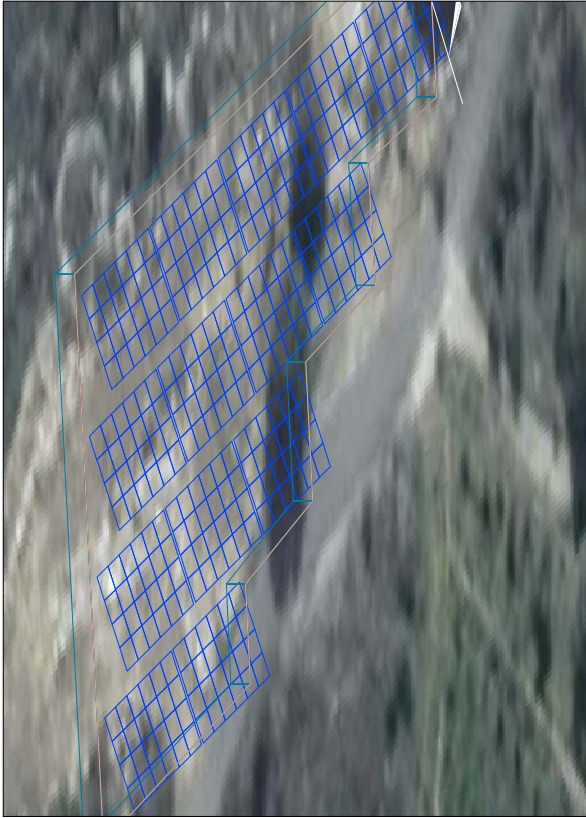


GENERAL SPECIFICATIONS			
Photovoltaic Generator	PV Capacity at STC (Wp)	≥90,000 Wp	
	Inclination	15°	
	Type of module	Crystalline 72 cells	
	Location and Orientation	Ground Mounted, 180°	
Grid-Tied Inverter	Standards	IEC 61215 edition 2, IEC 61730, IEC 62716, IEC 61701	
	Location	Outdoor	
	Type	Three phase transformerless	
	Rated power	≥80,000 W	
	Number of MPP tracker	≥ 1	
	Protection Class	≥ IP65	
	Biggest voltage MPP range	150 V - 800 V	
	Maximum DC voltage	1000 V	
	Output AC voltage	3 / N / PE 230, 400 V (adjustable)	
	Output AC frequency	50 Hz (adjustable)	
	Pfi cosine	1	
	THD	≤ 3%	
Dual mode Inverter	Consumption at night	≤ 3 W	
	Maximum efficiency	≥ 98 %	
	Euroefficiency	≥ 97 %	
	Standards	Harmonic Current (IEC 61000-3-2 and / or IEC61000-3-4), IEC 62109-1/2	
	Anti -standing protection	Yes / VDE 0126-1-1 or similar	
	Communication	RS485, ethernet, RS232	
	Additional requirements	Dynamic compensation of reactive power, inverter automatic reconnection conditions, linear output power control from a third device (read and write capabilities), utility-interactive photovoltaic inverter system.	
	Permissible grid characteristics (inverter not to be disconnected)	Vp-n = 230 V ±20%	
	Location	Vp-p=400 V ± 20%	
		Fq = 50 ± 5 Hz	
Battery bank	Nominal battery voltage	Technical room	
		48 V	
	Inverter function	Yes	
	Charger function	Yes	
	Transfer system	Yes	
	Assistance to grid	Yes	
	Rated power	36 kVA continuous (6 units of 6 kVA each)	
	Designed for an electrical grid of:	230 V and 50 Hz	
	Anti-islanding protection	Yes / VDE 0126-1-1 or similar	
	Communication	MODBUS or CAN (with communication bridge if required), allowing reading and writing on the inverter	
PV plant controller & data logger	Place of installation	Technical room	
		≥225,000 Wh	
	Rated Capacity	48 V	
	Maximum DOD	70%	
	Type	Vented tube lead acid	
	Rated cycles at DOD 70%	≥1500	
	Rated Service Lifetime	≥ 10 years	
	Type	Fuel reduction device	
	Communication	RS485, Ethernet and/or RS232 (compatible with Grid-dependent inverter, existing Genset control Unit, environment sensors and electrical meters)	
	Inputs	Meters, sensors, inverters, Genset Control Unit, Grid (consumption)	
SERVICE SPECIFICATIONS	Outputs	Inverters, Grid (back-feeding)	
	Data logger	2 years data logging capacity, monthly evaluation report, calculation of indicators and remote monitoring	
	Output perform	1,500 kWh/kWp	
	Specific Yield	370 kWh/day	
Facility characterisitics	Daily final average production (kWh/day)	238,272 kWh/year	
	Reference annual consumption (kWh/year)	Approx. 66%	
	Estimated solar fraction		



MODE OF OPERATION	
MODE	POWER SOURCE
Grid Mode	Grid
Fuel Reduction	Genset
Battery Mode	Battery Bank

DRAWING: SYSTEM LAYOUT AND ARCHITECTURE
PROJECT: JDEDET EL CHOUF WWTP PV SYSTEM
BENEFICIARY: JDEDET EL CHOUF MUNICIPALITY
PvLB 21.1