MENARA PACK SERIES





Designed to

- ISO 26262
- SAE J2380
- SAE J2464
- UN 38.3
- UL 2580

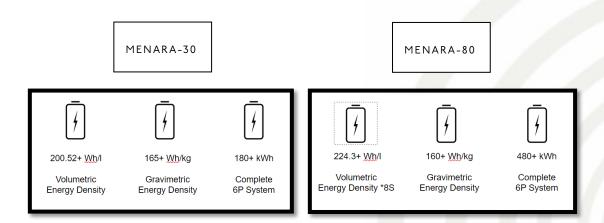
ROMEO POWER'S PROPRIETARY PACK FAMILY EXHIBITS

APPLICATION FLEXIBILITY AND IS CAPABLE OF POWERING A RANGE OF COMMERCIAL VEHICLES

SPANNING FROM CLASS 3 DELIVERY VEHICLES TO THE LARGEST, LONG-HAUL CLASS 8 VEHICLES. A

NOD TO NATIVE MALAYSIAN TREES, ROMEO POWER'S TOWER PACK SERIES IS CALLED MENARA –

WHICH TRANSLATES TO "TOWER" IN MALAY.



FEATURES

- HEAVY-DUTY, WEATHERPROOF STRUCTURE FOR DIRECT INTEGRATION (IP67 AND IP6K9K)
- SINGLE CELL FAULT TOLERANCE PER UL 2580
- DESIGNED ACCORDING TO SAE J2380/2464
- SCALABLE AND CONFIGURABLE SYSTEM DESIGN
- EXTERNAL MASTER CAN SUPPORT UP TO 6P CONFIGURATION
- SERVICEABLE JUNCTION BOX
- INTEGRATED BMS WITH SOC AND SOP ESTIMATIONS, CELL AND PACK PROTECTIONS, PRECHARGE, CONTACTOR CONTROL, CAN COMMUNICATION (J1939 AND UDS), ISOLATION RESISTANCE MONITORING, AND CELL BALANCING
- INTEGRATED MANIFOLDS FOR SUPERIOR THERMAL PERFORMANCE



	MENARA-30		Configurable
Module Count (configuration)	7 (7SIP)	8 (8SIP)	No
Module Cell Count (configuration)	576 (24S24P)	576 (24S24P)	Yes
System Capacity (total) (25°C, 0.33C Charge, 0.2 C Discharge)	115.4 Ah, 71.61 kWh	115.2 Ah, 81.84 kWh	Yes (Only Ah)
System Capacity (usable) (25°C, 0.33C Charge, 0.2 C Discharge)	99.36 Ah, 61.60 kWh	99.84 Ah, 70.40 kWh	Yes (Only Ah)
System Voltage Operating (min, max, nom)	420.0 V, 705.6 V, 619.92 V	480.0 V, 806.4 V, 708.48 V	Yes
Cell Cycle Life ¹ (20% Capacity fade at 0.3C charge, 0.5C discharge, 25°C, 2.85V-4.IV)	>2000 (use case dependent)	>2000 (use case dependent)	No
Normal Charging Time (0.3C charge, 25°C, 3.0V - 4.1V)	3-4 Hours	3-4 Hours	Yes
Fast Charging Time ² (TBD charge, 25°C, 3.0V - 4.IV)	2.5 Hours	2.5 Hours	Yes

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	MENARA-80			Configurable
Module Count (configuration)	3 (3SIP)	3 (3SIP)	3 (3SIP)	No
Module Cell Count (configuration)	576 (32SI8P)	576 (32SI8P)	576 (32SI8P)	Yes
System Capacity (total) (25°C, 0.33C Charge, 0.2 C Discharge)	87.39 Ah, 30.528 kWh	84.71 Ah, 29.67 kWh	86.6 Ah, 30.72 kWh	Yes (Only Ah)
System Capacity (usable) (25°C, 0.33C Charge, 0.2 C Discharge)	73.044 Ah, 25.53 kWh	71.80 Ah, 25.2 kWh	75 Ah, 26.4 kWh	Yes (Only Ah)
System Voltage Operating (min, max, nom)	240.0 V, 403.2 V, 348.5 V	240.0 V, 403.2 V, 349.4 V	240.0 mV, 403.2 V, 354.2 V	Yes
Cell Cycle Life ¹ (20% Capacity fade at 0.3C charge, 0.5C discharge, 25°C, 2.85V-4.IV)	>2000 (use case dependent)	>2000 (use case dependent)	>2000 cycles (use case dependent)	No
Normal Charging Time (0.3C charge, 25°C, 3.0V - 4.IV)	3-4 Hours	3-4 Hours	3-4 Hours	Yes
Fast Charging Time ² (TBD charge, 25°C, 3.0V - 4.1V)	2.5 Hours	2.5 Hours	2.5 Hours	Yes

^{&#}x27;Fast charging significantly reduces battery cycle life. Details upon request.

 $^{^{2}}$ Warranty planning is handled in a dedicated conversation based on each vehicle's planned use case, environmental factors, and metrics from real world use