

Specifications

Grid-scale ESS



High Energy

Long-duration applications with continuous power supply (≥ 3 hours)

High Energy Module



Models	M48145P5B (2P)	M48218P5B (3P)	M48290P5B (4P)
Energy [kWh]	7.4	11.2	14.9
Capacity [Ah]	145	218	290
Nominal Voltage [V]	51.4		
Voltage Range [V]	42.0-58.8		
Dimension [W x H x D, mm]	445 x 110 x 620	445 x 110 x 915	445 x 110 x 1,162
Weight [kg]	46	68	89

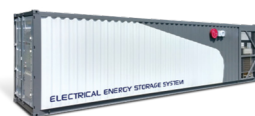
High Energy Rack



Models	R800 (14 Modules)		
	M48145P5B	M48218P5B	M48290P5B
Energy [kWh]	104.3	156.4	208.5
Capacity [Ah]	145	218	290
Nominal Voltage [V]	719		
Voltage Range [V]	588-823		
Dimension [W x H x D, mm]	520 x 1,880 x 655	520 x 1,880 x 950	520 x 1,880 x 1,200
Weight [kg]	760	1,097	1,396

Models	R1000 (17 Modules)			R1500 (24 Modules)
	M48145P5B	M48218P5B	M48290P5B	M48290P5B
Energy [kWh]	126.6	189.9	253.2	357.5
Capacity [Ah]	145	218	290	290
Nominal Voltage [V]	873			1,233
Voltage Range [V]	714-1,000			1,008-1,411
Dimension [W x H x D, mm]	520 x 2,200 x 655	520 x 2,200 x 950	520 x 2,200 x 1,200	520 x 3,150 x 1,200
Weight [kg]	905	1,305	1,680	2,407

High Energy Container



Models	40ft HC ISO Container	
	M48145P5B	M48218P5B
	Manned	Unmanned
Energy [MWh]	5.4	6.8
System Voltage [V dc]	714-1,000	
Dimension [W x H x D, m]	12.2 x 2.9 x 2.5	
Weight [ton] (incl. battery)	50	60
Ambient Temperature [°C]	-20-50	
Communication	CAN2.0B, Modbus TCP/IP	

(Container system design can be changed according to customer requirements)



Energy

Long-duration applications with continuous power supply (1~3 hours)

Energy Module



Models	M48126P3B (2P)	M48189P3B (3P)	M48252P3B (4P)
Energy [kWh]	6.5	9.8	13.0
Capacity [Ah]	126	189	252
Nominal Voltage [V]	51.8		
Voltage Range [V]	42.0-58.8		
Dimension [W x H x D, mm]	445 x 110 x 620	445 x 110 x 915	445 x 110 x 1,162
Weight [kg]	46	68	89

Energy Rack



Models	R800 (14 Modules)		
	M48126P3B	M48189P3B	M48252P3B
Energy [kWh]	91.3	137.0	182.7
Capacity [Ah]	126	189	252
Nominal Voltage [V]	725		
Voltage Range [V]	588-823		
Dimension [W x H x D, mm]	520 x 1,880 x 655	520 x 1,880 x 950	520 x 1,880 x 1,200
Weight [kg]	766	1,104	1,402

Models	R1000 (17 Modules)		
	M48126P3B	M48189P3B	M48252P3B
Energy [kWh]	110.9	166.4	221.8
Capacity [Ah]	126	189	252
Nominal Voltage [V]	881		
Voltage Range [V]	714-1,000		
Dimension [W x H x D, mm]	520 x 2,200 x 655	520 x 2,200 x 950	520 x 2,200 x 1,200
Weight [kg]	912	1,314	1,687

Energy Container



Models	40ft HC ISO Container	
	M48126P3B	M48189P3B
	Manned	Unmanned
Energy [MWh]	4.8	6.0
System Voltage [V dc]	714-1,000	
Dimension [W x H x D, m]	12.2 x 2.9 x 2.5	
Weight [ton] (incl. battery)	50	60
Ambient Temperature [°C]	-20-50	
Communication	CAN2.0B, Modbus TCP/IP	

(Container system design can be changed according to customer requirements)

Grid-scale ESS



Power

Short-duration applications with fast response, high power supply (< 1 hour)

Power Module



Models	M4864P6B (1P)	M48128P6B (2P)	M4860P7B (2P)
Energy [kWh]	3.3	6.6	3.1
Capacity [Ah]	64	128	60
Nominal Voltage [V]	51.5		51.8
Voltage Range [V]	42.0-58.8		
Dimension [W x H x D, mm]	445 x 110 x 344	445 x 110 x 620	445 x 110 x 494
Weight [kg]	28	47	31

Power Rack



Models	R800 (14 Modules)	
	M4864P6B	M48128P6B
Energy [kWh]	46.2	92.3
Capacity [Ah]	64	128
Nominal Voltage [V]	721	
Voltage Range [V]	588-823	
Dimension [W x H x D, mm]	520 x 1,880 x 425	520 x 1,880 x 655
Weight [kg]	491	775

Models	R1000 (17 Modules)		
	M4864P6B	M48128P6B	M4860P7B
Energy [kWh]	56.0	112.1	52.8
Capacity [Ah]	64	128	60
Nominal Voltage [V]	876		881
Voltage Range [V]	714-1,000		
Dimension [W x H x D, mm]	520 x 2,200 x 425	520 x 2,200 x 655	520 x 2,200 x 540
Weight [kg]	584	924	645

Power Container



Models	40ft HC ISO Container
	M48128P6B
Energy [MWh]	4.0
System Voltage [V dc]	714-1,000
Dimension [W x H x D, m]	12.2 x 2.9 x 2.5
Weight [ton] (incl. battery)	50
Ambient Temperature [°C]	-20-50
Communication	CAN2.0B, Modbus TCP/IP

(Container system design can be changed according to customer requirements)

Residential ESS



48V

Models	RESU3.3	RESU6.5	RESU10	RESU13
Total Energy [kWh] ¹⁾	3.3	6.5	9.8	13.1
Usable Energy [kWh] ²⁾	2.9	5.9	8.8	12.4
Capacity [Ah]	63	126	189	252
Nominal Voltage [V]	51.8			
Voltage Range [V]	42.0-58.8			
Dimension [W x H x D, mm]	452 x 403 x 120	452 x 656 x 120	452 x 484 x 227	452 x 626 x 227
Weight [kg]	31	52	75	99
Enclosure Protection Rating	IP55			
Communication	CAN2.0B			
Certificates	Cell	UL1642		
	Product	UL1973 / TUV (IEC 62619) / CE / FCC / RCM		TUV(IEC 62619)/CE/FCC/RCM

1) Total Energy is measured at the initial stage of battery life under the condition as follows : Temperature 25°C

2) Usable Energy is based on battery cell only

Compatible Inverter Brands : SMA, SolaX, Ingeteam, GoodWe, Sungrow, Victron Energy, Selectronic - More brands to be added

400V



Models	RESU7H		RESU10H	
	Type-R	Type-C	Type-R	Type-C
Total Energy [kWh] ¹⁾	7.0		9.8	
Usable Energy [kWh] ²⁾	6.6		9.3	
Capacity [Ah]	63		63	
Voltage Range [V]	350-450	430-550	350-450	430-550
Dimension [W x H x D, mm]	744 x 692 x 206	744 x 907 x 206	744 x 907 x 206	744 x 907 x 206
Weight [kg]	75	87	97	99.8
Enclosure Protection Rating	IP55			
Communication	RS485	CAN2.0B	RS485	CAN2.0B
Certificates	Cell	UL1642		
	Product	TUV (IEC 62619) / CE / FCC / RCM	TUV (IEC 62619) / CE / RCM	UL1973 / TUV (IEC 62619) / CE / FCC / RCM

1) Total Energy is measured at the initial stage of battery life under the condition as follows : Temperature 25°C

2) Usable Energy is based on battery cell only

Compatible Inverter Brands : SMA, SolarEdge, Fronius, Huawei - More brands to be added

C&I ESS



Models	R400	R600	R800		R1000	
	M48126P3B	M48126P3B	M48126P3B	M48189P3B	M48126P3B	M48189P3B
Energy [kWh]	45.7	65.2	91.3	137.0	110.9	166.4
Capacity [Ah]	126	126	126	189	126	189
Nominal Voltage [V]	363	518	725		881	
Voltage Range [V]	294-412	420-588	588-823		714-1,000	
Dimension [W x H x D, mm]	520 x 1,300 x 655	520 x 1,880 x 655	520 x 1,880 x 655	520 x 1,880 x 950	520 x 2,200 x 655	520 x 2,200 x 950
Weight [kg]	423	582	766	1,104	912	1,314
Certificates	UL 1973 (Listed), IEC 61000-6-2 / 61000-6-3, FCC Part 15 Class A					

Telecom Backup Solution / Residential Module



Models	M4863P3S	M48126P3S
Energy [kWh]	3.3	6.5
Capacity [Ah]	63	126
Nominal Voltage [V]	51.8	51.8
Voltage Range [V]	42.0-58.8	42.0-58.8
Dimension [W x H x D, mm]	445 x 110 x 339	445 x 110 x 587
Weight [kg]	24	44

UPS Backup Solution



Models	UPS Rack		
	12 Modules (6S2P) M7830P7B	10 Modules M4864P6B	10 Modules M48128P6B
Energy [kWh]	28.0	33.0	65.9
Continuous Power [kW]	250	115	132
Nominal Voltage [V]	466	515	515
Voltage Range [V]	397-523	420-588	420-588
Dimension [W x H x D, mm]	520 x 2,292 x 500	600 x 2,000 x 650	600 x 2,000 x 800
Weight [kg]	480	390	625

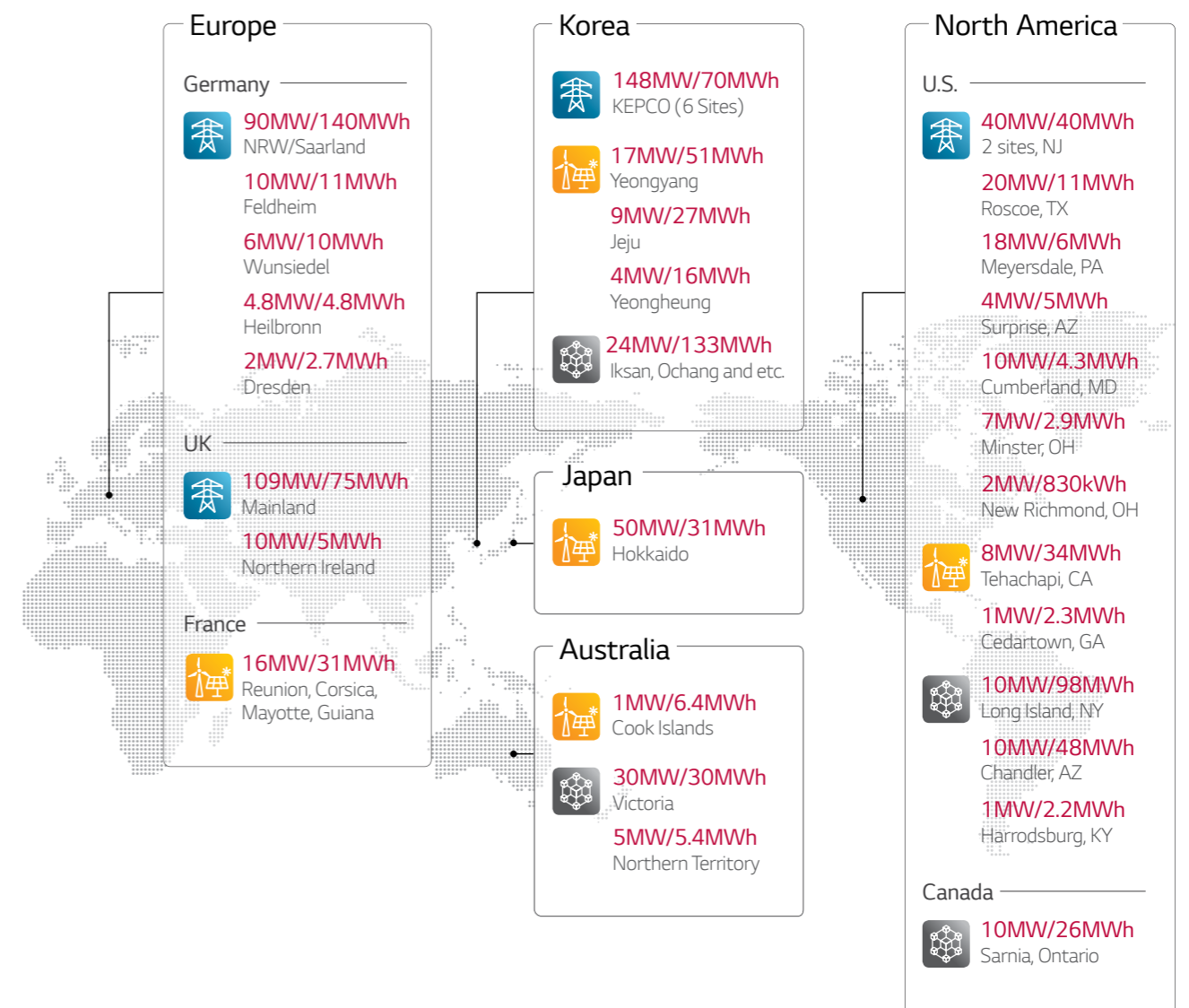
Global Reference (Grid-scale)

LG Chem has installed or been awarded over 4GWh of grid-scale projects since the launch of our ESS business.

> 4GWh
(As of July 2018)

World-leading Grid-scale ESS supplier with extensive experience and proven reference projects

* Cumulative amount of installed/awarded projects



Frequency Regulation



Renewable Integration



Peak Shifting & Multi Purpose