

TULPAR

Powered by **NES Drive**



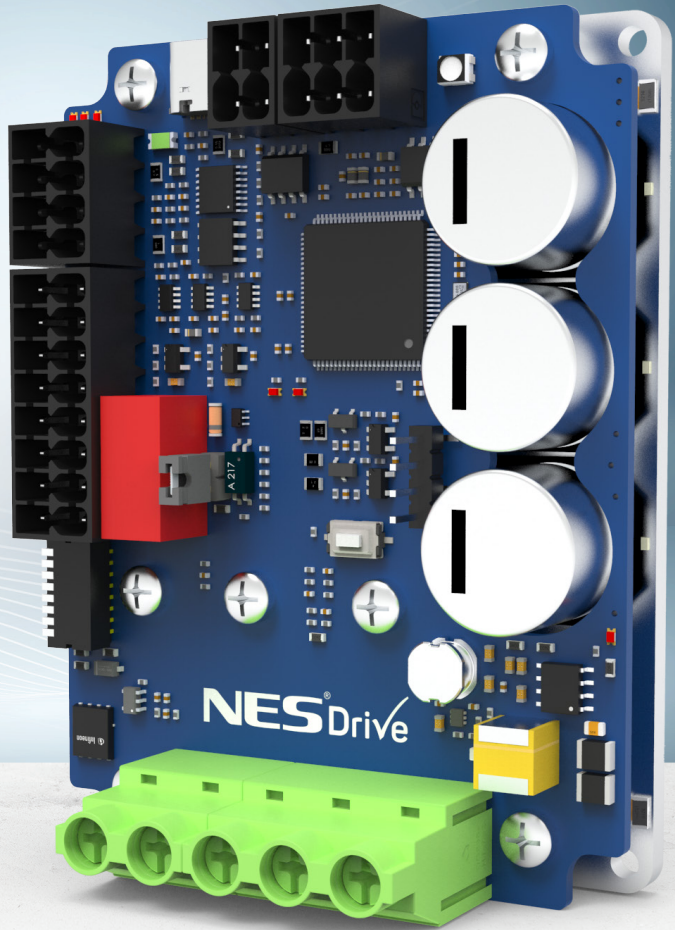
4Q.BDC.DRV.100

Technical Specifications

Protocol	Modbus and CANopen
Interface	USB / CanBus / RS485
Operating Voltage	12VDC - 48VDC
Rated Current(RMS)	10A
Peak Current (RMS)	30A
Matching Motors	BLDC / PMSM / ACIM
Number of Digital Inputs	5
Type of Digital Inputs	5V / 24V
Number of Analog Inputs	2
Type of Analog Inputs	0V / 10V or 0mA / 20mA
Number of Digital Outputs	3
Type of Digital Outputs	Open-Drain (max. 24V / 100mA)
Feedback Input	Encoder and HALL / Resolver (Optional)
Feedback Signal Type	Differential Encoder and Differential HALL
Break Output	1
Temperature Range	-10°C / +40°C
STO (Safe Torque Off)	STO (Isolated)

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4Q.BDC.DRV.150

Technical Specifications

Protocol	Modbus and CANopen
Interface	USB / RS232 / CanBus / RS485
Operating Voltage	12VDC - 48VDC
Rated Current(RMS)	20A
Peak Current (RMS)	60A
Matching Motors	BLDC / PMSM / ACIM
Number of Digital Inputs	3
Type of Digital Inputs	5V / 24V
Number of Analog Inputs	2
Type of Analog Inputs	0V / 10V or 0mA / 20mA
Number of Digital Outputs	2
Type of Digital Outputs	Open-Drain (max. 24V / 100mA)
Feedback Input	Encoder and HALL
Feedback Signal Type	Differential Encoder or Differential HALL
Break Output	1
Temperature Range	-10°C / +40°C
STO (Safe Torque Off)	STO (Isolated)

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4Q.BDC.DRV.200S-E

Technical Specifications

Protocol	Modbus
Interface	RS232
Operating Voltage	12VDC - 72VDC
Rated Current(RMS)	50A
Peak Current (RMS)	55A
Matching Motors	BLDC / PMSM
Number of Digital Inputs	3
Type of Digital Inputs	5V / 24V
Number of Analog Inputs	1
Type of Analog Inputs	0V / 10V
Number of Digital Outputs	1
Type of Digital Outputs	Open-Drain (max. 24V / 100mA)
Feedback Input	Encoder and HALL
Feedback Signal Type	Single Encoder and Single HALL
Break Output	0
Temperature Range	-10°C / +40°C

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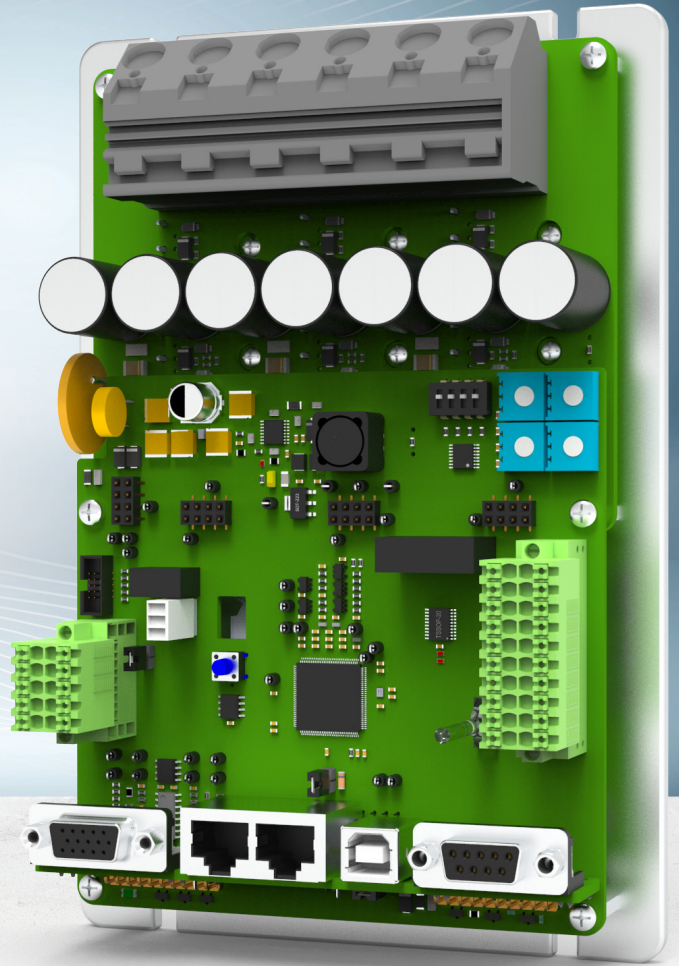
4Q.BDC.DRV.250S-E

Technical Specifications

Protocol	Modbus and CANopen
Interface	RS232 / CanBus / RS485
Operating Voltage	12VDC - 72VDC
Rated Current(RMS)	50A
Peak Current (RMS)	75A
Matching Motors	BLDC / PMSM
Number of Digital Inputs	5
Type of Digital Inputs	5V / 24V
Number of Analog Inputs	2
Type of Analog Inputs	0V / 10V
Number of Digital Outputs	2
Type of Digital Outputs	Open-Drain (max. 24V / 100mA)
Feedback Input	Encoder and HALL
Feedback Signal Type	Single Encoder and Single HALL
Break Output	1
Temperature Range	-10°C / +40°C

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4Q.BDC.DRV.275

Technical Specifications

Protocol	Modbus and CANopen
Interface	USB / RS232 / CanBus / RS485
Operating Voltage	12VDC - 48VDC
Rated Current(RMS)	75A
Peak Current (RMS)	120A
Matching Motors	BLDC / PMSM / ACIM
Number of Digital Inputs	5
Type of Digital Inputs	5V / 24V
Number of Analog Inputs	2
Type of Analog Inputs	0V / 10V
Number of Digital Outputs	2
Type of Digital Outputs	Open-Drain (max. 24V / 100mA)
Feedback Input	Encoder and HALL / Resolver (Optional)
Feedback Signal Type	Differential Encoder and Differential HALL
Break Output	1
Temperature Range	-10°C / +40°C
STO (Safe Torque Off)	STO (Isolated)



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4Q.BDC.DRV.300S

Technical Specifications

Protocol	Modbus and CANopen
Interface	RS232 / CanBus / RS485
Operating Voltage	12VDC - 48VDC or 48VDC - 120VDC
Rated Current(RMS)	300A
Peak Current (RMS)	450A
Matching Motors	BLDC / PMSM / ACIM
Number of Digital Inputs	5
Type of Digital Inputs	5V / 24V
Number of Analog Inputs	2
Type of Analog Inputs	0V / 10V or 0mA / 20 mA
Number of Digital Outputs	2
Type of Digital Outputs	Open-Drain (max. 24V / 100mA)
Feedback Input	Encoder and HALL / Resolver (Optional)
Feedback Signal Type	Single Encoder and Single HALL
Break Output	1
Temperature Range	-10°C / +40°C
STO (Safe Torque Off)	STO



4Q.DC.DRV.200S

Technical Specifications

Protocol	Modbus
Interface	RS232 (TTL)
Operating Voltage	12VDC - 72VDC
Rated Current(RMS)	50A
Peak Current (RMS)	100A
Matching Motors	Brushed DC
Number of Digital Inputs	3
Type of Digital Inputs	5V / 24V
Number of Analog Inputs	1
Type of Analog Inputs	0V / 10V
Number of Digital Outputs	1
Type of Digital Outputs	Open-Drain (max. 24V / 100mA)
Feedback Input	-
Feedback Signal Type	-
Break Output	0
Temperature Range	-10°C / +40°C



4Q.DC.DRV.300S

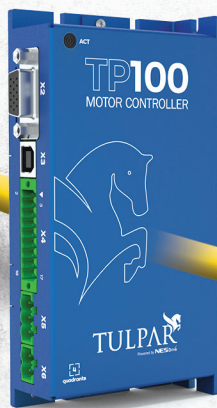
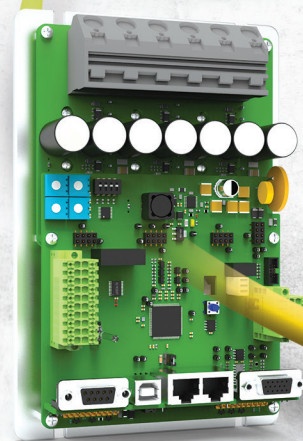
Technical Specifications

Protocol	Modbus and CANopen
Interface	RS232 / CanBus / RS485
Operating Voltage	12VDC - 72VDC
Rated Current(RMS)	300A
Peak Current (RMS)	450A
Matching Motors	Brushed DC / Series Exited DC
Number of Digital Inputs	5
Type of Digital Inputs	5V / 24V
Number of Analog Inputs	2
Type of Analog Inputs	0V / 10V
Number of Digital Outputs	2
Type of Digital Outputs	Open-Drain (max. 24V / 100mA)
Feedback Input	Encoder (Optional)
Feedback Signal Type	Single Encoder
Break Output	0
Temperature Range	-10°C / +40°C



PRODUCT COMPARISON

	TULPAR 100	TULPAR 150	TULPAR 200	TULPAR 250	TULPAR 275	TULPAR 300	BAMS1 200	BAMS1 300
Protocol		Modbus and CANopen	Modbus	Modbus and CANopen	Modbus and CANopen	Modbus and CANopen	Modbus	Modbus and CANopen
Interface	USB / CanBus / RS485	USB / RS232 / CanBus / RS485	RS232	RS232 / CanBus / RS485	USB / RS232 / CanBus / RS485	RS232 / CanBus / RS485	RS232 (TTL)	RS232 / CanBus / RS485
Operating Voltage	12VDC - 48VDC	12VDC - 48VDC	12VDC - 72VDC	12VDC - 72VDC	12VDC - 48VDC	12VDC - 48VDC or 48VDC - 120VDC	12VDC - 72VDC	12VDC - 72VDC
Rated Current(RMS)	10A	20A	50A	50A	75A	300A	50A	300A
Peak Current (RMS)	30A	60A	55A	75A	120A	450A	100A	450A
Matching Motors	BLDC / PMSM / ACIM	BLDC / PMSM / ACIM	BLDC / PMSM / ACIM	BLDC / PMSM / ACIM	BLDC / PMSM / ACIM	BLDC / PMSM / ACIM	Brushed DC	Brushed DC / Series Excited DC
Number of Digital Inputs	5	3	3	5	5	5	3	5
Type of Digital Inputs	5V / 24V	5V / 24V	5V / 24V	5V / 24V	5V / 24V	5V / 24V	5V / 24V	5V / 24V
Number of Analog Inputs	2	2	1	2	2	2	1	2
Type of Analog Inputs	0V / 10V or 0mA / 20mA	0V / 10V or 0mA / 20mA	0V / 10V	0V / 10V	0V / 10V	0V / 10V or 0mA / 20 mA	0V / 10V	0V / 10V
Number of Digital Outputs	3	2	1	2	2	2	1	2
Type of Digital Outputs	Open-Drain (max. 24V / 100mA)	Open-Drain (max. 24V / 100mA)	Open-Drain (max. 24V / 100mA)	Open-Drain (max. 24V / 100mA)	Open-Drain (max. 24V / 100mA)	Open-Drain (max. 24V / 100mA)	Open-Drain (max. 24V / 100mA)	Open-Drain (max. 24V / 100mA)
Feedback Input	Encoder and HALL Resolver (Optional)	Encoder and HALL	Encoder and HALL	Encoder and HALL	Encoder and HALL Resolver (Optional)	Encoder and HALL Resolver (Optional)	-	Encoder (Optional)
Feedback Signal Type	Differential Encoder and Differential HALL	Differential Encoder or Differential HALL	Single Encoder and Single HALL	Single Encoder and Single HALL	Differential Encoder and Differential HALL	Single Encoder and Single HALL	-	Single Encoder
Break Output	1	1	0	1	1	1	0	0
Temperature Range	-10°C / +40°C	-10°C / +40°C	-10°C / +40°C	-10°C / +40°C	-10°C / +40°C	-10°C / +40°C	-10°C / +40°C	-10°C / +40°C
STO (Safe Torque Off)	STO (Isolated)	STO (Isolated)	-	-	STO (Isolated)	STO	-	-



- User friendly graphical user interface
- Monitor, control and configure all driver parameters
- Remote firmware update capability



NES Drive is a high-tech company developing **DC, BLDC, PMSM, ACIM** motor controllers for a wide range of industry requirements.

Motor controller products address 12V-120VDC, 10A-300A working ranges, ensuring high efficiency with FOC, six-step algorithms depending on the motor structure. 5V or 24V digital inputs, 0V-10V or 0mA-20mA analog inputs, and digital outputs with a 24V, 100mA open-drain configuration are provided.

Quadrature **encoder, hall** sensor, **resolver** feedback sensors are supported for precise and smooth motor control. Differential and single-ended types of feedback sensors inputs are available.

Brake output, industrial temperature range and STO (safe torque off) capability are available as well.

Modbus and **CANopen** protocols are standard features for easy integration with PLC or other communication-based devices. USB, RS232, Can Bus and RS485 interfaces are provided for operability.

User-friendly GUI simplifies setup and configuration, and remote firmware updates keep your drivers up to date with the latest features and improvements.

