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ESS - 5K3-DUAL VOLTAGE

HV-LV

Lithium Energy Storage System

WeCo FZE LLC United Arab Emirates

5K3 STACKABLE

STACKABLE MODULE

5K3 LV and HV ALL IN ONE

- Fast Charge
- Cost Effective
- EV charger ready
- 100% DoD
- Active Equalizer
- Cluster BMU

LV Circuit - Parallel		
MAX PARALLEL UNITS	N	5
MAX PARALLEL UNITS WITH WE-HUB	N	25
CLUSTER of 5 UNITS MAX CURRENT (CH-DIS)	A	800

- Cluster interconnections
- Remote controlled Self upgrade

Dimensions	mm	460x520x155
Weight	kg	53
Case material	Type	Steel
Stack Tower (max)	N°	5
Stackable	Type	Yes
Digital Output	N°	2

Cell Type	ID	LiFePO4
Cells Distribution	P/S	16S
BMS charge Temp.	°C	-10°C +55°C
BMS Disch. Temp.	°C	-25°C +65°C
Storage Time/Temp.	°C	-20°C +45°C 4months
Self Discharge	%	1% month @25°C

- High Speed Data
- Self Detection Wi-Fi net

Nominal Voltage	Vdc	52,0
Max Voltage	Vdc	58.4
Low Voltage	Vdc	44.5
Rated Capacity	Ah	105
Rated Energy	kWh	5,3
Charge /Disch.	A	100A / 200A
Cycles (Up to)	N	10.000

- UN 38.3 Safety Passed
- End Life Recycling Program

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5K3-LV/HV STACKABLE

350Vdc STACKABLE 6 UNITS

- Fast Charge
- Cost Effective
- EV charger ready
- 100% DoD
- Active Equalizer
- Cluster BMU

Master HUB		
INBUILT BMU/BMS	Vdc	32-1000Vdc
CAN MASTER	N	1 X BMS CAN PORT
CAN PARALLEL/SERIAL	N	2 X BMS CAN PORT
RS 485	N	2
RS232 _ MONITORING	N	1

Dimensions tower 1	mm	460x520x932
Dimensions tower 2	mm	-
Weight (Total)	kg	310 kg
Case material	Type	Steel
BMU	N°	01 Every 18 modules
Stackable	Type	Yes

Cell Type	ID	LiFePO4
Cells Distribution	P/S	16S
BMS charge Temp.	°C	-10°C +55°C
BMS Disch. Temp.	°C	-25°C +65°C
Storage Time/Temp.	°C	-20°C +45°C 4months
Self Discharge	%	1% month @25°C

Nominal Voltage	Vdc	307
Max Voltage	Vdc	350
Low Voltage	Vdc	294
Rated Power	kW	31
Rated Energy	kWh	31
Charge /Disch.	A	As per BMS

- Cluster interconnections
- Remote controlled Self upgrade
- High Speed Data
- Self Detection Wi-Fi net
- UN 38.3 Safety Passed
- End Life Recycling Program

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5K3-LV/HV STACKABLE

700 Vdc STACKABLE 6 UNITS TWO TOWERS

- Fast Charge
- Cost Effective
- EV charger ready
- 100% DoD
- Active Equalizer
- Cluster BMU

Master HUB		
BMU	Vdc	32-1000Vdc
CAN MASTER	N	1 X BMS CAN PORT
CAN PARALLEL/SERIAL	N	2 X BMS CAN PORT
RS 485	N	2
RS232 _ MONITORING	N	1

Dimensions tower 1	mm	460x520x932
Dimensions tower 2	mm	40x520x790
Weight (Total)	kg	630 kg
Case material	Type	Steel
BMU	N°	01 Every 18 modules
Stackable	Type	Yes

Cell Type	ID	LiFePO4
Cells Distribution	P/S	16S
BMS charge Temp.	°C	-10°C +55°C
BMS Disch. Temp.	°C	-25°C +65°C
Storage Time/Temp.	°C	-20°C +45°C 4months
Self Discharge	%	1% month @25°C

Nominal Voltage	Vdc	614
Max Voltage	Vdc	700
Low Voltage	Vdc	588
Rated Power	kW	62
Rated Energy	kWh	62
Charge /Disch.	A	As per BMS

- Cluster interconnections
- Remote controlled Self upgrade
- High Speed Data
- Self Detection Wi-Fi net
- UN 38.3 Safety Passed
- End Life Recycling Program

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5K3-LV/HV STACKABLE

LOW VOLTAGE CLUSTER

Modules	1	2	3	4	5
Net Energy (95% DoD)	5,1	10,2	15,3	20,4	25,5
Max Voltage	58,4				
Low Voltage	48,5				
Rated Input (kW)	5,1	10,2	15,3	20,4	25,5
Rated Output (kW)					
Power Output (Peak 2s) (kW)	10	20	30	40	50
System Weight (kg)	54	108	162	216	270
UP TO 5 CLUSTERS OF 5 MODULES EACH IN PARALLEL (MAX 132 kWh net energy)					

HIGH VOLTAGE CLUSTER

Scalable up to 9 towers

CLUSTER 01 12 modules (max 16 modules)										
	Tower 01				Tower 02					
Modules	1+2+3	4	5	6	7	8	9	10	11	12
Net Energy (95% DoD)		20,4	25,5	30,6	35,7	40,8	45,9	51,0	56,2	61,3
Max Voltage		233.6	292.0	350.4	408.8	467.2	525.6	584.0	642.4	700.8
Low Voltage		196	245	294	343	392	441	490	539	588
Rated Power (kW)		204.8	256.0	307.2	358.4	409.6	460.8	512.0	563.2	614.4
Rated Energy (kWh)		20.8	26.0	31.2	36.4	41.6	46.8	52.0	57.2	62.4
Power In-Out (kW)		20.8	26.0	31.2	36.4	41.6	46.8	52.0	57.2	62.4
Power Out (Peak 5 min)		31.2	39.0	46.8	54.6	62.4	70.2	70.8	85.8	93.6
System Weight (kg)		212	265	318	371	424	477	530	583	636
UP TO 9 CLUSTERS OF 16 MODULES EACH IN PARALLEL										

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