



BSD-L7NHB050U-4

EtherCAT servo drive

EtherCAT slave node
Input voltage 3-phase 400-480 VAC
Output power 5.0 kW
Output current 17.5 A
Motor autodetect and adapt
Universal encoder
STO safety

Facts

General description

Article number	71484
Warranty	1 year

Mechanical

IP Class	IP20
Size	250x130.4x200 mm
Weight	5.5 kg

Ambient conditions

Environment	Indoors in an area free from corrosive or combustible gases, liquids, or dust.
Humidity	90% RH or less (no condensation)
Temperature range	Operating: 0 to 50 C°, Storage: -20 to +65 C°

Input ratings

Control supply voltage	380 to 480VAC
Mains supply voltage	3-phase 380-480VAC
Overload capacity	300 % for 3 s
Supply frequency	50 to 60 Hz
Voltage fluctuations	-15 to +10%

Output ratings

Rated power	5.0 kW
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Encoder

Encoder type	Quadrature(Incremental) BiSS-B, BiSS-C(Absolute, Incremental) Tamagawa Serial(Absolute, Incremental) EnDat 2.2 Sinusoidal, Analog Hall
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Regenerative

Built-in brake resistor	Yes
Built-in brake transistor	Yes

Dynamic braking

Dynamic brake	Yes
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Control specifications

Control modes	Profile Position Mode Profile Velocity Mode Profile Torque Mode Cyclic Synchronous Position Mode Cyclic Synchronous Velocity Mode Cyclic Synchronous Torque Mode Homing Mode
Frequency response	Maximum 1Khz or above (when using 19-bit serial encoder)
Speed control range	Maximum 1:5000
Torque control repeatability	Within $\pm 1\%$
Tuning modes	On line auto gain tuning Resonance filters Vibration supression

Control terminals

Analog inputs	Input voltage range : -10[V] ~ +10[V] Function : Analog torque limit Total 1 input channel (not allocable)
Analog outputs	Total 2 input channels (allocable)
Digital inputs	Input Voltage range : DC 12[V] ~ DC 24[V] Total 8 input channels (allocable) The listed 15 functions can be used selectively for assignment. (*POT, *NOT, *HOME, *STOP, *PCON, *GAIN2, *P_CL, *N_CL, PROBE1, PROBE2, EMG, A_RST, SVON, LVSF1, LVSF2) Note) * Basic allocation signal
Digital transistor outputs	Signal rating: DC 24[V] $\pm 10\%$, 120[mA] Total 4 input channels (allocable) The listed 11 functions can be used selectively for assignment. (*BRAKE $\pm$, *ALARM $\pm$, *READY $\pm$, *ZSPD $\pm$, INPOS $\pm$, TLMT $\pm$, VLMT $\pm$, INSPD $\pm$, WARN $\pm$, TGON $\pm$, INPOS2 $\pm$) Note) * Basic allocation signal

Safety

Safety	2 input channels (STO1, STO2), 1 output channel (EDM)
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Communication

EtherCAT	Yes
Modbus RTU	No
Communication connector	RJ45 (1 input, 1 output)
DC-clock cycle time	250 µs

Standard compliances

Applied directives	EMC EN 61800-3:2004 + A1:2012 LVD: EN 61800-5-1:2007 STO Safety: EN 61508-1:2010, EN 61508-2:2010, EN 61508-3:2010, EN 61508-4:2010, EN ISO 13849-1:2008/AC, SIL 2, Category 3 PLd, EN 61800-5-2:2007
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