Fuji Electric

Innovating Energy Technology

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

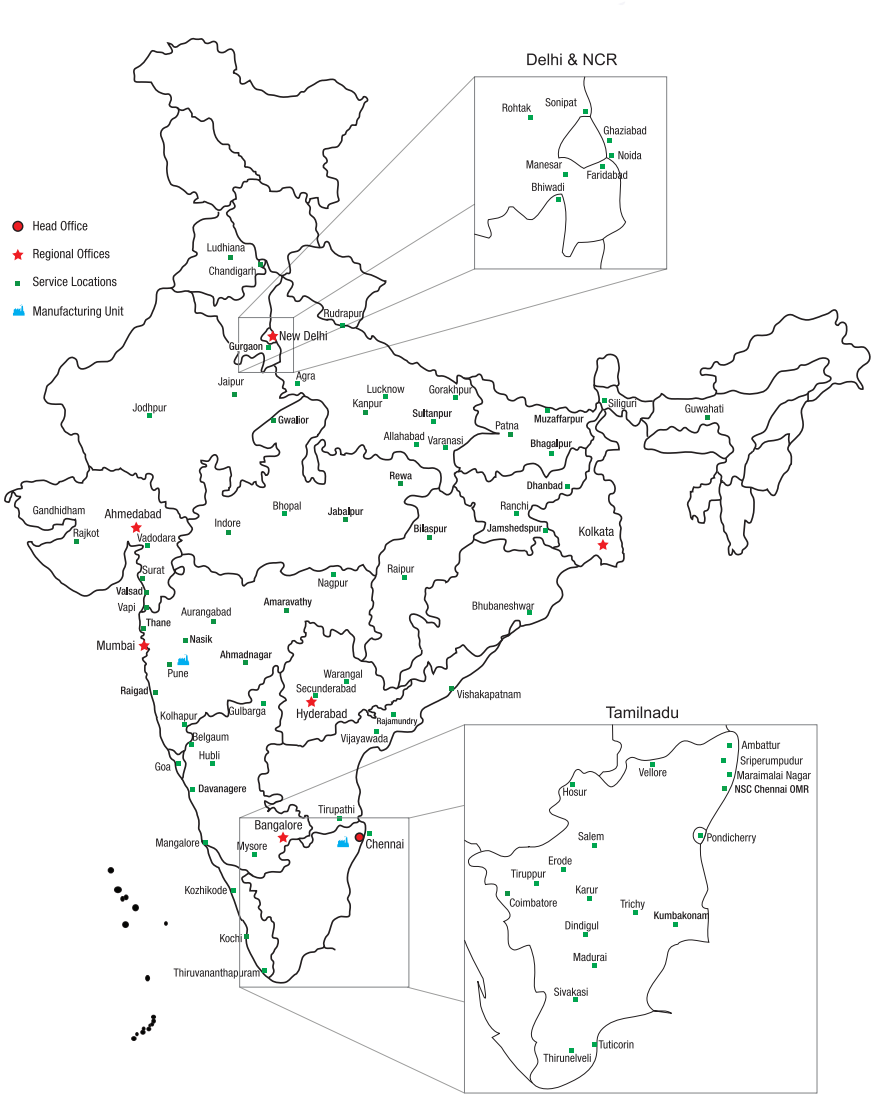
General	Falcon 1000										
Input											Options
Nominal Voltage	415 V AC (3 Ph + N), +/- 15%										440V, 20%
Frequency	50 Hz, +/- 6%										60Hz
Rectifier Bridge Configuration	6 Pulse APFC										12 pulse
Power Factor	>0.92										0.99
I THD	<30%										< 3%
											Input Source Selector
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 for35-60kVA										@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
- Instrumentaion
- 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

Fuji Electric India Pvt. Ltd.

(CIN:U31900TN1985PTCO11866)
119, 120, 120A, Electrical and Electronics Industrial Estate,
Perungudi, Chennai - 600 096, Tamil Nadu, India
+91 78100 09955
enquiry.fei@fujielectric.com
www.india.fujielectric.com

FE/FALCON 1000/09/2020