Base Load Power Hub (BLPH)

AC UPS - SINGLE LINE DIAGRAM AND INTERCONNECTING DIAGRAM

Document Number: 1724000372-EL-DG-00007

ROSETTI MARINO

1	NO COMMENTS - APPROVED - WORK MAY PROCEED
2	MINOR COMMENTS - REVISE AND RESUBMIT - WORK MAY PROCEED
3	MAJOR COMMENTS – REJECTED – DO NOT PROCEED
4	APPROVAL NOT REQUIRED

NOTE: Approval doesn't relieve the supplier from mandatory compliance with contractual documents and specifications. Comments made do not imply acceptance of any cost or delivery impact.

Sign	Date
	17/01/2025

Document Class: 2

03	15/01/2025	As-Built (ASB)	DA	DA	AD
02	01/10/2024	Accepted for Construction (AFC)	DA	DA	AD
01	28/08/2024	Issue for Review (IFR)	DA	DA	AD
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Rev.	Date	Description	Prepared	Reviewed	Approved

3W power | a company of AEG POWER SOLUTIONS

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Revision / Change Log

Rev.	Description
00	Issue for Review (IFR)
01	Issue for Review (IFR)
02	Accepted for Construction (AFC)
03	As-Built

HOLDS LIST

No.	Description
1	
2	
3	
4	

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REFERENCE DOCUMENTS

Code	Description
123A90-DDL-EL-DG-20160	Base Load Power Hub (BLPH) - Electrical Single Line Diagrams AC UPS Systems
1723002197-EL-DG-00013	DP-200N1 LV SWBD 400-230V ELECTRICAL SINGLE LINE DIAGRAM
1723002197-EL-DG-00011	SG-200N1 LV SWBD 400-230V ELECTRICAL SINGLE LINE DIAGRAM

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Base Load Power Hub (BLPH)

AC UPS PAS - TAG: UP-200F3
SINGLE LINE DIAGRAM AND INTERCONNECTING DIAGRAM

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CAE EPLAN Electric P8

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AUXILIARY
From Lighting & Small Power DB BOP DP-200N1
(Cubicle 03-Q41)

100-240V/N/PE~50/60Hz

back-up fuse
gG10A
3G2.5mm2

LINE A
From LV Switchgear SG-200N1
(Cubicle A3/01)

Mains
400V;3/PE~50Hz

gG80A
4G35mm2

From LV Switchgear SG-200N1
(Cubicle A7/02)

Bypass mains
400V;3/PE~50Hz

gG63A
4G35mm2

LINE B
From LV Switchgear SG-200N1
(Cubicle A4/01)

Mains 400V;3/PE~50Hz

gG80A
4G35mm2

Not included in the AEG shipment

+MBC1
BY-200F3
Bypass transformer cabinet 40 kVA
100000788B.020
10009757

-X1 ◊ 1U,1V,1W,PE
-X10 ◊ U,V,W,PE
-X13 ◊ U,N,PE
-X14 ◊ U,N
-X1 ◊ 3U,3V,3W,PE
1.3 / B → B / 1.8
-A85
-H1
-Q10 L=80/85A I=0,8kA Icu=50kA
-T8 400V/400V 40kVA
-Q28.1 NC
-Q28.2 NC
-X1 ◊ 2U,2V,2W,PE
-X4 ◊ 1U,1V,1W,1N,PE
-X4 ◊ 2U,2V,2W,2N,PE
-X1 ◊ 4U,4V,4W,PE

+UPS1
BC-200F3A
Protect 8.33 40-400-210-400
100000788B.010
10009756

+UPS2
BC-200F3B
Protect 8.33 40-400-210-400
100000788B.010
10009756

*2 → B / 1.6
-X13 ◊ U,N,PE
-X14 ◊ U,N
-E1-X1 ◊ U,V,W,PE
-E4-X4 ◊ U,V,W,N,PE
-A85
-H1
-Q1 L=100/85A I=1,0kA Icu=50kA
-T40
-A1 REC
-A2 INV
-T1
-F1,-F2,-F3
-A18
Display
-A3 SBS
-A4
-A20
Parallel Adapter
INV CAN -X3 1-3 → 203 / 1.6
INV Sync -X5 1-4 → 205 / 1.6
1.5 / 203 → -X3 1-3 INV CAN
1.5 / 205 → -X5 1-4 INV Sync
-L11,-L12,-L13
Parallel preventive choke coil
-A24.1
BLÜ-PRO
-F91
-A12 ,-A13
Remote signaling
-E2-X2 ◊ L-,L+,PE
-X15 ◊ 2,3
-X130 ◊ 1,2
-E3-X3 ◊ U,V,W,N,PE
1.7 / B → -X13 ◊ U,N,PE, -X14 ◊ U,N

-X2 ◊ 1L+,1L-,PE
-X15 ◊ 2,3
-X91 ◊ 1M
-X5 ◊ 1U,1V,1W,1N,PE
-X5 ◊ 2U,2V,2W,2N,PE
-X2 ◊ 3L+,3L-,PE
-X15 ◊ 6,7
-X91 ◊ 3M
-Q71 NC
-Q72 NC
1.5 / A → A / 1.6
-Q29 INV operation / Manual bypass
-F25
DP-200F3
-QF31 B32A 300mA
-QF32 B32A ^^0mA
-QF33 B32A 300mA
-QF34 B16A 300mA
5pc
-QF38 B16A 300mA
-QF39 B10A 300mA
4pc
-QF42 B10A 300mA
-QF43 B10A
8pc
-QF50 B10A
-QF51 B6A
-QF52 B6A
-X2 ◊ 2L+,2L-,PE
-X15 ◊ 4,5
-X91 ◊ 2M
-X130 ◊ 1,2,1PE
-X31 ◊ U,N,PE
-X32 ◊ U,N,PE
-X33 ◊ U,N,PE
-X34 ◊ U,N,PE
-X38 ◊ V,N,PE
-X39 ◊ V,N,PE
-X42 ◊ W,N,PE
-X43 ◊ W,N,PE
-X50 ◊ U,N,PE
-X51 ◊ V,N,PE
-X52 ◊ V,N,PE
-X2 ◊ 4L+,4L-,PE
-X15 ◊ 8,9
-X91 ◊ 4M
-X130 ◊ 3,4,2PE

2(1x70 mm2)

Not included in the AEG shipment

max. gG16A — max. gG16A
Load
400/230V;3/N/PE~50Hz

+BFB1
CB-200F3A
Battery fuse box 200 A
*1
-Q2 L=200A
DC 24V max. 300W

+BFB2
CB-200F3B
Battery fuse box 200 A
*1
-Q2 L=200A
DC 24V max. 300W

+BAT1
BA-200F3A
Batteries installed on rack
18 x FLG 12-150
Battery voltage 216V
Battery capacity 150Ah
string 1
-R81

+BAT2
BA-200F3B
Batteries installed on rack
18 x FLG 12-150
Battery voltage 216V
Battery capacity 150Ah
string 1
-R81

Symbol	Description
	Mains breaker
	Transformer with two secondary windings
	Rectifier
	Inverter
	Transformer
	Static by-pass switch
	Coil
Display	Display control module
	Heater
	Light

*1 Attention! In the event of battery undervoltage < 130 V, the UPS automatically switches off battery isolator Q2.
If this happens, switch X15:3 must be switched into the open position (undervoltage trip blocked).
For restart, please refer to the chapter in the UPS operating instructions (charging the DC link capacitors) attached.
Unlock the tripped switch Q2 by switching to open position.
After charging the DC link capacitors, switch on Q2.
Attention! When the battery voltage reaches > 200 V, switch X15:3 must be switched back to the closed position.

*2 Connection cables are not included.

					Date	14.05.2024			
01	500000002053	13.08.2024	Beckschäfer	Editor	EEC	ROSETTI MARINO Hollandse Kust Noord (HKN) wind farm	AEG POWER SOLUTIONS	System 40 kVA	=
02	500000002089	27.08.2024	Beckschäfer	Checked	Ch.Peck				+
Stat	Alteration	Date	Name	Norm				Single-line diagram	& EFA
								1000007888_010 en	A0 sheet 1 sheets

1000007888_010

Base Load Power Hub (BLPH)

AC UPS F&G - TAG: UP-200F4

SINGLE LINE DIAGRAM AND INTERCONNECTING DIAGRAM

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AUXILIARY
From Lighting & Small Power DB BOP DP-200N1 (Cubicle 03-Q42)
100-240V/N/PE~50/60Hz

back-up fuse
gG10A
3G2.5mm2

LINE A
From LV Switchgear SG-200N1 (Cubicle A6/05)
Mains
400V;3/PE~50Hz

gG80A
4G35mm2

From LV Switchgear SG-200N1 (Cubicle A2/04)
Bypass mains
400V;3/PE~50Hz

gG63A
4G35mm2

LINE B
From LV Switchgear SG-200N1 (Cubicle A6/06)
Mains
400V;3/PE~50Hz

gG80A
4G35mm2

Not included in the AEG shipment

+MBC1
BY-200F4
Bypass-Trafoschrank mit HU 20 kVA
1000007888.090
10009760

-X1 1U,1V,1W,PE
-X10 U,V,W,PE
-X13 U,N,PE
-X14 U,N
-X1 3U,3V,3PE
-A85
-H1
-Q10
L=50/35A
I=0,5kA
Icu=50kA
-T8
400V/400V/
20kVA
-Q28.1
NC
-Q28.2
NC
-X1 2U,2V,2W,PE
-X4 1U,1V,1W,1N,PE
-X4 2U,2V,2W,2N,PE
-X1 4U,4V,4W,PE

+UPS1
BC-200F4A
Protect 8.33 20-400-204-400
1000007888.080
10009759

-X13 U,N,PE
-X14 U,N
-A85
-H1
-E1-X1 U,V,W,PE
-E4-X4 U,V,W,N,PE
-Q1
L=100/85A
I=1,0kA
Icu=50kA
-T40
-A1
REC
-A2
INV
-T1
-F1,-F2,-F3
-A3
SBS
-A4
-A18
Display
-A20
Parallel Adapter
INV CAN
-X3
1-3
INV Sync
-X5
1-4
-L11,-L12,-L13
Parallel preventive choke coil
-A12 ,-A13
Remote signaling
-A24.1
-A24.2
-A24.3
BLÜ-PRO
-F91
-F92
-F93
-E2-X2 L-,L+,PE
-X15 2,3
-X130 1,2
-E3-X3 U,V,W,N,PE
-X2 1L+,1L-,PE
-X15 2,3
-X91 1M
-X92 1M
-X93 1M
-X5 1U,1V,1W,1N,PE
-X2 2L+,2L-,PE
-X15 4,5
-X91 2M
-X92 2M
-X93 2M
-X130 1,2,1PE
-Q71
NC
-Q29
INV operation
Manual bypass
-F25
DP-200F4
-QF31
B16A
300mA
5pc
-QF35
B16A
300mA
-QF36
B10A
3pc
-QF38
B10A
-X31 U,N,PE
-X35 V,N,PE
-X36 W,N,PE
-X38 V,N,PE
Not included in the AEG shipment
max. gG10A
max. gG10A
Load
400/230V;3/N/PE~50Hz

+UPS2
BC-200F4B
Protect 8.33 20-400-204-400
1000007888.080
10009759

-Q72
NC
-X2 3L+,3L-,PE
-X15 6,7
-X91 3M
-X92 3M
-X93 3M
-X2 4L+,4L-,PE
-X15 8,9
-X91 4M
-X92 4M
-X93 4M
-X130 3,4,2PE

+BFB1
CB-200F4A
Battery fuse box 200 A
-Q2
L=200A
DC 24V
max. 300W
2(1x70 mm2)

+BFB2
CB-200F4B
Battery fuse box 200 A
-Q2
L=200A
DC 24V
max. 300W
2(1x70 mm2)

+BAT1
BA-200F4A
Batteries installed on rack
3 x 18 x FTG 12-120
Battery voltage 216V
Battery capacity 360Ah
string 1
String 2
String 3
-R81

+BAT2
BA-200F4B
Batteries installed on rack
3 x 18 x FTG 12-120
Battery voltage 216V
Battery capacity 360Ah
string 1
String 2
String 3
-R81

Symbol	Description
	Mains breaker
	Transformer with two secondary windings
	Rectifier
	Inverter
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	Static by-pass switch
	Coil
	Display control module
	Heater
	Light

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02	500000002089	27.08.2024	Beckschäfer	Checked	Ch.Peck
Stat	Alteration	Date	Name	Norm	

ROSETTI MARINO
Hollandse Kust Noord (HKN) wind farm

AEG POWER SOLUTIONS

System 20 kVA
Single-line diagram

1000007888_080 en

A0 | sheet 1 | sheets 1

1000007888_080