PRODUCT RANGE FOR COMPLETE POWER SOLUTION

ePFC Systems

Dubas ePFC is an Active PWM based power factor controller for compensating both distortion and displacement power factors dynamically. This system is an advanced system compared to the conventional technology of switched capacitor banks. ePFC improves the PF to near unity dynamically, without requiring any capacitor bank. It can also be connected in Hybrid model with a capacitor bank.

- PWM switching technique with DSP based digital control providing both capacitive and inductive compensation dynamically.
- Maintains the PF to better than 0.99 even under dynamic load changes.
- Avoids danger of over compensation and resulting resonance.
- Enables full utilization of the sanctioned power and reduced demand charges and tariff.

H-Filter

H-Filter is an active Harmonic compensator capable of attenuating till the 40th harmonic. H-Filter has excellent dynamic response of <20 msec. Installations of adequately sized H-Filters can completely nullify the harmonic problems in the network.
H-Filters can be installed to compensate harmonics in the entire network or specific load. The system also balances the 3 phase currents and improves the input power factor.

- Available in 50A, 75A and 100A panels.
- Fully Dynamic System, compensating through every cycle.
- Highly reliable and built on IGBT based PWM technology and DSP based digital control.
- Site programable for varying load change and grid.
- Seamless parallelling to increase the capacity rating of the system.

Frequency Converters

Dubas offers a wide range of Frequency Converters for various applications. The frequency converters are also available for providing variable frequency and variable voltage requirements of specific applications. Dubas frequency converters, ranging from 3KVA to 200KVA, are deployed in most of the manufacturing and testing facilities and avionics applications.

- Input options of single phase, 2 phase or 3 phase. Voltage level as per application.
- Output options of single phase, 2 phase or 3 phase. Voltage level as per application or variable.
- Input Frequency options of 50Hz / 60 Hz /400 Hz
- Output Frequency options of 50 Hz /60 Hz /400 Hz / 800 Hz/ 2000 Hz / Variable.
- Input PF near unity with Current Harmonics of <5%

K-Rated Transformers

Low voltage Transformers are important devices for most of the loads for protection against various types of electrical noises generated by the line or the load. Many of the loads are of non-linear type and generate high harmonics. K-rated transformers are rated to handle these high harmonics levels. Dubas K-rated transformers are employed as built-in feature for Dubas UPS Systems as well as Stand-alone solutions.

- Available from 6 KVA to 400 KVA ratings in both Air-cooled as well in Oil-cooled versions
- Available in any input and output voltage settings in 50 Hz/ 60 Hz/ 400 Hz.
- Double wound sheilded for high Common Mode noise attentuation
- Available from IP00 to IP65 models.

Clients & Approvals

• ASIAN HEART HOSPITAL • ASHOK LEYLAND • BOSCH • BARCLAYS • BIOCON • COCA COLA • CIPLA • CISCO • COLGATE PALMOLIVE • CTRLS DATA CENTER • DELL • DUPONT • ERICSSON • FORD • FESTO • FUN MULTIPLEX • FINOLEX • GUALA CLOSURES • GLENMARK PHARMA • GOLDMAN SACHS • GOOGLE • GODREJ & BOYCE • GE • HINDUSTAN UNILEVER • HIKAL • HEWLETT PACKARD • HCL TECHNOLOGIES • HYUNDAI • HONEYWELL • ITC • IFB • INFOSYS • IBM • JK TYRE • LEELA PALACE • MHB FILTER • MADAUS PHARMA • MANIPAL HOSPITAL • MAHINDRA & MAHINDRA • MICROSOFT • MONSANTO • NOKIA • NESTLE • ON MOBILE • OTIS • PHILIPS • TCS • TATA MOTORS • WIPRO • WHIRLPOOL • YAHOO • ZYDUS

Service Support

Dubas provides pan India service support through 24 regional service centers. All the regional service centers are handled by trained Dubas personnel. Essential spares are made available through local stock of spares. Dubas provides product services its international customers by customer training as well by deputation of its service personnel to such sites.

• Ahmedabad • Bangalore • Bellary • Bhopal • Bhubaneshwar • Cochin • Coimbatore • Chennai • Gulbarga • Goa • Guwahati • Hyderabad • Jaipur • Karwar • Kolkata • Lucknow • Mangalore • Mumbai • Mysore • Nagpur • New Delhi • Pune • Surat • Visakhapatnam

ALWAYS ON DUBAS

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ALWAYS ON DUBAS

The Power To Go On

Critical Power Systems

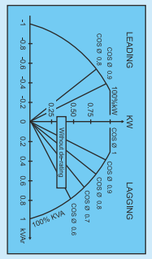
DUBAS SILVER POWER 25 YEARS 1988 2013

DUBAS has been a leader in power electronics products and systems; catering to most of the applications of Industry, Commerce, Defence and Railways. Dubas Online UPS systems have been in the market for over two decades. Dubas has been a front runner in the development of indigenous technology for the India's challenging grid and operating environments. With an emphasis on reliability by design, Dubas has deployed UPS systems in most of the demanding applications covering large Data Centers, Software Development Parks, Critical Heart Operation Theatres, Airport Runway lighting systems for aircraft landings in the night, Control & Automation systems in Petrochemical plants, Thermal Power stations, Nuclear power stations, Atomic power stations, Oil & Gas Installations and in most of the Industrial and manufacturing applications.

G7 SERIES: Performance by design

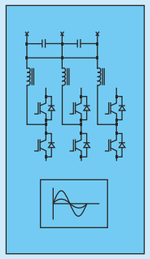
No derating with any load

The G7 series systems are designed to power the latest generation Servers without derating the system. The System offers 100% power from lagging to 0.9 leading power factor. This is a 12% higher active power capacity. The system also caters effectively to the low PF loads, specific to manufacturing, CNC machines, biomedical and laboratory loads.



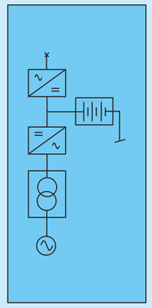
Front-end IGBT Converter

Across the entire range of **G7 SERIES** from 10 KVA to 400 KVA, the system employs IGBT based PWM Converter for rectifier and battery charger. This ensures a better than 0.99 power factor and below 4% current harmonics. This helps in avoiding over sizing of the back up Generators, stray tripping of protection devices and, more importantly, reduces the overall power pollution.



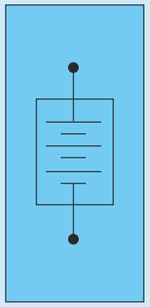
Built in Galvanic Isolation Transformer

Indian grids pose challenges of not only power failures, but also several kinds of electrical disturbances and noises. It is imperative for UPS Systems to have Galvanic isolation with double wound transformer to provide immunity against several of the undefined disturbances. Also, a built in isolation transformer avoids eventual installation of external isolation transformer saving unnecessary space, cost and maintenance losses.



Battery Utilization

The battery is an integral part of the system reliability factor. The battery has to be charged optimally to ensure 100% availability as well the life of the battery. Dubas, being a specialist battery charger manufacturer, provides the best charger regime to the battery, based on the type, using its renowned PWM charger. DC bus flexibility is also provided to support the system at lowered DC bus voltage to support the system in case of a few cells going faulty.

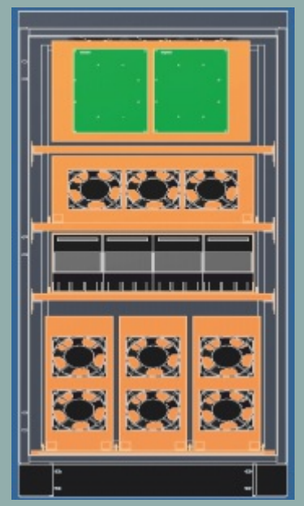


System Versatality

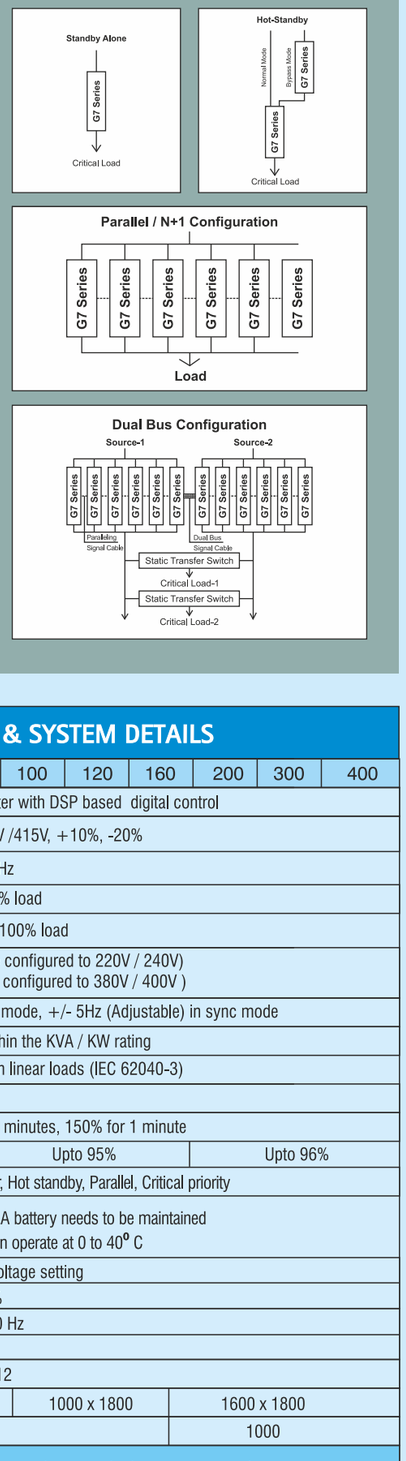
G7 SERIES is one of the most versatile systems. The system employs a 'four-quadrant-technology', allowing smooth handling of the regenerative loads. The system is built to handle high surge loads, more often a common factor in machine loads, manufacturing & Industrial applications. The system is adaptable to most of the battery types. **G7 SERIES** can also be configured to meet the special requirements of user applications.

Configuration Options

G7 range provides one of the most divergent configurations to suit the customer needs. The system is seamlessly parallel-able. Systems can be put on hot standby mode or critical priority modes. The battery bank can be single or multiple in redundant configurations. The system can be configured to operate on ECO mode. Dubas is one of the very few vendors who can provide customization of the system for client's special needs and meet any type of load profile.



Typical Configurations



G7 SERIES: TECHNICAL SPECIFICATION & SYSTEM DETAILS

RATINGS (KVA)		10	15	20	30	40	60	80	100	120	160	200	300	400
TECHNOLOGY		IGBT based rectifier / charger and inverter with DSP based digital control												
INPUT	VOLTAGE	3 phase, 4 wire, 380V /400V /415V, +10%, -20%												
	FREQUENCY	45 - 65 Hz												
	POWER FACTOR	0.99 @ 100% load												
	THDi	Less than 4% at 100% load												
OUTPUT	VOLTAGE	Single phase,230V ± 1% (can be configured to 220V / 240V) Three phase, 415V ± 1% (can be configured to 380V / 400V)												
	FREQUENCY	50Hz (Optional 60Hz) +/- 0.1Hz in free running mode, +/- 5Hz (Adjustable) in sync mode												
	POWER FACTOR	0.6 lagging to 0.9 leading within the KVA / KW rating												
	THDv	<2% for linear loads, <5% for non linear loads (IEC 62040-3)												
CREST FACTOR		3:1												
OVERLOAD		110% for 60 minutes, 125% for 10 minutes, 150% for 1 minute												
EFFICIENCY		Upto 90%				Upto 94%			Upto 95%			Upto 96%		
CONFIGURATION		Stand alone, With bypass power conditioner, Hot standby, Parallel, Critical priority												
OPERATING TEMPERATURE		0 to 40° C with RH of 95%. SMF / VRLA battery needs to be maintained At 25° C. Tubular batteries can operate at 0 to 40° C												
BYPASS	VOLTAGE AND TOLERANCE	as per UPS input voltage setting												
		± 15%												
	FREQUENCY AND TOLERANCE	50 Hz / 60 Hz												
		± 2%												
COLOR		RAL 7012												
DIMENSION (mm)	W x H	600 x 1400		800 x 1600			800 x 1800		1000 x 1800			1600 x 1800		
	D	800										1000		

All specifications are not detailed here. Please request for any specific detail. Systems can be customized to meet customer's required specification. R&D being a continuous process, the shown specifications are subjected to change without notice.