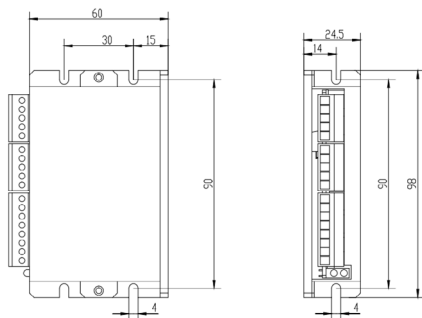


BRUSHLESS DC MOTOR DRIVERS | 8 - 60 VDC 3 - 20 A

Transmotec sell a broad range of high quality brushless dc motors in standard and customized configurations. Transmotec is the ideal supplier source especially to instrument and apparatus builders. We keep a high number of motors in stock for immediate delivery.

Model	Voltage V	Current A	Page
DBA-24-03	8 - 30	3	1
DBA-36-10	12 - 40	10	2
DBA-48-20	20 - 60	20	3

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

DBA - VOLTAGE - CURRENT

Example DBA-24-03

OPTION POWER SUPPLIES



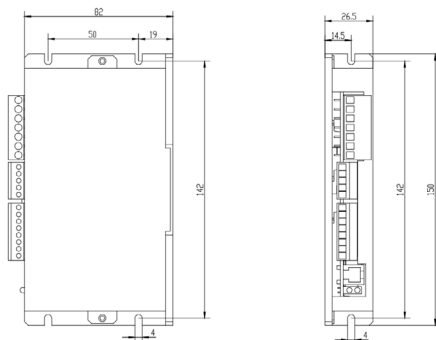
FUNCTION AND PARAMETER

Supply voltage	Rated operating voltage: 24VDC (operating voltage range: 8VDC ~ 30VDC)
Operating current	Continuous current: 3A, Peak current: 6A (Ambient temperature below 25°C)
Power range	≤80 W
Speed range	200rpm~20000rpm (Two-pole motor)
Adapted motor	Brushless DC Hall motor(120°)
Working mode	Hall speed closed-loop mode(Factory Default), Open-loop mode(Optional)
Speed adjustment mode	Support external potentiometer speed control(Factory Default),external voltage(0 - 5 V)
Protective function	Over-voltage protection, Under-voltage protection, Over-current protection, Over-temperature protection, Soft-Start, and hall signal fault alarm function.
Working environment	No corrosive, flammable, explosive, conductive gas, liquid and dust.
Heat dissipation mode	Natural cooling or external radiator.
Dimension	98mm×60mm×24.5mm

INTERFACE

	Pin name	Definition	Function
Power interface	VDC	8 ~ 30V DC input	
	GND	Power Ground	
	U	Motor phase – U	
	V	Motor phase – V	
	W	Motor phase – W	
Motor interface	HU	Hall signal phase - U	
	HV	Hall signal phase - V	
	HW	Hall signal phase - W	
	+5V	5V Hall power output (Max. 200 mA)	
	GND-H	Hall Ground	
	F/R	Positive and Negative turning control	F/R unconnected, CW turning. F/R short-circuit to GND, CCW turning.
	EN	Enable Control	Unconnected EN, the motor is not running. EN short-circuit to GND, The driver controls the motor.
	BRK	Brake Control	Electronic brake locking function. BRK remains unconnected, motor on. BRK is short-connected to GND, motor off. BRK is short-connected to GND, motor off.
Control signal interface	GND-C	External (speed) control Ground	
	SV	0~5 V analog voltage signal	Speed control port
	+5V	5V Power output (Max. 50 mA)	
	PG	Motor speed pulse output	Needs external pull-up resistor.
	ALM	Alarm output	Needs external pull-up resistor. Red flashes once: over-voltage protection Red flashes twice: under-voltage protection Red flashes three times: over-current protection Red flashes four times: over-temperature protection(70°C) Red flashes five times: Hall signal error Red on: hardware error Green on: fail to reach target speed
Others	PWR/ALM	Indicator	

DRAWING (mm)



PHOTO

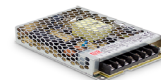


MODEL NO. DESIGNATION

DBA - VOLTAGE - CURRENT

Example DBA-24-03

OPTION POWER SUPPLIES



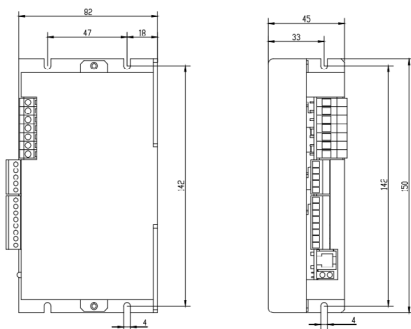
FUNCTION AND PARAMETER

Supply voltage	Rated operating voltage: 30VDC (operating voltage range: 12VDC ~ 40VDC)
Operating current	Continuous current: 10A, Peak current: 20A (Ambient temperature below 25°C)
Power range	≤400 W
Speed range	200rpm~20000rpm (Two-pole motor)
Adapted motor	Brushless DC Hall motor(120°)
Working mode	Hall speed closed-loop mode(Factory Default), Open-loop mode(Optional)
Speed adjustment mode	Support external potentiometer speed control(Factory Default),external voltage(0 - 5 V)
Protective function	Over-voltage protection, Under-voltage protection, Over-current protection, Over-temperature protection, Soft-Start, and hall signal fault alarm function.
Working environment	No corrosive, flammable, explosive, conductive gas, liquid and dust.
Heat dissipation mode	Natural cooling or external radiator.
Dimension	150mm×82mm×26.5mm

INTERFACE

	Pin name	Definition	Function
Power interface	VDC	12 ~ 40V DC input	
	GND	Power Ground	
	U	Motor phase – U	
	V	Motor phase – V	
	W	Motor phase – W	
Motor interface	HU	Hall signal phase - U	
	HV	Hall signal phase - V	
	HW	Hall signal phase - W	
	+5V	5V Hall power output (Max. 200 mA)	
	GND-H	Hall Ground	
	F/R	Positive and Negative turning control	F/R unconnected, CW turning. F/R short-circuit to GND, CCW turning.
	EN	Enable Control	Unconnected EN, the motor is not running. EN short-circuit to GND, The driver controls the motor.
	BRK	Brake Control	Electronic brake locking function. BRK remains unconnected, motor on. BRK is short-connected to GND, motor off. BRK is short-connected to GND, motor off.
Control signal interface	GND-C	External (speed) control Ground	
	SV	0~5 V analog voltage signal	Speed control port
	+5V	5V Power output (Max. 50 mA)	
	PG	Motor speed pulse output	Needs external pull-up resistor.
	ALM	Alarm output	Needs external pull-up resistor.
Others	PWR/ALM	Indicator	Red flashes once: over-voltage protection Red flashes twice: under-voltage protection Red flashes three times: over-current protection Red flashes four times: over-temperature protection(70°C) Red flashes five times: Hall signal error Red on: hardware error Green on: fail to reach target speed

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

DBA - VOLTAGE - CURRENT

Example DBA-24-03

OPTION POWER SUPPLIES



FUNCTION AND PARAMETER

Supply voltage	Rated operating voltage: 48VDC (operating voltage range: 20VDC - 60VDC)
Operating current	Continuous current: 20A, Peak current: 40A (Ambient temperature below 25°C)
Power range	≤1200 W
Speed range	200rpm~20000rpm (Two-pole motor)
Adapted motor	Brushless DC Hall motor(120°)
Working mode	Hall speed closed-loop mode(Factory Default), Open-loop mode(Optional)
Speed adjustment mode	Support external potentiometer speed control(Factory Default),external voltage(0 - 5 V)
Protective function	Over-voltage protection, Under-voltage protection, Over-current protection, Over-temperature protection, Soft-Start, and hall signal fault alarm function.
Working environment	No corrosive, flammable, explosive, conductive gas, liquid and dust.
Heat dissipation mode	Natural cooling or external radiator.
Dimension	150mm×82mm×45mm

INTERFACE

	Pin name	Definition	Function
Power interface	VDC	12 ~ 40V DC input	
	GND	Power Ground	
	U	Motor phase - U	
	V	Motor phase - V	
	W	Motor phase - W	
Motor interface	HU	Hall signal phase - U	
	HV	Hall signal phase - V	
	HW	Hall signal phase - W	
	+5V	5V Hall power output (Max. 200 mA)	
	GND-H	Hall Ground	
	F/R	Positive and Negative turning control	F/R unconnected, CW turning. F/R short-circuit to GND, CCW turning.
	EN	Enable Control	Unconnected EN, the motor is not running. EN short-circuit to GND, The driver controls the motor.
	BRK	Brake Control	Electronic brake locking function. BRK remains unconnected, motor on. BRK is short-connected to GND, motor off. BRK is short-connected to GND, motor off.
Control signal interface	GND-C	External (speed) control Ground	
	SV	0~5 V analog voltage signal	Speed control port
	+5V	5V Power output (Max. 50 mA)	
	PG	Motor speed pulse output	Needs external pull-up resistor.
	ALM	Alarm output	Needs external pull-up resistor.
Others	PWR/ALM	Indicator	Red flashes once: over-voltage protection Red flashes twice: under-voltage protection Red flashes three times: over-current protection Red flashes four times: over-temperature protection(70°C) Red flashes five times: Hall signal error Red on: hardware error Green on: fail to reach target speed