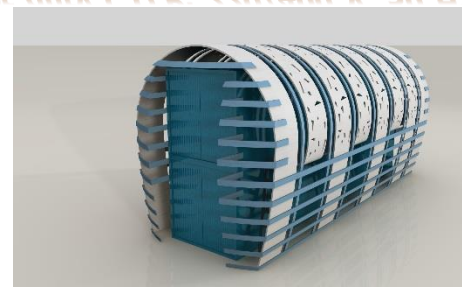
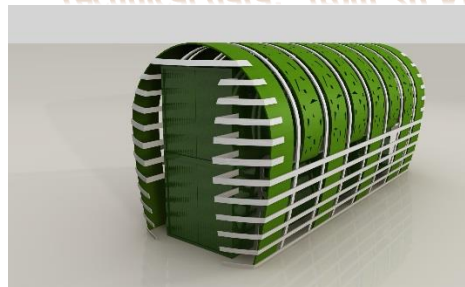




# pico cog / pico tri

**C.H.P. ready to use - Gruppo di emergenza**

**Technical data: from 20 KWe to 100 KWe Continuous power duty C.O.P; 220/400 V, 50 Hz**



## Design

Comb. air temperature / rel. Humidity:	°C / %	25 / 60		
Altitude S.L.M. :	mt.	100		
Operating Temperature Range :	°C	5 to 35		
NO <sub>x</sub> Emission (tolerance - 8%):	mg/Nm <sup>3</sup> @ 5% O <sub>2</sub>	1000	3 Way Dry Catalist	80
CO <sub>2</sub> Emission (tolerance - 8%):	mg/Nm <sup>3</sup> @ 5% O <sub>2</sub>	1000	3 Way Dry Catalist	80

## Fuel Gas Data

Methane number:	[ - ]	80,00		
Lower calorific value:	KWh/Nm <sup>3</sup>	10,17		
Standard gas:	Natural Gas MN=	80,00		
Gas density:	Kg/Nm <sup>3</sup>	0,79		

## C.H.P. Data

Modello/Model	entalpica	GEZF2-NG	GEZF4-NG	GEZF6-NG	GEZF8-NG	GEZF10-NG
Motore/engine	entalpica	EEZF2-NG	EEZF4-NG	EEZF6-NG	EEZF8-NG	EEZF10-NG
Alternatore/ generator	Meccalte/Leroy Somer / Marelli					
Temperatura di progetto / Operating temperature range	°C	From 0 to 35				
Classificazione dell'area / Area Classification	Sicura / Safe					
Potenza Elettrica / Electrical Power	KWe	20,0	40,0	60,0	80,0	100,0
Potenza / Power (C.O.P.) (ISO8528 e ISO3046) at generator terminal at power factor 0,8	KVA	25,0	50,0	75,0	100,0	125,0
Potenza / Power (C.O.P.) (ISO8528 e ISO3046) at generator terminal at power factor 1,0 :	KVA	20,0	40,0	60,0	80,0	100,0
Sovraccarico/ Overload	non ammesso / not allowed					
Power factor:	0,8 / 1,0					
Frequenza / Frequency	Hz	50				
Velocità /Speed	rpm	1500/3000/6000				
Tensione (trifase) / Voltage	V	220/400				
Variazione tensione da 0% a pieno carico in cond. statiche p.f. 0,8	%	+/- 1,5%				
Variazione della frequenza da 0% a pieno carico in cond. statiche:	%	+/- 1,5%				
Peso totale (+/-10%) – Preliminare / Weight	Kg	< 1000		< 2000		
Dimensioni generali del gruppo in container (+/-10%) Preliminary general overall dimensions (+/-10%)	mm	1200 h x 1000 w x 2000 L + 1000 per TRI		1800 h x 1200 w x 2000 L + 1000 per TRI		
Noise level	dB(A)	55 @ 7 mt				

## Energy Balance

Potenza Termica acqua motore /J/W Thermal Power	KWt	16	32	48	64	80
Potenza Termica Intercooler / Intercooler Thermal Power	n.a.					
Potenza Termica Olio motore / Lube Oil Thermal Power	Incorporato nel sistema acqua motore					
Potenza Termica gas di scarico raffreddati a 120°C	KWt	20	40	60	80	100
Potenza termica irradiata / Total Radiation heat	KWt	1	2	3	4	5
Potenza Termica Totale (escluso Intecooler) / Total Thermal Power	KWt/ Kcal	36 30.960	72 61.920	108 92.880	144 123.840	180 154.800

**ENTALPICA HOLDING S.R.L.**

SEDE LEGALE E OPERATIVA : VIA G.CARDUCCI 24 – 20875 BUSNAGO(MB)

C.F. E P.IVA IT06932980961 - R.E.A. - MB - 1868232  
CAPITALE SOCIALE € 10.000 I.V.

www.entalpicaholding.com  
info@entalpicaholding.com



Potenza Frigorifera / Cold Power	KWf/ Kcal	25 21.500	50 43.000	75 64.500	100 86.000	125 107.500									
Energia introdotta / Fuel Consumption	KW	63	126	189	252	315									
Energia introdotta / Fuel Consumption	m <sup>3</sup> /h	6,3	12,6	18,9	25,2	31,5									
Rendimento Totale (el. + term.) / Total Efficiency	%	88,8													
Rendimento Elettrico / Electrical Efficiency	%	31,7													
Rendimento Termico	%	57,1													
<b>System Parameters</b>															
Portata acqua motore / Jacket Water Volume Flow	m <sup>3</sup> /h	1,5	3,0	4,5	6,0	7,5									
Portata UTENZA / Client side Water Volume Flow	m <sup>3</sup> /h	2,2	4,5	6,6	8,8	10,0									
Portata olio lubrificante / Lube Oil volume Flow	m <sup>3</sup> /h	Incorporato nel sistema acqua motore / integrate with J/W													
Portata acqua Intercooler / Intercooler Volume flow	m <sup>3</sup> /h	N.A.													
Glycol content engine jacket water / intercooler	% Vol.	35													
Water volume engine jacket / intercooler	dm <sup>3</sup>	12	30	45	60	75									
Water pressure loss engine jacket water / intercooler:	Bar	0,8/0,55													
Temp. esercizio acqua motore / j/w Temperature – UTENZA	°C	80/90 70/85													
Temp. esercizio Olio / Lube oil Temperature	°C	Incorporato nel sistema acqua motore / integrate with J/W													
Temp. esercizio intercooler / Intercooler temperature	°C	N.A.													
Temp. esercizio Freddo / Cold Power Oper. Temp. Rang	°C	7/12													
Portata UTENZA / Client side Water Volume Flow	m <sup>3</sup> /h	5,0	10,0	15,0	20,0	25,0									
Temp. Gas di scarico / Exhaust Gas temperature	°C	470													
Portata gas di scarico / Exhaust Gas Volume Flow	Kg/h	180	360	540	720	900									
Portata aria di combustion / Combustion air volume Flow	Kg/h	160	320	480	640	800									
Ventilation air flow(comb. air incl.) with ΔT = 15K	m <sup>3</sup> /h	4000	6000	6000	8000	8000									
Exhaust back pressure from / to	mBar	30/50													
Maximum pressure loss in front of air cleaner	mBar	5													
Zero-pressure gas control unit selectable from / to	mBar	10/100													
Pre-pressure gas control unit selectable from / to	Bar	0,5/10													
Lube oil content engine / external lube oil tank	dm <sup>3</sup>	12/50	24/50	40/120	50/120	50/120									
Starter battery 12V/24V, capacity required	Ah	88													
Starter motor	kWe/ VDC	0,5/12	0,5/12	0,5/12	1/24	1/24									
<b>Engine data / Dati Motore</b>															
N° Cilindri / Configurazione / Configuration / Number of cylinders:		2 wankel	4 wankel	6 wankel	8 wankel	10 wankel									
Air Ratio	λ	1													
Rotazione / rotation		Antioraria lato volano / A.C.W.													
Rapporto di compressione : compression ratio	ε	13 : 1													
Velocità media del pistone / Mean Piston speed	m/s	6,3													
Pressione Media Effettiva / P.M.E.	Bar	9,5													
Combustibile / Fueled by	-	Gas Metano													
<b>Noise level Octave band</b>															
Frequency band f [Hz]	25	31,5	40	50	63	80	100	125	160	200	250	315	400	500	630
Air-borne noise <sup>4</sup> ) LW ,Terz [dB(lin)]	84	85	90	93	106	101	114	102	103	112	108	111	106	105	103
Exhaust noise <sup>5</sup> ) LW ,Octave [dB(lin)]	-		119			129			135			130			
Frequency band f [Hz]	800	1k	1.25	1.6	2k	2.5	3.15	4k	5k	6.3	8k	10k	LWA [dB(A)	S [m <sup>2</sup> ]	
Air-borne noise <sup>4</sup> ) LW ,Terz [dB(lin)]	102	103	103	102	103	103	102	105	106	109	105	103	117	83	
Exhaust noise <sup>5</sup> ) LW ,Octave [dB(lin)]	128			129			123			116			134	15,2	
4) DIN EN ISO 3746		5) DIN 45635-11 Appendix A (±3 dB)					LW: Sound power level								

## ENTALPICA HOLDING S.R.L.

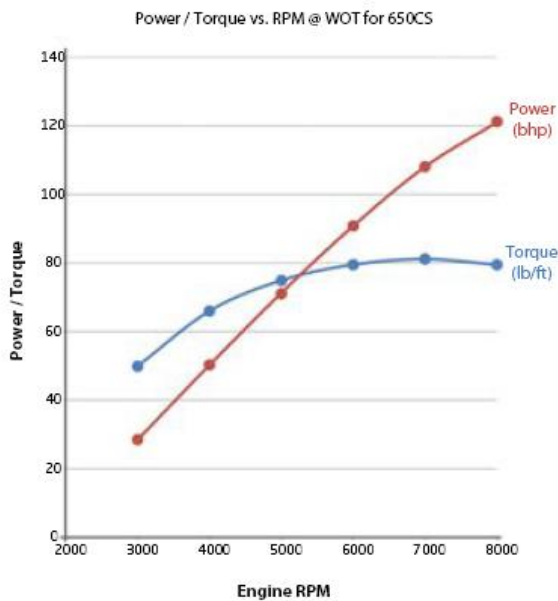
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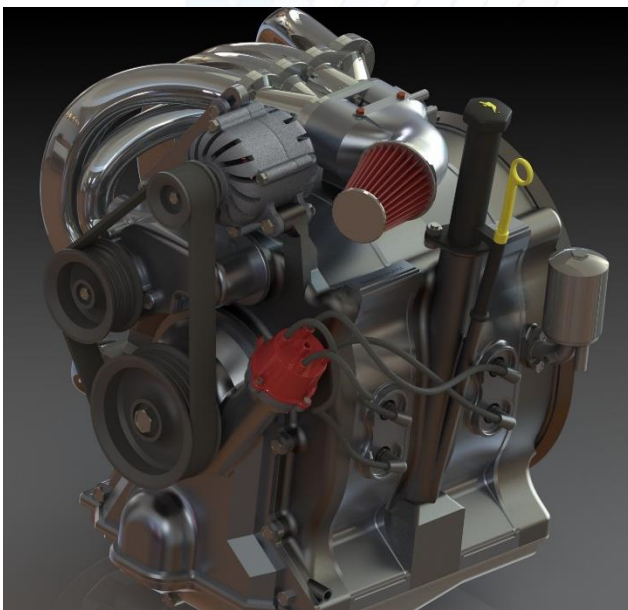
# Motori Wankel

## Specification Wankel Rotary Engine **650S 120BHP**



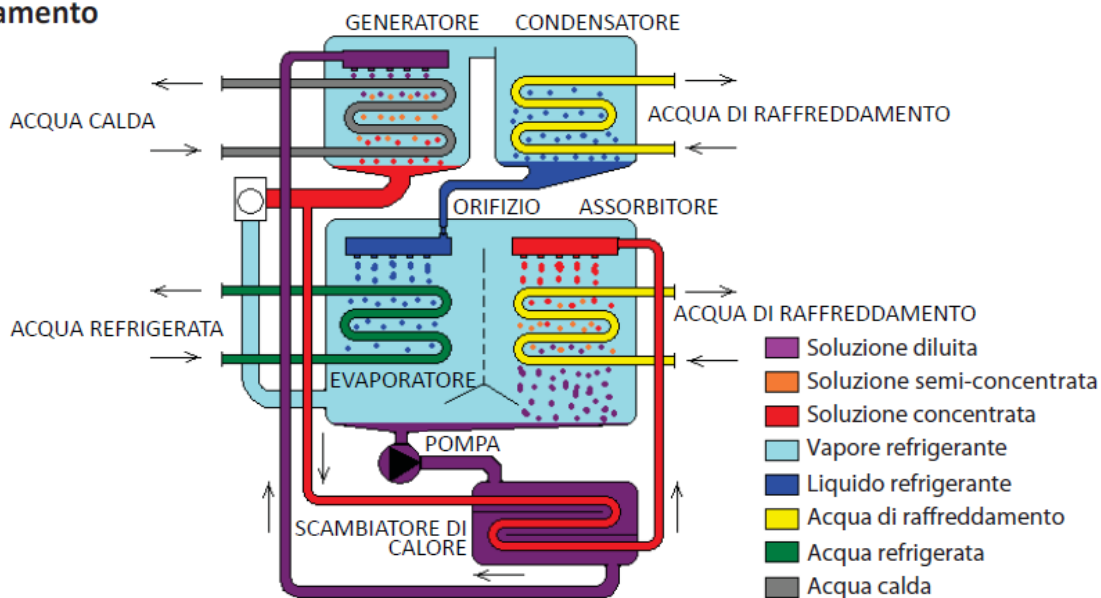
Engine Type	Single Rotor
Power Output	120 bhp (90 kW)
Weight	62 lb (28 kg) Core Weight
Displacement	40 cu in (650cc)
Torque	80 lb/ft @ 8000 rpm
Compression	9.6:1
Fuel Type	AVGAS / Gasoline / Heavy Fuels
Fuel Consumption	0.51 - 0.57 lb/hp/hr (310 - 350 g/kWh)
Cooling System	Liquid-Cooled Patented SPARCS*
Ignition System	Multiple Spark Plug / CDI
Engine Control System	Full Electronic Engine Management
Oil System	Digitally Optimised Lubrication
Configuration	Pusher / Tractor
Options	Generator / Reduction Drive

\*Self-Pressurising-Air Rotor Cooling System



# Assorbitore e torre per produzione acqua fredda ciclo 7-12°C

## Ciclo di Raffreddamento



## installazione

