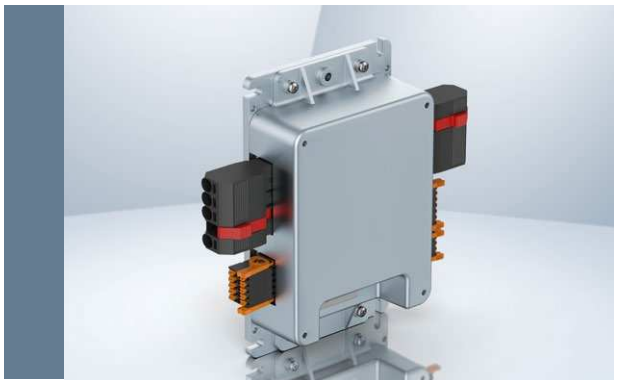
Control electronics.

VTD-XX.XX-K4S



- Operating electronics for driving 3-phase BLDC motors up to 1 000 watt output power
- Four-quadrant controller
- Speed, torque and positioning mode
- Selection of operating modes and parameter setting via RS 485
- User-friendly parameter setting with “Kickstart” PC software
- Integrated brake ballast-control
- Device status notification by 2 LEDs

Nominal data

Type		VTD-24.40-K4S	VTD-48.20-K4S
Nominal voltage (power supply U_N)	V DC	24	48
Permissible supply voltage range (U)	V DC	18 ... 30	18 ... 53
Maximum output current (max. 5 sec)*	A	100	
Permissible continuous output current*	A	40 ± 10%	20 ± 10%
Nominal voltage (Logic supply U_L)	V DC	24	
Logic current draw** (at 24 V DC)	mA	< 100	
Maximum commutation frequency	kHz	2	
Switching frequency	kHz	20	
Minimum connection inductance	mH	0.10	
Digital inputs	Number	4	
Digital outputs	Number	3	
Analog inputs	Number	1	
Parameterization interface		RS 485	
Efficiency (in optimum working range)	%	> 95	
Permissible ambient temperature range (T_U)	°C	-30 ... +40	
Permissible ambient humidity***	%	5 ... 85	
Protection class		IP 20	
Weight	kg	approx. 0.50	
Order number (IP 20)		994 2440 000	994 4820 000

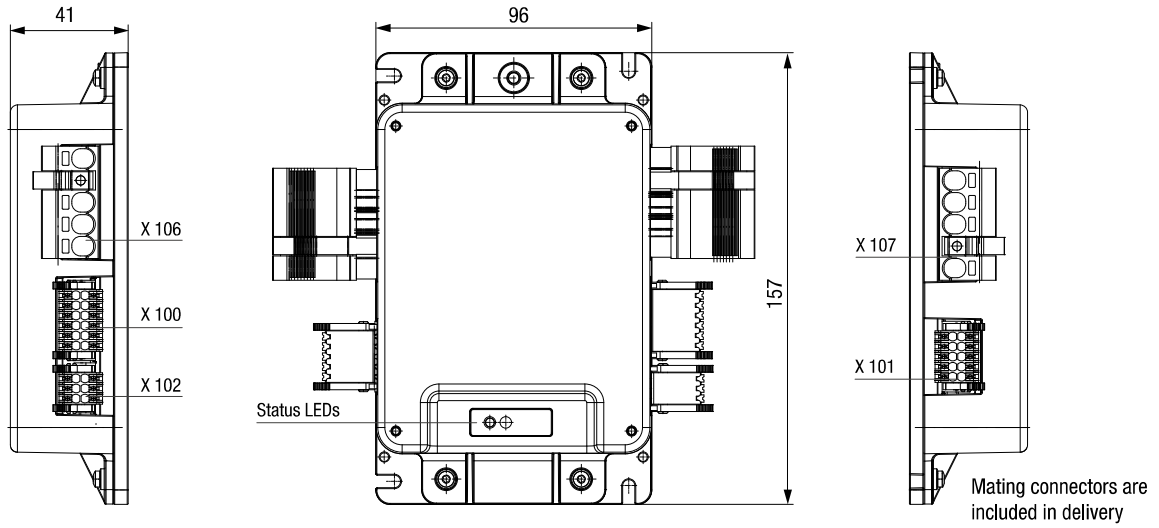
Subject to alterations

Series planned for 2nd q/2017

* Applicable at rated temperature T_U = 25°C, Derating at deviating (higher) temperatures
** Current draw without current requirement of digital outputs
*** Condensation not permitted

Technical drawing

All dimensions in mm



Electrical connection

Pin	X100 Signals Logic supply	X101 Hall sensors	X102 Parameterization interface	X106 Power supply, controller	X107 Power supply, motor
1	D-OUT-1	+U Hall (5V)	FE	Ballast	U
2	D-OUT-2	GND	RS485 B (-)	P-GND	V
3	D-OUT-3	Hall A	RS485 A (+)	U_{ZK}	W
4	U_{Logic}	Hall B		FE	FE
5	GND	Hall C			
6	FE (Functional earth)	$+U_{sin/cos}$ (5V)			
7	D-IN-A	GND			
8	D-IN-B	SIN			
9	D-IN-1	COS			
10	D-IN-2	FE			
11	A-IN-1				
12	A-IN-GND				

Accessories

Commissioning tool

"Kickstart" (page 64)

"Kickstart" PC software for commissioning/ parametrization of the drive controller

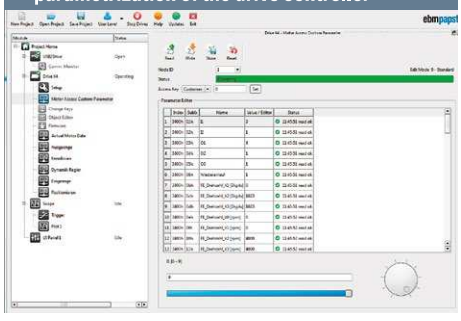


Image of "Kickstart" PC software

