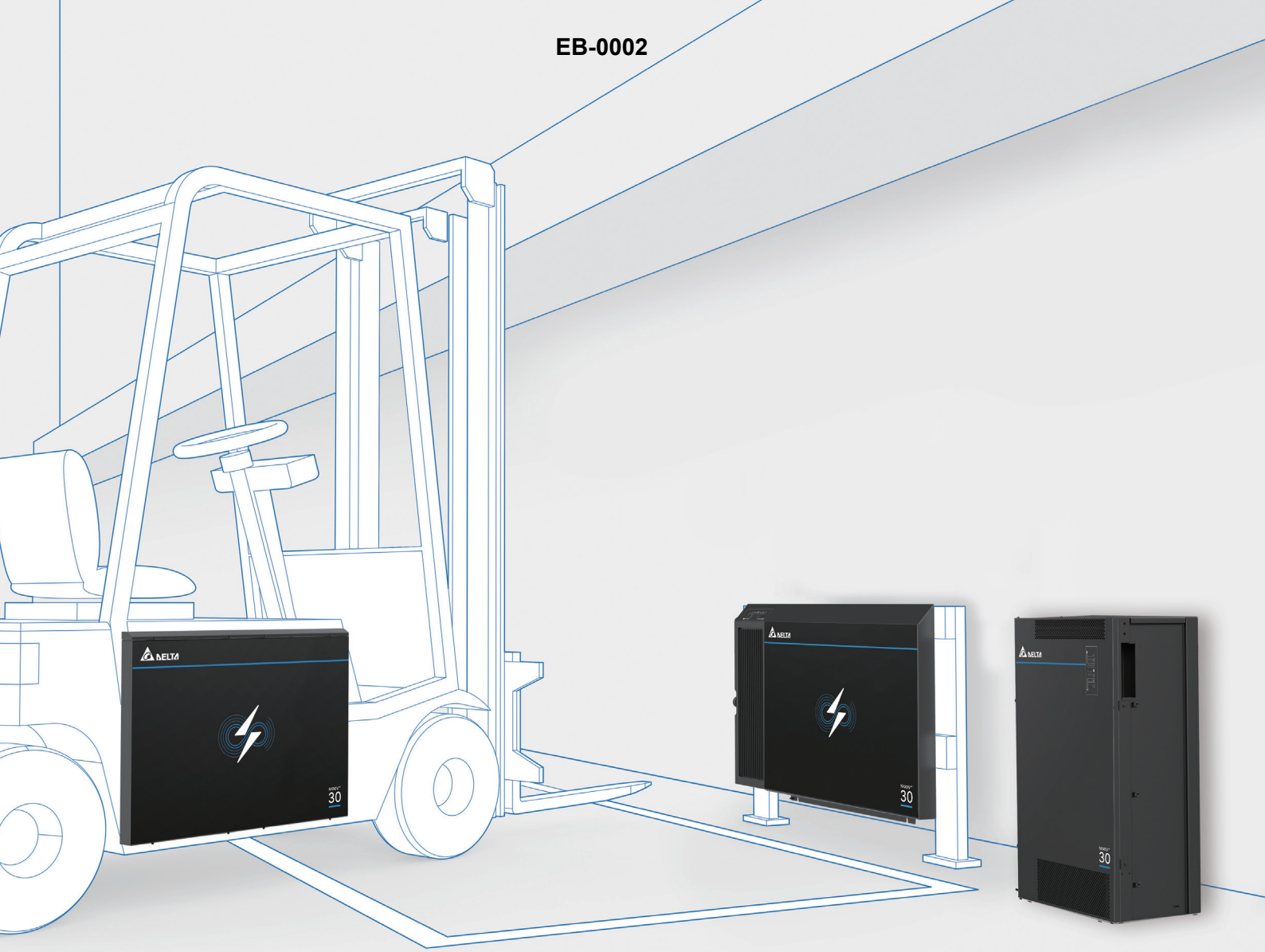
EB-0002



30 kW Wireless Charging System

MOOVair

Highly efficiency contactless charging for industrial electric vehicles providing up to 300 A. Ideal for fast and opportunity charging.

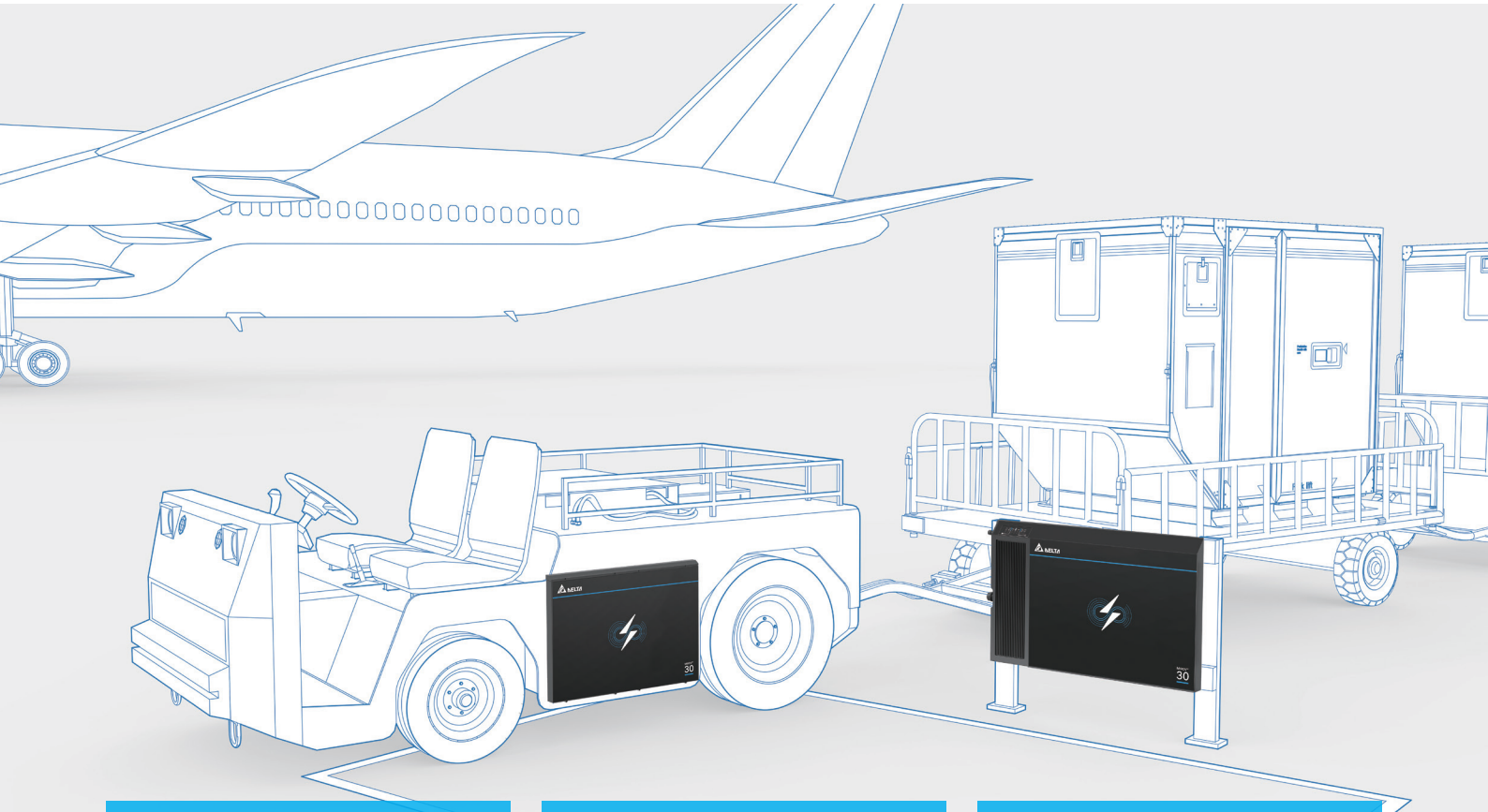
- No part wear
- Fully automated charging
- Charges lithium batteries fast and frequently

Wireless Power Transfer | Forklift | Industrial

Your Power House
VP ELECTRONIQUE

VP ELECTRONIQUE - 91300 MASSY - Tel: 01.69.20.08.69 - contact@vpelec.com - www.vpelec.com

30 kW Wireless Charging System



Versatile Charging

- Multiple vehicles can share one base
- Unmanned 24/7 operation
- Can be used in a wide range of harsh and polluted environments.

Easy Integration

- Automatic charging
- Power transfer over a 150 mm (6") gap
- Ethernet for integrating to a warehouse management system
- CAN bus for connecting vehicle systems

Contactless Power Transfer

- Efficiency meets or exceeds traditional wired chargers
- No connector wear
- No maintenance downtime to replace worn connectors
- Safe operation. Meets all industrial standards for wireless power transfer

Product Overview

Primary Box (WPB)

Primary Pad (WPP)

Secondary Unit (WSU)

Specifications

Part Number		30 kW		
AC Input				
AC Input Rated Voltage		380 to 480 V_{AC} 3PH		
AC Input Voltage Range		342 to 528 V_{AC}		
AC Input Frequency		50 / 60 Hz (45 to 65 Hz)		
Maximum AC Input Current		48 A		
Power Factor		0.95		
Peak Efficiency		> 95%		
DC Output				
DC Output Nominal Voltage		100 V_{DC}		
DC Output Voltage Range		72 to 120 V_{DC}		
Maximum Charge Current		300 A		
Maximum Output Power		30 kW		
Output Protection		Over voltage, over current, short circuit, open circuit, reverse connection		
Environmental Conditions				
Operating Temperature	Primary Box	5 °C to +40 °C		
	Primary Pad	-40 °C to +70 °C		
	Secondary Unit	-40 °C to +80 °C (derated above 40 °C)		
Storage Temperature		-45 °C to +70 °C		
Relative Humidity	Primary Box	5% to 85%		
	Primary Pad	4% to 100%		
	Secondary Unit	15% to 100%		
Maximum Operating Altitude		3,000 m (6,651 ft)		
Mechanical Design				
Air-gap Range		100 to 150 mm (3.9 to 5.9 in)		
Maximum Misalignment		± 50 mm (± 2.0 in) up/down and left/right		
Dimensions (L x W x H)	Primary Box	1020 x 550 x 400 mm (40.2 x 21.7 x 15.7 in)		
	Primary Pad	665 x 1020 x 65 (26.2 x 40.2 x 2.6 in)		
	Secondary Unit	565 x 735 x 50 (22.2 x 28.9 x 2.0 in)		
Ingress Protection	Primary Box	IP21		
	Primary Pad	IP69		
	Secondary Unit	IP69		
Cooling	Primary Box	Forced air		
	Primary Pad	Convection		
	Secondary Unit	Convection / conduction		
Primary Box to Primary Pad cable length		5 m (16 ft 5 in)		
LED Indicators		WPP, WPB, stack light interface		
Approvals and Compliance		**Europe**	**USA**	**Canada**
Safety Marks		CE IEC 62368-1, edition 2 and 3	$_{C}MET_{US}$ UL1564, CSA C22.2 No. 107.2-01	
EMC		CISPR11, Group 2, Class A	CFR, Title 47, Part 15, subpart B, Class A CFR, Title 47, Part 18, subpart C	ICES-001 ICES-003 RSS-216
Communications Interface				
Infrastructure		Ethernet		
Vehicle		CANopen®		