



## 9 - 30 kW Modular Charging System

MOOV<sup>base</sup>

Highly efficient charging for industrial applications

- Three-phase AC
- Lithium Ion Ready
- IoT / Industry 4.0 / Logistics 4.0 Ready



Industrial



Battery  
Charging



Logistics



## 9 - 30 kW Modular Charging System



### Versatile Charger

- Modular solution for output power levels 3 kW – 30 kW
- Models for 24 V, 36 V, 48 V, 72 V, 80 V and 96 V batteries
- Any battery chemistry

### Ethernet Communication Supports

- Warehouse/Fleet Management system
- Site installer / maintainer
- Battery room manager
- Wi-Fi connected vehicles
- Energy Manager
- Multi-stage charge profiles

### Highlights

- Designed for fast and frequent charging of lithium batteries in 24/7 operations
- Anti-arc technology
- Manual plug-in and automated charging
- Recovery mode for over-discharged AGVs

# Specification

48V Variant Summary				
Configuration	Nominal Output (V <sub>DC</sub> )	Output Range (V <sub>DC</sub> )	Output Max Current (A)	Max Power (W)
48V 3B1M	24V / 36V / 48V batteries	4 - 70	64	3000
48V 3B2M			128	6000
48V 3B3M			192	9000
48V 5B4M			256	12000
48V 5B5M			320	15000
48V 10B6M			384	18000
48V 10B7M			448	21000
48V 10B8M			512	24000
48V 10B9M			576	27000
48V 10B10M			640	30000

80V Variant Summary				
Configuration	Nominal Output (V <sub>DC</sub> )	Output Range (V <sub>DC</sub> )	Output Max Current (A)	Max Power (W)
80V 3B1M	72V / 80V / 96V batteries	9 - 120	40	3200
80V 3B2M			80	6400
80V 3B3M			120	9600
80V 5B4M			160	12800
80V 5B5M			200	16000
80V 10B6M			240	19200
80V 10B7M			280	22400
80V 10B8M			320	25600
80V 10B9M			360	28800
80V 10B10M			400	32000

AC Input	US Model	EU Model
AC Input rated voltage	480 V <sub>AC</sub> 3PH+E	400 V <sub>AC</sub> 3PH+E
AC Input voltage range	432 to 528 V <sub>AC</sub>	352 to 440 V <sub>AC</sub>
AC Input frequency	50 / 60 Hz (47 to 63 Hz)	
Power factor (100% load)	0.94	
Efficiency (100% load)	≥ 92.5%	
Standby Power	<10W	

Charger Output	
Battery types	- Lithium Ion (LFP, LNMC, LTO) - Lead acid (Wet / AGM / GEL)
Charge control	- CC/CV charging - Ethernet control of multi-stage profiles - Deep discharge recovery
DC connection	Flexible cable length and connector type, including dual connector.

Mechanical Design	3 bay	5 bay	10 bay
Dimensions (L x W x H)	534 x 374 x 473 mm (21 x 14.7 x 18.6 in)	534 x 374 x 631 mm (21 x 14.7 x 24.8in)	534 x 374 x 1028 mm (21 x 14.7 x 40.5in)
Weight	23.5 kg (51.8 lb.) without module+4.2 kg (9.2 lb.) per module	31 kg (68.34 lb.) without module+4.2 kg (9.2 lb.) per module	43 kg (94.8 lb) without module +4.2 kg (9.3 lb) per module
Cooling	Internal fans		
Communication connector	RJ45		
Mounting options	Wall, Stand or Floor mounting		

Reliability	
Protection class	I
OVC	II
Pollution degree	2
Protections	Short Circuit Reverse Battery DC hot-disconnect
Serviceability	Replaceable Power Modules and Fans

# Specification

Environmental Conditions	
Operating temperature	-10 °C to +55 °C (14 °F to +131 °F) Charger derates to avoid overheating
Relative humidity	5% to 90%, non-condensing
Maximum operating altitude	3,000 m (9,842 ft)
Protection degree	IP20 / NEMA1

Approvals and Compliance		
Safety certifications and approvals	North America	CSA certified to UL1564, C22.2 107.2-01, UL/CSA 62368-1 and CEC
	Europe	IEC/EN 62368-1, IEC/EN 62477-1, CE mark, IEC 60950-1



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