

The logo for emmjn, featuring the lowercase letters 'emmjn' in a white, sans-serif font on a blue circular background.

emmjn METHANOL FUEL CELLS

Dependable Power Solutions for IoT and Mission Critical Installations.

The emmjn is a next-generation DMFC that is more efficient, maintains power output for up to 50% longer and manages fuel intelligently to minimise consumption and maximise longevity.

- 50w, 85w, 130w and 200w Models
- RS-485 Data Interface
- Ultrasonic fuel level measurement
- Methanol Agnostic - 99.85% IMPCA
- UK Service Centre
- Smart Fuel Switch for multiple tanks
- Ethernet Hub with open API for integration
- Bluetooth adapter for app based speedy setup
- 3 Year / 6000 Hour UK Warranty

DirecDirect methanol fuel cells are electrochemical power generators that use methanol. They emit only water vapour and small amount of carbon dioxide and no hazardous gases. They quietly generate pure direct current without EMI or mechanical wear unlike internal combustion generators. They are efficient and inexpensive to run and able to operate under harsh conditions methanol only freezes below -97.8°

Device Smart has been working with UK integrators and global manufacturers since 2020. We support emmjn units with customer-first service that responds quickly because your mission critical systems demand dependability.

DEPENDABLE POWER



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Performance Data	d50	d85	d130	d200
Max. output power	50W	85W	130W	200W
Output Power at 6000 hours	36W	62W	94W	145W
	Degradation speed may vary depending on actual environmental conditions			
Max. charging current @10.5V(12V battery pack)/21.0V(24V battery pack)	3.3A/1.7A	8.1A/4A	12.4A/6.2A	N.A./9.5A
Adjustable on/off voltage range for lead acid batteries 12/24V	[10.5, 14.4V]/[21, 28.8V]	[10.5, 14.4V]/[21, 28.8V]	[10.5, 14.4V]/[21, 28.8V]	N.A./[21, 28.8V]
Ajustable on/off voltage range for LiFePO4 batteries 12/24V	[9, 16.8V]/[18, 30V]	[9, 16.8V]/[18, 30V]	[9, 16.8V]/[18, 30V]	N.A./[18, 30V]
Fuel consumption	0.8L/kWh (dependant on environmental conditions)			
Fuel type	99.85% IMPCA standard methanol or DI water/methanol mixture			
INSTALLATION DATA				
Weight	7.1kg	7.5kg	13kg	14.5kg
Size(LWH)	340 x 155 x 265mm	340 x 155 x 265mm	340 x 245 x 311mm	340 x 245 x 311mm
Operating temperature	-20°~+50°/-4°~+122°			
Start-up temperature	+3°~+50°/+34°~+122°			
IP-Class	IP42			
Recommended altitude	≤3000m ABS			
Inclination Along Roll Axis	Permanent: 30°; Temperary (<10min.): <45°			
Inclination Along Lateral Axis	Permanent: 30°; Temperary (<10min.): <45°			
Feed-in pipe length	1m/39.37inch			
INTERFACE				
User Interface	Membrane Kaypad/Mechanical Button			
Data Interface	RS485 ModBus Slave Communication Protocol, 5-pin M12 aviation connector			
Electric Interface	2-pin M12 aviation connector			
COMPATIBLE BATTERIES				
Recommended minimal battery capacity lead batteries 12/24V	40Ah/20Ah	60Ah/30Ah	80Ah/40Ah	N.A./50Ah
Maximum adjustable battery capacity lead batteries 12/24V	800Ah/400Ah	N.A./400Ah		
Recommended minimal battery capacity LiFePO4 batteries	20Ah/10Ah	30Ah/15Ah	40Ah/20Ah	N.A./25Ah
Maximum adjustable battery capacity LiFePO4 batteries	600Ah/300Ah	N.A./300Ah		

Warranty: 36 months within 6000 hours

Certificates: CE, FCC, CNAS, UKCA