

# 1 kW Wireless Charging System M∞V<sup>air</sup> 01

Highly efficient wireless charging for industrial applications including electric vehicles and AGVs.

- No part wear
- Fully automated charging
- Low weight on vehicle









### 1 kW Wireless Charging System



## **System Overview**



## **Specification**

Product Line		MOOV <sup>air</sup> 01		
AC Input				
AC Input Rated Voltage		100 to 240 V <sub>AC</sub> 1PH		
AC Input Voltage Range		85 to 265 V <sub>AC</sub>		
AC Input Frequency		50 / 60 Hz (47 to 63 Hz)		
Maximum AC Input Current		12 A		
Power Factor (100% Load)		> 0.95		
Peak Efficiency		92% (24 V version), 93% (48 V version)		
Standby Power <sup>1</sup>		< 8 W		
DC Output				
DC Output Nominal Voltage		24 V <sub>DC</sub>	48 V <sub>DC</sub>	36 V <sub>DC</sub>
DC Output Voltage Range		12 to 30 V <sub>DC</sub>	24 to 60 V <sub>DC</sub>	18 to 45 V <sub>DC</sub>
Maximum Charge Curre	ent	41.7 A	20.8 A	27.7 A
Maximum Output Power		1000 W		
Battery Type		Lithium Ion, Lead Acid (AGM / GEL)		
Output Protection		Over voltage, over current, short circuit, reverse connection		
Parallel Operation		Up to 4 chargers for a maximum of 4 kW		
Standby Power <sup>2</sup>		< 2 W		
	Set points from vehicle	CANbus		
Charge Modes	Pre-programmed standalone operation	Multi-stage charge profile		
<b>Environmental Conditi</b>	ons			
Operating Temperature <sup>3</sup>		-20 °C to +50 °C (-4 °F to + 122 °F)		
Storage Temperature		-40 °C to +85 °C (-40 °F to + 185 °F)		
Relative Humidity		0% to 95%, non-condensing		
Maximum Operating Altitude		3000 m (9842 ft)		
Shock / Vibration		25 g / 5 g		
	WPB	IP65		
Ingress Protection <sup>4</sup>	WPP and WSP	IP65		
	WSB	IP40		
Mechanical Design				
Pad Air Gap Range		0 mm to 20 mm (0.8 in)		
Maximum Misalignment		20 mm (0.8 in)		
	WPB	192 x 280 x 60 mm (7.6 x 11.0 x 2.4 in)		
Dimensions (H x W x D)	WPP and WSP	Ø 160 x 19 mm (6.3 x 0.7 in)		
, , , , , , , , , , , , , , , , , , , ,	WSB	168 x 82 x 28 mm (6.6 x 3.2 x 1.1 in)		
Cable Length	AC Input	960 mm (37.8 in)		
(WPB)		1120 mm (44.1 in) typical		
(441 0)	WPP	1120 mm (44.1 in) typical		
	WPP DC Output	1120 mm (44.1 in) typical 500 mm (19.7 in)		
Cable Length				
	DC Output	500 mm (19.7 in)		
Cable Length (WSB and WSP)	DC Output Signals	500 mm (19.7 in) 100 mm (1.97 in)		
Cable Length	DC Output Signals WSP	500 mm (19.7 in) 100 mm (1.97 in) 380 mm (15 in)		
Cable Length (WSB and WSP) Weight	DC Output Signals WSP WPB and WPP	500 mm (19.7 in) 100 mm (1.97 in) 380 mm (15 in) 5.4 kg (11.9 lb)		
Cable Length (WSB and WSP)	DC Output Signals WSP WPB and WPP WSB and WSP	500 mm (19.7 in) 100 mm (1.97 in) 380 mm (15 in) 5.4 kg (11.9 lb) 1.5 kg (3.3 lb)		

Approvals and Compliance	USA / Canada	Europe	
Safety marks	cMETus	CE	
Safety	UL 60950-1 / UL 62368-1 CAN/CSA C22.2 no. 60950-1 / no. 62368-1	EN 60950-1, EN 62368-1	
EMC	FCC 15B, 18B, ICES-003, RSS-216, Class A <sup>1</sup>	ETSI EN 301 489-1, ETSI EN 301 489-17, EN 55011, EN 61000-6-4, EN 61000-6-2, Class A <sup>1</sup>	
RF	FCC Part 15.247, FCC Part 15.209, RSS-247	ETSI EN 300 328	
EMF	EN 62311, IEEE C95.3		

<sup>1</sup> WPB connected to AC but not charging



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<sup>2</sup> Secondary Unit connected to battery and not charging

<sup>3</sup> Derating above 40 °C

<sup>4</sup> Class B available on request