HYBRID OFF-GRID POWER SOLUTIONS

Laurent MARCILLY – june 2012
IN THE FOUR STRATEGIC BUSINESS UNITS AEG PS OFFERS A COMPREHENSIVE PRODUCT PORTFOLIO FOR A BROAD SPECTRUM OF APPLICATIONS

Overview AEG PS product portfolio and applications

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**APPLICATIONS**

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¹ UPS – Uninterruptible power supply
AEG PS France – Solar off-grid systems
Mali1 – Ouelessebougou – 216 kWp

- DC protection cabinet (battery & PV)
- AC protection cabinet
- UPS Bypass

- 2 x 196 OPzV2000 (VRLA)
- Battery voltage: 445Vdc

- 60 x 18 x 200Wp PV field

- Controller cabinet
- 3 x 220 kVA inverter
AEG PS France – Solar off-grid systems
Mali2 – 383 kWp

13 strings x 18 x 205Wp

SMC* 

DIS*

*SMC = Smart Energy Controller

DIS* 

*DIS = battery dissymmetry

GE

GE

400 kVA + 275 kVA

2 x 190 OPzV1700S

3 x 220 kVA in redundancy

Temp. depending charging

Egalisation charge

Manual bypass

400 kVA

Local Grid

Monitoring

COM
AEG PS France – Solar off-grid systems
Day time – 8h to 17h

- 13 strings x 18 x 205Wp
- SMC* = Smart Energy Controller
- DIS* = battery dissymmetry
- GE 400 kVA + 275 kVA
- 3 x 220 kVA in redundancy
- Manual bypass
- 400 kVA
- Local Grid
- Monitoring
- 2 x 190 OPzV1700S
- Egalisation charge
- Temp. depending charging

*DIS = battery dissymmetry
AEG PS France – Solar off-grid systems
Peak time – 17h to 22h

13 strings x 18 x 205Wp

SMC*  *SMC = Smart Energy Controller

DIS*  *DIS = battery dissymmetry

GE  GE
400 kVA + 275 kVA

3 x 220 kVA in redundancy

Manual bypass

Local Grid

2 x 190 OPzV1700S

Temp. depending charging

Egalisation charge

COM

Monitoring

400 kVA
AEG PS France – Solar off-grid systems
Night time – 22h to 0h (Genset)

SMC* = Smart Energy Controller
DIS* = battery dissymmetry

13 strings x 18 x 205Wp

3 x 220 kVA in redundancy

400 kVA + 275 kVA

Manual bypass

Local Grid

Monitoring

Egalisation charge
Temp. depending charging

2 x 190 OPzV1700S

*SMC = Smart Energy Controller

*DIS = battery dissymmetry
AEG PS France – Solar off-grid systems
Night time – 0h to 8h (battery)

13 strings x 18 x 205Wp

SMC*  SMC = Smart Energy Controller

DIS*  DIS = battery dissymmetry

GE  GE
400 kVA + 275 kVA

3 x 220 kVA in redundancy

COM

Manual bypass

Egalisation charge
Temp. depending charging

2 x 190 OPzV1700S

Local Grid

*DIS = battery dissymmetry
AEG PS France – Solar off-grid systems
Highlights

- Creates local electricity grid for isolated areas
- High level of availability for users, secured, redundant, multi-energy, with storage, comparable with industrial standards in terms of quality and reliability
- Available peak power increased by battery energy storage and UPS overload capacity (125% 10mn, 150% 1mn)
- Quality of power (no micro-break, perfect sine wave, voltage and frequency stability, dynamic response)
- Industrial products with 20 years life time design and operating temperature up to 40°C without derating
- Short-circuit proof, fan redundancy, optimum efficiency even at partial load range
AEG PS France – Solar off-grid systems
Mali2 – 3 x 383 kWp
AEG PS France – Solar off-grid systems
Antarctica - Concordia 100 kWp
THANK YOU