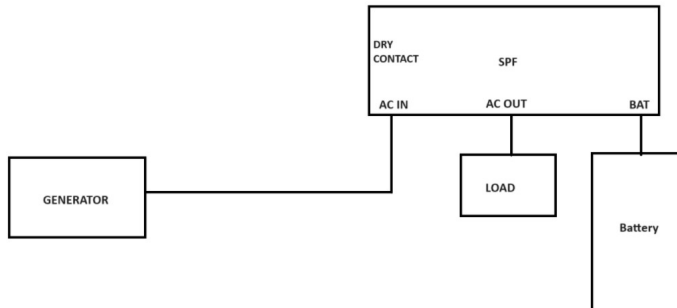


SOP SPF3500ES/SPF5000ES with generator with/without Dry Contact

1. SPF + Generator



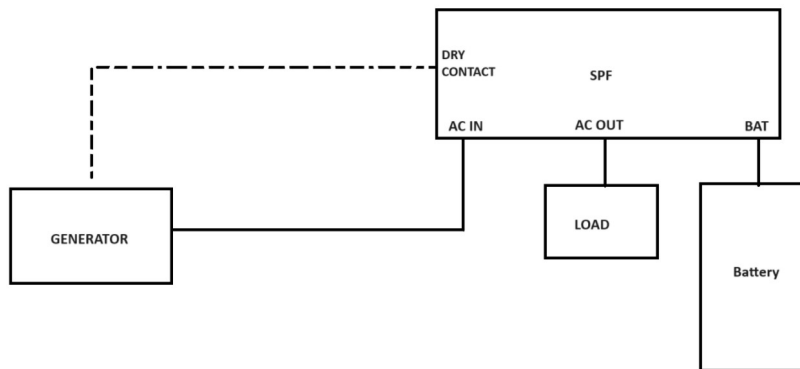
Generator must be compatible with 230V 50Hz loads, can be common diesel generator used to power loads.

Client must manually turn on generator when battery runs out.

Setting 1 = UTL

Setting 14 = SNU

2. SPF + Generator + Dry Contact



If dry contact is to be used, the generator must be compatible with dry contact functions, SPF must be upgraded to newest versions of firmware.

Setting 1 = SBU

Setting 14 = Solar&Utility

Setting 12 = Battery voltage for Generator ON

Setting 13 = Battery voltage for Generator OFF

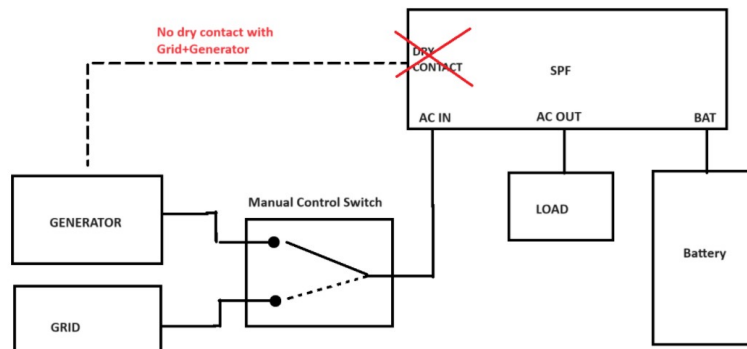
Dry contacts have the following logic

Dry Contact Signal

There is one dry contact(3A/250VAC) available on the rear panel. It could be used to deliver signal to external device when battery voltage reaches warning level.

Unit Status	Condition		Dry contact port:		
			NC & C	NO & C	
Power Off	Unit is off and no output is powered		Close	Open	
Power On	Output is powered from Utility		Close	Open	
	Output is powered from Battery or Solar	Program 01 set as Utility first	Battery voltage (SOC) < Low DC warning voltage(SOC)	Open	Close
			Battery voltage(SOC) > Setting value in Program 13 or battery charging reaches floating stage	Close	Open
	Output is powered from Battery or Solar	Program 01 is set as SBU or Solar first	Battery voltage (SOC) < Setting value in Program 12	Open	Close
		Battery voltage (SOC) > Setting value in Program 13 or battery charging reaches floating stage	Close	Open	

3. SPF + Generator + Grid



Dry contacts cannot be used when both generator and grid are connected to the inverter, this may cause generator to turn on without being connected.

Switch should be manual, not recommended ATS.

Setting 1 = UTL

Setting 14 = SNU