# ELM MICR#GRID



# THE COMPLETE ENERGY STORAGE SOLUTION

**ELM MicroGrid** offers a full product lineup of BESS (Battery Energy Storage Systems) ranging from 125kW – 1MW with capabilities to parallel up to 20MW or more in size. All systems include full On Grid and Off Grid Capabilities utilizing our proprietary ELM FieldSight Controller. FieldSight features advanced microgrid and battery storage



technology that optimizes energy usage, provides emergency resiliency, increases power reliability, reduces power grid instability, offers on site generation asset control and energy production and consumption analysis.



## THE ELM ADVANTAGE

#### **POWER MANAGEMENT**

Solar and Generator Input Solar Automated Control Generator Automated Control Grid Power TOU Shifting Peak Shaving Off Grid Compatibility

#### **TURNKEY SOLUTION**

UL 9540 Factory Certified
NFPA 855 Compliant
Full Factory Testing
Rapid Onsite Deployment

#### **INCLUDES**

ELM FieldSight Controller
ELM FieldSight Cloud
Built In Climate Control
Built In Fire Suppression
NEMA 3R Enclosures
Expandable at Any Time





4300 Live Oak The Colony, TX 75056







## MICR#GRID PRODUCT LINE



MG Series Technical Specifications	CMG15
Phase Operation	Single Phase Operation
AC Voltage	240 VAC
AC Input/Output Current	80A
AC Output Power (Discharge; With PV/Battery Only)	15kW/12kW
AC Input Power (Charge)	15kW
Battery Capacity	70kWh
AC Frequency (Field Settable)	50/60 Hz
MAX AC Overcurrent Protection	100A
Peak Efficiency	97.5%
AC Connection	Split Phase, 3 Wire
<b>Equipment Specifications</b>	
External Dimensions (L x W x H)	60" x 36" 84"
Weight	3,290 lbs.
Lifting Provisions	Fork Lift Slots
Paint Tested	1000 Hour Salt Spray
Fire Suppression	3M Novec 1230
Handles	Stainless Steel Lockable
Temperature Range	-20°C to 50°C
MG Series Expansion Modules	
Max kWh	70kWh
External Dimensions (L x W x H)	60" x 36" 84"
Weight	3,155 lbs.
Lifting Provisions	Fork Lift Slots
Paint Tested	1000 Hour Salt Spray
Fire Suppression	3M Novec 1230
Handles	Stainless Steel Lockable
Temperature Range	-20°C to 50°C

MG500 & MG1000

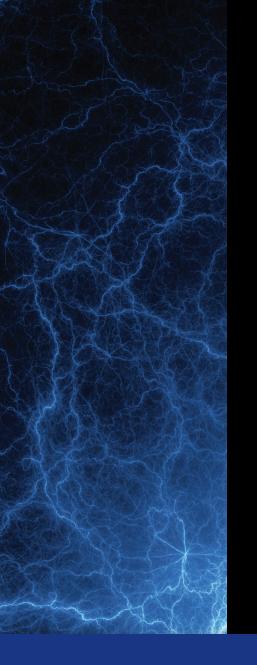
Single Phase Operation	CMG30	CMG125	MG250	MG500	MG1000
150A   150A   300A   600A   1255A   1255A   30kW/24kW   125kW   250kW   500kW   1000kW   30kW   125kW   250kW   500kW   1000kW   70kWh   220kWh   660kWh   1,100kWh   2,640kWh   2,640kWh   50/60 Hz   50/60 Hz   50/60 Hz   50/60 Hz   50/60 Hz   200A   250A   400A   800A   1600A   97.5%   97%   97%   97%   97%   97%   3 Phase, 3 Wire   170° x 75° x 111°   170	Single Phase Operation	Three Phase Operation	Three Phase Operation	Three Phase Operation	Three Phase Operation
30kW/24kW   125kW   250kW   500kW   1000kW   1	240 VAC	480 VAC	480 VAC	480 VAC	480 VAC
125kW   250kW   500kW   1000kW   1000kW   70kWh   220kWh   660kWh   1,100kWh   2,640kWh   2,640kWh   2,640kWh   50/60 Hz   200A   250A   400A   800A   1600A   97.5%   97%   97%   97%   97%   97%   97%   97%   3 Phase, 3 Wire   50" x 36" 84"   60" x 36" 104"   124" x 75" 111"   170" x 75" x 111"   (2) 170" x 75" x 111" + INV   3,425 lbs.   5,500 lbs.   17,000 lbs.   25,000 lbs.   59,000 lbs.   59,000 lbs.   Fork Lift Slots   Fork Lift Slots   Fork Truck or Lift Strap   Fork Truck or Lift Strap   1000 Hour Salt Spray   1000 Ho	160A	150A	300A	600A	1255A
70kWh         220kWh         660kWh         1,100kWh         2,640kWh           50/60 Hz         50/60 Hz         50/60 Hz         50/60 Hz         50/60 Hz           200A         250A         400A         800A         1600A           97.5%         97%         97%         97%         97%           Split Phase, 3 Wire         3 Phase, 3 Wire         3 Phase, 3 Wire         3 Phase, 3 Wire         3 Phase, 3 Wire           60" x 36" 84"         60" x 36" 104"         124" x 75" 111"         170" x 75" x 111"         (2) 170" x 75" x 111" + INV           3,425 lbs.         5,500 lbs.         17,000 lbs.         25,000 lbs.         59,000 lbs.           Fork Lift Slots         Fork Lift Slots         Fork Truck or Lift Strap         Fork Truck or Lift Strap         Fork Truck or Lift Strap           1000 Hour Salt Spray         20°C to 50°C         -20°C to 50°C <td>30kW/24kW</td> <td>125kW</td> <td>250kW</td> <td>500kW</td> <td>1000kW</td>	30kW/24kW	125kW	250kW	500kW	1000kW
50/60 Hz         50/60 Hz         50/60 Hz         50/60 Hz         50/60 Hz         50/60 Hz         200A         250A         400A         800A         1600A         97.5%         97%         97%         97%         97%         97%         3 Phase, 3 Wire         3 Phase, 3	30kW	125kW	250kW	500kW	1000kW
200A 250A 400A 800A 1600A  97.5% 97% 97% 97% 97% 97% 97%  Split Phase, 3 Wire 3 Phase, 3 Wire 460" x 36" 104" 124" x 75" 111" 170" x 75" x 111" (2) 170" x 75" x 111" + 1NV  3,425 lbs. 5,500 lbs. 17,000 lbs. 25,000 lbs. 59,000 lbs.  Fork Lift Slots Fork Lift Slots Fork Lift Slots Fork Truck or Lift Strap Fork Truck or Lift Strap 1000 Hour Salt Spray 1000 Hour Salt	70kWh	220kWh	660kWh	1,100kWh	2,640kWh
97.5% 97% 97% 97% 97% 97% 97% 97% 97% 97% 97	50/60 Hz	60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Split Phase, 3 Wire       3 Phase, 3 Wire         60" x 36" 84"       60" x 36" 104"       124" x 75" 111"       170" x 75" x 111"       (2) 170" x 75" x 111" + INV         3,425 lbs.       5,500 lbs.       17,000 lbs.       25,000 lbs.       59,000 lbs.         Fork Lift Slots       Fork Lift Slots       Fork Truck or Lift Strap       Fork Truck or Lift Strap         1000 Hour Salt Spray       3 M Novec 1230       3M Novec 12	200A	250A	400A	800A	1600A
60" x 36" 84" 60" x 36" 104" 124" x 75" 111" 170" x 75" x 111" (2) 170" x 75" x 111" + INV 3,425 lbs. 5,500 lbs. 17,000 lbs. 25,000 lbs. 59,000 lbs.  Fork Lift Slots Fork Lift Slots Fork Lift Slots Fork Truck or Lift Strap Fork Truck or Lift Strap 1000 Hour Salt Spray 1000 Hour Sal	97.5%	97%	97%	97%	97%
3,425 lbs. 5,500 lbs. 17,000 lbs. 25,000 lbs. 59,000 lbs.  Fork Lift Slots Fork Lift Slots Fork Lift Slots Fork Truck or Lift Strap Fork Truck or Lift Strap 1000 Hour Salt Spray	Split Phase, 3 Wire	3 Phase, 3 Wire	3 Phase, 3 Wire	3 Phase, 3 Wire	3 Phase, 3 Wire
3,425 lbs. 5,500 lbs. 17,000 lbs. 25,000 lbs. 59,000 lbs.  Fork Lift Slots Fork Lift Slots Fork Lift Slots Fork Truck or Lift Strap Fork Truck or Lift Strap 1000 Hour Salt Spray					
Fork Lift Slots         Fork Lift Slots         Fork Lift Slots         Fork Truck or Lift Strap         Fork Truck or Lift Strap           1000 Hour Salt Spray         <	60" x 36" 84"	60" x 36" 104"	124" x 75" 111"	170" x 75" x 111"	(2) 170" x 75" x 111" + INV
1000 Hour Salt Spray         1000 Hour	3,425 lbs.	5,500 lbs.	17,000 lbs.	25,000 lbs.	59,000 lbs.
3M Novec 1230         3M Novec	Fork Lift Slots	Fork Lift Slots	Fork Lift Slots	Fork Truck or Lift Strap	Fork Truck or Lift Strap
Stainless Steel Lockable         Stainless Steel Lockable         Reversible/Lockable         Reversible/Lockable         Reversible/Lockable           -20°C to 50°C           70kWh         220kWh         880kWh         1,320kWh         1,320kWh           60" x 36" 84"         60" x 36" 104"         124" x 75" 111"         170" x 75" x 111"         170" x 75" x 111"           3,155 lbs.         5,300 lbs.         20,000 lbs.         28,000 lbs.         28,000 lbs.           Fork Lift Slots         Fork Lift Slots         Fork Truck or Lift Strap         Fork Truck or Lift Strap           1000 Hour Salt Spray	1000 Hour Salt Spray	1000 Hour Salt Spray	1000 Hour Salt Spray	1000 Hour Salt Spray	1000 Hour Salt Spray
-20°C to 50°C to 50°C -20°C to 50°C to 5	3M Novec 1230	3M Novec 1230	3M Novec 1230	3M Novec 1230	3M Novec 1230
70kWh       220kWh       880kWh       1,320kWh       1,320kWh         60" x 36" 84"       60" x 36" 104"       124" x 75" 111"       170" x 75" x 111"       170" x 75" x 111"         3,155 lbs.       5,300 lbs.       20,000 lbs.       28,000 lbs.       28,000 lbs.         Fork Lift Slots       Fork Lift Slots       Fork Truck or Lift Strap       Fork Truck or Lift Strap         1000 Hour Salt Spray	Stainless Steel Lockable	Stainless Steel Lockable	Reversible/Lockable	Reversible/Lockable	Reversible/Lockable
60" x 36" 84" 60" x 36" 104" 124" x 75" 111" 170" x 75" x 111" 170" x 75" x 111" 170" x 75" x 111" 28,000 lbs. 28,000 lbs. 28,000 lbs. 5,300 lbs. 5,300 lbs. Fork Lift Slots Fork Lift Slots Fork Truck or Lift Strap Fork Truck or Lift Strap 1000 Hour Salt Spray 1	-20°C to 50°C	-20°C to 50°C	-20°C to 50°C	-20°C to 50°C	-20°C to 50°C
60" x 36" 84" 60" x 36" 104" 124" x 75" 111" 170" x 75" x 111" 170" x 75" x 111" 170" x 75" x 111" 28,000 lbs. 28,000 lbs. 28,000 lbs. 5,300 lbs. 5,300 lbs. Fork Lift Slots Fork Lift Slots Fork Truck or Lift Strap Fork Truck or Lift Strap 1000 Hour Salt Spray 1					
3,155 lbs. 5,300 lbs. 20,000 lbs. 28,000 lbs. 28,000 lbs. 28,000 lbs. Fork Lift Slots Fork Lift Slots Fork Lift Slots Fork Truck or Lift Strap Fork Truck or Lift Strap 1000 Hour Salt Spray 1000 Hour	70kWh	220kWh	880kWh	1,320kWh	1,320kWh
Fork Lift Slots Fork Lift Slots Fork Lift Slots Fork Truck or Lift Strap  1000 Hour Salt Spray 1000 Hour Salt Spra	60" x 36" 84"	60" x 36" 104"	124" x 75" 111"	170" x 75" x 111"	170" x 75" x 111"
1000 Hour Salt Spray 1000 Hour	3,155 lbs.	5,300 lbs.	20,000 lbs.	28,000 lbs.	28,000 lbs.
Hybrid - 3M Novec 1230 Hybrid - 3M Novec 1230 Dry Hybrid - 3M Novec 1230	Fork Lift Slots	Fork Lift Slots	Fork Lift Slots	Fork Truck or Lift Strap	Fork Truck or Lift Strap
Hybrid - 3M Novec 1230 Hybrid - 3M Novec 1230 Dry Hybrid - 3M Novec 1230	1000 Hour Salt Spray	1000 Hour Salt Spray	1000 Hour Salt Spray	1000 Hour Salt Spray	1000 Hour Salt Spray
Dry Pipe Water Pipe Water Dry Pipe Water	3M Novec 1230	3M Novec 1230	Hybrid - 3M Novec 1230 Dry Pipe Water	Hybrid - 3M Novec 1230 Dry Pipe Water	Hybrid - 3M Novec 1230 Dry Pipe Water
Stainless Steel Lockable Stainless Steel Lockable Reversible/Lockable Reversible/Lockable Reversible/Lockable	Stainless Steel Lockable	Stainless Steel Lockable	Reversible/Lockable	Reversible/Lockable	Reversible/Lockable
-20°C to 50°C	-20°C to 50°C	-20°C to 50°C	-20°C to 50°C	-20°C to 50°C	-20°C to 50°C

Key System Components	
NEMA 3R Enclosure	N
Climate Controls	×
Bi Directional Storage Inverter	N
DC Disconnect (Battery)	N
AC Disconnect (Inverter)	N
OPTIONAL FEATURES AC Disconnect (Utility Interconnect)	×
AC Circuit Breaker (Load Panel)	N
PV Disconnect	N
Utility Disconnect	N

#### **Operation Parameters** Islanded Mode Off Grid Applications Peak Shaving Backup **Grid Tied Mode** Power Demand Response Distributed Generation Time of Use Operation Certifications **Batteries** UL 1973, UL 9540A Inverter UL 1741 SA UL 9540 System

**ALL ELM MICROGRID SYSTEM FEATURES** 

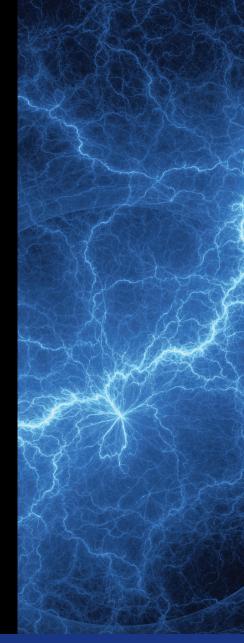
Control Software	
ELM Autonomous MicroGrid Site Control System	×
Access & Alerts on Desktop & Mobile 24/7	×
Asset Monitoring System Level & Individual	N
Individual MicroGrid Component Pages	N
Local HMI IP 65 Touchscreen	N
Communications: Wifi, Ethernet, Cellular	×











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