

# BYD BATTERY-BOX PREMIUM LVS MINIMUM CONFIGURATION LIST – V 1.11



## 1. Minimum Configuration List ON Grid

DE: Minimale Konfiguration ON Grid // ES: Configuración mínima para sistemas conectados a red // IT: Configurazione minima per sistemi in rete

Compatible Inverter (1- / 3- phase)		Minimum Configuration for Single Phase		Minimum Configuration for Three Phase	
DE: Kompatibler Wechselrichter ES: Inversores compatibles IT: Inverter compatibile		DE: Minimale Konfiguration für eine Phase ES: Cantidad mínima de baterías para sistemas monofásicos a red IT: Numero minimo di batterie per sistemi monofase in rete		DE: Minimale Konfiguration für drei Phasen ES: Cantidad mínima de unidades para sistemas trifásicos a red IT: Numero minimo di batterie per sistemi trifase in rete	
		LVS Module	Tower (PDU)	LVS Module	Tower (PDU)
<b>SMA</b>	SI 4.4M	≥1	≥1	≥4	≥1
	SI 6.0H	≥2	≥1	≥6	≥2
	SI 8.0H	≥3	≥1	≥8	≥2
	Battery firmware: BMU ≥ V1.19, BMS ≥ V1.8; Inverter firmware ≥ V1.3.1.R. Please use below setting parameters for Sunny Island when working with LVS. Lower limit of deep discharge protection area prior shutdown <2%; Minimum width of deep discharge protection area: ≥8%; Area width for conserving battery state of charge: 3-5%.				
<b>Victron</b>	Multiplus 48/3000/35	≥1	≥1	≥1	≥1
	Multiplus 48/5000/70	≥1	≥1	≥1	≥1
	Multigrid 48/3000/35	≥1	≥1	≥1	≥1
	Quattro 48/5000/70-100/100	≥1	≥1	≥1	≥1
	Quattro 48/8000/110-100/100	≥1	≥1	≥1	≥1
	Quattro 48/10000/140-100/100	≥1	≥1	≥1	≥1
	Quattro 48/15000/200-100/100	≥1	≥1	≥1	≥1
	Easysolar 48/3000/35-50 MPPT150/70	≥1	≥1	≥1	≥1
	Easysolar 48/5000/70-100 MPPT150/100	≥1	≥1	≥1	≥1
Multi RS Solar 48/6000	≥1	≥1	/	/	
Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware ≥ V2.52.					
<b>Selectronic</b>	SPMC480-AU/ SPMC481-AU	≥1	≥1	≥3	≥1
	SPMC482-AU	≥2	≥1	≥6	≥2
Battery firmware: BMU ≥ V1.17, BMS ≥ V1.8; Selectronic SP Link firmware ≥ 14.20.x, SP Pro firmware ≥ V12.x.					
<b>Studer</b>	XTS1400-48	≥1	≥1	≥1	≥1
	XTM2600-48/ XTM4000-48	≥1	≥1	≥1	≥1
	XTH6000-48/ XTH8000-48	≥1	≥1	≥1	≥1
	VT-65/80	≥1	≥1	≥1	≥1
	VS-70/120	≥1	≥1	≥1	≥1
	Next 3	/	/	≥4	≥1
Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware (expect Next 3) ≥ R664; inverter firmware (Next 3) ≥ 0.5.0.0.					
<b>GoodWe</b>	ES/ EM/ BP/ SBP Series	≥1	≥1	/	/
	Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware ≥ ARM V11.				
<b>Sungrow</b>	SH5K-30	≥1	≥1	/	/
	Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware ≥ SH5K-30_V01_V004.				
<b>SolarEdge*</b>	SE 5K/ 7K/ 8K/ 10K-RWS	/	/	≥1	≥1
	Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware ≥ 4.11. * Multiple towers are not supported.				
<b>Solis</b>	RHI-(3/ 3.6)K-48ES-5G	≥1	≥1	/	/
	RHI-(4.6/ 5/ 6)K-48ES-5G	≥2	≥1	/	/
	RAI-3K-48ES-5G	≥1	≥1	/	/
	Battery firmware: BMU ≥ V1.19, BMS ≥ V1.08; Inverter firmware: RHI (3-6K)-48ES-5G ≥ V330022, RAI-3K-48ES-5G ≥ V0B0009.				
	RHI-(3-5)K-48ES	≥1	≥1	/	/
	S5-EH1P(3-6)K-L	≥1	≥1	/	/
	S6-EH1P(3/ 3.6)K-L-EU	≥1	≥1	/	/
	S6-EH1P(4.6/ 5/ 6)K-L-EU	≥1	≥1	≥1	≥1
S6-EH1P(3-6)K-L-PRO	≥1	≥1	≥1	≥1	
Battery firmware: BMU ≥ V1.24, BMS ≥ V1.14; inverter firmware: RHI-(3-5)K-48ES/ S5-EH1P(3-6)K-L ≥ V35, S6-EH1P(3-6)K-L-EU/ S6-EH1P(3-6)K-L-PRO ≥ V320020.					



**BYD Company Limited**  
www.bydbatterybox.com  
Global Sales: batteryboxgrp@byd.com  
Global Service: bbboxservice@byd.com

**Battery-Box EU Service Partner**  
EFT-Systems GmbH  
www.eft-systems.de  
info@eft-systems.de

**Battery-Box AU Service Partner**  
Alps Power Pty Ltd  
www.alpspower.com.au  
service@alpspower.com.au

**Battery-Box ZA Service Partner**  
Afriplus Energy Group (Pty) Ltd  
www.afriplusenergy.co.za  
support@afriplusenergy.co.za

**Battery-Box US Service**  
BYD America LLC  
(213) 748-3980  
us.homeenergy@byd.com  
Version: V 1.11  
Update: 2024-01-16



# 1. Minimum Configuration List ON Grid

DE: Minimale Konfiguration ON Grid // ES: Configuración mínima para sistemas conectados a red // IT: Configurazione minima per sistemi in rete

Compatible Inverter (1- / 3- phase)		Minimum Configuration for Single Phase		Minimum Configuration for Three Phase	
DE: Kompatibler Wechselrichter ES: Inversores compatibles IT: Inverter compatibile		DE: Minimale Konfiguration für eine Phase ES: Cantidad mínima de baterías para sistemas monofásicos a red IT: Numero minimo di batterie per sistemi monofase in rete		DE: Minimale Konfiguration für drei Phasen ES: Cantidad mínima de unidades para sistemas trifásicos a red IT: Numero minimo di batterie per sistemi trifase in rete	
		LVS Module	Tower (PDU)	LVS Module	Tower (PDU)
<b>Schneider</b>	XW Pro 8548	≥3	≥1	/	/
	Battery firmware: BMU ≥ V1.20, BMS ≥ V1.10; Inverter firmware: Gateway FW : V1.14-BN465, XW FW: 1.10.				
<b>RAION</b>	J5	≥2	≥1	≥5	≥2
	M8	≥3	≥1	≥8	≥2
	Battery firmware: BMU ≥ V1.24, BMS ≥ V1.14; Inverter firmware of J5: U1 ≥ 50.05; U2 ≥ 19.17. Inverter firmware of M8: U1 ≥ 46.09 or 72.05; U2 ≥ 12.25.				
<b>Deye</b>	SUN-3.6/5/6/7.6/8K-SG01LP1-EU	≥1	≥1	≥1	≥1
	SUN-12/14/16K-SG01LP1-EU	≥1	≥1	≥1	≥1
	SUN-3.6/5/6K-SG03LP1-EU	≥1	≥1	≥1	≥1
	Battery firmware: BMU ≥ V1.22, BMS ≥ V1.13; Inverter firmware ≥ C351.				
	SUN-3/3.6/5/6K-SG04LP1-EU	≥1	≥1	≥1	≥1
	SUN-3.6/5/6/7.6/8K-SG05LP1-EU	≥1	≥1	≥1	≥1
	SUN-5/6/8/10/12K-SG04LP3-EU	/	/	≥1	≥1
Battery firmware: BMU ≥ V1.22, BMS ≥ V1.13; Inverter firmware ≥ 1001-C015.					
<b>Hoymiles</b>	HYS-(3.0-6.0)LV-EUG1	≥1	≥1	/	/
	HAS-(3.0-5.0)LV-EUG1	≥1	≥1	/	/
	Battery firmware: BMU ≥ V1.24, BMS ≥ V1.14; Inverter firmware ≥ 0.2.22.				



**BYD Company Limited**

www.bydbatterybox.com  
Global Sales: batteryboxgrp@byd.com  
Global Service: bbboxservice@byd.com

**Battery-Box EU Service Partner**

EFT-Systems GmbH  
www.eft-systems.de  
info@eft-systems.de

**Battery-Box AU Service Partner**

Alps Power Pty Ltd  
www.alpspower.com.au  
service@alpspower.com.au

**Battery-Box ZA Service Partner**

Afriplus Energy Group (Pty) Ltd  
www.afriplusenergy.co.za  
support@afriplusenergy.co.za

**Battery-Box US Service**

BYD America LLC  
(213) 748-3980  
us.homeenergy@byd.com  
Version: V 1.11  
Update: 2024-01-16



## 2. Minimum Configuration List ON Grid + Backup

DE: Minimale Konfiguration für Notstrom// ES: Configuración mínima para sistemas energía de emergencia// IT: Configurazione minima per sistemi di alimentazione di emergenza

Compatible Inverter (1- / 3- phase)		Minimum Configuration for Single Phase		Minimum Configuration for Three Phase	
DE: Kompatibler Wechselrichter ES: Inversores compatibles IT: Inverter compatibile		DE: Minimale Konfiguration für eine Phase ES: Cantidad mínima de baterías para sistemas monofásicos a red con backup IT: Numero minimo di batterie per sistemi monofase in rete con backup		DE: Minimale Konfiguration für drei Phasen ES: Cantidad mínima de baterías para sistemas trifase a red con backup IT: Numero minimo di batterie per sistemi trifase in rete con backup	
		LVS Module	Tower (PDU)	LVS Module	Tower (PDU)
SMA	SI 4.4M	≥2	≥1	≥8	≥2
	SI 6.0H/ SI 8.0H	≥4	≥1	≥12	≥3
	Battery firmware: BMU ≥ V1.19, BMS ≥ V1.8; Inverter firmware ≥ V1.3.1.R. Please use below setting parameters for Sunny Island when working with LVS. Lower limit of deep discharge protection area prior shutdown <2%; Minimum width of deep discharge protection area: ≥8%; Area width for conserving battery state of charge: 3-5%.				
Victron	Multiplus 48/3000/35 / Multigrad 48/3000/35	≥2	≥1	≥5	≥2
	Multiplus 48/5000/70	≥3	≥1	≥7	≥2
	Quattro 48/5000/70-100/100	≥3	≥1	≥7	≥2
	Quattro 48/8000/110-100/100	≥4	≥1	≥12	≥3
	Quattro 48/10000/140-100/100	≥5	≥2	≥15	≥4
	Quattro 48/15000/200-100/100	≥7	≥2	≥18	≥5
	Easysolar 48/3000/35-50 MPPT150/70	≥2	≥1	≥5	≥2
	Easysolar 48/5000/70-100 MPPT150/100	≥3	≥1	≥7	≥2
	Multi RS Solar 48/6000	≥3	≥1	/	/
Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware ≥ V2.52.					
Selectronic	SPMC480-AU	≥2	≥1	≥4	≥1
	SPMC481-AU	≥3	≥1	≥6	≥2
	SPMC482-AU	≥5	≥2	≥8	≥2
	Battery firmware: BMU ≥ V1.17, BMS ≥ V1.8; Selectronic SP Link firmware ≥ 14.20.x, SP Pro firmware ≥ V12.x.				
Studer	XTS1400-48	≥1	≥1	≥2	≥1
	XTM2600-48	≥2	≥1	≥5	≥2
	XTM4000-48	≥3	≥1	≥8	≥2
	XTH6000-48	≥4	≥1	≥11	≥3
	XTH8000-48	≥5	≥2	≥15	≥4
	VT-65	≥1	≥1	≥1	≥1
	VT-80/ VS -70	≥2	≥1	≥2	≥1
	VS-120	≥3	≥1	≥3	≥1
	Next 3	/	/	≥4	≥1
Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware (expect Next 3) ≥ R664; inverter firmware (Next 3) ≥ 0.5.0.0.					
GoodWe	ES/ SBP Series	≥2	≥1	/	/
	GW3048-EM	≥1	≥1	/	/
	GW3648-EM/ GW 5048-EM	≥2	≥1	/	/
	Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware ≥ ARM V11				
Sungrow	SH5K-30	≥1	≥1	/	/
	Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware ≥ SH5K-30_V01_V004.				
Solis	RHI-(3/ 3.6)K-48ES-5G/ RAI-3K-48ES-5G	≥1	≥1	/	/
	RHI-(4.6/ 5/ 6)K-48ES-5G	≥2	≥1	/	/
	Battery firmware: BMU ≥ V1.19, BMS ≥ V1.08; Inverter firmware: RHI (3-6K)-48ES-5G ≥ V330022, RAI-3K-48ES-5G ≥ V0B0009.				
	RHI-(3-5)K-48ES/ S5-EH1P(3/ 3.6)K-L	≥2	≥1	/	/
	S5-EH1P(4.6/ 5/ 6)K-L	≥3	≥1	/	/
	S6-EH1P3K-L-PRO	≥2	≥1	≥3	≥1
	S6-EH1P3.6K-L-PRO	≥2	≥1	≥4	≥1
	S6-EH1P5K-L-PRO/ S6-EH1P(4.6/ 5)K-L-EU	≥2	≥1	≥5	≥1
	S6-EH1P6K-L-PRO/ S6-EH1P6K-L-EU	≥3	≥1	≥6	≥1
S6-EH1P(3/ 3.6)K-L-EU	≥2	≥1	/	/	
Battery firmware: BMU ≥ V1.24, BMS ≥ V1.14; inverter firmware: RHI-(3-5)K-48ES/ S5-EH1P(3-6)K-L ≥ V35, S6-EH1P(3-6)K-L-EU/ S6-EH1P(3-6)K-L-PRO ≥ V320020.					



**BYD Company Limited**  
www.bydbatterybox.com  
Global Sales: batteryboxgrp@byd.com  
Global Service: bbboxservice@byd.com

**Battery-Box EU Service Partner**  
EFT-Systems GmbH  
www.eft-systems.de  
info@eft-systems.de

**Battery-Box AU Service Partner**  
Alps Power Pty Ltd  
www.alpspower.com.au  
service@alpspower.com.au

**Battery-Box ZA Service Partner**  
Afriplus Energy Group (Pty) Ltd  
www.afriplusenergy.co.za  
support@afriplusenergy.co.za

**Battery-Box US Service**  
BYD America LLC  
(213) 748-3980  
us.homeenergy@byd.com

Version: V 1.11

Update: 2024-01-16



## 2. Minimum Configuration List ON Grid + Backup

DE: Minimale Konfiguration für Notstrom// ES: Configuración mínima para sistemas energía de emergencia// IT: Configurazione minima per sistemi di alimentazione di emergenza

Compatible Inverter (1- / 3- phase)		Minimum Configuration for Single Phase		Minimum Configuration for Three Phase	
DE: Kompatibler Wechselrichter ES: Inversores compatibles IT: Inverter compatibile		DE: Minimale Konfiguration für eine Phase ES: Cantidad mínima de baterías para sistemas monofásicos a red con backup IT: Numero minimo di batterie per sistemi monofase in rete con backup		DE: Minimale Konfiguration für drei Phasen ES: Cantidad mínima de baterías para sistemas trifase a red con backup IT: Numero minimo di batterie per sistemi trifase in rete con backup	
		LVS Module	Tower (PDU)	LVS Module	Tower (PDU)
<b>Schneider</b>	XW Pro 8548	≥4	≥1	/	/
	Battery firmware: BMU ≥ V1.20, BMS ≥ V1.10; Inverter firmware: Gateway FW : V1.14-BN465, XW FW: 1.10.				
<b>RAION</b>	J5	≥2	≥1	≥5	≥2
	M8	≥3	≥1	≥8	≥2
	Battery firmware: BMU ≥ V1.24, BMS ≥ V1.14; Inverter firmware of J5: U1 ≥ 50.05; U2 ≥ 19.17. Inverter firmware of M8: U1 ≥ 46.09 or 72.05; U2 ≥ 12.25.				
<b>Deye</b>	SUN-3.6K-SG01/03LP1-EU	≥2	≥1	≥4	≥1
	SUN-5K-SG01/03LP1-EU	≥2	≥1	≥5	≥1
	SUN-6K-SG01/03LP1-EU	≥3	≥1	≥6	≥1
	SUN-7.6K-SG01LP1-EU	≥3	≥1	≥7	≥2
	SUN-8K-SG01LP1-EU	≥3	≥1	≥8	≥2
	SUN-12K-SG01LP1-EU	≥5	≥1	≥11	≥3
	SUN-14K-SG01LP1-EU	≥5	≥1	≥13	≥4
	SUN-16K-SG01LP1-EU	≥6	≥1	≥15	≥4
	Battery firmware: BMU ≥ V1.22, BMS ≥ V1.13; Inverter firmware ≥ C351.				
	SUN-3K-SG04LP1-EU	≥2	≥1	≥3	≥1
	SUN-3.6K-SG04/05LP1-EU	≥2	≥1	≥4	≥1
	SUN-5K-SG04/05LP1-EU	≥2	≥1	≥5	≥1
	SUN-6K-SG04/05LP1-EU	≥3	≥1	≥6	≥1
	SUN-7.6K-SG05LP1-EU	≥3	≥1	≥7	≥2
	SUN-8K-SG05LP1-EU	≥3	≥1	≥8	≥2
	SUN-5/ 6K-SG04LP3-EU	/	/	≥2	≥1
	SUN-8K-SG04LP3-EU	/	/	≥3	≥1
SUN-10/12K-SG04LP3-EU	/	/	≥4	≥1	
Battery firmware: BMU ≥ V1.22, BMS ≥ V1.13; Inverter firmware ≥ 1001-C015.					
<b>Hoymiles</b>	HYS-(3.0/ 3.6/ 4.6)LV-EUG1	≥2	≥1	/	/
	HYS-(5.0/ 6.0)LV-EUG1	≥3	≥1	/	/
	HAS-(3.0/ 3.6/ 4.6)LV-EUG1	≥2	≥1	/	/
	HAS-5.0LV-EUG1	≥3	≥1	/	/
	Battery firmware: BMU ≥ V1.24, BMS ≥ V1.14; Inverter firmware ≥ 0.2.22.				



**BYD Company Limited**

www.bydbatterybox.com  
Global Sales: batteryboxgrp@byd.com  
Global Service: bbboxservice@byd.com

**Battery-Box EU Service Partner**

EFT-Systems GmbH  
www.eft-systems.de  
info@eft-systems.de

**Battery-Box AU Service Partner**

Alps Power Pty Ltd  
www.alpspower.com.au  
service@alpspower.com.au

**Battery-Box ZA Service Partner**

Afriplus Energy Group (Pty) Ltd  
www.afriplusenergy.co.za  
support@afriplusenergy.co.za

**Battery-Box US Service**

BYD America LLC  
(213) 748-3980  
us.homeenergy@byd.com  
Version: V 1.11  
Update: 2024-01-16



### 3. Minimum Configuration List Off Grid Typical Use

DE: Minimale Konfiguration Off Grid für den typischen Gebrauch // ES: Configuración mínima para sistemas aislados, uso convencional // IT: Configurazione minima per sistemi in isola, uso tipico

Compatible Inverter (1- / 3- phase)		Minimum Configuration for Single Phase		Minimum Configuration for Three Phase	
DE: Kompatibler Wechselrichter ES: Inversores compatibles IT: Inverter compatibile		DE: Minimale Konfiguration für eine Phase ES: Cantidad mínima de baterías para sistemas monofásicos aislados IT: Numero minimo di batterie per sistemi monofase in isola		DE: Minimale Konfiguration für drei Phasen ES: Cantidad mínima de baterías para sistemas trifase aisladas IT: Numero minimo di batterie per sistemi trifase in isola	
		LVS Module	Tower (PDU)	LVS Module	Tower (PDU)
SMA	SI 4.4M	≥2	≥1	≥8	≥2
	SI 6.0H/ SI 8.0H	≥4	≥1	≥12	≥3
	Battery firmware: BMU ≥ V1.19, BMS ≥ V1.8; Inverter firmware ≥ V1.3.1.R. Please use below setting parameters for Sunny Island when working with LVS. Lower limit of deep discharge protection area prior shutdown <2%; Minimum width of deep discharge protection area: ≥8%; Area width for conserving battery state of charge: 3-5%.				
Victron	Multiplus 48/3000/35	≥1	≥1	≥3	≥1
	Multiplus 48/5000/70	≥2	≥1	≥5	≥2
	Multigrid 48/3000/35	≥1	≥1	≥3	≥1
	Quattro 48/5000/70-100/100	≥2	≥1	≥5	≥2
	Quattro 48/8000/110-100/100	≥3	≥1	≥9	≥3
	Quattro 48/10000/140-100/100	≥4	≥1	≥11	≥3
	Quattro 48/15000/200-100/100	≥6	≥2	≥16	≥4
	Easysolar 48/3000/35-50 MPPT150/70	≥1	≥1	≥3	≥1
	Easysolar 48/5000/70-100 MPPT150/100	≥2	≥1	≥5	≥2
	Multi RS Solar 48/6000	≥3	≥1	/	/
Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware ≥ V2.52.					
Selectronic	SPMC480-AU	≥2	≥1	≥4	≥1
	SPMC481-AU	≥2	≥1	≥5	≥2
	SPMC482-AU	≥3	≥1	≥8	≥2
	Battery firmware: BMU ≥ V1.17, BMS ≥ V1.8; Selectronic SP Link firmware ≥ 14.20.x, SP Pro firmware ≥ V12.x.				
Studer	XTS1400-48	≥1	≥1	≥2	≥1
	XTM2600-48	≥1	≥1	≥3	≥1
	XTM4000-48	≥2	≥1	≥4	≥1
	XTH6000-48	≥2	≥1	≥6	≥2
	XTH8000-48	≥3	≥1	≥8	≥2
	VT-65	≥1	≥1	≥1	≥1
	VT-80/ VS-70	≥2	≥1	≥2	≥1
	VS-120	≥3	≥1	≥3	≥1
Next 3	/	/	≥4	≥1	
Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware (expect Next 3) ≥ R664; inverter firmware (Next 3) ≥ 0.5.0.0.					
GoodWe	ES Series	/	/	/	/
	GW3048-EM	/	/	/	/
	GW3648-EM/ GW5048-EM	/	/	/	/
	SBP Series	/	/	/	/
Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware ≥ ARM V11.					
Solis	RHI-(3/ 3.6)K-48ES-5G/ RAI-3K-48ES-5G	≥1	≥1	/	/
	RHI-(4.6/ 5/ 6)K-48ES-5G	≥2	≥1	/	/
	Battery firmware: BMU ≥ V1.19, BMS ≥ V1.08; Inverter firmware: RHI (3-6K)-48ES-5G ≥ V330022, RAI-3K-48ES-5G ≥ V0B0009.				
	RHI-(3-5)K-48ES/ S5-EH1P(3/ 3.6)K-L	≥2	≥1	/	/
	S5-EH1P(4.6/ 5/ 6)K-L	≥3	≥1	/	/
	S6-EH1P3K-L-PRO	≥2	≥1	≥3	≥1
	S6-EH1P3.6K-L-PRO	≥2	≥1	≥4	≥1
	S6-EH1P5K-L-PRO/ S6-EH1P(4.6/ 5)K-L-EU	≥2	≥1	≥5	≥1
	S6-EH1P6K-L-PRO/ S6-EH1P6K-L-EU	≥3	≥1	≥6	≥1
	S6-EH1P(3/ 3.6)K-L-EU	≥2	≥1	/	/
Battery firmware: BMU ≥ V1.24, BMS ≥ V1.14; inverter firmware: RHI-(3-5)K-48ES/ S5-EH1P(3-6)K-L ≥ V35, S6-EH1P(3-6)K-L-EU/ S6-EH1P(3-6)K-L-PRO ≥ V320020.					



**BYD Company Limited**  
www.bydbatterybox.com  
Global Sales: batteryboxgrp@byd.com  
Global Service: bbboxservice@byd.com

**Battery-Box EU Service Partner**  
EFT-Systems GmbH  
www.eft-systems.de  
info@eft-systems.de

**Battery-Box AU Service Partner**  
Alps Power Pty Ltd  
www.alpspower.com.au  
service@alpspower.com.au

**Battery-Box ZA Service Partner**  
Afriplus Energy Group (Pty) Ltd  
www.afriplusenergy.co.za  
support@afriplusenergy.co.za

**Battery-Box US Service**  
BYD America LLC  
(213) 748-3980  
us.homeenergy@byd.com  
Version: V 1.11  
Update: 2024-01-16



### 3. Minimum Configuration List Off Grid Typical Use

DE: Minimale Konfiguration Off Grid für den typischen Gebrauch // ES: Configuración mínima para sistemas aislados, uso convencional // IT: Configurazione minima per sistemi in isola, uso tipico

Compatible Inverter (1- / 3- phase)		Minimum Configuration for Single Phase		Minimum Configuration for Three Phase	
DE: Kompatibler Wechselrichter ES: Inversores compatibles IT: Inverter compatibile		DE: Minimale Konfiguration für eine Phase ES: Cantidad mínima de baterías para sistemas monofásicos aislados IT: Numero minimo di batterie per sistemi monofase in isola		DE: Minimale Konfiguration für drei Phasen ES: Cantidad mínima de baterías para sistemas trifase aisladas IT: Numero minimo di batterie per sistemi trifase in isola	
		LVS Module	Tower (PDU)	LVS Module	Tower (PDU)
<b>Sungrow</b>	SH5K-30	≥1	≥1	/	/
	Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware ≥ SH5K-30_V01_V004				
<b>Schneider</b>	XW Pro 8548	≥4	≥1	/	/
	Battery firmware: BMU ≥ V1.20, BMS ≥ V1.10; Inverter firmware: Gateway FW :v1.14-BN465, XW FW: 1.10.				
<b>RAION</b>	J5	≥3	≥1	≥7	≥2
	M8	≥5	≥2	≥11	≥3
	Battery firmware: BMU ≥ V1.24, BMS ≥ V1.14; Inverter firmware of J5: U1≥ 50.05; U2 ≥ 19.17. Inverter firmware of M8: U1≥ 46.09 or 72.05; U2 ≥ 12.25.				
<b>Deye</b>	SUN-3.6K-SG01/03LP1-EU	≥2	≥1	≥4	≥1
	SUN-5K-SG01/03LP1-EU	≥2	≥1	≥5	≥1
	SUN-6K-SG01/03LP1-EU	≥3	≥1	≥6	≥1
	SUN-7.6K-SG01LP1-EU	≥3	≥1	≥7	≥2
	SUN-8K-SG01LP1-EU	≥3	≥1	≥8	≥2
	SUN-12K-SG01LP1-EU	≥5	≥1	≥11	≥3
	SUN-14K-SG01LP1-EU	≥5	≥1	≥13	≥4
	SUN-16K-SG01LP1-EU	≥6	≥1	≥15	≥4
	Battery firmware: BMU ≥ V1.22, BMS ≥ V1.13; Inverter firmware ≥ C351.				
	SUN-3K-SG04LP1-EU	≥2	≥1	≥3	≥1
	SUN-3.6K-SG04/05LP1-EU	≥2	≥1	≥4	≥1
	SUN-5K-SG04/05LP1-EU	≥2	≥1	≥5	≥1
	SUN-6K-SG04/05LP1-EU	≥3	≥1	≥6	≥1
	SUN-7.6K-SG05LP1-EU	≥3	≥1	≥7	≥2
	SUN-8K-SG05LP1-EU	≥3	≥1	≥8	≥2
	SUN-5/ 6K-SG04LP3-EU	/	/	≥2	≥1
	SUN-8K-SG04LP3-EU	/	/	≥3	≥1
SUN-10/12K-SG04LP3-EU	/	/	≥4	≥1	
Battery firmware: BMU ≥ V1.22, BMS ≥ V1.13; Inverter firmware ≥ 1001-C015.					
<b>Hoymiles</b>	HYS-(3.0/ 3.6/ 4.6)LV-EUG1	≥2	≥1	/	/
	HYS-(5.0/ 6.0)LV-EUG1	≥3	≥1	/	/
	HAS-(3.0/ 3.6/ 4.6)LV-EUG1	≥2	≥1	/	/
	HAS-5.0LV-EUG1	≥3	≥1	/	/
	Battery firmware: BMU ≥ V1.24, BMS ≥ V1.14; Inverter firmware ≥ 0.2.22.				



**BYD Company Limited**

www.bydbatterybox.com  
Global Sales: batteryboxgrp@byd.com  
Global Service: bbboxservice@byd.com

**Battery-Box EU Service Partner**

EFT-Systems GmbH  
www.eft-systems.de  
info@eft-systems.de

**Battery-Box AU Service Partner**

Alps Power Pty Ltd  
www.alpspower.com.au  
service@alpspower.com.au

**Battery-Box ZA Service Partner**

Afriplus Energy Group (Pty) Ltd  
www.afriplusenergy.co.za  
support@afriplusenergy.co.za

**Battery-Box US Service**

BYD America LLC  
(213) 748-3980  
us.homeenergy@byd.com  
Version: V 1.11  
Update: 2024-01-16



#### 4. Minimum Configuration List Off Grid for Inrush Power Use

DE: Minimale Konfiguration Off Grid, für hohe Einschaltströme // ES: Configuración mínima para sistemas aislados para soportar picos de corriente máximos // IT: Configurazione minima per sistemi in isola per potenza di pico ammissibile

Compatible Inverter (1- / 3-phase) DE: Kompatibler Wechselrichter ES: Inversores compatibles IT: Inverter compatibile		Minimum Configuration for Single Phase		Minimum Configuration for Three Phase	
		DE: Minimale Konfiguration für eine Phase ES: Cantidad mínima de baterías para sistemas monofásicos aisladas con pico IT: Numero minimo di batterie per sistemi monofase in isola con pico		DE: Minimale Konfiguration für drei Phasen ES: Cantidad mínima de baterías para sistemas trifase aisladas con pico IT: Numero minimo di batterie per sistemi trifase in isola con pico	
		LVS Module (remarks for inrush use)	Tower (PDU)	LVS Module (remarks for inrush use)	Tower (PDU)
SMA	SI 4.4M	≥2 (5.5kw 3 seconds)	≥1	≥8 (3*5.5kw 3 seconds)	≥2
	SI 6.0H/ 8.0H	≥4 (11kw 3 seconds)	≥1	≥12 (3*11kw 3 seconds)	≥3
	Battery firmware: BMU ≥ V1.19, BMS ≥ V1.8; Inverter firmware ≥ V1.3.1.R. Please use below setting parameters for Sunny Island when working with LVS. Lower limit of deep discharge protection area prior shutdown <2%; Minimum width of deep discharge protection area: ≥8%; Area width for conserving battery state of charge: 3-5%				
Victron	Multiplus 48/3000/35	≥2 (6kw 5 seconds)	≥1	≥5 (3*6kw 5 seconds)	≥2
	Multiplus 48/5000/70	≥3 (10kw 5 seconds)	≥1	≥7 (3*10kw 5 seconds)	≥2
	Multigrad 48/3000/35	≥2 (6kw 5 seconds)	≥1	≥5 (3*6kw 5 seconds)	≥2
	Quattro 48/5000/70-100/100	≥3 (10kw 5 seconds)	≥1	≥7 (3*10kw 5 seconds)	≥2
	Quattro 48/8000/110-100/100	≥4 (16kw 5 seconds)	≥1	≥12 (3*16kw 5 seconds)	≥3
	Quattro 48/10000/140- 100/100	≥5 (20kw 5 seconds)	≥2	≥15 (3*20kw 5 seconds)	≥4
	Quattro 48/15000/200- 100/100	≥7 (25kw 5 seconds)	≥2	≥18 (3*25kw 5 seconds)	≥6
	Easysolar 48/3000/35-50 MPPT150/70	≥2 (6kw 5 seconds)	≥1	≥5 (3*6kw 5 seconds)	≥2
	Easysolar 48/5000/70-100 MPPT150/100	≥3 (10kw 5 seconds)	≥1	≥7 (3*10kw 5 seconds)	≥2
	Multi RS Solar 48/6000	≥3 (9kw 3 seconds)	≥1	/	/
Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware ≥ V2.52					
Selectronic	SPMC480-AU	≥2 (6kw 60 seconds)	≥1	≥6 (3*6kw 60 seconds)	≥2
	SPMC481-AU	≥3 (12kw 30 seconds)	≥1	≥9 (3*12kw 30 seconds)	≥3
	SPMC482-AU	≥5 (18kw 30 seconds)	≥2	≥13 (3*18kw 30 seconds)	≥4
	Battery firmware: BMU ≥ V1.17, BMS ≥ V1.8; Selectronic SP Link firmware ≥ 14.20.x, SP Pro firmware ≥ V12.x				
Studer	XTS1400-48	≥1 (2.8kw 5 seconds)	≥1	≥2 (3*2.8kw 5 seconds)	≥1
	XTM2600-48	≥2 (6.5kw 5 seconds)	≥1	≥5 (3*6.5kw 5 seconds)	≥2
	XTM4000-48	≥3 (10.5kw 5 seconds)	≥1	≥8 (3*10.5kw 5 seconds)	≥2
	XTH6000-48	≥4 (15 kw 5 seconds)	≥1	≥11 (3*15 kw 5 seconds)	≥3
	XTH8000-48	≥5 (21 kw 5 seconds)	≥2	≥15 (3*21 kw 5 seconds)	≥4
	VT-65	≥1	≥1	≥4	≥1
	VT-80 / VS-70	≥2	≥1	≥4	≥1
	VS-120	≥3	≥1	≥8	≥2
	Next 3	/	/	≥4	≥1
	Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware (expect Next 3) ≥ R664; inverter firmware (Next 3) ≥ 0.5.0.0				
GoodWe	ES Series	≥2	≥1	/	/
	GW3048-EM	≥1	≥1	/	/
	GW3648/5048-EM	≥2	≥1	/	/
	SBP Series	≥2	≥1	/	/
	Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware ≥ ARM V11				
Solis	RHI-(3/ 3.6)K-48ES-5G/ RAI-3K-48ES-5G	≥1	≥1	/	/
	RHI-(4.6/ 5/ 6)K-48ES-5G	≥2	≥1	/	/
	Battery firmware: BMU ≥ V1.19, BMS ≥ V1.08; Inverter firmware: RHI (3-6K)-48ES-5G firmware ≥ V330022, RAI-3K-48ES-5G ≥ V0B0009.				
	RHI-(3-5)K-48ES/ S5-EH1P(3/ 3.6)K-L	≥2	≥1	/	/
	S5-EH1P(4.6/ 5/ 6)K-L	≥3	≥1	/	/
	S6-EH1P3K-L-PRO	≥2	≥1	≥4	≥1
	S6-EH1P3.6K-L-PRO/ S6-EH1P(4.6/ 5)K-L-EU	≥2	≥1	≥5	≥1
	S6-EH1P5K-L-PRO	≥3	≥1	≥7	≥2
	S6-EH1P6K-L-PRO	≥4	≥1	≥8	≥2
	S6-EH1P(3/ 3.6)K-L-EU	≥2	≥1	/	/
	S6-EH1P6K-L-EU	≥3	≥1	≥6	≥1
	Battery firmware: BMU ≥ V1.24, BMS ≥ V1.14; inverter firmware: RHI(3-5)K-48ES/ S5-EH1P(3-6)K-L ≥ V35, S6-EH1P(3-6)K-L-EU/ S6-EH1P(3-6)K-L-PRO ≥ V320020.				



**BYD Company Limited**  
www.bydbatterybox.com  
Global Sales: batteryboxgrp@byd.com  
Global Service: bboxeservice@byd.com

**Battery-Box EU Service Partner**  
EFT-Systems GmbH  
www.eft-systems.de  
info@eft-systems.de

**Battery-Box AU Service Partner**  
Alps Power Pty Ltd  
www.alpspower.com.au  
service@alpspower.com.au

**Battery-Box ZA Service Partner**  
Afriplus Energy Group (Pty) Ltd  
www.afriplusenergy.co.za  
support@afriplusenergy.co.za

**Battery-Box US Service**  
BYD America LLC  
(213) 748-3980  
us.homeenergy@byd.com  
Version: V 1.11  
Update: 2024-01-16



#### 4. Minimum Configuration List Off Grid for Inrush Power Use

DE: Minimale Konfiguration Off Grid, für hohe Einschaltströme // ES: Configuración mínima para sistemas aislados para soportar picos de corriente máximos // IT: Configurazione minima per sistemi in isola per potenza di pico ammissibile

Compatible Inverter (1- / 3-phase)		Minimum Configuration for Single Phase		Minimum Configuration for Three Phase	
DE: Kompatibler Wechselrichter ES: Inversores compatibles IT: Inverter compatibile		DE: Minimale Konfiguration für eine Phase ES: Cantidad mínima de baterías para sistemas monofásicos aisladas con pico IT: Numero minimo di batterie per sistemi monofase in isola con pico		DE: Minimale Konfiguration für drei Phasen ES: Cantidad mínima de baterías para sistemas trifase aisladas con pico IT: Numero minimo di batterie per sistemi trifase in isola con pico	
		LVS Module (remarks for inrush use)	Tower (PDU)	LVS Module (remarks for inrush use)	Tower (PDU)
<b>Sungrow</b>	SH5K-30	≥1	≥1	/	/
	Battery firmware: BMU ≥ V1.16, BMS ≥ V1.8; Inverter firmware ≥ SH5K-30_V01_V004				
<b>Schneider</b>	XW Pro 8548	≥4	≥1	/	/
	Battery firmware: BMU ≥ V1.20, BMS ≥ V1.10; Inverter firmware: Gateway FW :v1.14-BN465, XW FW: 1.10.				
<b>RAION</b>	J5	≥3	≥1	≥7	≥2
	M8	≥5	≥2	≥11	≥3
	Battery firmware: BMU ≥ V1.24, BMS ≥ V1.14; Inverter firmware of J5: U1 ≥ 50.05; U2 ≥ 19.17. Inverter firmware of M8: U1 ≥ 46.09 or 72.05; U2 ≥ 12.25.				
<b>Deye</b>	SUN-3.6K-SG01/03LP1-EU	≥2	≥1	≥5	≥1
	SUN-5K-SG01/03LP1-EU	≥3	≥1	≥7	≥2
	SUN-6K-SG01/03LP1-EU	≥4	≥1	≥8	≥2
	SUN-7.6K-SG01LP1-EU	≥4	≥1	≥10	≥3
	SUN-8K-SG01LP1-EU	≥5	≥1	≥11	≥3
	SUN-12K-SG01LP1-EU	≥7	≥2	≥16	≥4
	SUN-14K-SG01LP1-EU	≥8	≥2	≥19	≥5
	SUN-16K-SG01LP1-EU	≥9	≥3	≥21	≥6
	Battery firmware: BMU ≥ V1.22, BMS ≥ V1.13; Inverter firmware ≥ C351.				
	SUN-3K-SG04LP1-EU	≥2	≥1	≥4	≥1
	SUN-3.6K-SG04/05LP1-EU	≥2	≥1	≥5	≥1
	SUN-5K-SG04/05LP1-EU	≥3	≥1	≥7	≥2
	SUN-6K-SG04/05LP1-EU	≥4	≥1	≥8	≥2
	SUN-7.6K-SG05LP1-EU	≥4	≥1	≥10	≥3
	SUN-8K-SG05LP1-EU	≥5	≥1	≥11	≥3
	SUN-5/ 6K-SG04LP3-EU	/	/	≥3	≥1
	SUN-8K-SG04LP3-EU	/	/	≥4	≥1
	SUN-10K-SG04LP3-EU	/	/	≥5	≥1
SUN-12K-SG04LP3-EU	/	/	≥6	≥1	
Battery firmware: BMU ≥ V1.22, BMS ≥ V1.13; Inverter firmware ≥ 1001-C015.					
<b>Hoymiles</b>	HYS-3.0LV-EUG1/ HAS-(3.0/ 3.6/ 4.6)LV-EUG1	≥2	≥1	/	/
	HYS-(3.6/ 4.6)LV-EUG1/ HAS-5.0LV-EUG1	≥3	≥1	/	/
	HYS-(5.0/ 6.0)LV-EUG1	≥4	≥1	/	/
	Battery firmware: BMU ≥ V1.24, BMS ≥ V1.14; Inverter firmware ≥ 0.2.22.				





**Note:**

- **Each inverter has their inrush power for off grid applications. Please make sure to consult the inverter manufacturer for the right value of correspondences.**

[DE] Jeder Wechselrichter hat seine Einschaltströme für OFF-Grid Anwendungen. Bitte erkundigen Sie sich beim Hersteller des Wechselrichters nach dem richtigen Korrespondenzwert.

[ES] Cada inversor presenta unas características distintas con respecto a los picos de corriente permitidos así que es recomendable consultar con el fabricante de inversores que la información de esta tabla es la más reciente.

[IT] ogni inverter ha la sua Potenza di Pico Ammissibile per applicazioni in isola (Off-Grid). Consulta i valori correspondent dell'inverter usato.

- **The Information in this document is subject to change without notice. Every effort has been made to make this document complete, accurate, and up-to-date. However, BYD may need to make some improvements under certain circumstances without advance notice. Please take the latest version of this document at our websites into account.**

[DE] Die Informationen in diesem Dokument können ohne vorherige Ankündigung geändert werden. Bitte berücksichtigen Sie die neueste Version dieses Dokuments auf unseren Websites.

[ES] La información de este documento está sujeta a cambios sin previo aviso. Se ha hecho todo lo posible para que este documento sea completo, preciso y actualizado. Sin embargo, BYD puede necesitar realizar algunas mejoras bajo ciertas circunstancias sin previo aviso. Tenga en cuenta la última versión de este documento en nuestros sitios web.

[IT] Le informazioni contenute in questo documento sono soggette a modifiche senza preavviso. È stato fatto ogni sforzo per rendere questo documento completo, accurato e aggiornato. Tuttavia, BYD potrebbe dover apportare alcuni miglioramenti in determinate circostanze senza preavviso. Si prega di prendere in considerazione l'ultima versione di questo documento sui nostri siti web.

- **In a single Tower system with 5 or 6 modules, the maximum load shall be no more than 12.8 kW.**

[DE] In einem System mit nur einem Turm mit 5 oder 6 Modulen darf die maximale Last nicht mehr als 12,8 kW betragen.

[ES] En un sistema de torre única con 5 o 6 módulos, la carga máxima no debe superar los 12,8 kW.

[IT] In un singolo sistema torre con 5 o 6 moduli, il carico massimo non deve essere superiore a 12,8 kW.

- **Max. 64 modules can be connected in parallel. In parallel connection, each Tower shall be no more than 4 modules.**

[DE] max. 64 LVS Module in Parallelschaltung. In Parallelschaltung ist die maximale Modulanzahl je Turm 4 Module.

[ES] Max. 64 módulos en conexión en paralelo. En conexión en paralelo, el número máximo de módulos por torre es de 4 módulos.

[IT] Max. 64 moduli in connessione parallela. In connessione parallela, il numero massimo di moduli per torre è di 4 moduli.

- **ON-Grid with full backup power equals to OFF-Grid inrush power use. (section 4).**

[DE] ON-Grid mit voller Notstromversorgung entspricht den Einschaltströmen für OFF-Grid Anwendungen. (Sektion 4)

[ES] ON-Grid con energía de respaldo completa equivale al uso de sistemas aislados para soportar picos de corriente máximos. (Sección 4)

[IT] ON-Grid con piena potenza di backup è uguale all'uso in isola per potenza di pico ammissibile. (Sezione 4)

- **Configurations marked in grey are not released yet and are not allowed to be installed yet. Those configurations are planned and might be subject to change.**

[DE] Grau markierte Konfigurationen sind noch nicht freigegeben und dürfen noch nicht installiert werden. Diese Konfigurationen sind geplant und können sich ändern.

[ES] Las configuraciones marcadas en gris aún no se publican y aún no se permite su instalación. Estas configuraciones están planificadas y pueden estar sujetas a cambios.

[IT] Le configurazioni contrassegnate in grigio non sono ancora state rilasciate e non possono ancora essere installate. Tali configurazioni sono pianificate e potrebbero essere soggette a modifiche.



**BYD Company Limited**

www.bydbatterybox.com

Global Sales: batteryboxgrp@byd.com

Global Service: bboxservice@byd.com

**Battery-Box EU Service Partner**

EFT-Systems GmbH

www.eft-systems.de

info@eft-systems.de

**Battery-Box AU Service Partner**

Alps Power Pty Ltd

www.alpspower.com.au

service@alpspower.com.au

**Battery-Box ZA Service Partner**

Afriplus Energy Group (Pty) Ltd

www.afriplusenergy.co.za

support@afriplusenergy.co.za

**Battery-Box US Service**

BYD America LLC

(213) 748-3980

us.homeenergy@byd.com

Version: V 1.11

Update: 2024-01-16

