

Heat sink not required

Output inverter redesigned from the ground up!

Increased switching frequency Multi-level PWM control added Phase-shift control added

Smaller LC Filter

Refined Cooling System

Increased cooling efficiency!

Heat sink Custom built design

• Long heat sink ensures airflow with optical cooling even when separated from fan

Fan

Custom components

· Air volume and static pressure improved

Duct design

Custom rectification duct

Air flow on heat sink utilized for maximum efficiency