

HIDROAGREGATE DE MICĂ PUTERE STANDARD TIP FO ȘI EOS FO AND EOS STANDARD TYPE SMALL HYDROPOWER UNITS

Listă de referință – extras Reference List – excerpt

DATELE CENTRALEI PLANT DATA				TURBINA HIDRAULICĂ HYDRAULIC TURBINE				GENERATOR		
Nr. crt.	Denumire CHE/ Beneficiar	Putere pe centrală [kW]	Cădere [m]	Nr. agregate	Tip	Putere [kW]	Turație [rpm]	Tip	Putere de catalog [kW]	An PIF/ (exe)
Code	HEPP Denomination/ Employer	Plant power [kW]	Head [m]	No. of units	Type	Output [kW]	Speed [rpm]	Type	Catalog power [kW]	Year of instal./ (manuf)
1	2	3	4	5	6	7	8	9	10	11
1.	Calinesti Oas - Satu Mare	700	7,9	2	EOS 1100			MA		1982
2.	Arinis - Suceava	205	5,2	1/2	EOS 1100		300	GA 100/43-20	250	1983
3.	Arinis - Suceava	205	5,2	1/2	EOS 700		500	GA 100/36-12	250	1983
4.	Barnar - Suceava	450	73,2	1	FO 125/640*		750	GA 100/33-8	400	1983
5.	Gainesti - Suceava	108	70	1	FO 90/390	108	1000	ME		1983
6.	Manastirea Dej I - Cluj	378	4,5	3	EOS 1100	160	300	GA 100/43-20	250	1983
7.	Putna - Suceava	239	45,2	1	FO 125/640	239	600	GA 100/40-10	400	1983
8.	Tei - Bucuresti	190		2	EOS 1100	95	300	GA 100/43-20	160	1983
9.	Brodina - Suceava	673	58,6	1	FO 190/720	673	600	GA 100/80-10	800	1984
10.	Falticeni - Suceava	260	100	2	FO 90/390	130	1500	GA 70/46-4	250	1984
11.	Herastrau - Bucuresti	183		2	EOS 1100	91	300	GA 100/43-20	160	1984
12.	Manastirea Dej II - Cluj	366	4,3	3	EOS 1100	160	300	GA 100/43-20	250	1984
13.	Tarlung I - Brasov	730	50	1	FO 190/720	800	750	GA 100/55-8	800	1984
14.	Valea de Pesti - Deva	200	34,2	1	FO 125/640	200	500	GA 100/36-12	250	1984
15.	Brodina II - Suceava	174	12,5	1	EOS 700		750	GA 100/33-8	400	1985
16.	Darmoxa - Suceava	671	87	1	FO 125/640	671	750	GA 100/55-8	800	1985
17.	Ehreste - Suceava	607	80,3	1	FO 125/640	607	750	GA 100/55-8	800	1985
18.	Hemeiusi - Bacau	85	9	1	EOS 500*	85	1000	ME		1985
19.	Horezu I - Rm. Valcea	30	38	1	FO 90/390	30	750	MA		1985
20.	Limpedea - Pitesti	315		1	FO 90/390	315	1500	GA 70/46-4	315	1985
21.	Novaci II - Targu Jiu	2200	50	2	FO 230/720	1100	600	GA 120/65-10	1200	1985
22.	Strunga Timiseseti - Iasi	360	63	1	FO 125/640	360	750	GA 100/55-8	800	1985
23.	Talmaciu - Sibiu	235	6	1/2	EOS 700		600	GA 100/44-10	400	1985
24.	Talmciu - Sibiu	235	6	1/2	EOS 1100		300	GA 100/43-20	250	1985
25.	Tarlung II - Brasov	2325		3	FO 125/640	800	750	GA 100/55-8	800	1985
26.	Tesila I - Ploiesti	1485	32	2	FO 230/720	762	500	GA 120/71-12	1000	1985
27.	Baraj CET - Oradea	680	6	4	EOS 1100*	170	300	GA 100/43-20	250	1986

1	2	3	4	5	6	7	8	9	10	11
28.	Baru Mare - Deva	440	67	1	FO 125/640	400	750	GA 100/55-8	800	1986
29.	Bistra II - Piatra Neamt	310	58,5	1	FO 125/640	310	750	GA 100/33-8	400	1986
30.	Bolovani - Bistrita	1100	67	2	FO 125/640*		750	GA 100/55-8	800	1986
31.	Casin I Tr I - Bacau	157	10,2	2	EOS 500*	78	750	ME		1986
32.	Dridu - Slobozia	2350	12	4/5	EOS 1100	587	500	GA 100/72-12	630	1986
33.	Fenes II - Alba Iulia	1000	110	1	FO 125/640	1000	1000	GA 120/50-6-1	1000	1986
34.	Gastesti Pascani - Iasi	192	104	1	FO 90/390*	192	1500	GA 70/46-4	250	1986
35.	Horezu II - Rm. Valcea	1000	113	2	FO 90/570*	500	1000	GA 100/42-6	630	1986
36.	Lopatari - Suceava	840	51,9	1	FO 190/720	840	600	GA 120/65-10	1200	1986
37.	Panaci - Suceava	440	43	2	FO 125/640	212	500	GA 100/36-12	250	1986
38.	Pingaracior II - Piatra Neamt	247		1	FO 90/570*	247	750	GA 100/33-8	400	1986
39.	Pingaracior I - Piatra Neamt	321		1	FO 125/640	321	1000	GA 100/42-8	630	1986
40.	Pucioasa II - Targoviste	1240	17	3	EOS 700	413	750	GA 100/55-8	800	1986
41.	Sadau - Suceava	518	99	1	FO 90/570*	518	1000	GA 100/42-6	630	1986
42.	Surduc - Timisoara	1700	39	2	FO 230/720	850	500	GA 120/71-12	1000	1986
43.	Tomsani I - Rm. Valcea	1400	31	2	FO 230/720	700	500	GA 120/71-12	1000	1986
44.	Topolog Suici - Pitesti	1300	31	2	FO 230/720	650	500	GA 120/71-12	1000	1986
45.	Valeni Fantanele - Suceava	448	119	2	FO 90/390*	202	1500	GA 70/46-4	250	1986
46.	Vorova - Suceava	541	127	2	FO 90/390	271	1500	GA 70/46-4	250	1986
47.	Zeicani - Deva	365	64	2	FO 90/570*	365	750	GA 100/33-8	400	1986
48.	Bistra I - Piatra Neamt	758	94,6	1	FO 125/640	758	1000	GA 120/50-6-2	1200	1987
49.	Bixad - Sf. Gheorghe	1890	16,5	3	EOS 900	630	600	GA 100/80-10	800	1987
50.	Boia I - Rm. Valcea	2000	40	2	FO 230/720	1000	600	GA 120/65-10	1200	1987
51.	Bolovanis - Piatra Neamt	550		2	FO 90/390*	163	1500	GA 70/46-4	250	1987
52.	Bran I - Brasov	744	18	2	EOS 700	320	750	GA 100/33-8	400	1987
53.	Capra II - Piatra Neamt	375	88,5	2	FO 90/390*	225	1500	GA 70/46-4	250	1987
54.	Casin I Tr II - Bacau	159		2	EOS 500*	79	750			1987
55.	Chiojd I - Buzau	690	75	1	FO 125/640	690	750	GA 100/55-8	800	1987
56.	Chiojd II - Buzau	750	75	1	FO 125/640	750	750	GA 100/55-8	800	1987
57.	Chiuzbaia - Baia Mare	750	92	3	FO 90/390*	250	1500	GA 70/46-4	250	1987
58.	Dornisoara - Suceava	1886	104	2	FO 125/640*	943	1000	GA 120/50-6-2	1200	1987
59.	Gura Haitii - Suceava	1260	31	2	FO 230/720	830	500	GA 120/72-12	630	1987
60.	Huza I - Cluj	208	100	1	FO 90/390	315?	1500	GA 70/46-4	250	1987
61.	Isticeu - Targu Mures	875	100	1	FO 125/640*		1000	GA 120/50-6-2	1200	1987
62.	Isticeu - Tg. Mures	875	100	1	FO 125/640	875	1000	GA 120/50-6-2	1200	1987
63.	Izvoare - Baia Mare	760	82	4	FO 90/390*	174	1500	GA 70/46-4	250	1987
64.	Malini - Suceava	241	42,5	1	FO 125/640*	241	600	GA 100/40-10	400	1987
65.	Manzalesti - Buzau	940	47	1	FO 190/720	940	600	GA 120/65-10	1200	1987
66.	Milisauti - Suceava	258	5	4	EOS 900*	64	300	GA 100/43-20	250	1987
67.	Neagra Sarului I - Suceava	750	31	2	FO 230/720	375	500	GA 100/72-12	630	1987
68.	Novaci III - Targu Jiu	2160	47	2	FO 230/720	1080	600	GA 120/65-10	1200	1987
69.	Novaci IV - Targu Jiu	2160	45,5	2	FO 230/720	1080	600	GA 120/65-10	1200	1987
70.	Piatra Bulzului - Oradea	1754	87,4	2	FO 125/640*	872	1000	GA 120/50-6-2	1200	1987
71.	Poiana Marului - Suceava	548	73	1	FO 125/640	548	750	GA 100/55-8	800	1987
72.	Sadu Sat - Sibiu	150	6	2	EOS 700*	75	500	MA		1987
73.	Saru Dornei - Suceava	1829	61	2	FO 190/720	915	600	GA 120/65-10	1200	1987
74.	Slatina - Suceava	713	81,1	2	FO 90/390		1500	GA 70/46-4	250	1987
75.	Tomsani II - Rm.	1400	31	2	FO 230/720	700	500	GA 120/71-12	1000	1987

1	2	3	4	5	6	7	8	9	10	11
76.	Valea Cracului I - Deva	536	123	2	FO 90/390*	268	1500	GA 70/46-4	250	1987
77.	Valea Cracului II - Deva	415	114	2	FO 90/390*	207	1500	GA 70/46-4	250	1987
78.	Blidari IV - Baia Mare	450	77	3	FO 90/390*	137	1000	GA 100/42-6		1988
79.	Borsa Complex - Baia Mare	1430		2/5	FO 90/390*		1500	GA 70/46-4	250	1988
80.	Bran 0 - Brasov	560	15	2	EOS 700		750	GA 100/33-8	400	1988
81.	Bran II - Brasov	1612	35,75	2	FO 230/720*	799	500	GA 120/71-12	1000	1988
82.	Branesti - Targoviste	1240	17,5	3	EOS 700	413	750	GA 100/55-8	800	1988
83.	Bunget I - Targoviste	196	8,4	2	EOS 700*	98	500	ME		1988
84.	Ceahlau I - Piatra Neamt	390		2	FO 90/390	195	1500	GA 70/46-4	250	1988
85.	Cepari - Pitesti	1300	29	2	FO 230/720		500	GA 120/71-12	1000	1988
86.	Chiojd III - Buzau	620	70	1	FO 125/640	375	750	GA 100/33-8	400	1988
87.	Dobra I - Deva	810	98	2/3	FO 90/390*	243	1500	GA 70/46-4	250	1988
88.	Dobra I - Deva	810	98	1/3	FO 90/570*	489	1000	GA 100/42-6	630	1988
89.	Tesila II - Ploiesti	1665	32	2	FO 230/720	700	500	GA 120/71-12	1000	1988
90.	Viseuti I - Baia Mare	750	99	3	FO 90/390		1500	GA 70/46-4	250	1988
91.	Adunati - Targoviste	220	9,1	2	EOS 700*	110	500	ME		1989
92.	Bistra Noua - Resita	675	37	1	FO 230/720	675	500	GA 120/71-12	1000	1989
93.	Bistrita - Bistrita	1215	10,65	4/5	EOS 900*	340	500	GA 100/72-12	630	1989
94.	Boga II - Oradea	778	82,6	2	FO 90/570*	430	1000	GA 100/42-6	630	1989
95.	Borsa Complex - Baia Mare	1430		3/5	FO 90/570*	200	1000	GA 100/42-6	630	1989
96.	Budac I - Bistrita	756	101	2	FO 90/570*	756	1000	GA 100/42-6	630	1989
97.	Bungetu II - Targoviste	220	8,9	2	EOS 700*	110	500	ME		1989
98.	CET Restituire - Oradea	215	5	3/4	EOS 700		500	GA 100/36-12	250	1989
99.	CET Restitutie - Oradea	215	5	1/4	EOS 500*		750	GA 100/33-8	400	1989
100.	Galanesti III - Suceava	520	7,24	3/5	EOS 1100		300	GA 100/43-20	250	1989
101.	Galanesti III - Suceava	520	7,24	2/5	EOS 700*	101	500	GA 100/72-12	630	1989
102.	Godeanu I - Deva	400	96	2	FO 90/390*	208	1500	GA 70/46-4	250	1989
103.	Mocrea - Arad	55	4,5	1	EOS 700*	55		ME		1989
104.	Neagra - Piatra Neamt	236	99,8	1	FO 90/390	236	1500	GA 70/46-4	250	1989
105.	Negras II - Ploiesti	1100	105	4	FO 90/390	275	1500	GA 70/46-4	250	1989
106.	Orasa II - Bacau	336		3	EOS 700*	112	600	GA 100/40-10	250	1989
107.	Pojorata - Suceava	520	12	3	EOS 700*	178	600	GA 100/40-10	400	1989
108.	Runcu I - Targoviste	550	73	2	FO 90/570*	260	750	GA 100/33-8	400	1989
109.	Salatrucu de Sus - Pitesti	850	56	2	FO 125/640*	420	750	GA 100/55-8	800	1989
110.	Saru Dornei II - Suceava	1260	47	2	FO 230/720		600	GA 100/80-10	800	1989
111.	Tomsani III - Rm. Valcea	1500	32	2	FO 230/720	700	500	GA 120/71-12	1000	1989
112.	Valea Fetei I - Ploiesti	130	43,6	1	FO 90/570*	220	600	GA 100/40-10	400	1989
113.	Valenii de Munte - Ploiesti	850		2	EOS 1100*	170	300	GA 100/43-20	250	1989
114.	Valenii de Munte - Ploiesti	850		1	EOS 700		600	GA 100/80-10	630	1989
115.	Valenii de Munte - Ploiesti	850		1	EOS 900	350	750	GA 100/33-8	400	1989

1	2	3	4	5	6	7	8	9	10	11
116.	Bistrita - Bistrita	1215	10,65	1/5	EOS 700*	195	600	GA 100/80-10	800	1990
117.	Budureasa - Oradea	731	70	1/2	FO 125/640*		750	GA 100/55-8	800	1990
118.	Budureasa - Oradea	731	70	1/2	FO 90/570*		750	GA 100/33-8	400	1990
119.	Capra III - Piatra Neamt	1230	78,9	1/3	FO 125/640*	812	1000	GA 120/50-6-1	1000	1990
120.	Capra III - Piatra Neamt	1230	78,9	2/3	FO 90/390*	179	1500	GA 70/46-4	250	1990
121.	Casin IV - Bacau	202	10,27	2	EOS 500*	101	1000	ME		1990
122.	Galanesti II - Suceava	590	7,1	3/5	EOS 1100		300	GA 100/43-20	250	1990
123.	Galanesti II - Suceava	590	7,1	2/5	EOS 700*	91	500	GA 100/72-12	630	1990
124.	Gura Haiti II - Suceava	1000	65	2	FO 125/640*		750	GA 100/55-8	800	1990
125.	Huza II - Cluj	360	95	2	FO 90/390*	200	1500	GA 70/46-4	250	1990
126.	Iosasel - Arad	126	9,7	1	EOS 700*	136	500	GA 100/36-12	250	1990
127.	Neagra Sarului II - Suceava	1832	40	2	FO 230/720	916	600	GA 120/65-10	1200	1990
128.	Olteti II - Targu Jiu	1350	30	2	FO 230/720	675	500	GA 120/71-12	100	1990
129.	Tarlung III - Brasov	1200	38,5	2	FO 190/720		600	GA 100/80-10	800	1990
130.	Galanesti I - Suceava	452	6,67	2/4	EOS 1100		300	GA 100/43-20	250	1991
131.	Galanesti I - Suceava	452	6,67	2/4	EOS 700		600	GA 100/40-10	400	1991
132.	Prislop - Ploiesti	600	118,5	2	FO 90/390*	285	1500	GA 70/46-4	250	1991
133.	Cimpulung - Suceava	470	11,5	3	EOS 700*	195	600	GA 100/40-10	400	1992
134.	Novaci V - Targu Jiu	1130	33	2	FO 230/720		500	GA 120/72-12	630	1992
135.	Firiza - Baia Mare	600	32	2	FO 190/720*	400	500	GA 100/72-12	630	1993
136.	Iod III - Targu Mures	410	105	2	FO 90/390*	214	1500	GA 70/46-4	250	1993
137.	Izvorul Alb - Suceava	180	47,8	2	FO 90/390*		600	GA 100/40-10	400	1993
138.	Sihastrie I - Suceava	542	77	2	FO 90/570*	271	750	GA 100/33-8	400	1993
139.	Sinaia I - Ploiesti	1000	17	3	EOS 700	320	750	GA 100/33-8	400	1993
140.	Tarlung IV - Brasov	1200	42,5	2	FO 190/720		600	GA 100/80-10	800	1993
141.	Traisteni I - Ploiesti	2250	65	2	FO 190/720		750	GA 120/64-8	1200	1993
142.	Vadu Frumos - Pitesti	900	58	2	FO 125/640*	438	750	GA 100/55-8	800	1993
143.	Valea Cracului III - Deva	560	89	3	FO 90/390*	186	1500	GA 70/46-4	250	1993
144.	Baia de Fier - Targu Jiu	750	100	2	FO 90/570*	675	1000	GA 100/42-6	630	1994
145.	Tohan I - Brasov	1800	39,8	2	FO 230/720		500	GA 120/71-12	1000	1994
146.	Sadu I - Sibiu	1680	29	1/4	FO 230/720		500	GA 120/71-12	1000	1996
147.	Nimaesti IV - Oradea	1170		2	FO 125/640*	754	750	GA 100/55-8	800	2000
148.	Vicov - Suceava	636		4	EOS 900*	318	500	GA 100/72-12	400	2000
149.	Berzovia - Resita	120		1	EOS 1100*	118	300	GA 100/43-20	160	in exec
150.	Dobra II - Deva	440		1	FO 125/640*		750	GA 100/85-20	630	in exec
151.	Dobra II - Deva	440		1	FO 90/570*	254	750	GA 100/33-8	400	in exec
152.	Halchiu Moara - Brasov	130		1	EOS 900*	120	300	GA 100/43-20	160	in exec
153.	Ogrezeni - Giurgiu	655		4	EOS 1100		300	GA 100/43-20	250	in exec
154.	Oituz - Bacau	656		2	EOS 700		750	GA 100/33-8	400	in exec

LEGENDĂ

TIP TURBINĂ

- EOS 1100** Turbină elicoidală, orizontală, cu circuit în S, cu diametrul rotorului 1100 mm
- FO 90/570** Turbină Francis orizontală, turație specifică a modelului 90 / diametrul rotorului 570 mm

TIP GENERATOR

- GA** Generator asincron
- ME, MA** Motor electric ca generator

LEGEND

TURBINE TYPE

- EOS 1100** Propeller turbine, horizontal shaft, S-shaped 1100 mm runner diameter
- FO 90/570** Francis turbine, horizontal shaft, model specific speed 90 / runner diameter 570 mm

GENERATOR TYPE

- GA** Generator asynchronous
- ME, MA** Electric motor as generator