Base Load Power Hub (BLPH)

DC UPS - SINGLE LINE DIAGRAM AND INTERCONNECTING DIAGRAM

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Document Class: 2

02	26/07/2024	Accepted for Construction (AFC)	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)

HOLDS LIST

No.	Description
1	
2	
3	
4	

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+REC1
UP-200F1 A

-M1/2
220-240 Vca
50-60Hz
FAN

-PR2-TH1
THERMOSTAT 100º

-PR2-TH2
THERMOSTAT 90º

-PR1-TH1
THERMOSTAT 100º

-PR1-TH2
THERMOSTAT 90º

Charger
100A 12Pulses

-Z1
0/450V

-X1
L1
70 mm²
4G16 mm2
unamoured cable

MAINS
3x400Vac 50Hz -50kA

L1;L2;3;PE

-Q1
50A

-T1
110V/100A
019.6KVA

-PR2
TPC

-PR1
TPC

-A320
INTERFACE

-R2
100mV
130A

-C1
3x6800µF
160V
Filtering 1%

-F1
NH00
125A

-V21
100A

-Q2
160A

-R3
100mV
130A

-Q3
160A

BATTERY
110Vdc
-X3
+/-
70 mm²

Battery
symmetry
-X31
+/-
4 mm²

-A10
BATTERY SIMMETRY
FAULT

-L+/-
2P 125A
BUS BAR
110 VDC

+BP
BATTERY PROTECTION

2 (1x25) mm2

-F100
Plastic
box 80*80

+BAT

-SD1

-SD2

-Q10
50A-C
-X2 1+/1
16 mm²
3G16 mm2
amoured cable
(+REC1-A1 /1.4) / SD1

CP-100F1
DC CONTROL 66kV G/S
LINE A-5.2KW

-Q11
20A-C
-X2 2+/2
16 mm²
3G16 mm2
amoured cable
(+REC2-A1 /1.4) / SD2

CP-100F1
DC CONTROL 66kV G/S
LINE B-2KW

-Q12
16A-C
-X2 3+/3
16 mm²
3G16 mm2
amoured cable

SG-100D1
DC CONTROL 6,6kV
SWITCHGEAR LINE A-1KW

-Q13
16A-C
-X2 4+/4
16 mm²
3G16 mm2
amoured cable

SG-100D1
DC CONTROL 6,6kV
SWITCHGEAR LINE B-1KW

-Q14
50A-C
-X2 5+/5
16 mm²

SPARE 5,5KW

-Q15
20A-C
-X2 6+/6
16 mm²

SPARE 2KW

-Q16
16A-C
-X2 7+/7
16 mm²

SPARE 1KW

-F10/F11
DEHNguard

-A21
EARTH +/-

-A1
GCAU
CONTROL UNIT

-A71

-A5.1
Relays

-CR1-X5

-A300
DISPLAY

-A310
KEY PAD

-A73
MODBUS-TCP/IP

-A8
Isolated

SD1 / (+BAT-SD1 /1.8)

-KF
PSR-SCP- 24DC / SIL3

-Z2
400V

-X6
50 mm²

INTERCONNECTION

-X8
4 mm²
CHARGERS
INTERCONNECTION

2,5 mm²

PH4 35 mm²

AUXILIARY SUPPLY
230Vac-50Hz

-X7
L/N
6 mm²
3G2.5 mm2
unamoured cable

-Q6
02A-C

-Q7
02A-C

-H3

-THF4
0/60ºC

-E50
100W

+REC2
UP-200F1 B

-M1/2
220-240 Vca
50-60Hz
FAN

-PR2-TH1
THERMOSTAT 100º

-PR2-TH2
THERMOSTAT 90º

-PR1-TH1
THERMOSTAT 100º

-PR1-TH2
THERMOSTAT 90º

-A8
(+REC1-CR1-J13:1 /1.4)

Charger
100A 12Pulses

-Z1
0/450V

-X1
L1
70 mm²
4G16 mm2
unamoured cable

MAINS
3x400Vac 50Hz -50kA

L1;L2;L3;PE

-Q1
50A

-T1
110V/100A
019.6KVA

-PR2
TPC

-PR1
TPC

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INTERFACE

-R2
100mV
130A

-C1
3x6800µF
160V
Filtering 1%

-F1
NH00
125A

-V21
100A

-Q2
160A

2,5 mm²

-A1
GCAU
CONTROL UNIT

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Relays

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DISPLAY

-A310
KEY PAD

-A73
MODBUS-TCP/IP

-A8
Isolated

SD2 / (+BAT-SD2 /1.8)

A8 / (+REC2-X8 /1.4)

-A10
BATTERY SIMMETRY
FAULT

Battery
symmetry
-X31
+/-
4 mm²

2,5 mm²

AUXILIARY SUPPLY
230Vac-50Hz

-X7
L/N
6 mm²

-Q6
02A-C

-Q7
02A-C

-H3

-THF4
0/60ºC

-E50
100W

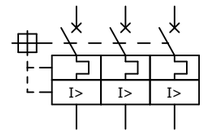
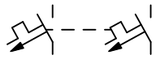
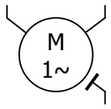
ES21464

				Date	21/03/2024	3W POWER S.P.A.	AEG POWER SOLUTIONS	Single-line	1724000372-EL-DG-00006	= System
				Editor	EBM	Hollandse Kust Noord (HKN) wind farm		System		+ 8 / 47
				Checked	JOP					& EFA
Stat	Alteration	Date	Name	Standard					ES521464 en	A3 Sheet / Sheets 1

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IEC_symbol

Symbol

NO contact 	Female pin of a plug connection with direct connection point 	Circuit breaker, two-pole, form 2 
NC contact	Plug of a plug connection with direct connection point	Terminal with 2 connection points
Electromechanical operating device, general / relay coil 	Capacitor, polarized (electrolytic capacitor) 	
Fused terminal	Change-over contact with break point (2-path) 	Terminal with 6 connection points without saddle jumper connection points 
Fuse, single-pole, general 	Change-over contact with break point (3-path) 	Power circuit breaker, three-pole (L-, I-characteristic) 
Resistor, general	Terminal	
Circuit breaker, two-pole 	NC temperature switch 	
AC motor 	Heating element with PE 	

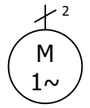
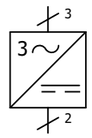
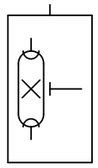
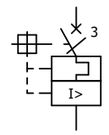
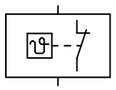
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				Date	21/03/2024	3W POWER S.P.A.	AEG POWER SOLUTIONS	Symbols used	=	
				Editor	EBM	Hollandse Kust Noord (HKN) wind farm			+	4 / 47
				Checked	JOP				& EPZ	Sheet 1
Stat	Alteration	Date	Name	Standard				ES521464 en	A3	Sheets 4

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IEC_single_symbol

Symbol

Semiconductor diode, general 	AC motor, without PE, with straight connection point 	
Thermocouple 	Circuit breaker, two-pole, form 2 	
Fuse circuit breaker, single-pole 	Terminal	
3Ph Bridge Rectifier 		
Fluorescent lamp with PE 	Power circuit breaker, three-pole (L-, I-characteristic) 	
Capacitor, polarized (electrolytic capacitor) 		
NC temperature switch 		
Heating element with PE 		

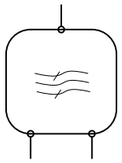
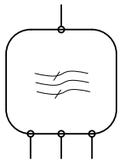
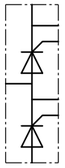
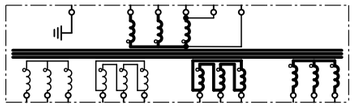
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IEC_AEGPSI_symbol

Symbol

Cable, wire	Fuse 	
0.5mm² Wire	Shunt 	
Power interconnection Supplied 	Fuse-holder 1	
Power interconnection not supplied 	BUSBAR 	
Load switch disconnector, three-pole;rotary handle 	Filter single-phase 	
Ferrita 	Filter three-phase 	
Semipack SKKT 	Three-phase transformer 	
Fuse switch disconnector, three-pole 	Fuse holder Terminal 	

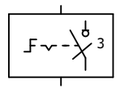
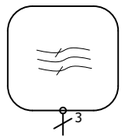
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				Editor	EBM	Hollandse Kust Noord (HKN) wind farm				+ 6 / 47
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IEC_AEGPSI_single_symbol

Symbol

Load switch disconnector, three-pole;rotary handle 		
SHUNT 		
Filter three-phase 		
Three-phase transformer 