



- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Pure sinewave and programmable priority for Battery or Grid
- Self-consumption and Feed-in to the grid
- User-adjustable charging current and voltage
- Monitoring software for real-time status display and control
- Parallel operation up to 6 units only available for 4k & 10k model

HySpirit Grid-tied & Off Grid Inverter

MODEL NUMBER	FSP302PV-230H-48	FSP402PV-230H-48	FSP103PV-230TH-48
Grid system	Single Phase, 230Vac		Three Phase, 230/400Vac
Rated power	3,000W	4,000W	10,000W
Max. PV input power	4,500W	5,000W	14,800W
Operating PV voltage range	116 - 500Vdc	116 - 580Vdc	320 - 900Vdc
MPPT voltage range (Full Power)	250 - 450Vdc	280 - 500Vdc	400 - 800Vdc
Number of MPPT	1		2
Max. input current (DC)	18A		37.2A (18.6A per MPPT)
Max. input current (AC)	30A	40A	40A
GRID-TIED CHARACTERISTIC			
Output voltage range	184 - 264Vac		184 - 264Vac per phase
Nominal output current	13A	17.4A	14.5A per phase
Power factor range	0.9 lead - 0.9 lag		
THDi	3%		< 4%
Efficiency (PV to Grid)	>96%		>96%
EU efficiency @ nominal voltage	>95%		>95%
OFF-GRID CHARACTERISTIC			
AC start up voltage	120 - 140Vac		120 - 140Vac per phase
Bypass voltage range	170 - 280Vac		170 - 280Vac per phase
Auto wake up voltage	180Vac		180Vac per phase
Max. AC input current	30A	40A	40A
Output waveform	Pure sinewave		
THDv	< 4%		
Efficiency (PV to AC)	93%		91%
Efficiency (Battery to AC)	93%	91%	91%
CHARGING CHARACTERISTIC			
Max. charging power	1,200W	4,000W	9,600W
Max. charging current	5 - 25A programmable, default 25A	10 - 80A, default 60A	10 - 200A programmable, default 60A
Nominal Battery voltage	48Vdc	48Vdc	48Vdc
Battery voltage range	40 - 60Vdc	40 - 66Vdc	40 - 60Vdc
Max. discharging Current	82A	110A	275A
Night time power consumption	NA		<30W
PHYSICAL & ENVIRONMENT DATA			
Operating ambient temp range	0°C to 40°C		-10°C - 55°C*
Humidity	0 - 90%, non-condensing		
Altitude	0 - 1000m**		
Dimensions (W x H x D)	438 x 480 x 107 mm	438 x 535 x 117 mm	500 x 622 x 168 mm
Net weight	15.8 kg	16.3kg	45 kg
Protect function	Overload, short circuit, over / under voltage, high temperature		
Cooling	Air forced		
Enclosure environmental rating	IP20		
INTERFACE			
HMI	LCD display		
Comm. port	USB/ RS232	USB/ RS232	USB/ RS232 and CAN
Dry contact	No	Yes	Yes
Optional smart card	SNMP, Modbus, and AS400		
FEATURES			
Monitoring software	SolarPower		
Compliance	IEC 61000-6-3, IEC 61000-6-2, VDE V 0126-1-1, VDE-AR-N 4105, EN62109 · IEC62040		

*Power derating above 50°C

** Power derating 1% per 100m while higher than 1000m

*Product specification are subject to change w/o further notice