中东250kW/645kWh 锂电池储能项目

Case Study

24

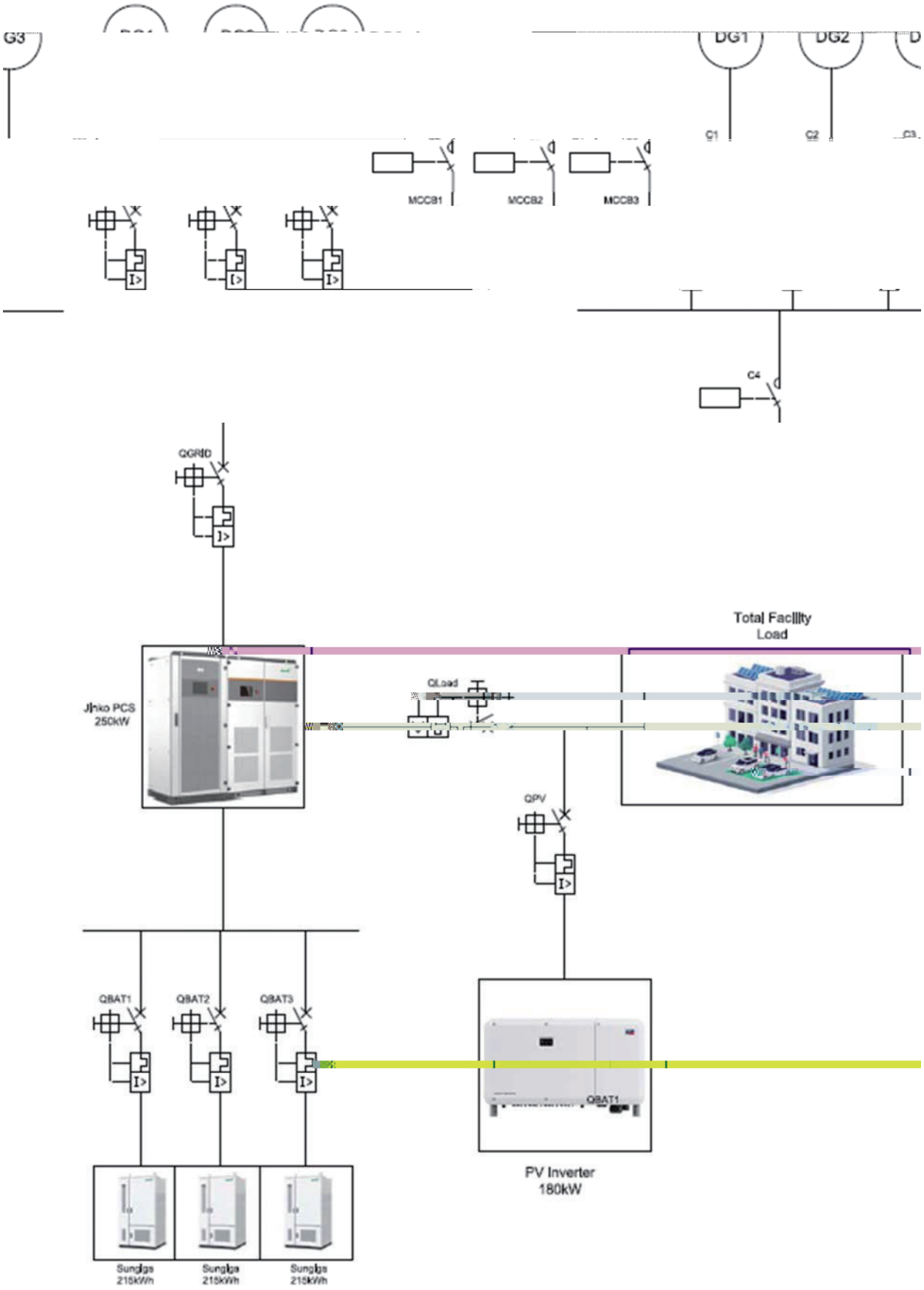
1.5 93%

10 300

ESS

PV

DGs BESS


G3
DG1
DG2
C1
C2
MCCB1
MCCB2
MCCB3
C4
QGRID
Total Facility
Load
Jinko PCS
250kW
QLoad
QPV
QBAT1
QBAT2
QBAT3
QBAT1
PV Inverter
180kW
Sungja
215kWh
Sungja
215kWh
Sungja
215kWh

645kWh Jinko SunGiga

645kWh

Battery Rack

BMS PCS

EMS

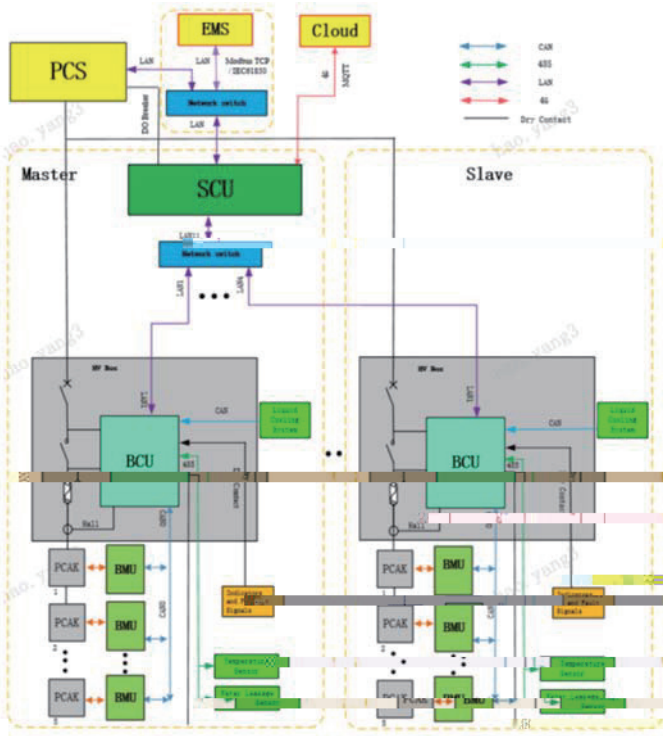
215kWh 5 153.6V

768V HVB

BCU

BMS CAN

BMU BCU



2 BMS

BMU

BCU HVB BMU

BMS

SOC SOH

PCS

250kW PCS

BMS

DG PV Inverters

Grid Following Grid Forming

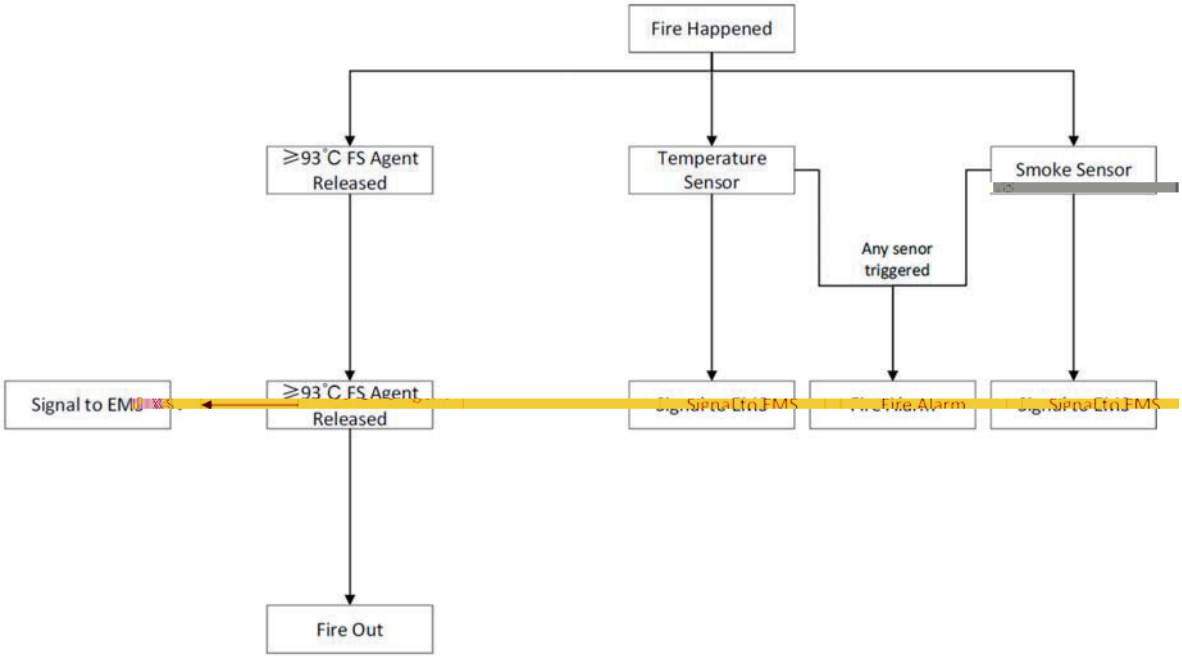
PCS DC-AC PQ DC-AC

4kW

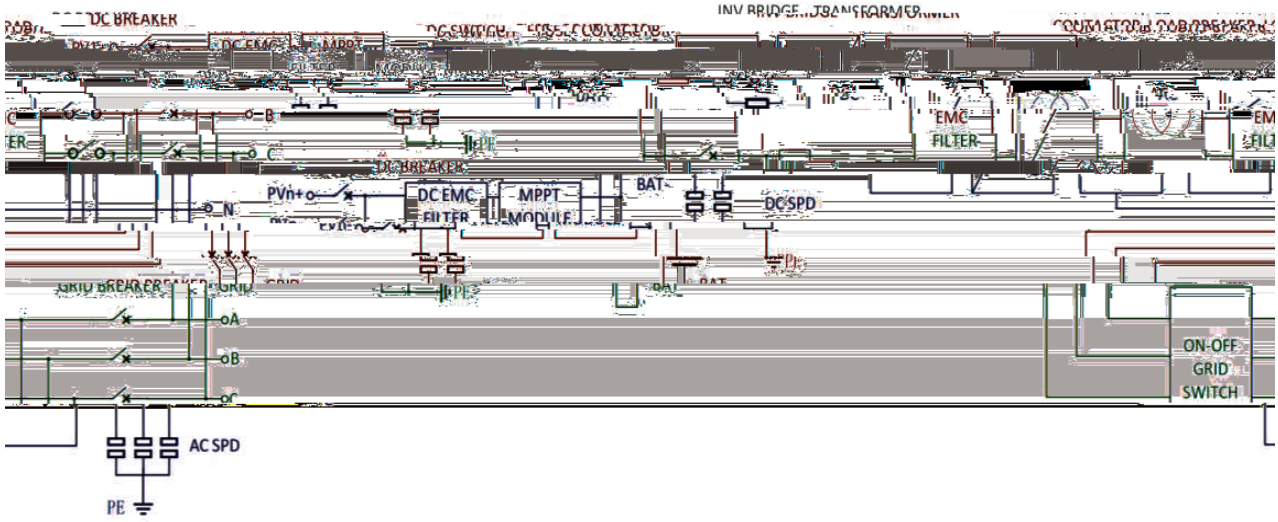
VF DC-AC

ESS

ESS


Fire Happened
≥93°C FS Agent Released
Temperature Sensor
Smoke Sensor
Any senor triggered
Signal to EMS
≥93°C FS Agent Released
Fire Out

3


DC BREAKER
EMC FILTER
DC EMC FILTER
MPPT MODULE
DC SPD
ON-OFF GRID SWITCH
AC SPD
PE

4 PCS

$$P_{charging\ from\ DG} = P_{minimum\ DG\ load} - P_{Load}$$

$$DG_{cap} = 250kW$$

$$P_{charging\ from\ DG}$$ ~~$W - P$~~

SCU

SCU 3

FSS BMUs BCUs

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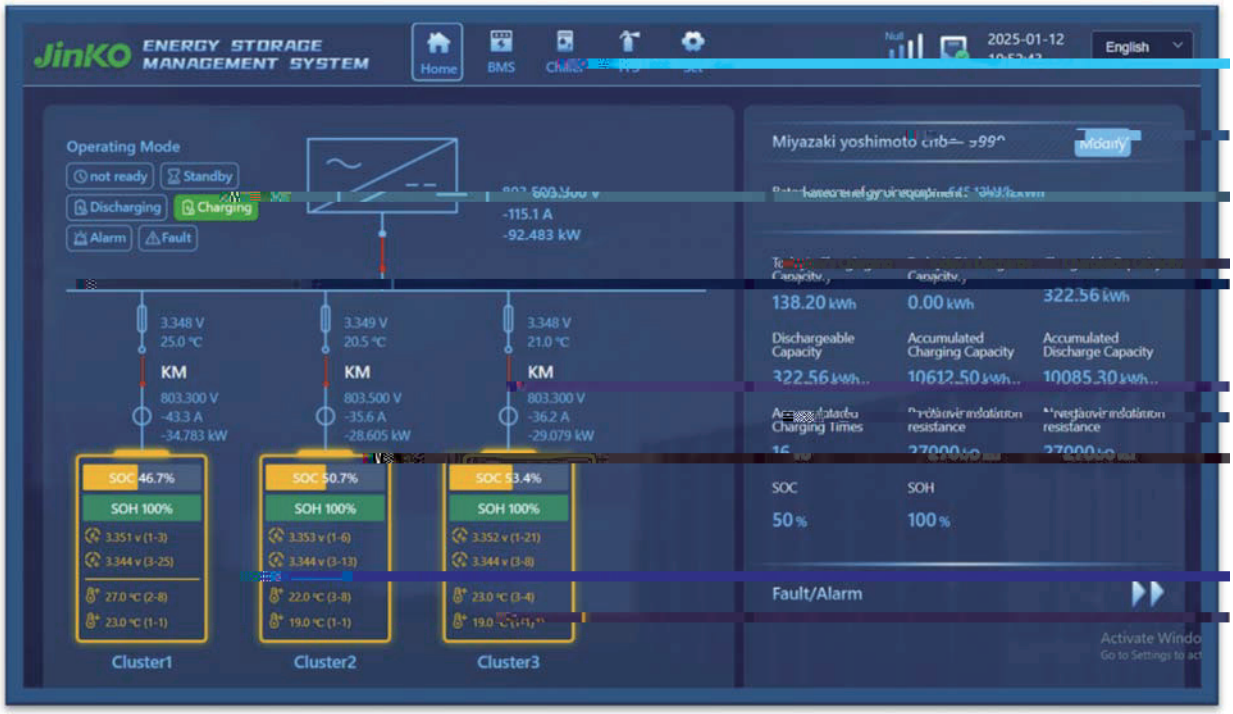
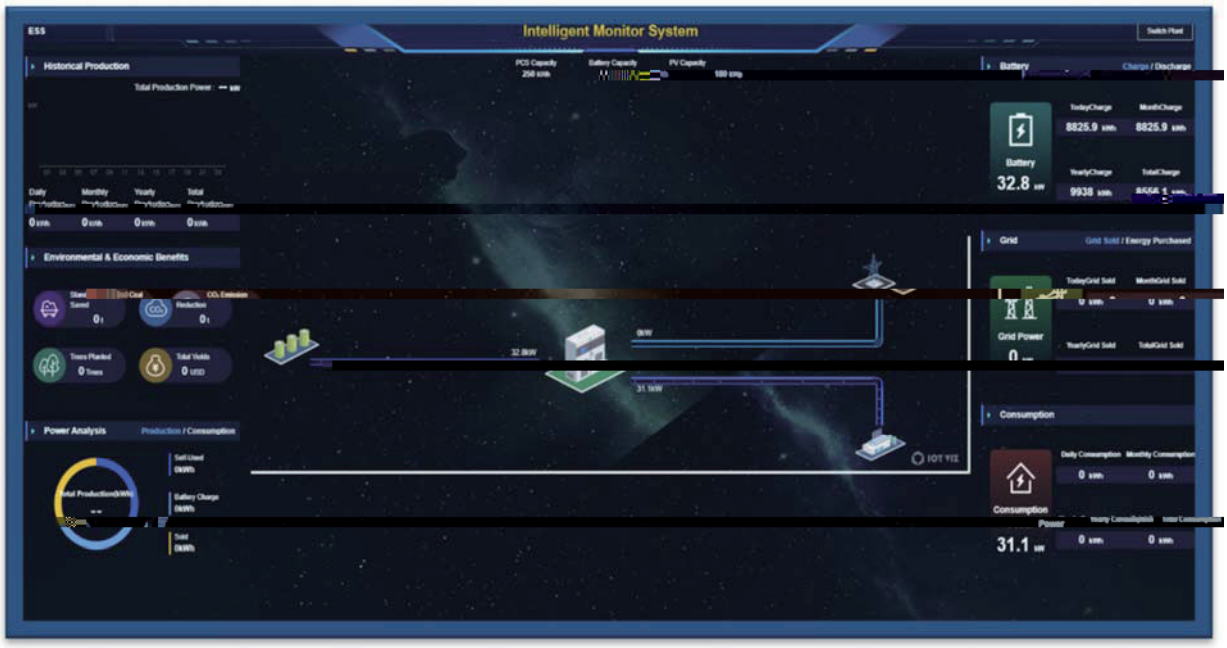


6 SCU

7 IoT



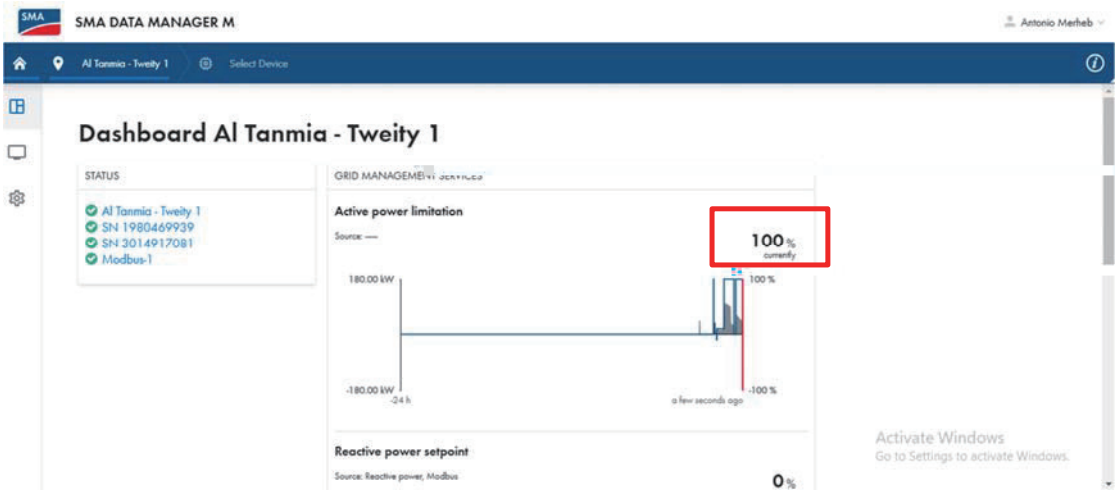
8 EMS

20% ≤ SOC ≤ 90

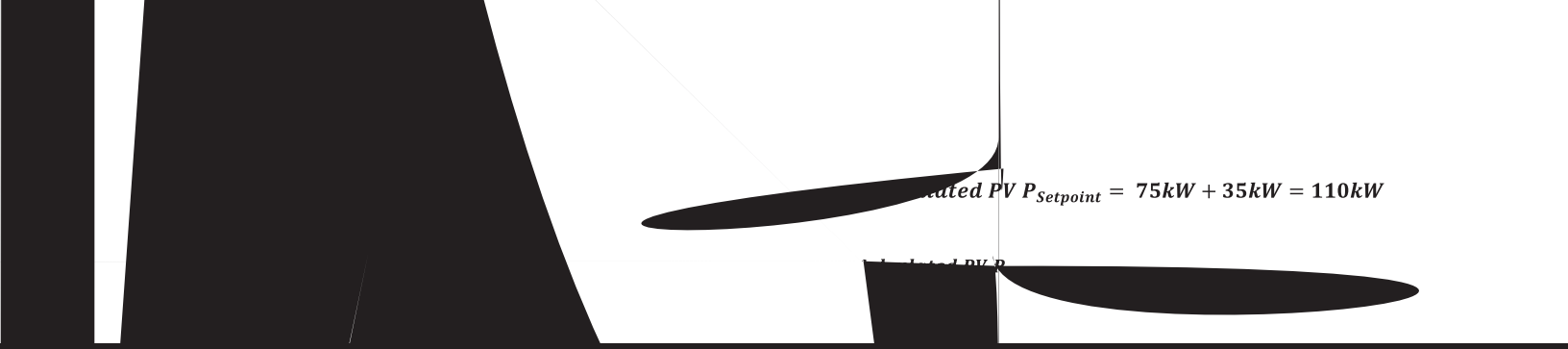
SOC

90% 100%

9



9 SMA EMS 100%


$\textbf{\textit{...ated PV }}P_{Setpoint} = 75kW + 35kW = 110kW$

98% ≤ SOC

P