

Online Double Conversion UPS

Falcon 1000

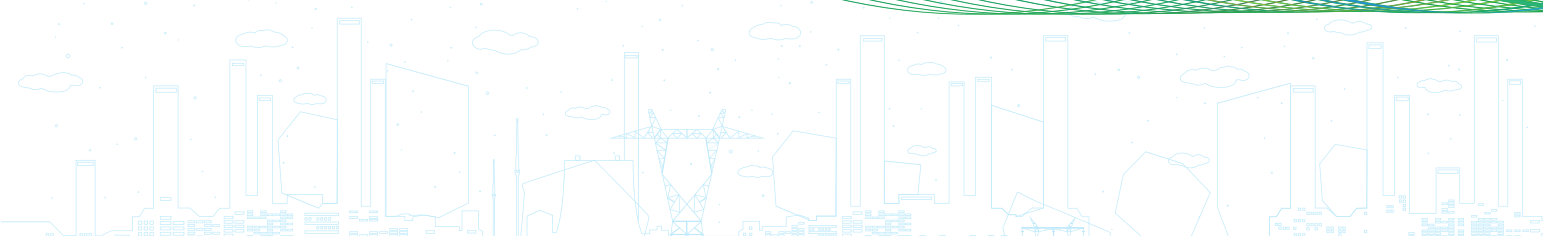
UPS - 5 KVA - 200 KVA

Three Phase Input / Three Phase Output



Features & Benefits

- 32 bit floating point DSP controlled UPS
- Advance rectifier
- State of Art IGBT based inverter design
- 128 x 64 Graphics Display True RMS reading of more than 25 different parameters of UPS
- Inbuilt isolation transformer
- Unique modular Construction, offering lower MTTR
- Internal CAN bus communication
- Multiple interfacing options
- Advanced thermal design and monitoring
- N+1 and N + N redundant fans



Falcon 1000 range of SCR/IGBT based rectifier UPS systems are designed for the industrial application. Built for working reliably in harsh environmental conditions with IP31 and above with high operating temperatures. Falcon 1000 UPS has earth shielding in the standard input and output transformers to maximise noise attenuation. The input transformer (if demanded) also provides high electrical immunity against mains born disturbances as the design utilises the intrinsic inductive properties (leakage choke) in conjunction with capacitors to greatly increase filter capabilities. The commercial units, at best, have only an output transformer as standard and will add a standard double wound transformer to the input without shielding.

- The transformer and power component design calculations for the industrial products assume maximum temperature (>40°C) with N+1 fan and natural cooling (On demand)
- Selection criteria for consumables such as capacitors - Industrial UPS calculated at 40° C full load with life > 10 years
- Falcon 1000 UPS has IP41 ingress protection as specified.
- Latest designs adapt IGBT rectifier, CAN Bus communication and protocol to suit industrial ecosystem

Applications

- Oil and Gas Industry (onshore and offshore)
- Power Industry
- Steel Industry
- Cement Industry
- Water and waste water Industry
- Automotive Industry
- Processing plants
- Pulp and paper Industry
- Railway & Signalling
- Foundries
- Textile Industry

Technical Specification
Falcon 1000

UPS - 5 to 200 KVA

Three Phase Input / Three Phase Output

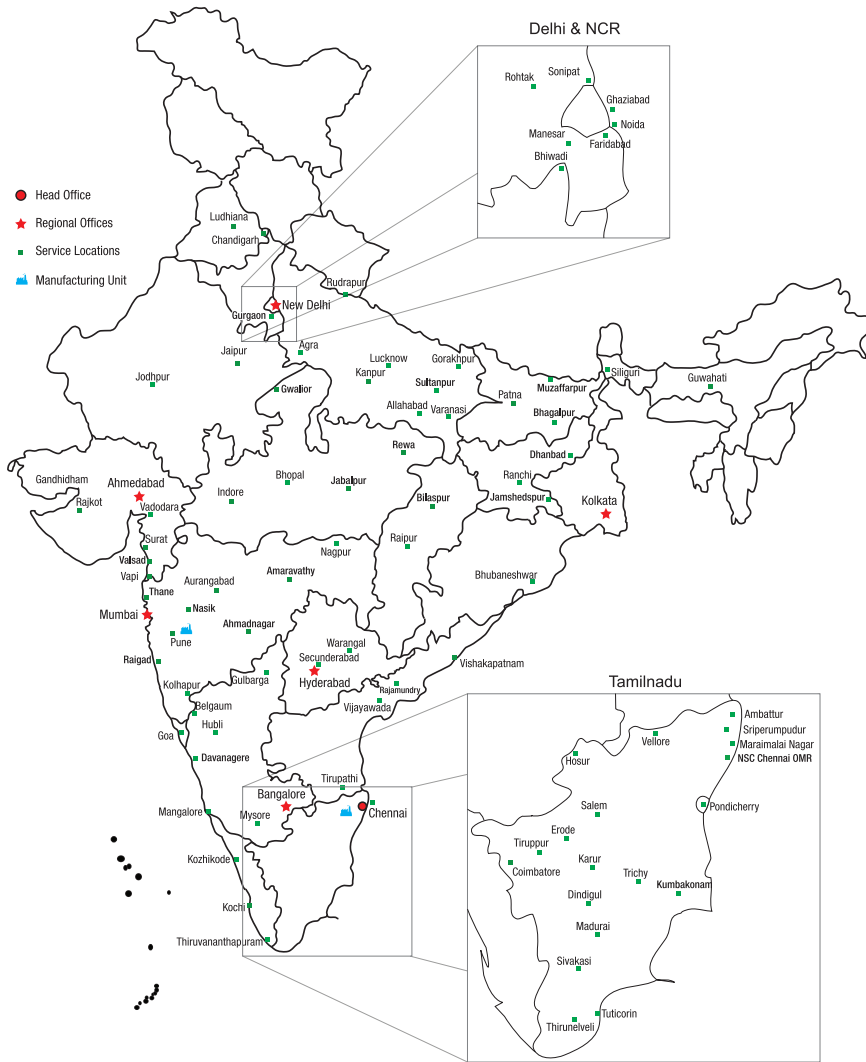
General	Falcon 1000											
Input												Options
Nominal Voltage	415 V AC (3 Ph + N), +/- 15%											440V, 20%
Frequency	50 Hz, +/- 6%											60Hz
Rectifier Bridge Configuration	6 Pulse APFC											12 pulse
Power Factor	>0.92											0.99
I THD	<30%											< 3%
												Input Source Selector
Battery												
Nominal DC	Upto 15KVA - 240V DC, 20KVA & above - 360V DC											110V upto 20kVA 220V upto 60kVA
Charging Current	10A for 5-20kVA, 15A for 25-30kVA, 20A for 35-60kVA											@40% Additional Rating for Charging
DC Ripple	2% without Battery / 1% with Battery											
Type	SMF / Lead acid / Ni - Cd											
Configuration	Individual / Common Battery											Common DC Bus
												Battery Temp Compensation
Output												
Nominal Rating (KVA)	5	10	15	20	25	30	35	40	50	60		
Nominal Power KW at 0.8 PF	4	8	12	16	20	24	28	32	40	48	Uptp 180	
Voltage	220V/230V/240V AC											110V upto 80 KVA
Voltage Stability	Steady state +/- 1%											2% for 110V
Dynamic Response	For 0 to 100% step load change the output shall remain within + 5% & recover to 98% within one cycle. (IEC 62040 – 3, Class 1)											
Frequency	50 Hz, +/- 0.1%											60Hz
Voltage distortion at linear load	<= 2%											
Voltage distortion at non-linear load	<= 5% (Ref 62040-3)											
Waveform	Sinusoidal											
Topology	IGBT Based DSP Control											
Power Factor	0.6 to unity within KVA & KW rating											
Crest Factor	3:1											
Overload Capacity from Inverter at Nominal Voltage	110% for 60 min, 125% for 10 min, 150% for 60 sec											125% for 15 min, 300% for 4mS
Configuration	Stand Alone, Parallel Redundant											Hot standby

*Specifications are subject to change

General	Falcon 1000											
Bypass												Transformer / SCVS
Voltage	220V/230V/240VAC											110V
Input Voltage Variation	+/- 15%											
Frequency Synchronization Range	50 Hz (+/- 0.5 TO 3Hz settable)											60Hz
Transfer Time	Sync Mode : No Break											
	Async Mode : <10 ms											
	Sync Mode : No Break											
Retransfer Time	Async Mode : Retransfer Inhibited											
Manual Bypass	Make Before Break Operation											
Environment												
Operating Temperature	0 to 50°C											
Storage Temperature	0 to 70°C											
Relative Humidity	Upto 95% RH (Non Condensing)											
Maximum Operating Altitude without de-rating	1000 m											
Physical Characteristics												
Degree of protection for enclosure	IP41											IP42 (almost 50%)
Ventilation	Forced Air											Redundant Fan
Cable Entry	Bottom											Top Cable Entry
Cabinet Finish	RAL 7016 Texture											RAL 7032/7035
Cabinet Steel Thickness	Frame 2mm, front door 2mm, covers 1.2mm											Covers 2mm

*Specifications are subject to change

Pan India Sales & Service Network



Product Offerings

- Online UPS (1-800 KVA)
- Servo Controlled Voltage Stabilizer (Oil Cooled / Air Cooled)
- Active Harmonic Filter
- Static Transfer Switch
- Isolation Transformer
- Solar Inverter
- Medium Voltage / Low Voltage VFD
- Instrumentation
- Factory Automation
- Process Automation (PLC/HMI/SCADA)

Service Offerings

- Comprehensive Annual Maintenance Contracts (CAMC)
- Annual Maintenance Contracts (Labour - AMC)
- AMC for Third Party Power Products
- Battery Replacement Services
- Power Audits
- Stabilizer Retrofits
- Rental UPS and Stabilizers
- Stabilizer Oil Replacement
- Remote Monitoring

Service Support

Real time E-service report through mobile app	Service request through mobile app	350 company trained service engineers	80+ service locations	Parts warehouse in 24 Locations	Call center with 4 language support	Any time service request

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