JOVYATLAS GmbH

JOVYCUBE

PRODUCT LEAFLET

The modular UPS systems of the type JOVYCUBE are based on a 20 kVA UPS module and offer a flexible solution for power supply from 20 kVA up to 640 kVA. The UPS modules convince by efficient power control, dynamic transition without failover times as well as with a high efficiency of 96%. They dispose of an extensive battery management with dynamic load control. The UPS systems JOVYCUBE can work single-phased as well as three-phased.

ONLINE UPS SYSTEM

As online systems (double converter, continuous transducers technology) JOVYCUBE UPS systems protect against system interferences and failures of any kind in a secure and economic way.

HIGH EFFICIENCY AND FLEXIBILITY BY MEANS OF TO MODULES

For the realisation of different types of power supply solutions three types of control cabinets JOVYCUBE 60, JOVYCUBE 160 and JOVYCUBE 200 are available, which can each accommodate a high number of 20 kVA modules. Via parallel connection further and higher performance ranges can be achieved.
JOVYCUBE UPS systems can work single- phased as well as three-phased. (3:3 / 3:1 / 1:1 / 1:3). The AC input and AC output frequency are independent from each other. Due to the large AC input voltage range the UPS system JOVYCUBE is especially suitable for instable power grids.
The systems work with smooth load transfer – gradually step-by-step transfer of load from the DC to the AC source is carried out. This so-called dynamic load transfer, in which the loads are switched partially or completely between AC and DC sources, is able to capture peak loads from the battery and helps to reduce energy costs. Furthermore the permanent energy-saving mode ensures optimal efficiency together with low energy costs.
The JOVYCUBE UPS systems combine a modular inverter of 20 kVA with a battery charger. The modules can be exchanged under operating conditions without observing specific operation procedures (Hot-Swap). A permanent power-saving mode provides for an optimal efficiency.

Autonomy Times [min]			Power UPS System									
			20	40	60	80	100	120	140	160	180	200
Battery Cabinet		Termination	[kVA]	[kVA]	[kVA]	[kVA]	[kVA]	[kVA]	[kVA]	[kVA]	[kVA]	[kVA]
BC26-1/32	32 Batteries à 26 Ah	BC2055101	14,5	6								
BC26-2/64	64 Batteries à 26 Ah	BC2055102	38	14,5	8	6						
BC26-3/96	96 Batteries à 26 Ah	BC2055103	66	26	14,5	10	7	6	5			
BC26-4/128	128 Batteries à 26 Ah	BC2055104	101	38	23	14,5	11	8	7	5		
BC44-1/32	32Batteries à 44 Ah	BC2055401	28	10	6							
BC44-2/64	64 Batteries à 44 Ah	BC2055402	83	28	15	10						
BC44-3/96	96 Batteries à 44 Ah	BC2055403	136	53	28	19	12	10	8	7		
BC44-4/128	128 Batteries à 44 Ah	BC2055404	187	83	45	28	21	14,5	11	10		
BC70-1/32	32 Batteries à 70 Ah	BC2055601	62	24	11	8						
BC70-2/64	64 Batteries à 70 Ah	BC2055602	161	62	35	24	16	11	10	8		
BC70-3/96	96 Batteries à 70 Ah	BC2055603	274	113	62	44	29	24	18	14	11	10
BC70-4/128	128 Batteries à 70 Ah	BC2055604	414	161	100	62	48	35	28	24	20	15

TECHNICAL DATA

	JOVYCUBE 60	JOVYCUBE 160	JOVYCUBE 200
Power	20 - 60 kVA	20-160 kVA	20-200 kVA
Output power per module	20 kVA / 20 kW	20 kVA / 20 kW	20 kVA / 20 kW
Number of mountable modules	1 - 3	1 - 8	1 - 10
Dimensions cabinet W x H x D [mm]	600x1900x800	600x1900x800	600x1900x800
Dimensions module W x H x D [mm]	483x133x600	483x133x600	483x133x600
Weight module [kg]	24 kg	24 kg	24 kg

INPUT

Nominal voltage	3x380 V/220 V+N, 3x400 V/230 V+N, 3x415 V/240 V+N
Tolerances of input voltage	198 VAC up to 264 VAC at >70% load 150 VAC up to 264 VAC at <70% load 3x343 VAC/198 V+N up to 3x457 VAC+N at >70% load 3x260 VAC/150V+N up to 3x457 VAC+N at <70% load
Frequency	47 Hz up to 63 Hz
Power factor	≥0,99 (25% up to 100% load)

OUTPUT

Nominal voltage	220 VAC or 230 VAC or 240 VAC (adjustable) 3x380 VAC+N or 3x400VAC+N or 3x415 VAC+N
Stability of output voltage	static: ≤ ±2% dynamic (loadsprung 0% --> 100% and 100% --> 0%): ±3%
THDI	at linear load <±2%, at non linear load <±4% (EN62040-3-2001)
Frequency	50 or 60 Hz
Tolerance of the output frequency	freerunning (AC input not existing): ±0,1%. synchronised with AC-input 47 up to 63 Hz Freerunning out of this range.
Unbalanced load capacity	100 % per phase
Overload capacity	130% for 15 sec, 110% permanent (at nominal voltage, in dependency to ambient temperature)
Short circuit possibility	4 x In with existing AC-input within 20 ms
Crest Factor	2.7:1
Efficiency 100%/75%/50%/25%	AC-AC: 96% / 96% / 95% / 93 % DC-AC: 97% / 97% / 95% / 93 %

BATTERY SYSTEM

VRLA-Battery, battery voltage: ±192 VDC in total (384 VDC), Number of battery cells: 192, with reduced power range operation with 180 cells is possible

COMMUNICATION:

Communication / Information via UPS interfaces for parametrisation and system informations, 6 digital inputs and 7 relais outputs

MODULAR ONLINE UPS
VFI /Double Converter Technology
Maximum Safety for connected Consumer Loads

HIGH EFFICIENCY SAVES ENERGY COSTS
Maximum Output Effective Power (KVA = KW)

EFFICIENT POWER CONTROL
by intelligent and integrated control

HIGHEST FLEXIBILITY
by 20 kVA module

FORECASTS FOR BATTERY CAPACITY AND SPARE TIME

HOT-SWAPPING
Exchange of Modules during Running Operation

Fig.1 JOVYCUBE with battery cabinet