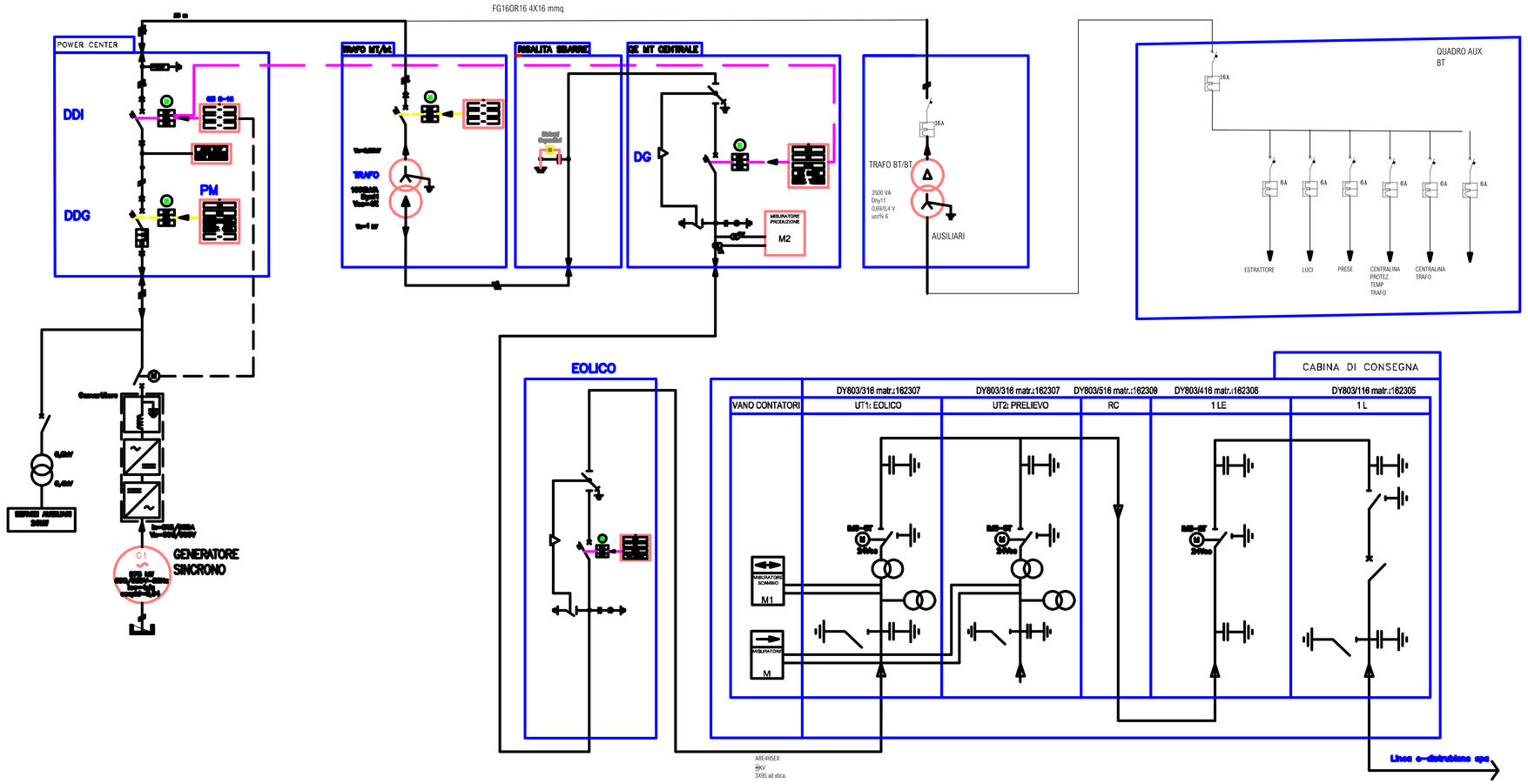
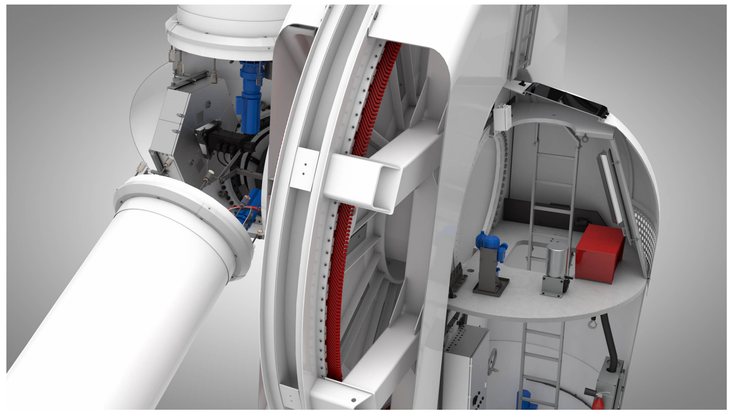


ASSETTO DI ESERCIZIO IMPIANTI

	Assetto in funzionamento normale	Assetto in assenza di rete	Assetto in presenza di tensione lato rete e impianto collegato per manutenzione
DG	Dispositivo Chiuso	Dispositivo Chiuso	Dispositivo Aperto
DDI	Dispositivo Aperto	Dispositivo Aperto	Dispositivo Aperto
DDG	Dispositivo Chiuso	Dispositivo Chiuso	Dispositivo Aperto

Electrical Specifications

General Connection Data	
Nominal connection point voltage	UN 690 / 620 V
Earthing system	TN-C as per IEC 60364-1
No. of generation sets in power station	1
Operation in island mode	No
Will generation plant supply electricity to on-site premises?	Yes
Operating regime of generation Intermittent	
Operational Data	
Nominal power PN	1000 kW
Registered capacity	
Active power export	
Rated kW	
Max active power sent out (kWso max)	1000 kW
Rated MWo	1.0 MWso
Nominal voltage UN	690 / 620 V
Rated terminal voltage	
Nominal current IN	837 / 931 A
Rated apparent power SN	1100 kVA
Rated MVA	1.1 MVA
Rated	
Maximum capacity of network connection	
Nominal reactive power QN	0 kvar (controllable)
Min reactive power at PN & UN (importing)	-382 kvar
Max reactive power at PN & UN (exporting)	457 kvar
(see Appendix A: Reactive power control)	
Maximum power Pmc	1000 kW
0.2 second average power P0.2-sec	1000 kW
1 minute average power P1-min	998 kW
10 minute average power P10-min	997 kW



Generator

Type	84-pole synchronous
Type of generating plant	Series full back-to-back converter
Method of excitation for rotating plant	Separately/Electrically excited rotor field
Type of prime mover/energy source	Wind
Rated Apparent Power	1150 kVA
Voltage	720 V
Field Excitation	Active wound rotor
Rated speed	24 rpm
Protection	IP 54
Number of phases	6 (2 x 3-phase 30° shifted)
Insulation class	F
Winding Protection	
RTDs	8 x PT–100
Power Converter	
Type	Active switching IGBT (AC-DC-AC)
Switching frequency	2-4 kHz
Rated voltage	690 / 620 Vac
Rated apparent power	1100 kVA
Rated current	920 / 1024 A
Converter Protection	
Circuit breaker	Moulded-Case Circuit Breaker
Circuit breaker trip current	1050 A
Surge protection	75 kA, 1.5 kV
Protection elements employed to operate automatic disconnection device for source.	Grid monitor relay
Means of supervision of site tripping supplies, where applicable	DIRECTWIND Management System (DMS) (EWT proprietary SCADA)
Means of trip circuit supervision on automatic disconnection device for source	DMS or optional intertripping circuit

EWT	Category:		Revision: 00
	Title:	Power Curve DW61*1000	Page 3 / 4
	Doc code:	S-1209901	

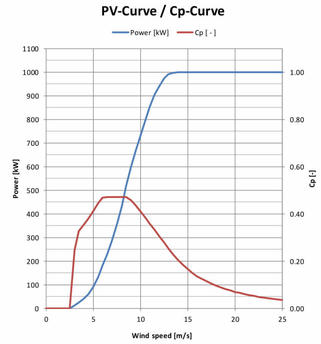
1 General information

Rotor diameter:	61 m	Cut-in wind speed:	3 m/s
Rated power:	1000 kW	Cut-out wind speed:	25 m/s
IEC wind turbine class:	IIIA	Rated wind speed:	14.0 m/s

Wind speeds based on 10 minute averages at turbine hub height

2 Power curve

Wind speed [m/s]	Power [kW]	Cp [-]
0 - 2.5	0	-
3.0	12	0.249
3.5	25	0.326
4.0	41	0.354
4.5	62	0.381
5.0	92	0.412
5.5	133	0.446
6.0	181	0.468
6.5	231	0.470
7.0	289	0.471
7.5	356	0.472
8.0	432	0.472
8.5	518	0.472
9.0	597	0.459
9.5	668	0.436
10.0	732	0.410
10.5	796	0.385
11.0	853	0.359
11.5	905	0.333
12.0	941	0.305
12.5	973	0.279
13.0	992	0.253
13.5	998	0.227
14.0	1000	0.204
14.5	1000	0.184
15 - 25	1000	0.166 - 0.036



The power curve is valid for standard atmospheric conditions whereby a temperature of 15 °C and an air density of 1.225 kg/m³ are considered, together with a vertical wind shear exponent of 1/7. The data is applicable for a non-complex site with no flow inclination and clean blades.

© Copyright Emergya Wind Technologies bv, The Netherlands. Reproduction and/or disclosure to third parties of this document or any part thereof, or use of any information contained therein for purposes other than provided for by this document, is not permitted, except with the prior and express permission of Emergya Wind Technologies BV, The Netherlands.

Regione: SARDEGNA
Provincia: ORISTANO
Comune: SUNI
Località: FUNTANA IDE

Nord

TURBINA EOLICA 975 kWp
PROGETTO DEFINITIVO

Progetto:	SINGOLA TURBINA EOLICA EWT DW61 975 kW (Ø61m - HH84hub)
Tavola:	SUN.PRO.TAV.T16 rev. 01
Titolo:	Schema elettrico Unifilare

Timbro / firma Project Manager	Timbro / firma Professionista	Timbro / firma Professionista

Note:

29/11/21	b	REVISIONE	Ing. D. Lucchi	Ing. D. Lucchi	EWT ID SRL
25/05/21	a	EMISSIONE	Ing. D. Lucchi	Ing. D. Lucchi	EWT ID SRL
Data	Rev.	Descrizione revisioni	Elaborato da:	Controllato da:	Approvato da:

REVISIONI

EWT ITALIA DEVELOPMENT S.R.L.
Via Giuseppe Rovani, 7 - 20123 Milano (MI)
P. IVA 10525690961

SVILUPPO PROGETTO

ALBERTO LAUDADIO
Project Manager L. 4 /2013

EMAN S.R.L.
Via San Quintino, 26/A - 10121 Torino (TO)
P. IVA 11439230019
technical@emansrl.it - eman.srl@pec.it

Foglio n° 1 di 1 Scala: ND Formato UNI A1