



Kichik hajmdagi C&I energiya saqlash yechimi

SUN-50K-SG01HP3-EU-BM4 / SUN-80K-SG02HP3-EU-EM6

BOS-W

SUN-50K-SG01HP3-EU-BM4 / SUN-80K-SG02HP3-EU-EM6

- Amaliylik va universal moslashuvchanlik**
 - 100% nomutanosib chiqish
 - AC bilan mavjud quyosh tizimini yangilashga mos
 - Ikkita mustaqil batareya zanjiri
- Ko'p qirrali va yuqori samarali**
 - TOU funksiyasi, batareya zaryadlash/tushirish uchun olti vaqt oraliqi
 - Dizel generatoriga tayyor, VSG dasturi
- Ishonchlilik va kengaytirish imkoniyati**
 - Tarmoqqa ulangan va off-grid ishlashda maksimal 10 ta parallel
 - Tarmoq va off-grid rejimlari o'rtasida 10 ms ichida uzluksiz almashish

BOS-W

- Xavfsiz va ishonchli**
 - LFP batareyalar, past o'z-o'zidan zaryad yo'qalishi (6 oygacha zaryadsiz)
- Moslashuvchan kengaytirish**
 - Bir nechta batareya modulini parallel, USB va masofadan yangilashni qo'llab-quvvatlaydi
- Keng harorat oraliqi**
 - Ishlash harorati: -20°C dan 55°C gacha
- Aqlli himoya**
 - Ortig'cha zaryad / tushirish / oqim va ekstremal haroratlardan himoya
 - Zaryadlash, tushirish va hujayra balansini avtomatik boshqaradi
- Xotira effekti yo'q**
 - Sirtqi zaryad va tushirishda a'llo darajada
- Yuqori samaradorlik**
 - A'llo darajadagi tushirish va ≥ 6000 sikl umr

Kichik hajmdagi C&I energiya saqlash yechimi

Model	SUN-50K-SG01HP3-EU-BM4
Batareya kirish ma'lumotlari	
Batareya turi	Lityum-ion
Batareya voltaji oralig'i (V)	160-800
Maksimal zaryadlash oqimi (A)	50+50
Maksimal quvvat chiqarish oqimi (A)	50+50
Li-ion batareyani zaryadlash strategiyasi	BMSga o'z-o'zini moslash
Batareya kirishlar soni	2
PV string kirish ma'lumotlari	
Maksimal PV ulanish quvvati (Vt)	100000
Maksimal PV kirish quvvati (Vt)	80000
Maksimal PV kirish kuchlanishi (V)	1000
Ishga tushirish kuchlanishi (V)	180
MPPT voltaji oralig'i (V)	150-850
Nominal PV kirish kuchlanishi(V)	600
Maksimal ishlash PV kirish oqimi (A)	36+36+36+36
Maksimal kirish qisqa tutashuv toki (A)	55+55+55+55
MPP izlovchilar soni/ Har bir MPP treker uchun zanjirlar soni	4/2+2+2+2
AC kirish/chiqish ma'lumotlari	
Nominal AC kirish/chiqish aktiv quvvati (W)	50000
Maksimal AC kirish/chiqish ko'rinish quvvati (VA)	55000
Reytli AC kirish/chiqish oqimi (A)	75,8/72,5
Maksimal AC kirish/chiqish oqimi (A)	83,4/79,8
Maksimal uzluksiz AC o'tkazish (tarmoqdan yukga) (A)	200
Cho'qqi quvvat (tarmoqqa ulanmagan holda) (Vt)	Reytinglangan quvvatning 1,5 baravari, 10 s
Quvvat omili sozlash oralig'i	0,8 oldga – 0,8 orqaga quvvat omili
Reytli kirish/chiqish voltaji/oralig'i (V)	220/380V, 230/400V 0,85Un-1,1Un
Nominal kirish/chiqish tarmoq chastotasi/diapazoni(Hz)	50/45-55, 60/55-65
Tarmoqqa ulanish shakli	3L+N+PE
Jami oqim harmonik buzilishlari THDi	<3% (nominal quvvatga nisbatan)
DC inyeksiya oqimi	<0,5% In
Samaradorlik	
Maksimal samaradorlik	97,60%
Yevropa samaradorligi	97,0%
MPPT samaradorligi	>99%
Uskunani himoya qilish	
Integratsiyalangan	Himoya funksiyalari: DC polaritetini teskari ulashdan himoya, AC chiqish ortiqcha oqimdan himoya, issiqlikdan himoya, AC chiqish ortiqcha kuchlanishdan himoya, AC chiqish qisqa tutashuvdan himoya, DC komponent monitoringi, ortiqcha yukdan kuchlanish tushishini himoya qilish, yer xatosi oqimini monitoring qilish, elektr ark xatosini uzatish (ixtiyoriy), quvvat tarmog'i monitoringi, orol himoyasi monitoringi, yer xatosini aniqlash, DC kirish kaliti, DC terminal izolyatsiya qarshiligi monitoringi, qolgan oqim (RCD) aniqlash, to'qnashuvdan himoya darajasi
To'qnashuvdan himoya darajasi	II TUR (DC), II TUR (AC)
Interfeys	
Aloqa interfeysi	RS485/RS232/CAN
Monitoring rejimi	GPRS/WIFI/Bluetooth/4G/LAN (ixtiyoriy)
Umumiy ma'lumotlar	
Ishlash harorati diapazoni(°C)	-40 dan +60°C gacha, >45°C quvvat kamayishi
Ruxsat etilgan atrof-muhit namligi	0-100%
Ruxsat etilgan balandlik	2000m
Shovqin (dB)	≤65
Kirish himoyasi (IP) darajasi	IP 65
Invertor topologiyasi	Izolyatsiyasiz
Ortiqcha kuchlanish kategoriyasi	OVC II(DC), OVC III(AC)
Shkaf o'lchami (WxHxD mm)	527×894×294 (Ulagichlar va bracketlarsiz)
Og'irligi (kg)	80
Sovutish turi	Intellektual havo sovutish
Kafolat	5 yil / 10 yil Kafolat muddati invertorning oxirgi o'rnatilgan joyiga bog'liq; batafsil ma'lumot uchun kafolat siyosatiga murojaat qiling
Tarmoq tartibga solinishi	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105
Xavfsizlik / EMC standarti	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2

Kichik hajmdagi C&I energiya saqlash yechimi

Model	SUN-60K-SG02HP3 -EU-EM6	SUN-70K-SG02HP3 -EU-EM6	SUN-75K-SG02HP3 -EU-EM6	SUN-80K-SG02HP3 -EU-EM6
Batareya kirish ma’lumotlari				
Batareya turi	Lityum-ion			
Batareya voltaji oralig'i (V)	160-1000			
Maksimal zaryadlash oqimi (A)	80+80			
Maksimal quvvat chiqarish oqimi (A)	80+80			
Li-ion batareyani zaryadlash strategiyasi	BMSga o'z-o'zini moslash			
Batareya kirishlar soni	2			
PV string kirish ma'lumotlari				
Maksimal PV ulanish quvvati (Vt)	120000	140000	150000	160000
Maksimal PV kirish quvvati (Vt)	96000	112000	120000	128000
Maksimal PV kirish kuchlanishi (V)	1000			
Ishga tushirish kuchlanishi (V)	180			
MPPT voltaji oralig'i (V)	150-850			
Nominal PV kirish kuchlanishi(V)	650			
Maksimal ishlash PV kirish oqimi (A)	36+36+36+36+36+36			
Maksimal kirish qisqa tutashuv toki (A)	54+54+54+54+54+54			
MPP izlovchilar soni/ Har bir MPP treker uchun zanjirlar soni	6/2+2+2+2+2			
AC kirish/chiqish ma’lumotlari				
Nominal AC kirish/chiqish aktiv quvvati (W)	60000	70000	75000	80000
Maksimal AC kirish/chiqish ko'rinish quvvati (VA)	66000	77000	82500	88000
Reytli AC kirish/chiqish oqimi (A)	91/87	106.1/101.5	113.7/108.7	121.3/115.9
Maksimal AC kirish/chiqish oqimi (A)	100/95.7	116.7/111.6	125/119.6	133.4/127.6
Maksimal uzluksiz AC o'tkazish (tarmoqdan yukga) (A)	200			
Cho'qqi quvvat (tarmoqqa ulanmagan holda) (Vt)	Reytinglangan quvvatning 1,5 baravari, 10 s			
Quvvat omili sozlash oralig'i	0,8 oldga – 0,8 orqaga quvvat omili			
Reytli kirish/chiqish voltaji/oralig'i (V)	220/380V, 230/400V 0.85Un-1.1Un			
Nominal kirish/chiqish tarmoq chastotasi/diapazoni(Hz)	50/45-55,60/55-65			
Tarmoqqa ulanish shakli	3L+N+PE			
Jami oqim harmonik buzilishlari THDi	<3% (nominal quvvatga nisbatan)			
DC inyeksiya oqimi	<0,5% In			
Samaradorlik				
Maksimal samaradorlik	98.70%			
Yevropa samaradorligi	98.10%			
MPPT samaradorligi	>99%			
Uskunani himoya qilish				
Integratsiyalangan	Himoya funksiyalari: DC polaritetini teskari ulashdan himoya, AC chiqish ortiqcha oqimdan himoya, issiqlikdan himoya, AC chiqish ortiqcha kuchlanishdan himoya, AC chiqish qisqa tutashuvdan himoya, DC komponent monitoringi, ortiqcha yukdan kuchlanish tushishini himoya qilish, yer xatosi oqimini monitoring qilish, elektr ark xatosini uzatish (ixtiyoriy), quvvat tarmog'i monitoringi, orol himoyasi monitoringi, yer xatosini aniqlash, DC kirish kaliti, DC terminal izolyatsiya qarshiligi monitoringi, qolgan oqim (RCD) aniqlash, to'qnashuvdan himoya darajasi			
To'qnashuvdan himoya darajasi	II TUR (DC), II TUR (AC)			
Interfeys				
Aloqa interfeysi	RS485/RS232/CAN			
Monitoring rejimi	GPRS/WIFI/Bluetooth/4G/LAN (ixtiyoriy)			
Umumiy ma’lumotlar				
Ishlash harorati diapazoni(°C)	-40 dan +60°C gacha, >45°C quvvat kamayishi			
Ruxsat etilgan atrof-muhit namligi	0-100%			
Ruxsat etilgan balandlik	3000m			
Shovqin (dB)	≤65			
Kirish himoyasi (IP) darajasi	IP 65			
Invertor topologiyasi	Izolyatsiyasiz			
Ortiqcha kuchlanish kategoriyasi	OVC II(DC), OVC III(AC)			
Shkaf o'lchami (WxHxD mm)	606×927×314 (Ulagichlar va qavslar bundan mustasno)			
Og'irligi (kg)	105			
Sovutish turi	Intellectual havo sovutish			
Kafolat	5 yil / 10 yil Kafolat muddati invertorning oxirgi o'rnatilgan joyiga bog'liq; batafsil ma'lumot uchun kafolat siyosatiga murojaat qiling			
Tarmoq tartibga solinishi	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105			
Xavfsizlik / EMC standarti	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2			

Kichik hajmdagi C&I energiya saqlash yechimi



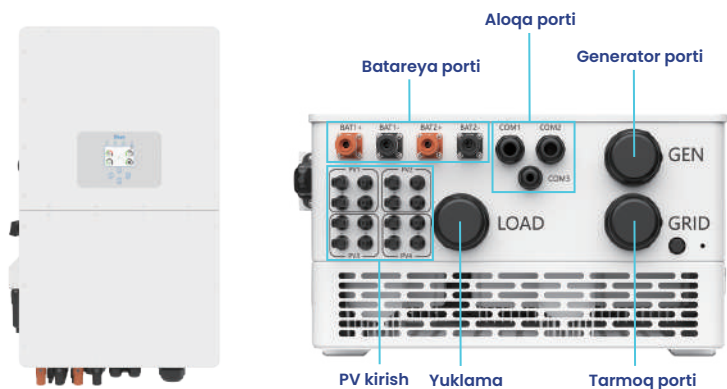
Model		BOS-W			
Asosiy parametrlar					
Hujayra kimyoviy tarkibi		LiFePO ₄			
Modul energiyasi (kVt·soat)		5,12			
Modul nominal kuchlanishi (V)		5,12			
Modul sigʻimi (Ah)		100			
Batareya moduli soni		BOS-W25	BOS-W40	BOS-W60	BOS-W80
Batareya modullarining ketma-ket ulanishdagi soni (ixtiyoriy)		5 (Min)	8	12	16
Tizimning nominal kuchlanishi (V)		256	409,6	614,4	819,2
Tizimning ishchi kuchlanishi (V)		220 ~ 292	352 ~ 467,2	528 ~ 700,8	704 ~ 934,4
Tizim energiyasi (kVt·soat)		25,6	40,96	61,44	81,92
Tizimdan foydalanish mumkin boʻlgan energiya (kVt·soat) ¹		23,04	36,86	55,3	73,73
Nominal DC quvvati (kVt)		25,6	40,96	61,44	81,92
Zaryadlash / tushirish oqimi (A) ²	Tavsiya etiladi	50			
	Nominal	100			
	Maksimal zaryadsizlantirish (2 daqiqa, 25°C)	125			
Ishlash harorati (°C)		Zaryadlash: 0 ~ 55 / Zaryadsizlantirish: -20 ~ 55			
Holat indikator		Sariq: Batareya yuqori kuchlanishi yoqilgan; Qizil: Batareya tizimi signal xatosi			
Aloqa porti		CAN2.0 / RS485			
Namlik		5% ~ 85%RH			
Balandlik		≤3000m			
Quti IP himoya darajasi		IP20			
Ogʻirligi taxminan (kg)		249	387	571	755
Oʻrnatish joyi		Rafga oʻrnatish			
Saqlash harorati (°C)		0 ~ 35			
Tavsiya etilgan zaryaddan tushirish chuqurligi (DOD)		90%			
Sikl muddati		25±2°C, 0.5C / 0.5C, EOL70%≥6000			
Kafolat ⁵		5 yil			
Sertifikatlash		UN38,3			

1. DC foydalanish mumkin bo'lgan energiya, sinov sharoitlari: 90% DOD, 0,3C zaryad va razryad 25°C da.
2. Tizimdan foydalanish mumkin bo'lgan energiya tizim konfiguratsiyasi parametrlariga qarab o'zgarishi mumkin. Tok harorati va SOC (zaryad holati) ga bog'liq.
3. Kafolat muddati – kafolat davri yoki sikl quvvati birinchi bo'lib tugaganda amal qiladi.
4. Xitoyda ishlab chiqarilgan.

Kichik hajmdagi C&I energiya saqlash yechimi

Model

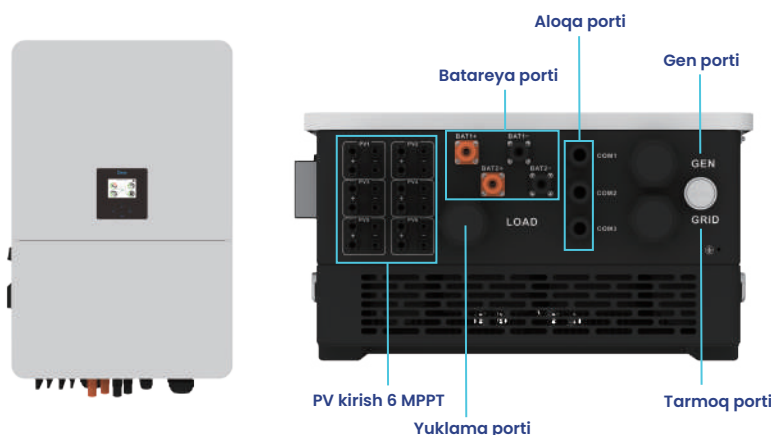
SUN-50K-SG01HP3-EU-BM4



- ⊗ Batareya porti: Ikki ta mustaqil batareya zanjiri porti, bir nechta brend batareyalarini ulashni qo'llab-quvvatlaydi, batareya kuchlanish oralig'i 160-800 V.
- ⊗ Aloqa porti: Batareya bilan aloqa qilish va inverter hamda tashqi qurilmalar o'rtasida ma'lumot almashish uchun xizmat qiladi.
- ⊗ Yuklama porti: Ulangan yuklamalarga AC quvvat beradi.
- ⊗ Tarmoq porti (Grid Port): Elektr tarmog'iga ulanish uchun, ikki tomonlama quvvat uzatishni ta'minlaydi: tarmoqdan quvvat olish va tarmoqqa quvvat berish.
- ⊗ Generator porti: Elektr uzilishida zaxira quvvat manbai sifatida dizel generatoriga ulanadi, shuningdek, mavjud quyosh inverteri bilan AC Coupling uchun ulanadi.
- ⊗ PV kirish: 4 ta MPPT bilan quyosh panellariga ulanish.

Model

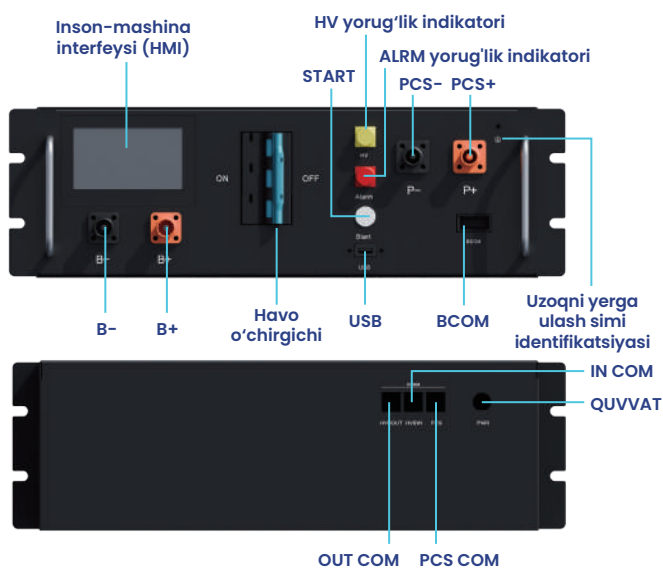
SUN-80K-SG02HP3-EU-EM6



- ⊗ Batareya porti: Ikki ta mustaqil batareya zanjiri porti, bir nechta brend batareyalarini ulashni qo'llab-quvvatlaydi, batareya kuchlanish oralig'i 160-1000 V.
- ⊗ Aloqa porti: Batareya bilan aloqa qilish va inverter hamda tashqi qurilmalar o'rtasida ma'lumot almashish uchun xizmat qiladi.
- ⊗ Yuklama porti: Ulangan yuklamalarga AC quvvat beradi.
- ⊗ Tarmoq porti (Grid Port): Elektr tarmog'iga ulanish uchun, ikki tomonlama quvvat uzatishni ta'minlaydi: tarmoqdan quvvat olish va tarmoqqa quvvat berish.
- ⊗ Generator porti: Elektr uzilishida zaxira quvvat manbai sifatida dizel generatoriga ulanadi, shuningdek, mavjud quyosh inverteri bilan AC Coupling uchun ulanadi.
- ⊗ PV kirish: 6 ta MPPT bilan quyosh panellariga ulanish.

Model

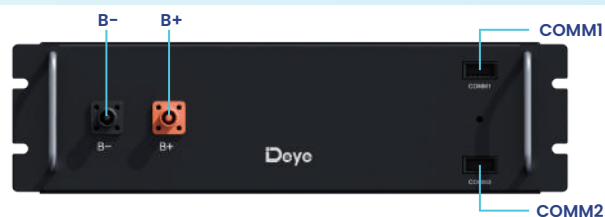
BOS-W-PDU-2



- ⊗ B-: Batareyaning umumiy manfiy qutb ulanish joyi (qora).
- ⊗ B+: Batareyaning umumiy musbat qutb ulanish joyi (to'q sariq).
- ⊗ Havo o'chirgichi: Batareya rafini tashqi qurilmalarga qo'lda ulash/o'chirish uchun.
- ⊗ USB BMS: Yangilash interfeysi va xotirani kengaytirish interfeysi.
- ⊗ BCOM: Birinchi batareya moduli bilan aloqa ulanishi va unga 12VDC quvvat berish.
- ⊗ HMI: Muhim batareya ma'lumotlarini ko'rsatish interfeysi.
- ⊗ START: Yuqori kuchlanishli boshqaruv qutisidagi 12VDC quvvatni ishga tushirish tugmasi.
- ⊗ HV yorug'lik indikator: Yuqori kuchlanish xavfi indikator (sariq).
- ⊗ ALRM yorug'lik indikator: Batareya tizimi nosozligi signal indikator (qizil).
- ⊗ PCS-: PCS manfiy qutb ulanish joyi (qora).
- ⊗ PCS+: PCS musbat qutb ulanish joyi (to'q sariq).
- ⊗ Yer simi identifikatsiyasi: Batareya rafini yerga ulash joyi.
- ⊗ OUT COM: Keyingi BOS-W-PDU-2 aloqa kirish ulanish joyi
- Aloqa kirishi.
- ⊗ IN COM: Oldingi BOS-W-PDU-2 aloqa chiqish ulanish joyi
- Aloqa chiqishi.
- ⊗ PCS COM: PCS COM batareya aloqa terminali (RJ45 port), CAN protokoli (standart tezlik 500 bps) va RS485 protokoli (standart tezlik 9.6 bps) orqali inverterga batareya ma'lumotlarini uzatish uchun ishlatiladi.
- ⊗ POWER: Tashqi 12VDC quvvat manbai ulanish joyi.

Model

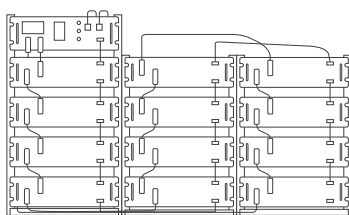
BOS-W-Pack5.1



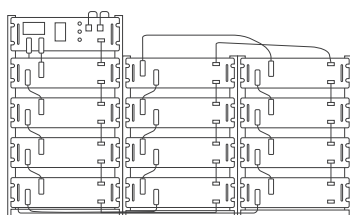
- ⊗ B-: Batareya modulining manfiy qutbi (qora).
- ⊗ B+: Batareya modulining musbat qutbi (to'q sariq).
- ⊗ COMM1: Aloqa va quvvat ta'minoti uchun ishlatiladi.
- ⊗ COMM2: Aloqa va quvvat ta'minoti uchun ishlatiladi.

Tipik qo'llanilish ssenariylari

BOS-W60

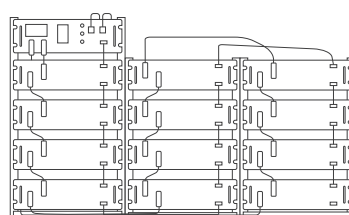


1



2

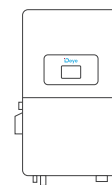
.....



16

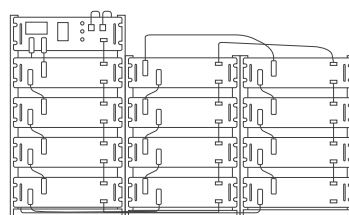
.....

Invertor 50 kvT

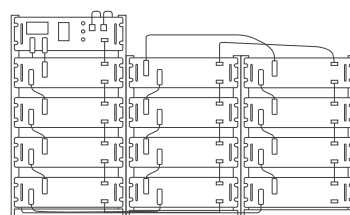


Maksimal 16 ta batareya rafini parallel ulashni qo'llab-quvvatlaydi

BOS-W60

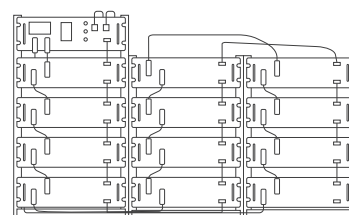


1



2

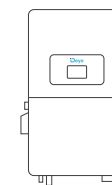
.....



16

.....

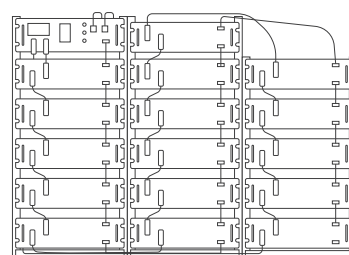
Invertor 50 kvT



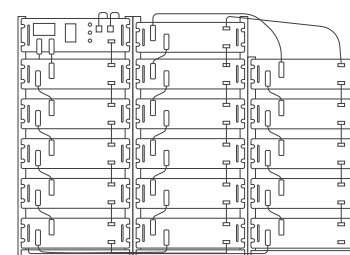
× 10

AC parallel ishlashda maksimal 10 invertorni qo'llab-quvvatlash

BOS-W80

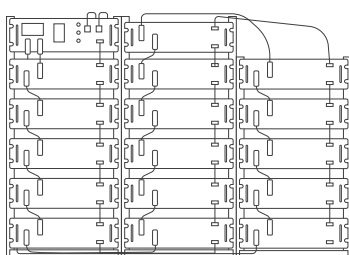


1



2

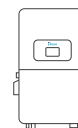
.....



16

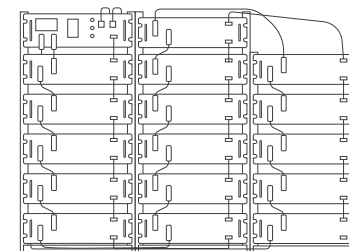
.....

Invertor 80 kvT

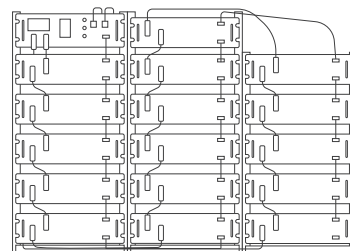


Maksimal 16 ta batareya klasterini parallel ulashni qo'llab-quvvatlaydi

BOS-W80

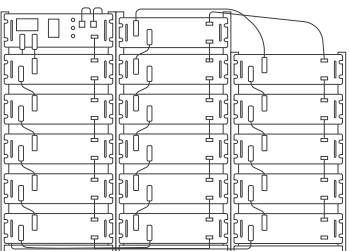


1



2

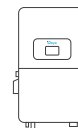
.....



16

.....

Invertor 80 kvT



× 10

AC parallel ishlashda maksimal 10 invertorni qo'llab-quvvatlash

Deye Cloud Birlashtirilgan energiya va qurilma boshqaruvi platformasi

-  Katta tejash imkoniyatini oching
-  Dinamik tarif uchun individual qo'shimchalar
-  Aqlli zaryadlash/tushirish strategiyalari
-  Deye qurilmalariga mos yechim
-  Uskunalarini real vaqt rejimida monitoring qilish



Uy energiyangizni aqllilang



Deye Cloud ilovasini yuklab oling va qo'shiling!
Aqlli yordamchi bilan ekologik va byudjetga qulay,
muammosiz energiya tajribasini his eting



Hammasi bir joyda

Aqlli uy energiyasi va
qurilma boshqaruvi



Cloud-edge hamkorligi

Tezroq va samaraliroq
ma'lumotlarni qayta
ishlash



Tezlashtiril- gan ulanish

Tezlik va ishlashga
optimallashtirilgan



Rivojlangan aqlli energiya

Elektr energiyasi
hisob-kitobini aqlli
boshqarish



HAYOTINGIZNI QUVVATLANTIRISH



www.deyeess.com / www.deyeinverter.com



Deye ESS / Deye New Energy