AQUILA POWER [3 PHASE]

AQUILA POWER [SPS/OFF/MICRO GRID] SERIES INVERTER TECHNICAL SPECIFICATIONS

FUNCTIONAL PARAMETERS		AQUILA POWER [SPS/OFF/MICROGRID] SERIES MODEL NUMBERS				
		AP(SPS/OFF/ MICROGRID/) 40/3	AP(SPS/OFF/ MICROGRID/) 50/3	AP(SPS/OFF/ MICROGRID/) 60/3	AP(SPS/OFF/ MICROGRID/) 75/3	AP(SPS/OFF/ MICROGRID/) 100/3
General Inverter Description		Aquila Power [SPS/Off/Micro Grid] Series Inverters are used for continuous AC power generation from multiple DC input power sources (including Solar PV, Battery Bank, and any other DC sources) in Domestic, Rural, Commercial and Industrial SPS/Off/Micro Grid applications				
Mechanical and Isolation Protection	Equipment Classification	Class I				
	Ingress Protection [IP]	IP 20				
	Inverter Isolation Type	The Inverter is Isolated between Input and Output circuits				
	Safety and Performance Standards	IEC 62109.1, IEC 62109.2, (EMC) CISPR 11:2015				
DC Power Input	Rated Power Input (kVA)	44.00 kVA	55.00 kVA	66.00 kVA	82.50 kVA	110.00 kVA
	Operating DC Input Range (VRANGE)	400 - 705 (VDC)				
	Maximum DC Input Voltage (VMAX)	750 (VDC)				
	Rated DC Input Current (I)	80.0 Amps	100.0 Amps	120.0 Amps	150.0 Amps	200.0 Amps
	Maximum DC Input Current (IMAX)	120.0 Amps	150.0 Amps	180.0 Amps	225.0 Amps	300.0 Amps
	Solar PV Short Circuit Current (ISC)	120.0 Amps	150.0 Amps	180.0 Amps	225.0 Amps	300.0 Amps
	DC Power Inputs	Any combination of intermittent, variable ranging or continuous DC input power sources, within the DC Input Voltage Range (VRANGE) is an acceptable power input				
AC Power Output	Apparent Power Output (kVA)	40.00 kVA	50.00 kVA	60.00 kVA	75.00 kVA	100.00 kVA
	Rated Power Output (kVA)	40.00 kVA	50.00 kVA	60.00 kVA	75.00 kVA	100.00 kVA
	Maximum Active Power Output (kW)	40.00 kW	50.00 kW	60.00 kW	75.00 kW	100.00 kW
	Power Factor (Cos Λ)	1.0 (Typical Load)				
	Rated 3 ϕ AC Output Voltage	3 ϕ + N PE 400/230 VAC				
	Frequency (Hz)	50 Hz +/- 0.5 Hz				
	Rated 3 ϕ AC Output Current	57.7 Amps	72.2 Amps	86.6 Amps	108.3 Amps	144.3 Amps
	Waveform Distortion THD (%)	< 5.0 % (Linear load)				
	Dynamic Load Response (%)	< 5.0% (Lagging for linear load from 0% to 100%)				
	Overload Power Capability (%)	150% (of Rated Power for 10 Seconds)				
	Efficiency Indicative (%)	> 90% (at 80% Resistive load)				
	Conversion Response DC→AC (%)	< 20.0 ms				
	Display Type	LCD (Scrolling menu button activated)				
Operating Environment	Insulation (Input←→Output) (VAC)	3000 (VAC) (Applied dielectric insulation test voltage)				
	Noise (dB)	< 50 dB (at 1 metre)				
	Ambient Temperature (°C)	- 15°C to + 45°C				
	Humidity (%)	0% - 95% (no condensation)				
	Altitude (m)	< 2000 m				

Mechanical	Dimensions W x D x H (Mtr)	1.2 x 0.9 x 2.1	1.2 x 0.9 x 2.1	1.2 x 0.9 x 2.1	1.2 x 0.9 x 2.1	1.2 x 0.9 x 2.1
	Weight (Kg)	490 Kg	590 Kg	740 Kg	840 Kg	1100 Kg
Functional Protection	DC Input +/- Polarity protection	Yes				
	DC Input Under-voltage protection	Yes				
	DC Input Over-voltage protection	Yes				
	AC Output Overload protection	Yes				
	AC Output Short-circuit protection	Yes				
	Over Temperature protection	Yes				
Communications Monitoring Connectivity	Local and Remote Data Acquisition, Control and Performance Data Display Capability	Fully featured Plug and Play Data Acquisition Monitoring and Control System and User Interface for Smart Phone and Internet connectivity and communications. (This system operates autonomously and external services such as Wifi are not required to be available)				
Product Registration and Approval	Australian Clean Energy Regulator Australian Clean Energy Council (ERAC/EESS) Responsible Supplier	An Australian Clean Energy Regulator approved [SPS/Off/Micro Grid] Inverter, for use in Australian Renewable Energy [SPS/Off/Micro Grid] Stand Alone Power System Installations.				
Manufacturing Performance and Design Standards	CEC / CER Mandatory requirements	IEC 62109.1 and IEC62109.2				
	Electromagnetic Compatibility (EMC)	Electromagnetic Compatibility (EMC) - CISPR 11:2015				
	Compatibility / Performance Standards	SAA Certificate of Suitability, JAS-ANZ Certified Corporation				

Aquila Power high performance designed inverters are the perfect choice for any Standalone Power System (SPS) for rural properties and farms, 'smart' irrigation networks, reservoirs and water pumping systems, business enterprises and industrial factories of any type, as well as traditional domestic premises.

Importantly Aquila Power 1/3 Phase Inverters are also designed to function in 'Small Cluster Off Grid Microgrid' scenarios where adjoining properties (rural in particular but domestic also) with shared boundaries, can collectively be supplied with cost effective and reliable electricity from a single autonomous Off Grid/Microgrid System which operates totally independently from the traditional grid, 24/7 x 365.

Aquila Power 1/3 Phase Inverters are specifically designed for owners wanting a trouble free long life and highly reliable Off Grid System, that simply takes care of business predictably and precisely, without requiring any owner intervention or oversight in normal day to day operations.

Aquila Power Inverters can seamlessly integrate multiple DC Input power sources such as Solar PV, DC Micro Hydro, Small Scale Wind and Battery Storage to create a DC Bus backbone that will generate via PCE a pure sine wave AC output suitable to power any equipment and load circuits continuously and reliably.

"THINKING STANDALONE OFF GRID OR MICROGRID?
FUNCTIONALITY - RELIABILITY - AND ENDURABILITY IS IN THE DESIGN"

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