LG Chem

SALES BOOK
: Essential Information for RESU

RESU LV / HV

9th Nov, ’18 (V1.0)

About this salesbook

This salesbook includes essential information for RESU LV/HV overall.
The information included in this salesbook is accurate at the time of publication.
However, the product specifications are subject to change without prior notice.
In case of any change, LG Chem will share the updated salesbook to our valued installers.

Contents

1. Compatible Inverter List

1.1 Compatible storage Inverters with RESU LV (v7.6)

All RESU installations require a compatible inverter.
Using a non-approved inverter will void the warranty provided by LG Chem.
See below important instructions when installing and using RESU LV.

1) Battery inverters should operate in **On-Grid only. (Not in Off-Grid)**
2) For On-Grid applications where Back-up mode may be sometimes utilized the backed up circuits and inverters AC draw must not exceed the battery current limit specifications.

Following list of Inverters are currently compatible with LG Chem home battery, RESU LV Series.

Inverter			Battery				Remark
Manufacturer	Model	Software Version*	RESU3.3 (3kW)	RESU6.5 (4.2kW)	RESU10 (5kW)	RESU13 (5kW)	
SMA	Sunny Island 3.0M	3.110	○	○	○		*Cannot use in Back-up Mode
	Sunny Island 4.4M	1.02.10.R	○	○	○	○	*Cannot use in Back-up Mode *Exclusively, RESU13 can be used in Back-up Mode
	Sunny Island 6.0H		○	○	○	○	
SUNGROW	SH5K SH5K+ SH5K-20 SH3K SH4K	MDSP_SH5K-V13_V13 SDSP_SH5K-V13_V12 LCD_SH5K-V13_V13	○	○	○		*Cannot use in Back-up Mode
SOLAX POWER	SK-SU5000E SK-SU3700E SK-SU3000E SK-TL5000E SK-TL3700E SK-TL3000E	Inverter_M V2.15 Charger_28035_M_2.23	○	○	○	○	*Cannot use in Back-up Mode *Exclusively, RESU13 can be used in Back-up Mode
Ingeteam	ISS1Play 3TL ISS1Play 3 with Transformer	FW : ABH1002_F1 DFW : ABH1003_H D.BOOT : ABH100	○	○	○		*Cannot use in Back-up Mode
victron	MultiPlus 48/3000/35	CCGX S-v1.72-recover	○	○	○		*Cannot use in Back-up Mode
GOODWE	GW3048D-ES GW3648D-ES GW5048D-ES	Inverter_M V2.15 Charger_28035_M_2.23	○	○	○		*Cannot use in Back-up Mode
	GW3048-EM GW3648-EM GW5048-EM	FW : 03034 App : V2.1.6	○	○	○		
	GW3600S-BP GW5000S-BP	FW : 02203 App : V2.1.6		○	○		
SELECTRONIC	SPMC481 SPMC482	SP Link : 9.4.6220 SW :PF0004.X	○	○	○		*Exclusively, can use in Off-Grid

* Only compatible with the software versions which are mentioned above.

※ More compatible inverters will be added.

November, 2018

1. Compatible Inverter List

1.2 Compatible storage Inverters with RESU HV (v1.1)

All RESU installations require a compatible inverter.
Using a non-approved inverter will void the warranty provided by LG Chem.
See below important instructions when installing and using RESU HV.

1) Battery/Hybrid inverters should operate in **On-Grid only. (Not in Off-Grid)**
2) For On-Grid applications where Back-up mode may be sometimes utilized, the backed up circuits and inverters AC draw must not exceed the battery current limit specifications.

Following list of Inverters are currently compatible with LG Chem home battery, RESU HV Series.

Inverter			Battery				Remark
Manufacturer	Model	Software Version*	RESU7H		RESU10H		
			Type C	Type R	Type C	Type R	
SMA	Sunny Boy Storage 2.5	2.4.19.R or above	○		○		*Cannot use in Back-up Mode
	Sunny Boy Storage 3.7/5.0/6.0 (Newly added from November. 2018)		○		○		*SPS(Secure Power Supply) mode is supported
solaredge	SE5000-RWS / SE6000-RWS (EU)	3.2150 or above		○			* Can use in Back-up Mode * RESU10H can be expanded up to 2 units
	SE7600A-USS2 / SE3800A-USS2 (US)					○	
	SE5000-RWS2 / SE6000-RWS2 (EU)					○	
	SE5000-AUS2 / SE6000-AUS2 (AU)			○		○	
	SE2000H ~ SE10000H with SESTI-S4	3.2186 or above		○		○	*Cannot use in Back-up Mode
Fronius	Symo Hybrid 3.0-3-S Symo Hybrid 4.0-3-S Symo Hybrid 5.0-3-S	1.9.1 or above		○		○	*Cannot use in Back-up Mode
HUAWEI	SUN2000L- 2KTL (EU/AU) SUN2000L- 3KTL (EU/AU) SUN2000L- 3.68KTL (EU/AU) SUN2000L- 4KTL (EU/AU) SUN2000L- 4.6KTL (EU/AU) SUN2000L- 5KTL (EU/AU)	V100R001C00S PC312 or above		○		○	*In case of RESU10H, Charge/Discharge Power is limited to 3.5kW
	SUN2000-3.8KTL-USL0 (NA) SUN2000-5KTL-USL0 (NA)	V100R001C10S PC103B044 or above				○	*Can use in Back-up Mode only with PV in operation under rated power *In case of RESU10H, Charge/Discharge Power is limited to 3.5kW
	SUN2000-7.6KTL-USL0 (NA) SUN2000-9KTL-USL0 (NA) SUN2000-10KTL-USL0 (NA) SUN2000-11.4KTL-USL0 (NA)						*Can use in Back-up Mode only with PV in operation under rated power

* Only compatible with the software versions which are mentioned above.

※ More compatible inverters will be added.

November, 2018

2. Introduction for RESU new products

2.1 RESU13 Introduction

- ✓ **"Back-up" functionality** supported
- ✓ Compatible with **SMA SI4.4M & SI6.0I, and more brands to be added**
- ✓ Expandable up to 2 units in parallel having **capacity of 26kWh** with one inverter (by RESU Plus)

※RESU13 is not allowed to be expanded with the other models(RESU3.3/6.5/10) by RESU Plus, but only with RESU13

RESU13	
P/N	EH048252P3S1
Width	452 mm
Height	626 mm
Depth	227 mm
Weight [1]	98.5kg

1) A battery pack's weight varies slightly.

Electrical Characteristics		
Nominal voltage		**51.8 V**
Operating voltage range		**42~58.8 V**
Nominal Capacity		**252 Ah**
Total Energy		**13.0kWh**
Usable Energy		**12.4kWh(Depth of Discharge 95%)**
Maximum power		**5kW**
Peak power for 3 seconds		**7kW**
Peak current for 3 seconds		**166.7 A**
Peak power for 3 seconds in backup mode		**11kW for 3sec.**
Peak current for 3 seconds in backup mode		**261.9 A**
Battery round-trip efficiency(0.3C, 25°C)		**95%**
Expected lifetime at 25°C/77°F		**More than 10 years**
Communication Interface		**CAN 2.0 B**
Operating Conditions		
Installation Location		**Indoor / Outdoor (Stand / Wall)**
Operating Temperature(Recommended)		**-10 to 50°C(15 to 30°C)**
Humidity		**5% to 95%**
Altitude		**Max. 6,562ft (2,000m)**
Cooling Strategy		**Natural Convection**
Certification		
Safety	**Cell**	**UL1642**
	Battery Pack	**CE / RCM / TUV(IEC 62619) / FCC**
EMC		**IEC61000-6-1 , IEC61000-6-3**
Hazardous Materials Classification		**Class 9**
Transportation		**UN38.3**
Ingress Rating		**IP55**

2.2 RESU7H(Type-C) Introduction

- ✓ Compatible with
  SMA Sunny Boy Storage 2.5 and new Sunny Boy Storage 3.7/5.0/6.0
- ✓ It can be installed with SMA Sunny Boy Storage inverter for the existing PV system.

RESU13	
P/N	EH111063P3S3
Width	744 mm
Height	907 mm
Depth	206 mm
Weight [1]	97.0kg

1) A battery pack's weight varies slightly.

Electrical Characteristics		
Total Energy Capacity [1]		**7.0 kWh @25°C (77°F), Beginning of Life**
Usable Energy Capacity [1]		**6.6 kWh @25°C (77°F)**
Battery Capacity		**63 Ah**
Voltage Range	Charge	**468 to 550 V DC**
	Discharge	**430 to 507 V DC**
Absolute Max. Voltage		**570 V DC**
Max. Charge/Discharge Current		**7.5A@467V / 8.1A@427V**
Max. Charge/Discharge Power [2]		**3.5kW**
Peak Power (only discharging) [3]		**5kW for 10 sec.**
Peak Current (only discharging)		**11.6A@430V for 10 sec.**
Communication Interface		**CAN**
DC Disconnect		**Circuit Breaker, 25A, 600V rating**
Connection Method		**Spring Type Connector**
Operating Conditions		
Installation Location		**Indoor / Outdoor (Stand / Wall)**
Operating Temperature(Recommended)		**-10 to 45°C(15 to 30°C)**
Humidity		**5% to 95%**
Altitude		**Max. 6,562ft (2,000m)**
Cooling Strategy		**Natural Convection**
Noise Emission		**< 40 dBA**
Certification		
Safety	**Cell**	**UL1642**
	Battery Pack	**CE / RCM / TUV(IEC 62619)**
Emissions		**FCC**
Hazardous Materials Classification		**Class 9**
Transportation		**UN38.3**
Ingress Rating		**IP55**

3.1 RESU LV

3.1.1 RESU3.3 Datasheet (v1.8)

Features

RESU3.3 battery pack designed for photovoltaic systems is easily adaptable energy storage solution. With RESU Plus, RESU3.3/6.5/10 can be “cross-connected” with each other.

※ RESU Plus is an expansion kit specially designed for 48V models.
Number of expandable battery units : up to 2EA

- ❑ Compact and light weight
- ❑ Powerful Performance : World Best Energy Density
- ❑ Easy and Flexible installation
  : Easy wall-mounted or floor-standing installation enable
  : Diverse Matched Inverters Available
- ❑ BMS firmware can be updated easily by using SD Card

Mechanical Characteristics		
Dimensions	Width	452 mm (17.8”)
	Height	401 mm (15.8”)
	Depth	120 mm (4.7”)
Weight		31 kg (68.3lbs)

3. Datasheet

3.1 RESU LV

3.1.1 RESU3.3 Datasheet (v1.8)

Electrical Characteristics	
Total Energy Capacity	3.3 kWh
Usable Energy Capacity[1)]	2.9 kWh
Battery Capacity	63 Ah
Voltage Range	42.0 to 58.8 V_{DC}
Nominal Voltage	51.8 V_{DC}
Max. Charge/Discharge Current	71.4A
Peak Current[2)]	78.6A for 3 sec.
Max. Charge/Discharge Power[3)]	3.0kW
Peak Power[2)]	3.3kW for 3 sec.
Battery Pack Round-Trip Efficiency	>95% (under specific condition)
Communication Interface	CAN 2.0B
DC Disconnect	Circuit Breaker, Contactor, Fuse

Operating Conditions	
Installation Location	Indoor / Outdoor (Stand / Wall-Mounted)
Operating Temperature	-10 to 45°C
Operating Temperature (Recommended)	15 to 30°C
Storage Temperature	-30 to 60°C : ~7 days -20 to 45°C : ~ 6 months
Humidity	5% to 95%
Altitude	Max. 2,000m
Cooling Strategy	Natural Convection

Certification		
Safety	Cell	UL1642
	Battery Pack	CE / RCM / FCC / TUV (IEC 62619) / UL1973
EMC		IEC61000-6-1, IEC61000-6-3
Hazardous Materials Classification		Class 9
Transportation		UN38.3
Ingress Rating		IP55

※ Test Conditions - Temperature 25°C, at the beginning of life
※ Total Energy is measured under specific condition from LGC(0.3CCCV/0.3CC)

1) Value for Battery Cell Only (Depth of Discharge 90%). Actual usable energy at the AC output may vary by condition, such as the inverter efficiency and temperature.
2) Peak Current excludes repeated short duration (less than 3 sec.) of current pattern.
3) LG Chem recommends 1.1kW for maximum battery lifetime.

3.1 RESU LV

3.1.2 RESU6.5 Datasheet (v2.5)

Features

RESU6.5 battery pack designed for photovoltaic systems is easily adaptable energy storage solution. With RESU Plus, RESU3.3/6.5/10 can be “cross-connected” with each other.

※ RESU Plus is an expansion kit specially designed for 48V models.
Number of expandable battery units : up to 2EA

- ❑ Compact and light weight
- ❑ Powerful Performance : World Best Energy Density
- ❑ Easy and Flexible installation
  - : Easy wall-mounted or floor-standing installation enable
  - : Diverse Matched Inverters Available
- ❑ BMS firmware can be updated easily by using SD Card

Mechanical Characteristics

Dimensions	Width	452 mm (17.8’’)
	Height	656 mm (25.8’’)
	Depth	120 mm (4.7’’)
Weight		52 kg (114.6lbs)

3.1 RESU LV

3.1.2 RESU6.5 Datasheet (v2.5)

Electrical Characteristics	
Total Energy Capacity	6.5 kWh
Usable Energy Capacity[1)]	5.9 kWh
Battery Capacity	126 Ah
Voltage Range	42.0 to 58.8 V_{DC}
Nominal Voltage	51.8 V_{DC}
Max. Charge/Discharge Current	100A
Peak Current[2)]	109.5A for 3 sec.
Max. Charge/Discharge Power[3)]	4.2kW
Peak Power[2)]	4.6kW for 3 sec.
Battery Pack Round-Trip Efficiency	>95% (under specific condition)
Communication Interface	CAN 2.0B
DC Disconnect	Circuit Breaker, Contactor, Fuse

Operating Conditions	
Installation Location	Indoor / Outdoor (Stand / Wall-Mounted)
Operating Temperature	-10 to 45°C
Operating Temperature (Recommended)	15 to 30°C
Storage Temperature	-30 to 60°C : ~7 days -20 to 45°C : ~ 6 months
Humidity	5% to 95%
Altitude	Max. 2,000m
Cooling Strategy	Natural Convection

Certification		
Safety	Cell	UL1642
	Battery Pack	CE / RCM / FCC / TUV (IEC 62619) / UL1973
Emissions		IEC61000-6-1, IEC61000-6-3
Hazardous Materials Classification		Class 9
Transportation		UN38.3
Ingress Rating		IP55

※ Test Conditions - Temperature 25°C, at the beginning of life
※ Total Energy is measured under specific condition from LGC(0.3CCCV/0.3CC)

1) Value for Battery Cell Only (Depth of Discharge 90%). Actual usable energy at the AC output may vary by condition, such as the inverter efficiency and temperature.
2) Peak Current excludes repeated short duration (less than 3 sec.) of current pattern.
3) LG Chem recommends 2.2kW for maximum battery lifetime.

3.1 RESU LV

3.1.3 RESU10 Datasheet (v1.4)

Features

RESU10 battery pack designed for photovoltaic systems is easily adaptable energy storage solution.
With RESU Plus, RESU3.3/6.5/10 can be “cross-connected” with each other.

※ RESU Plus is an expansion kit specially designed for 48V models.
Number of expandable battery units : up to 2EA

- ❑ Compact and light weight
- ❑ Powerful Performance : World Best Energy Density
- ❑ Easy and Flexible installation
  - : Easy wall-mounted or floor-standing installation enable
  - : Diverse Matched Inverters Available
- ❑ BMS firmware can be updated easily by using SD Card

Mechanical Characteristics

Dimensions	Width	452 mm (17.8’’)
	Height	484 mm (19.0’’)
	Depth	227 mm (8.9’’)
Weight		75 kg (165.3lbs)

3.1 RESU LV

3.1.3 RESU10 Datasheet (v1.4)

Electrical Characteristics	
Total Energy Capacity	9.8 kWh
Usable Energy Capacity[1)]	8.8 kWh
Battery Capacity	189 Ah
Voltage Range	42.0 to 58.8 V_{DC}
Nominal Voltage	51.8 V_{DC}
Max. Charge/Discharge Current	119A
Peak Current[2)]	166.7A for 3 sec.
Max. Charge/Discharge Power[3)]	5.0kW
Peak Power[2)]	7.0kW for 3 sec.
Battery Pack Round-Trip Efficiency	>95% (under specific condition)
Communication Interface	CAN 2.0B
DC Disconnect	Circuit Breaker, Contactor, Fuse

Operating Conditions	
Installation Location	Indoor / Outdoor (Stand / Wall-Mounted)
Operating Temperature	-10 to 45°C
Operating Temperature (Recommended)	15 to 30°C
Storage Temperature	-30 to 60°C : ~7 days -20 to 45°C : ~ 6 months
Humidity	5% to 95%
Altitude	Max. 2,000m
Cooling Strategy	Natural Convection

Certification		
Safety	Cell	UL1642
	Battery Pack	CE / RCM / FCC / TUV (IEC 62619) / UL1973
Emissions		IEC61000-6-1, IEC61000-6-3
Hazardous Materials Classification		Class 9
Transportation		UN38.3
Ingress Rating		IP55

※ Test Conditions - Temperature 25°C, at the beginning of life
※ Total Energy is measured under specific condition from LGC(0.3CCCV/0.3CC)

1) Value for Battery Cell Only (Depth of Discharge 90%). Actual usable energy at the AC output may vary by condition, such as the inverter efficiency and temperature.
2) Peak Current excludes repeated short duration (less than 3 sec.) of current pattern.
3) LG Chem recommends 3.3kW for maximum battery lifetime.

3.1 RESU LV

3.1.4 RESU13 Datasheet (v1.0)

Features

RESU13 battery pack designed for photovoltaic systems is easily adaptable energy storage solution.
With RESU Plus, RESU13 can be connected only with the same model (RESU13).

※ RESU Plus is an expansion kit specially designed for 48V models.
Number of expandable battery units : up to 2EA

- ❑ Backup functionality supported
- ❑ Powerful Performance : World Best Energy Density
- ❑ Easy and Flexible installation
  - : Easy wall-mounted or floor-standing installation enable
  - : Diverse Matched Inverters Available
- ❑ BMS firmware can be updated easily by using SD Card

Mechanical Characteristics		
Dimensions	Width	452 mm (17.8”)
	Height	626 mm (24.7”)
	Depth	227 mm (8.9”)
Weight		98.5 kg (217.2lbs)

3.1 RESU LV

3.1.4 RESU13 Datasheet (v1.0)

Electrical Characteristics	
Total Energy Capacity	13.0 kWh
Usable Energy Capacity[1)]	12.4 kWh
Battery Capacity	252 Ah
Voltage Range	42.0 to 58.8 V_{DC}
Nominal Voltage	51.8 V_{DC}
Max. Charge/Discharge Current	119A
Peak Current[2)]	166.7A for 3 sec.
Max. Charge/Discharge Power	5.0kW
Peak Power[2)]	7.0kW for 3 sec.
Peak Power for backup mode	11.0kW for 3 sec.
Battery Pack Round-Trip Efficiency	>95% (under specific condition)
Communication Interface	CAN 2.0B
DC Disconnect	Circuit Breaker, Contactor, Fuse

Operating Conditions	
Installation Location	Indoor / Outdoor (Stand / Wall-Mounted)
Operating Temperature	-10 to 50°C
Operating Temperature (Recommended)	15 to 30°C
Storage Temperature	-30 to 60°C : ~7 days -20 to 45°C : ~ 6 months
Humidity	5% to 95%
Altitude	Max. 2,000m
Cooling Strategy	Natural Convection

Certification		
Safety	Cell	UL1642
	Battery Pack	CE / RCM / TUV (IEC 62619) / FCC
EMC		IEC61000-6-1, IEC61000-6-3
Hazardous Materials Classification		Class 9
Transportation		UN38.3
Ingress Rating		IP55

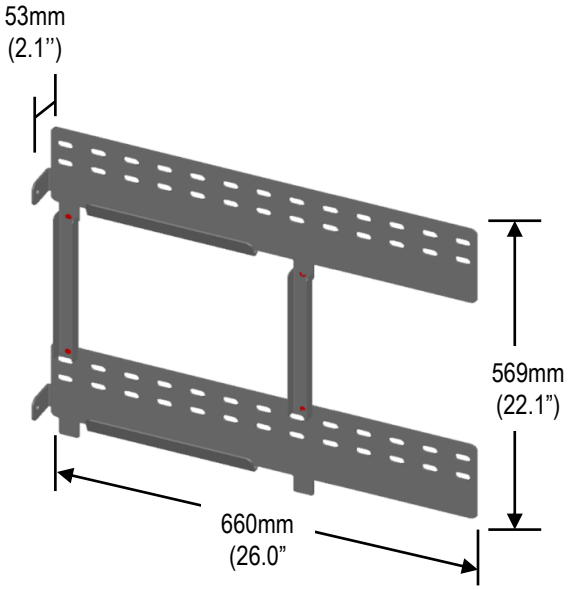
※ Test Conditions - Temperature 25°C, at the beginning of life
※ Total Energy is measured under specific condition from LGC(0.3CCCV/0.3CC)

1) Value for Battery Cell Only (Depth of Discharge 95%). Actual usable energy at the AC output may vary by condition, such as the inverter efficiency and temperature.
2) Peak Current excludes repeated short duration (less than 3 sec. of current pattern).

3.2 RESU HV

3.2.1 RESU7H(Type-R) Datasheet (v4.1)

Mechanical Characteristics		
Dimensions	Width	744 mm (29.3”)
	Height	692 mm (27.2”)
	Depth	206 mm (8.1’’)
Weight		75kg (165.4lbs)



3.2 RESU HV

3.2.1 RESU7H(Type-R) Datasheet (v4.1)

Electrical Characteristics		
Total Energy Capacity [1]		7.0 kWh @25°C (77°F), Beginning of Life
Usable Energy Capacity [1]		6.6 kWh @25°C (77°F)
Battery Capacity		63 Ah
Voltage Range	Charge	400 to 450 V_{DC}
	Discharge	350 to 430 V_{DC}
Absolute Max. Voltage		520 V_{DC}
Max. Charge/Discharge Current		8.5A@420V / 10.0A@350V
Max. Charge/Discharge Power [2]		3.5kW
Peak Power (only discharging) [3]		5kW for 5 sec.
Peak Current (only discharging)		13.5A@370V for 5 sec.
Communication Interface		RS485
DC Disconnect		Circuit Breaker, 25A, 600V rating
Connection Method		Spring Type Connector
User interface		LEDs for Normal and Fault operation

Operating Conditions	
Installation Location	Indoor / Outdoor (Wall-Mounted)
Operating Temperature	14 to 113°F (-10 to 45°C)
Operating Temperature (Recommended)	59 to 86°F (15 to 30°C)
Storage Temperature	-22 to 131°F (-30 to 55°C)
Humidity	5% to 95%
Altitude	Max. 6,562ft (2,000m)
Cooling Strategy	Natural Convection
Noise Emission	< 40 dBA

Certification		
Safety	Cell	UL1642
	Battery Pack	CE / RCM / TUV (IEC 62619)
Emissions		FCC
Hazardous Materials Classification		Class 9
Transportation		UN38.3 (UNDOT)
Ingress Rating		IP55

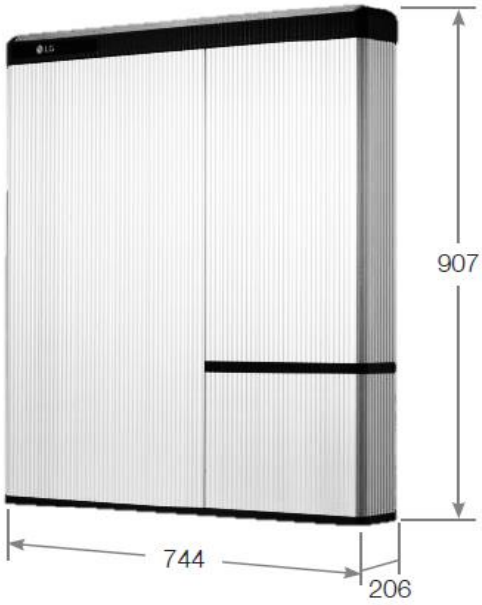
※ Test Conditions - Temperature 25°C, at the beginning of life
※ Total Energy is measured under specific condition from LGC(0.3CCCV/0.3CC)
※ DC/DC Discharge Efficiency 94.5% @ 2.3kW

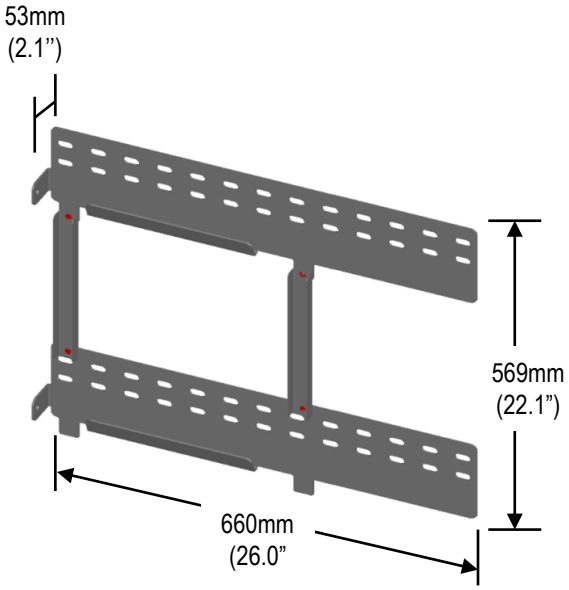
1) Value for Battery Cell Only (Depth of Discharge 95%). Actual usable energy at the AC output may vary by condition, such as the battery converter, inverter efficiency and temperature.
2) LG Chem recommends 2.1kW for maximum battery lifetime
3) Peak Current excludes repeated short duration (less than 5 sec. of current pattern).

3.2 RESU HV

3.2.2 RESU7H(Type-C) Datasheet (v4.1)

Mechanical Characteristics		
Dimensions	Width	744mm (29.3”)
	Height	907mm (35.7”)
	Depth	206mm (8.1”)
Weight		97kg (191.8lbs)





3.2 RESU HV

3.2.2 RESU7H(Type-C) Datasheet (v4.1)

Electrical Characteristics		
Total Energy Capacity [1]		7.0 kWh @25°C (77°F), Beginning of Life
Usable Energy Capacity [1]		6.6 kWh @25°C (77°F)
Battery Capacity		63 Ah
Voltage Range	Charge	468 to 550 V_{DC}
	Discharge	430 to 507 V_{DC}
Absolute Max. Voltage		570 V_{DC}
Max. Charge/Discharge Current		7.5A@467V / 8.1A@427V
Max. Charge/Discharge Power [2]		3.5kW
Peak Power (only discharging) [3]		5kW for 10 sec.
Peak Current (only discharging)		11.6A@430V for 10 sec.
Communication Interface		CAN
DC Disconnect		Circuit Breaker, 25A, 600V rating
Connection Method		Spring Type Connector
User interface		LEDs for Normal and Fault operation

Operating Conditions	
Installation Location	Indoor / Outdoor (Wall-Mounted)
Operating Temperature	14 to 113°F (-10 to 45°C)
Operating Temperature (Recommended)	59 to 86°F (15 to 30°C)
Storage Temperature	-22 to 131°F (-30 to 55°C)
Humidity	5% to 95%
Altitude	Max. 6,562ft (2,000m)
Cooling Strategy	Natural Convection
Noise Emission	< 40 dBA

Certification		
Safety	Cell	UL1642
	Battery Pack	CE / RCM / TUV (IEC 62619)
Emissions		FCC
Hazardous Materials Classification		Class 9
Transportation		UN38.3 (UNDOT)
Ingress Rating		IP55

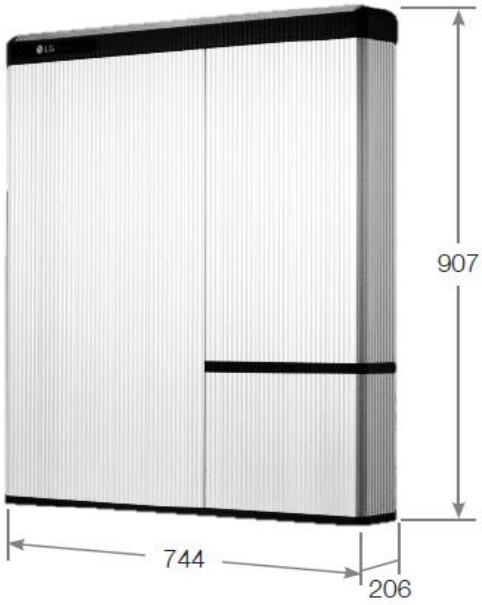
※ Test Conditions - Temperature 25°C, at the beginning of life
※ Total Energy is measured under specific condition from LGC(0.3CCCV/0.3CC)

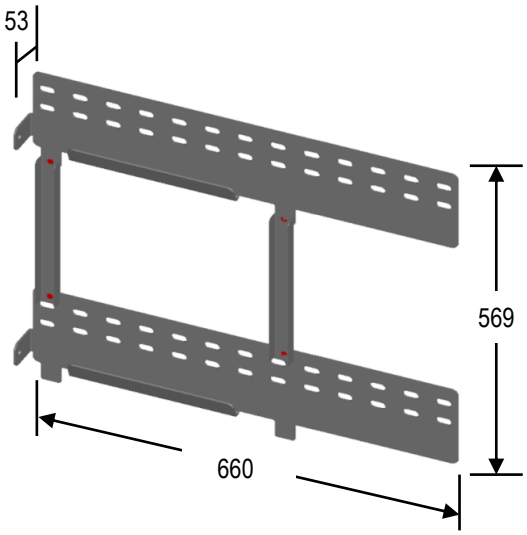
1) Value for Battery Cell Only (Depth of Discharge 95%). Actual usable energy at the AC output may vary by condition, such as the battery converter, inverter efficiency and temperature.
2) LG Chem recommends 2.1kW for maximum battery lifetime
3) Peak Current excludes repeated short duration (less than 5 sec. of current pattern).

3.2 RESU HV

3.2.3 RESU10H(Type-R) Datasheet (v4.1)

Mechanical Characteristics		
Dimensions	Width	744 mm (29.3”)
	Height	907 mm (35.7”)
	Depth	206 mm (8.1”)
Weight		97 kg (214lbs)





3.2 RESU HV

3.2.3 RESU10H(Type-R) Datasheet (v4.1)

Electrical Characteristics		
Total Energy Capacity [1]		9.8 kWh @25°C (77°F), Beginning of Life
Usable Energy Capacity [1]		9.3 kWh @25°C (77°F)
Battery Capacity		63 Ah
Voltage Range	Charge	400 to 450 V_{DC}
	Discharge	350 to 430 V_{DC}
Absolute Max. Voltage		520 V_{DC}
Max. Charge/Discharge Current		11.9A@420V / 14.3A@350V
Max. Charge/Discharge Power [2]		5kW
Peak Power (only discharging) [3]		7kW for 10 sec.
Peak Current (only discharging)		18.9A@370V for 10 sec.
Communication Interface		RS485
DC Disconnect		Circuit Breaker, 25A, 600V rating
Connection Method		Spring Type Connector
User interface		LEDs for Normal and Fault operation

Operating Conditions	
Installation Location	Indoor / Outdoor (Wall-Mounted)
Operating Temperature	14 to 113°F (-10 to 45°C)
Operating Temperature (Recommended)	59 to 86°F (15 to 30°C)
Storage Temperature	-22 to 131°F (-30 to 55°C)
Humidity	5% to 95%
Altitude	Max. 6,562ft (2,000m)
Cooling Strategy	Natural Convection
Noise Emission	< 40 dBA

Certification		
Safety	Cell	UL1642
	Battery Pack	UL1973 / CE / RCM / TUV (IEC 62619)
Emissions		FCC
Hazardous Materials Classification		Class 9
Transportation		UN38.3 (UNDOT)
Ingress Rating		IP55

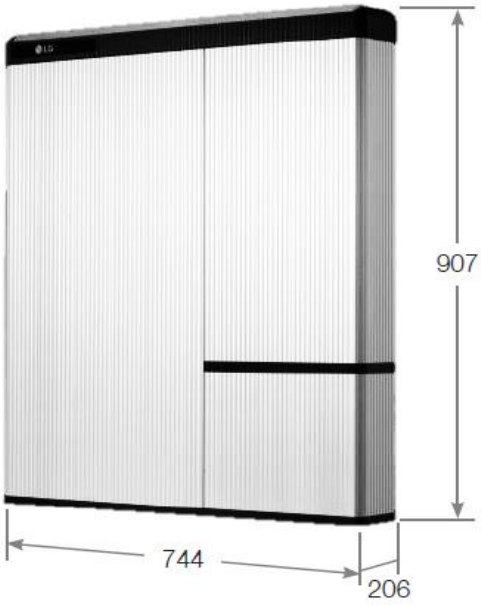
※ Test Conditions - Temperature 25°C, at the beginning of life
※ Total Energy is measured under specific condition from LGC(0.3CCCV/0.3CC)

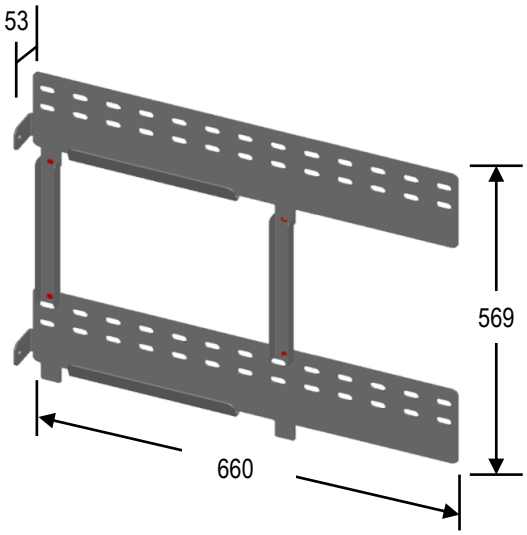
1) Value for Battery Cell Only (Depth of Discharge 95%). Actual usable energy at the AC output may vary by condition, such as the battery converter, inverter efficiency and temperature.
2) LG Chem recommends 3.3kW for maximum battery lifetime
3) Peak Current excludes repeated short duration (less than 10 sec. of current pattern).

3.2 RESU HV

3.2.4 RESU10H(Type-C) Datasheet (v4.1)

Mechanical Characteristics		
Dimensions	Width	744 mm (29.3”)
	Height	907 mm (35.7”)
	Depth	206 mm (8.1”)
Weight		97 kg (214lbs)





3.2 RESU HV

3.2.4 RESU10H(Type-C) Datasheet (v4.1)

Electrical Characteristics		
Total Energy Capacity [1]		9.8 kWh @25°C (77°F), Beginning of Life
Usable Energy Capacity [1]		9.3 kWh @25°C (77°F)
Battery Capacity		63 Ah
Voltage Range	Charge	468 to 550 V_{DC}
	Discharge	430 to 507 V_{DC}
Absolute Max. Voltage		570 V_{DC}
Max. Charge/Discharge Current		10.7A@467V / 11.7A@427V
Max. Charge/Discharge Power [2]		5kW
Peak Power (only discharging) [3]		7kW for 10 sec.
Peak Current (only discharging)		16.3A@430V for 10 sec.
Communication Interface		CAN
DC Disconnect		Circuit Breaker, 25A, 600V rating
Connection Method		Spring Type Connector
User interface		LEDs for Normal and Fault operation

Operating Conditions	
Installation Location	Indoor / Outdoor (Wall-Mounted)
Operating Temperature	14 to 113°F (-10 to 45°C)
Operating Temperature (Recommended)	59 to 86°F (15 to 30°C)
Storage Temperature	-22 to 131°F (-30 to 55°C)
Humidity	5% to 95%
Altitude	Max. 6,562ft (2,000m)
Cooling Strategy	Natural Convection
Noise Emission	< 40 dBA

Certification		
Safety	Cell	UL1642
	Battery Pack	UL1973 / CE / RCM / TUV (IEC 62619)
Emissions		FCC
Hazardous Materials Classification		Class 9
Transportation		UN38.3 (UNDOT)
Ingress Rating		IP55

※ Test Conditions - Temperature 25°C, at the beginning of life
※ Total Energy is measured under specific condition from LGC(0.3CCCV/0.3CC)

1) Value for Battery Cell Only (Depth of Discharge 95%). Actual usable energy at the AC output may vary by condition, such as battery converter, inverter efficiency and temperature.
2) LG Chem recommends 3.3kW for maximum battery lifetime
3) Peak Current excludes repeated short duration (less than 10 sec. of current pattern).