

Eficiența economică a sistemului hibrid izolat configurat

23-Mar-2013



preia datele din config

tiparire

locatie	dava
Altitudine [m]	100
Temp medie/an [C]	10
Radiatie[kwh/mp/zi]	3.4
cadere [m]	1.05
debit [l/s]	31
A [m/s]	4.16
k	1.7
h butuc [m]	12
obstacol echiv [m]	0.1

euro/Mwh	52	euro/CV	57	an PIF	2012
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nr CV	6
pret/w	1
% inv s	70
nr p sol in serie	1
nr serii in ll	6

nr CV	1
pret/w	2
% inv h	40
nr t hidro	1

nr CV	1.33
pret/w	1
% inv v	70
nr t vant	1

pret/w	0.2
% inv inc	90
nr inca	1

pret/Ah	1.8
% inv stoc	90
nr bat in serie	2
nr serii in ll	2

pret/w	0.7
% inv inv	90
nr inv	1

c.sarcina	1
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turb vant		eolis	
1	P [Kw]		1.0
2	Diam [m]		3.1
3	h but [m]		6.0
4	rand [%]		0.0
5	Ue [V]		48.0
6	Utr [Kv]		0.0
7	fr [Hz]		0.0
8	P(3.5)		0.08
9	P(4.5)		0.14
10	P(5.5)		0.2
11	P(6.5)		0.33
12	P(7.5)		0.5
13	P(8.5)		0.75
14	P(9.5)		1.0
15	P(10.5)		1.05
16	P(11.5)		1.05
17	P(12.5)		1.05
18	P(13.5)		1.03
19	P(14.5)		1.0
20	P(15.5)		1.0
21	P(16.5)		0.9
22	P(17.5)		0.8

panou		HR195M	
1	P [w]		195.0
2	Ue [V]		24.0
3	Ie [A]		5.28
4	Ugol [V]		45.78
5	efic.[%]		15.27
6	lung[mm]		1580.0
7	lat [mm]		808.0
8	gros[mm]		50.0

turb hidro		LH1k-24	
1	P [kw]		1.0
2	hmin [m]		0.6
3	hmax [m]		3.0
4	Dmin [l/s]		30.0
5	Dmax [l/s]		63.0
6	Ue [V]		24.0
7	frecv[Hz]		0.0
8	rand [%]		90.0

inarcator		Steca-tarom...	
1	P[kw]		1.0
2	Upmin[V]		30.0
3	Upmax[V]		47.0
4	Ipmax[A]		45.0
5	Ucc [V]		24.0
6	Ubat m[V]		9.5
7	Ubat M[V]		29.0
8	efic.[%]		94.0

baterie		romb100ah	
1	C(20h)[Ah]		100.0
2	C(5h)[Ah]		80.0
3	Tens [V]		12.0
4	lung [mm]		329.0
5	lat [mm]		172.0
6	inalt[mm]		215.0
7	greut[Kg]		22.0

invertor		Steca-XTM3kS	
1	P[Kw]		3.0
2	Ui min[V]		19.0
3	Ui max[V]		34.0
4	Ue[V]		230.0
5	THD [%]		2.0
6	frecv[Hz]		50.0
7	rand [%]		94.0

C m [kwh/zi]	18.45	E m [kwh/zi]	13.32	Asig max	0.72	C bat [kvah]	3.84	I. e. [zile]	0.21
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Energie [MWh]/an	solara	1.45	hidro	2.52	vant	1.2	E.cc prod. / an [Mwh]	5.17	E.ca livrata / an [Mwh]	4.86
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cost investitie [euro]	1671	5000	1429	222	800	2333	Cost inv. [euro]	11455
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cost/kwh produs in 15 ani	0.115	0.132	0.119	euro / kwh livrati						0.236
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Termen de recuperare fara CV [ani]	45.33	Termen de recuperare cu CV [ani]	12.19
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calculate pe 15ani (cf. L220/2008)