



Datasheet VP600-1BW1H0

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not released - 08 Pre-Series

VP600 - Expert Inverters

Bidirectional inverter 78 – 1560 kVA peak power

- Application software can be extended
- Protection of your application know-how
- Bidirectional without switchover pauses

Higher Voltage

With these products from the VP600 product range we offer you a higher DC link voltage up to 1050 VDC, thus making them eminently suitable for applications with higher power requirements such as inland waterway vessels or dumpers.

- No additional control cabinet required
- Minimal heat output to the ambient atmosphere

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Size	
Height	1230 mm
Width	600 mm
Depth	419 mm
Weight	125 kg
Height with connectors	1245 mm
Width with connectors	600 mm
Depth with connectors	419 mm

Technical	
Continuous current AC ¹⁾	850 A _{rms}
Continuous current 2 AC ²⁾	680 A _{rms}
Peak current AC, for 10sec ³⁾	1250 A _{rms}
Peak current AC for 60sec ³⁾	1100 A _{rms}
Max. electrical rotary frequency	599 Hz
Continuous power ⁴⁾	1170 kVA
Max. continuous power dissipation	15 kW
Peak power for 10sec	1562 kVA
Max. PWM frequency	6 kHz
Min. PWM frequency	2 kHz
Integrated DC link capacity	5040 µF
Recommended voltage DC-link	1050 V
DC-link shutdown threshold level ₁	1120 V
Max. voltage DC-link [V DC]	1080 V
DC-link shutdown threshold level ₂	1170 V
Min. voltage DC-link [V DC]	30 V
DC Controller voltage max.	28 V
DC Controller voltage min.	18 V

Technical

Technical notes

- 1) Continuous current at 1050VDC, 2.5kHz PWM frequency,
30l/min coolant flow rate at 35°C and 45°C ambient temperature
- 2) Continuous current at 1050VDC, 2.5kHz PWM frequency,
30l/min coolant flow rate at 65°C and 45°C ambient temperature
- 3) Peak current at 1050VDC, 2,5kHz PWM frequency,
30l/min coolant flow rate at 35°C and 45°C ambient temperature
- 4) Continuous power at 1050VDC, 2.5kHz PWM frequency,
30l/min coolant flow rate at 35°C and 45°C ambient temperature

Interface

Number of PT100 inputs	3
Number of NTC (PTC) inputs	4
External voltage measurement	yes
Analogue inputs	2
Digital inputs	4
Digital outputs (each 0,2A)	2
Digital outputs (each 1,7A)	2
Communication bus	<ul style="list-style-type: none"> ● VECTOBUS ● CAN
Resolver inputs	1
Encoder inputs	1

Cooling	
Water cooling	yes
Cooling medium	Water + glycol (50:50)
Min. coolant throughput	30 l / min
Max. coolant pressure	3.5 bar
Min. coolant pressure	1 bar
Max. coolant temperature without derating	35 °C
Max. coolant temperature with derating	65 °C

Environment	
Protection class according to EN 60529	IP65
Max. altitude of site above sea level	2000 m
Polution degree according to DIN EN 61800	2, inside space
Humidity according to IEC 60068-2-35	max. 90%, noncondensing
Min. ambient temperature in operation	-25 °C
Max. ambient temperature in operation	45 °C
Max. ambient temperature in operation with derating	75 °C

Connectors		
	Description	Function

ST1

Anschluss	
Manufacturer	AMP
Plug type	AMPSEAL HDR SNAP IN W/G 23pol.
Plug design	Gehäusevariante WF

Pinconnection

Pin no.	Description	Function	I/O
1	KL 31	Logic supply voltage, DC GND	Input
2	KL 30b	Logic supply voltage, DC +	Input
3	Enable	Enabling power Output	Input
4	Digi Out1	Digital output 1	Output
5	Digi Out2	Digital output 2	Output
6	NTC1	NTC temperature sensor no.1	Input
7	NTC2	NTC temperature sensor no.2	Input
8	AN_I1+	Analog current input no.1 +	Input
9	CAN_L	Can Bus low	bidirectional
10	CAN_H	Can Bus high	bidirectional
11	COM1_TxD	RS232 Interface for firmware updates TxD	bidirectional
12	COM1_rxD	RS232 Interface for firmware updates RxD	bidirectional
13	EN_CONF#	Enable / Allow firmware update	input
14	CAN_GND	Can Bus Ground	bidirectional
15	COM_GND	Rs232 Ground	bidirectional
16	Digi_In1	Digital Input no. 1	Input
17	Digi_In2	Digital Input no. 2	Input
18	NTC_GND	Ground for NTC temperature	Input
19	Interlock_In	NC	
20	Interlock_Out	NC	
21	An_U1+	Analog voltage input no. 1 +	Input
22	An_U1-	Analog voltage input no.1 -	Input
23	An_I1-	Analog current input no.1 -	Input

ST4 VECTOBUS IN

Anschluss	
Manufacturer	Intercontec
Plug type	A ST A 035
Plug design	17 pol, Typ "P"

pin_daten

pin-no.	operation	type
1	NC	
2	NC	
3	NC	
4	NC	
5	NC	
6	NC	
7	NC	
8	NC	
9	NC	
10	NC	
11	NC	
12	+5V_EXT	male
13	/VB_SLVOU	male
14	VB_SLVOU	male
15	VB_SLVIN	male
16	/VB_SLVIN	male
17	0V_EXT	male

ST5 VECTOBUS OUT

Anschluss	
Manufacturer	Intercontec
Plug type	A ST A 035
Plug design	17 pol, Typ "P"

pin_daten

pin-no.	operation	type
1	NC	
2	NC	
3	NC	
4	NC	
5	NC	
6	+5V_MST	female
7	/VB_MAOU	female
8	VB_MAOU	female
9	VB_MSTIN	female
10	/VB_MSTIN	female
11	0V_MST	female
12	NC	
13	NC	
14	NC	
15	NC	
16	NC	
17	NC	

ST6 Digitale Ein-/Ausgaenge, Temperatursensoren

Anschluss	
Manufacturer	Intercontec
Plug type	A ST A 035
Plug design	17 pol, Typ "P"

pin_daten

pin-no.	operation	type
1	OUT5	female
2	+Ub for OUT5	female
3	IN9	female
4	IN9 GND	female
5	OUT6	female
6	OUT6 GND	female
7	IN10	female
8	IN10 GND	female
9	NC	
10	NC	
11	NC	
12	NC	
13	NC	
14	PT100-3	female
15	PT100-3 GND	female
16	PT100-4	female
17	PT100-4 GND	female

ST2 Resolver

Description

Resolver - only for devices with DriveMain Version 2.x

Anschluss	
Plug code	Center position
Manufacturer	Intercontec
Plug type	A ST A 035
Plug design	17 pol, Typ "P"
Warnings	Use mating connector in orientation "E"

pin_daten

pin-no.	operation	type
1	Resolver P+	female
2	Resolver P-	female
3	Resolver A+	female
4	Resolver A-	female
5	Resolver B+	female
6	Resolver B-	female
7	NC	
8	NC	
9	NC	
10	NC	
11	NC	
12	NC	
13	NC	
14	PT100-1	female
15	PT100-1 GND	female
16	NTC-3	female
17	NTC-3 GND	female

ST3 Inkrementalgeber + Absolutwert Digital

Description

Incremental encoder + absolute value digital or zero pulse

Anschluss

Manufacturer	Intercontec
Plug type	A ST A 035
Plug design	17 poles, type "P"

pin_datan

pin-no.	operation	type
1	Clock+	female
2	Clock-	female
3	Z+ or Data+	female
4	Z- or Data-	female
5	NC	
6	NC	
7	GND	female
8	+5V	female
9	NC	
10	C	female
11	/C	female
12	D	female
13	/D	female
14	PT100-2	female
15	PT100-2 GND	female
16	NTC-4	female
17	NTC-4 GND	female