

SevenPower SP-10N Specification List

Specifications:



Item	Model	Units	10
CHP	Fuel	*	Natural Gas
	Description	*	Synchro CHP
	Electrical Output	kVA/kWe	13/10
	Electrical Output Range	kW	3.0-10
	Thermal output(KWt)	kWt	24.4
	Electrical efficiency	kW	25.60%
	Thermal efficiency	%	62.60%
	Overall efficiency	%	88.20%
	Frequency	Hz	60
	Voltage	V	120/240V
	Gas inlet pressure	kPa	3-5
	Dimension (soundproof type)	mm*mm*mm	1630*780*940
	L x W x H	In x in x in	64" x 31" x 37"
	Net weight	kgs	580
	NG consumption	m3/kW.h	0.396
	Standard type-db(A)@7m	*	57
	Certification	*	CSA, UL,ETL
	Water-water heat exchanger	*	SWEP
	Water-exhaust heat exchanger	*	stainless steel
	NOx and CO	*	< 100
MCB	*	ABB	
GCB	*	ABB	
Controller		*	ComAp IG200
Engine	Engine model	*	SP9EW
	Engine type	*	Reciprocating 4 cylinder
	RPM	*	1800
	Displacement	*	1.5L
	Oil capacity	*	3.9L
	Start Motor	*	12V(DC)
	Starting system	*	Electric-start
Alternator	Model	*	Meccalte ECP28
	Phase	*	Single Phase 4 wires
	Cooling Type	*	air cooled
	PF	*	<.95
Identification of Standards Conforms to UL STDS 1741 & 2200, IEEE 1547.1			
Certified to CSA STD C22.2 #107.1 & 100			



CO2 Emissions Calculations: The greenhouse gas intensity of (A) the electric energy produced, or (B) the total energy produced from the simultaneous generation of electric energy and production of thermal energy from the same fuel source is less than or equal to 226 kg per MWh.

Natural Gas		
CO2 emission of natural gas in Alberta	1962	g CO2/m3
Gas consumption of the 10kW SmartPower	0.396	(m3/kWh)
Total	776.952	gCO2/kWh
CHP Performance		
Electrical output	10	kWe
Thermal Output	24.4	kWt
Total	34.4	kW
CO2 Calculations		
Natural Gas Consumption	776.952	gCO2/kWh
Electrical Factor	1000	(1MWh/kWh)
Output (10(kWe)/34(kW))	0.291	(gCO2/MWh)
Total	225858	gCO2/MWh
CO2 Compliance Calculations		
CHP combined heat and power CO2 emissions	225.86	kgCO2/MWh
Limit specified in the Micro-Generation Regulation	418	kgCO2/MWh
<i>Amount below the Limit</i>	<i>-192.14</i>	<i>kgCO2/MWh</i>

Noise level: 57db(A)@7m measured under ambient noise 50db(A) and with remote radiator off.