

TECHNICAL DATA SHEET

UNIBLOCK UBTD+ 1800 with 2x POWERBRIDGE 16,5MJ

Highlights UNIBLOCK UBTD+

- Single machines sized 500 kW up to 2700 kW and paralleling up to 40MW
- Higher reliability than other technologies
- Highest efficiency, up to 97% on line (with energy store connected)
- Total Design Flexibility
- Medium Voltage available
- Water cooling available using building chilled water
- Battery- or flywheel backed versions
- More than 3 times longer bridging time from Piller kinetic energy storage than with any other commercially available flywheel system
- Redundant on-board power supplies
- Leading and lagging output power factor without derating
- 100% load step capability
- Inherent fault clearing ability for short circuit faults without bypass
- Virtual unity input power factor
- 99% input/output harmonic isolation



Nothing protects quite like Piller

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Output

Rated power	kVA	2000	
Rated active power	kW	1800	
Rated voltage	V	400 / 231	(±5% adjustable)
Rated frequency	Hz	50	
Rated current	A	2887	
Power factor		0,9	
Voltage stability			
■ static with symmetrical load	%	±1	
■ dynamic with 50% load change (PF 1,0)	%	±1	
■ dynamic with 50% load change (PF 0,9)	%	±3	
■ dynamic with 50% load change (PF 0,8)	%	±5	
Settling time (±2%)	ms	200	
Frequency stability			
■ static self controlled	%	0,1	
■ on mains ¹	%	1	
■ dynamic with 100% load change	%	1	
Voltage distortion (EN 62040-1)			
■ symmetrical linear load (Ph-Ph/Ph-N)	%	1,5 / 2,5	
Overload capability (normal operation)			
■ 1 hour	%	10	
■ 2 minutes	%	50	
Maximum crest factor		limitless for harmonic loads	
Phase angle (symmetrical load)	°	120 ±1	
Maximum permissible unbalance ²	%	100	
Short-circuit current	kA	30,1	(ca. 10x rated current) for 10ms

¹ According to the adjusted tolerance for the mains frequency

² Load unbalance capacity = different loading of the individual phases in a three-phase AC system.

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Input

Rated voltage	V	400 / 231
Rated frequency	Hz	50
Rated current	A	2781
Power factor		0,97
Permissible voltage deviation		
■ continuous	%	±10
■ short-time	%	-20
■ dynamic	%	-50
Frequency tolerance	%	±1 (adjustable ±5%)
Harmonic attenuation (input to output and output to input)	%	> 99
Current distortion	%	< 3
Synchronisation time after mains return	s	< 3
Maximum current ¹	A	3492
Max. reverse current on mains short-circuit	A	5442

POWERBRIDGE

Backup time	s	15
re-charge time	s	180 (adjustable ²)

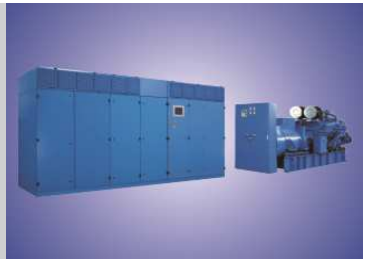
¹ Individual input protection is required.

² Value affects the maximum input current

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General data

Efficiency (at 100% load, cos ϕ 1,0)	%	96,3
Losses (at 100% load, cos ϕ 1,0)	kW	69
Max. heat dissipation	kW	135
Interfaces (Standard)		
■ outputs (dry contacts)		6
Wall-distance backside		not required
Colour		RAL 5012
Ambient temperature	°C / °F	0-40 / 32-104
■ Daily mean average	°C / °F	≤ 35 / ≤ 95
Ambient humidity (without condensation)	%	0-95
Installation altitude (above mean sea level)		
■ up to 1000m		without any derating
■ 1000m - 2000m		5% derating
Protection type (DIN/VDE 0470 part 11/92 IEC 529)		IP 20
Radio interference level (IEC 62040-2)		class C2 (class A acc. to EN 50091-2)
Cable connection		from top and bottom possible
Accessibility		front
Parallel configuration		up to 16 modules
Dimensions / Weight		
■ Width	mm (in.)	9590 (377,558)
■ Depth	mm (in.)	1320 (51,968)
■ Height	mm (in.)	2300 (90,551)
■ Weight	kg (lb.)	20065 (44235,299)

Options

- 4pole for neutral switching
- customer specific colours
- Castell-Key / Kirk-Key
- water cooling
- APOCONNECT (remote diagnostics)
- UNMS (Visualisation)
- DATAWATCH (shut-down)
- Profibus-DP
- Protocol-Gateway (3 maximum)
- I/O-card (3 maximum)
- SNMP-adaptor with Ethernet Interface
- OPC-Server

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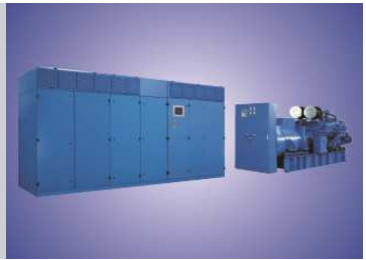


Issue:
15.Jan.15

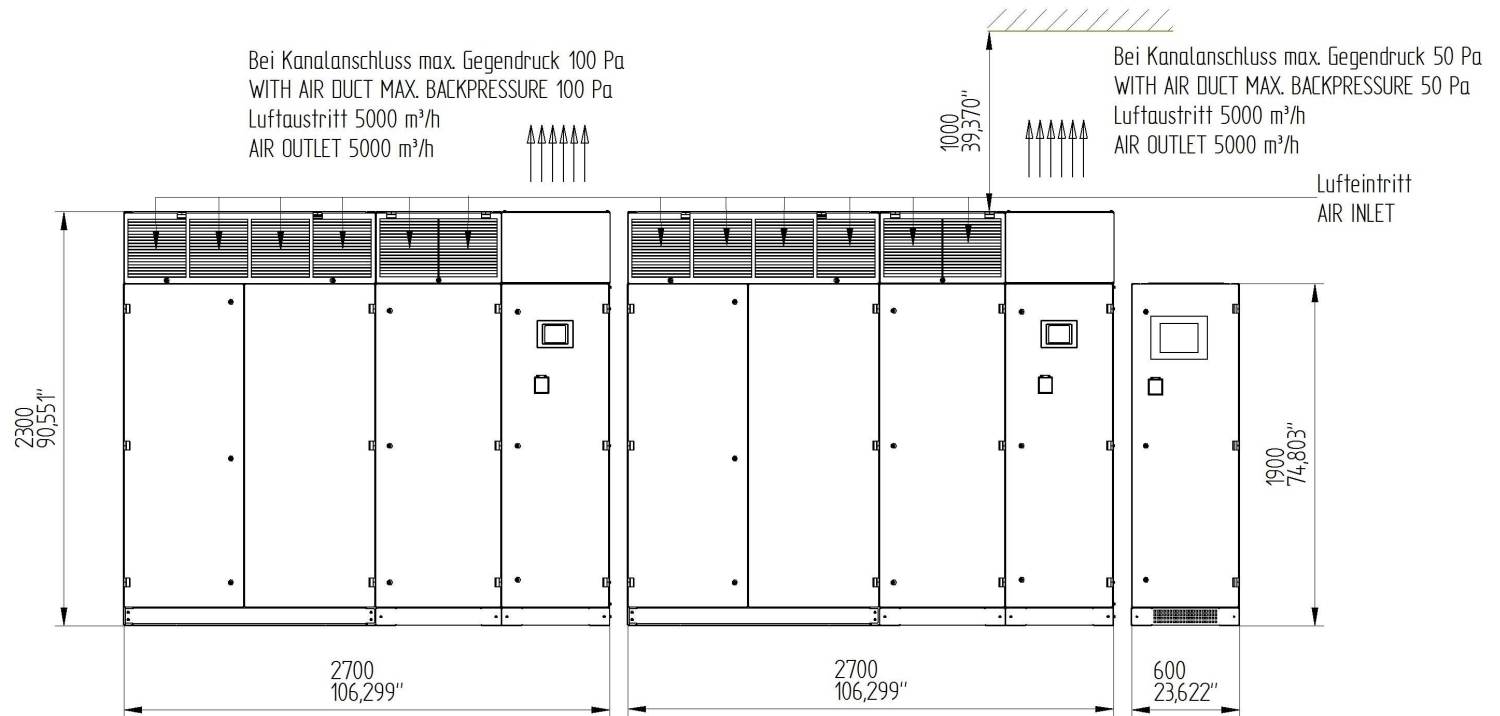
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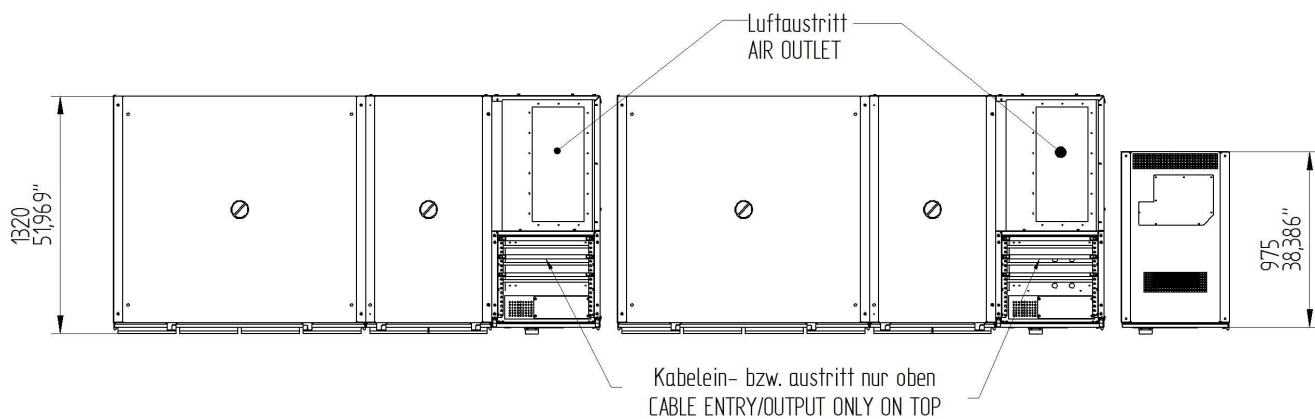
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Dimensions / Weight



PBII-Schrank PBII-CUBICLE	GRWR-Schrank INVERTER-CUBICLE	CES-Schrank CES-CUBICLE	PB-Schrank PB-CUBICLE	GRWR-Schrank INVERTER-CUBICEL	CES-Schrank CES-CUBICLE	CM-Schrank CM-CUBICEL	Gesamtgewicht TOTAL WEIGHT
6100 kg / 13448 lbs	760 kg / 1676 lbs	450 kg / 992 lbs	6100 kg / 13448 lbs	760 kg / 1676 lbs	450 kg / 992 lbs	385 kg / 849 lbs	15005 kg / 33081 lbs



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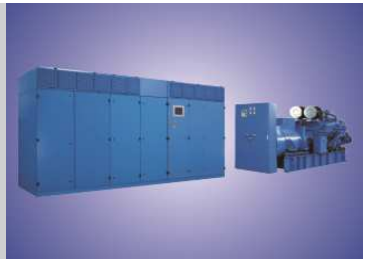
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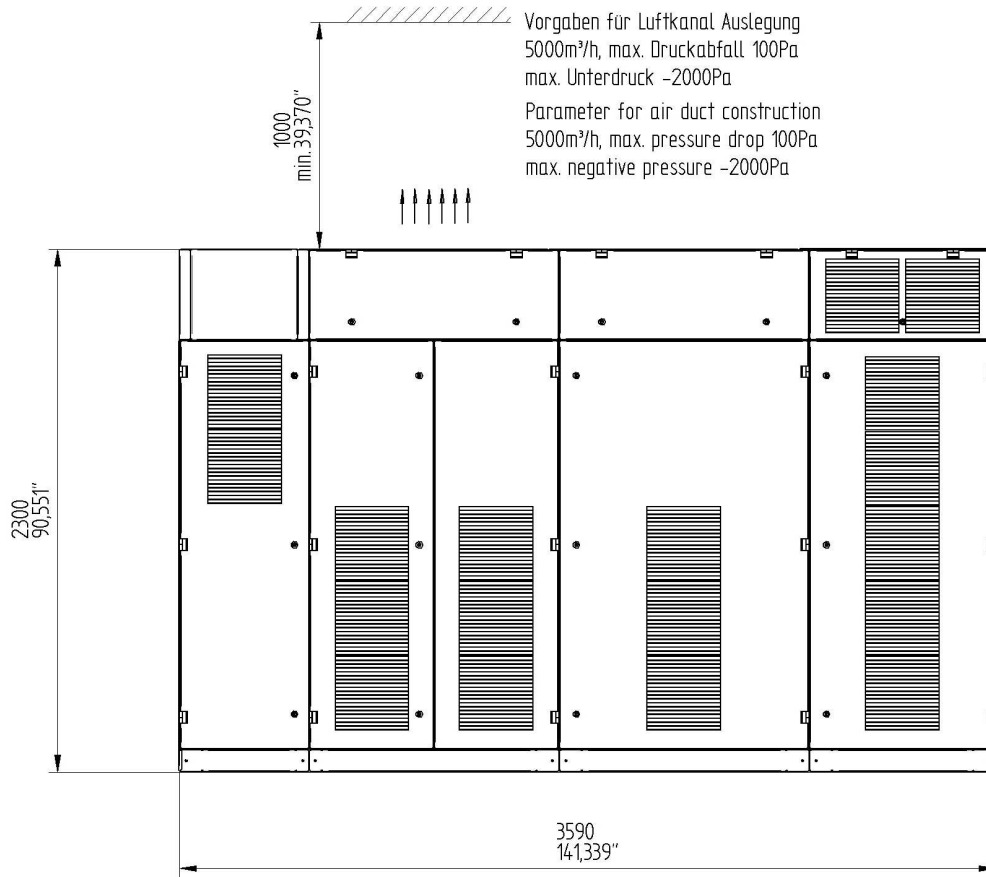


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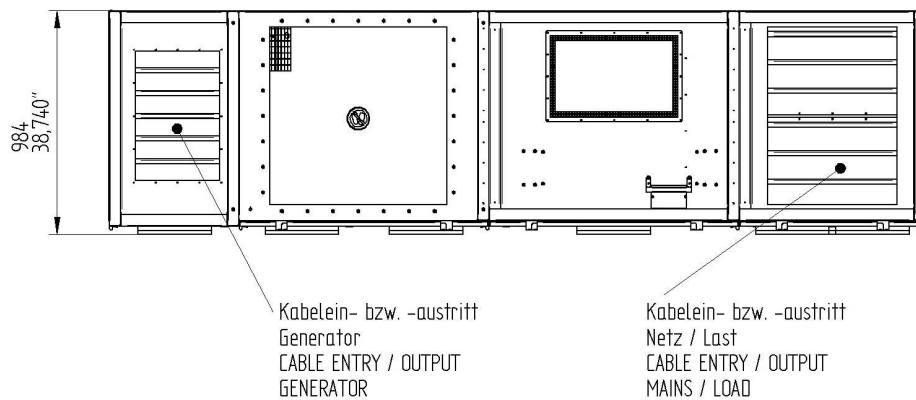
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Dimensions / Weight



Gesamtgewicht TOTAL WEIGHT	Drosselschrank CHOKE CUBICLE	Schalterschrank CIRCUIT BREAK CUBICLE	Anschlusschrank CONNECTION CUBICLE
3 polig / 3 pole = 5060 kg / 11155 lbs 4 polig / 4 pole = 5210 kg / 11486 lbs	3200 kg / 7055 lbs	3 polig / 3 pole = 1400 kg / 3086 lbs 4 polig / 4 pole = 1550 kg / 3417 lbs	460 kg / 1014 lbs



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