

## >> DC BRUSHLESS DRIVERS

### Small servodrive for Brushless servomotors up to 8Nm

**MICROSTAR B-Plus (SMBP)** are a complete line of Servomotors DC Brushless Drive and DC Brush Drive.

Their typical applications are: Robotics, Medical Equipment, Textile Machinery, Conveyors, Printing Machinery, Automated welding, Packaging Machinery, Positioners, Feeders and many other industrial applications incorporating servo motor and control mechanisms.

#### GENERAL FEATURES

Three phase trapezoidal brushless, four quadrant operation  
Competitive price  
Ultracompact dimensions  
Drive range up to 8 Nm 3000 Rpm  
SMT Technology  
Power Mosfet bridge  
Operating temperature 0-45°C  
DC supply

#### STANDARD FUNCTIONS

Acceleration and deceleration ramp adjustable  
Torque control  
Speed feedback:  
- For Brushless: Hall signals / Armature / Encoder+Hall signals / Fa-coder  
- For DC Brush: Armature / Tachogenerator / Encoder

Signal of Drive-OK with transistor open collector  
Adjustable zero offset  
Fine adjustable of max speed  
Adjustable proportional and derivative gains  
Enable input available with positive / negative logical levels  
60/120 degrees commutation phase setting

#### OPTIONAL FUNCTIONS

PWM + DIR mode and STEP + DIR mode

#### TECHNICAL CHARACTERISTICS

Differential speed and torque reference +/-10V  
Input impedance 22K Ohm  
Enable signals: 10 to 30 VDC  
Frequency of PWM 22KHz  
Motor current monitor +/-7V (at peak current)  
Motor speed monitor +/-8V (at max speed)  
Auxiliary output supply for encoder: +5V / 150mA  
Output voltage supply: +10 / -10 VDC - 5 mA  
Positive and negative limit switches

#### PROTECTIONS

Short-circuit of motor  
Power supply over-under voltage  
Heatsink overtemperature  
Rated current limit  
Break hall sensors



#### DESCRIPTION

The MICROSTAR B-Plus (SMBP) are four quadrant three phase trapezoidal servodrives for controlling of DC brush and DC brushless servomotors. They have been designed in ultracompact format with advanced technology and competitive price.

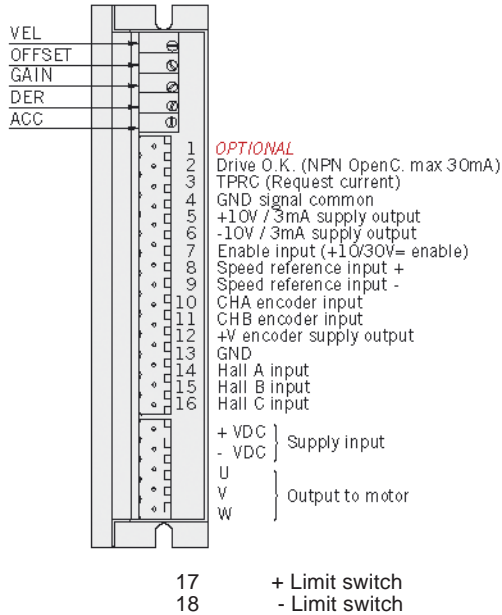
The MICROSTAR B-Plus (SMBP) finds application in every sector of automation where is required high speed response, an extreme precision in positioning and a high torque at low speed without compromising on quality and reliability.

The MICROSTAR B-Plus (SMBP) are available in three different versions to control servomotors with voltage from 20 to 275V.

| MODEL                                    | SMBP             |      |                   |       |          |        |
|--|------------------|------|-------------------|-------|----------|--------|
| Size                                     | 2.5/5            | 5/10 | 8/16              | 10/20 | 14/28*   | 20/40* |
| Rated Current                            | 2.5              | 5    | 8                 | 10    | 14       | 20     |
| Peak current for 2"                      | 5                | 10   | 16                | 20    | 28       | 40     |
| Model-Voltage power supply (Min/Max) Vdc | SMBP-060 (20/84) |      | SMBP-140 (40/184) |       | SMBP-200 |        |

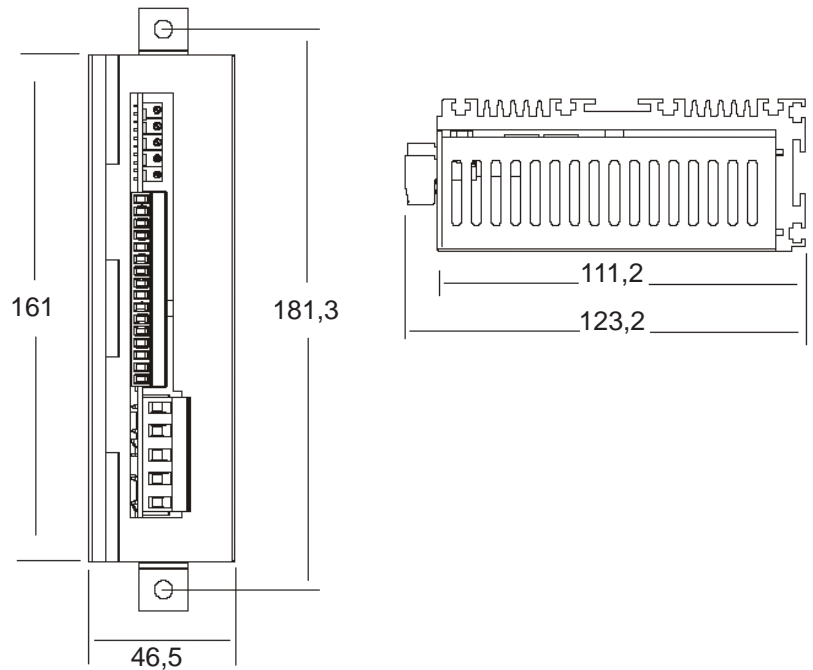
\* Booster heatsink

## SIGNAL AND POWER CONNECTIONS

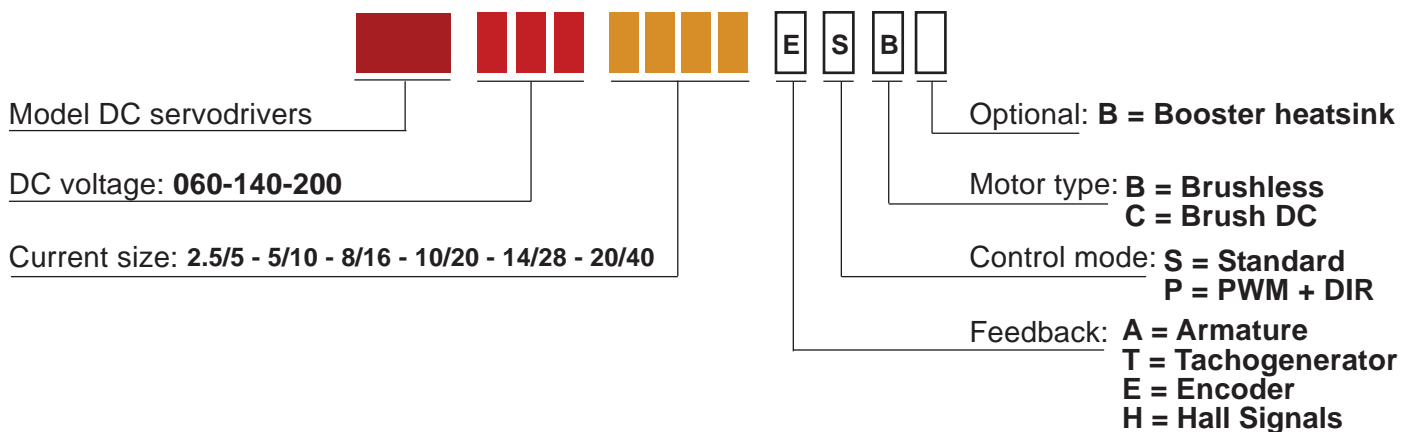


## OVERALL DIMENSIONS

mm



## ORDER CODE FOR MICROSTAR B-Plus (SMBP)



EXAMPLE: **SMBP 140-08 16 ESB** Microstar B-Plus 140V - 8An/16 Ap - Feedback encoder - Brushless servomotor