

# GMPS

As 12-volt and 24-volt motor with Interference suppression and hall sensors



## Technical description

|                          |   |
|--------------------------|---|
| Motor housing            | Sheet steel, rolled & corrosion protection            |
| Magnetic field           | Permanent magnet                                      |
| Type of transmission     | Worm gear transmission                                |
| Transmission housing     | Zinc die casting                                      |
| Gearwheel material       | Plastic, metal  |
| Transmission lubrication | Grease, permanent lubrication                         |
| Mechanical interface     | Drive shaft   |
| Electrical interface     | Stranded wires with plug or tin-plated stranded wires |
| Sensor                   | Optional  |
| Thermal protection       | Optional  |
| Interference suppression | Optional  |

## Applications

### Industry

General mechanical engineering, machines, agricultural technology, office machines, laboratory devices, medical technology, traffic and communication technology, photo/cosmetics

# Series GMPS

## Motor type 404 846

| Design Data           |                     |
|-----------------------|---------------------|
| Commutation           | Brushed             |
| Direction of rotation | Bi-directional      |
| Bearing type          | A:Sleeve - B:Sleeve |

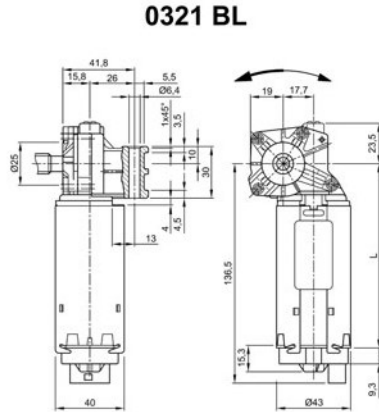
| Performance data                    |       |       |
|-------------------------------------|-------|-------|
| Rated voltage [V]                   | $U_N$ | 12    |
| Nominal torque [Nm]                 | $M_N$ | 1.50  |
| No-load speed [ $\text{min}^{-1}$ ] | $n_0$ | 180.0 |
| Nominal power [W]                   | $P_N$ | 21.3  |
| Nominal current [A]                 | $I_N$ | 9.0   |
| Nominal force [kN]                  | $F_N$ | 2.00  |
| Duty cycle                          | s3    |       |

| Sensor data     |    |
|-----------------|----|
| Pulses          | 29 |
| Output channels | 1  |

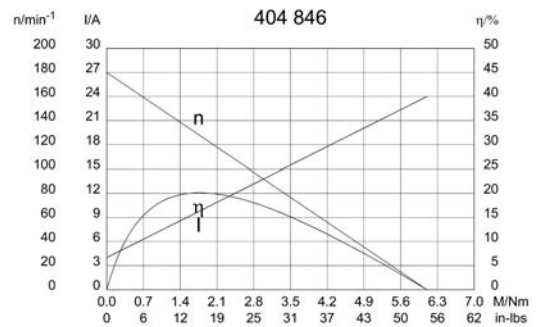
| Other data             |                                   |
|------------------------|-----------------------------------|
| Gear ratio             | 29/1                              |
| Gear wheel material    | plastic                           |
| Suppression components | 5,5 $\mu$ H, 47nF, (0,47 $\mu$ F) |
| Enclosure class        | IP 40                             |
| Weight [kg]            | 0,880                             |

Remarks: L = 116mm, 1 start worm

### Characteristic curves

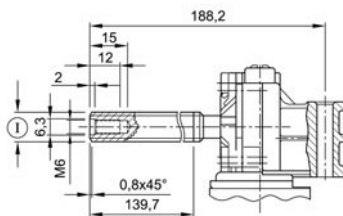


### Motor picture



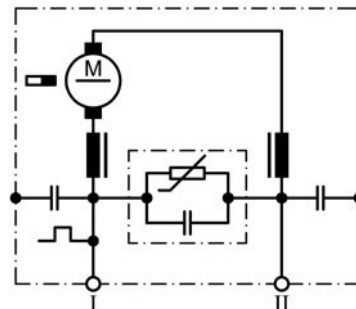
### Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

#### W 288



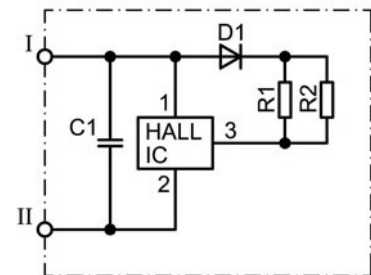
shape 7/16-8 STUB ACME RH, pressure angle 20°, pitch 3,175mm (0,125"), no of starts 1

#### S 93



I Terminal 1  
II Terminal 5

#### S 85



I Terminal 4, Hall-IC +  
II Terminal 2, Hall-IC -



# Series GMPS

## Motor type 404 847

| Design Data           |                     |
|-----------------------|---------------------|
| Commutation           | Brushed             |
| Direction of rotation | Bi-directional      |
| Bearing type          | A:Sleeve - B:Sleeve |

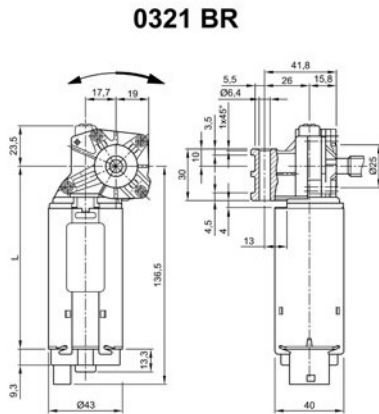
| Performance data                    |       |       |
|-------------------------------------|-------|-------|
| Rated voltage [V]                   | $U_N$ | 12    |
| Nominal torque [Nm]                 | $M_N$ | 1.50  |
| No-load speed [ $\text{min}^{-1}$ ] | $n_0$ | 180.0 |
| Nominal power [W]                   | $P_N$ | 21.3  |
| Nominal current [A]                 | $I_N$ | 6.0   |
| Nominal force [kN]                  | $F_N$ | 2.00  |
| Duty cycle                          |       | s3    |

| Sensor data     |    |
|-----------------|----|
| Pulses          | 29 |
| Output channels | 1  |

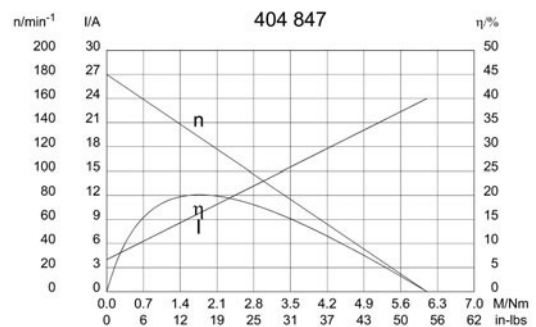
| Other data             |   |
|------------------------|---|
| Gear ratio             | 29/1  |
| Gear wheel material    | plastic   |
| Suppression components | 5,5 $\mu\text{H}$ , 47nF, (0,47 $\mu\text{F}$ ) |
| Enclosure class        | IP 40   |
| Weight [kg]            | 0,880   |

Remarks: L = 116mm, 1 start worm

### Characteristic curves

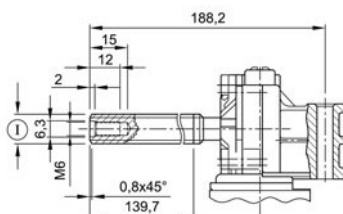


### Motor picture



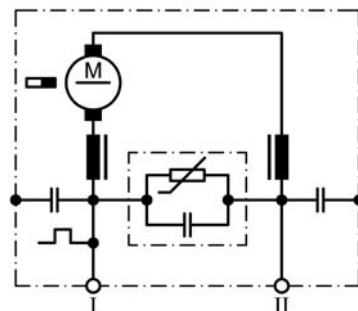
### Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

#### W 288



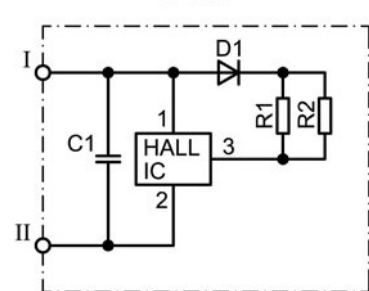
shape 7/16-8 STUB ACME RH, pressure angle 20°, pitch 3,175mm (0,125"), no of starts 1

#### S 93



I Terminal 1  
II Terminal 5

#### S 85



I Terminal 4, Hall-IC +  
II Terminal 2, Hall-IC -



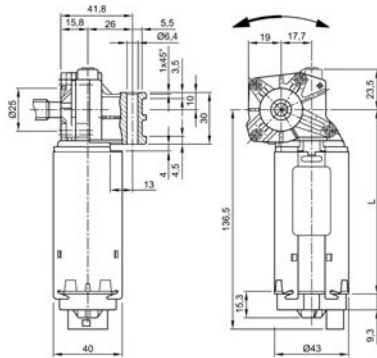
# Series GMPS

## Motor type 405 091

| Design Data           |                       |
|-----------------------|-----------------------|
| Commutation           | none                  |
| Direction of rotation | Bi-directional        |
| Bearing type          | A: Sleeve - B: Sleeve |

| Performance data                    |       |       |
|-------------------------------------|-------|-------|
| Rated voltage [V]                   | $U_N$ | 12    |
| Nominal torque [Nm]                 | $M_N$ | 1.50  |
| No-load speed [ $\text{min}^{-1}$ ] | $n_0$ | 145.0 |
| Nominal power [W]                   | $P_N$ | 16.6  |
| Nominal current [A]                 | $I_N$ | 6.0   |
| Nominal force [kN]                  | $F_N$ | 1.50  |
| Duty cycle                          | s3    |       |

### 0321 BL



| Sensor data     |    |
|-----------------|----|
| Pulses          | 29 |
| Output channels | 1  |

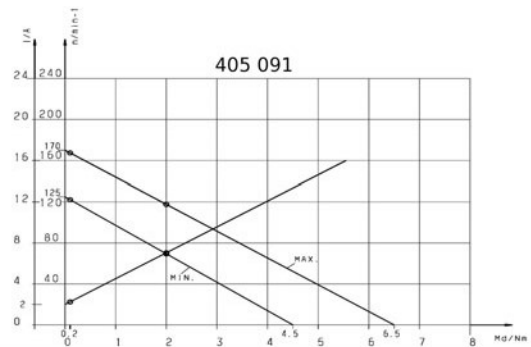
| Other data             |                                   |
|------------------------|-----------------------------------|
| Gear ratio             | 29/1                              |
| Gear wheel material    |                                   |
| Suppression components | 5,5 $\mu$ H, 47nF, (0,47 $\mu$ F) |
| Enclosure class        | IP40                              |
| Weight [kg]            | 0,880                             |

Remarks: 1 start worm

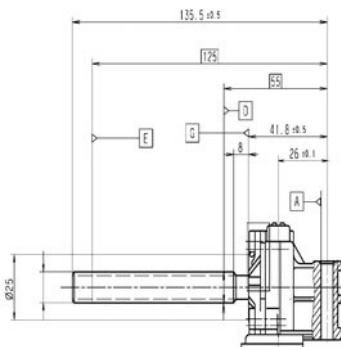
### Motor picture



### Characteristic curves

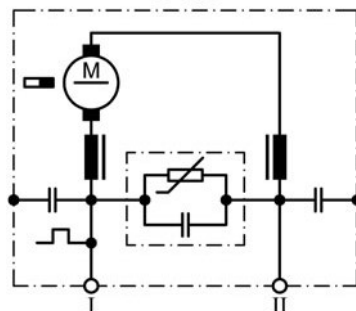


### Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



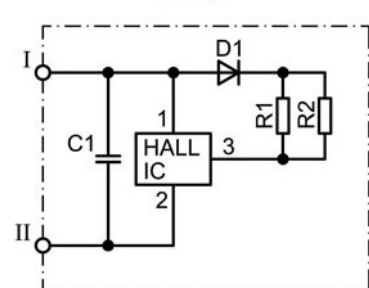
Output spindle: 7 / 16 Stub ACME RH

### S 93



I Terminal 1  
II Terminal 5

### S 85



I Terminal 4, Hall-IC +  
II Terminal 2, Hall-IC -



# Series GMPS

## Motor type 405 092

| Design Data           |                       |
|-----------------------|-----------------------|
| Commutation           | Brushed               |
| Direction of rotation | Bi-directional        |
| Bearing type          | A: Sleeve - B: Sleeve |

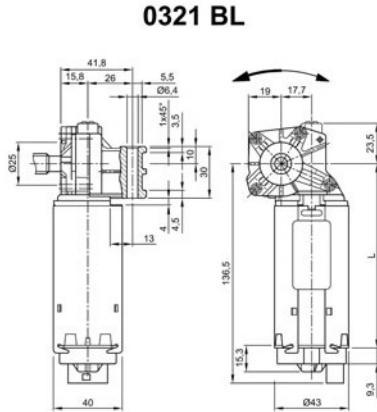
| Performance data                    |       |       |
|-------------------------------------|-------|-------|
| Rated voltage [V]                   | $U_N$ | 12    |
| Nominal torque [Nm]                 | $M_N$ | 1.50  |
| No-load speed [ $\text{min}^{-1}$ ] | $n_0$ | 145.0 |
| Nominal power [W]                   | $P_N$ | 16.6  |
| Nominal current [A]                 | $I_N$ | 6.0   |
| Nominal force [kN]                  | $F_N$ | 1.50  |
| Duty cycle                          | s3    |       |

| Sensor data     |   |
|-----------------|---|
| Pulses          | 0 |
| Output channels | 0 |

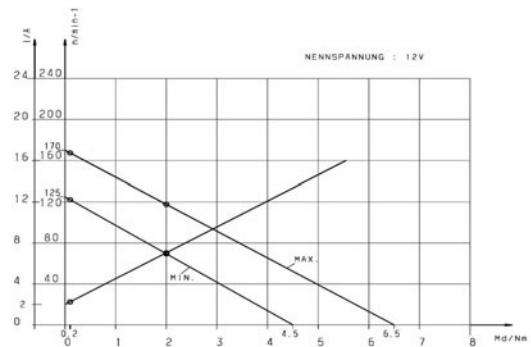
| Other data             |                                   |
|------------------------|-----------------------------------|
| Gear ratio             | 29/1                              |
| Gear wheel material    |                                   |
| Suppression components | 5,5 $\mu$ H, 47nF, (0,47 $\mu$ F) |
| Enclosure class        | IP40                              |
| Weight [kg]            | 0,880                             |

Remarks: 1 start worm

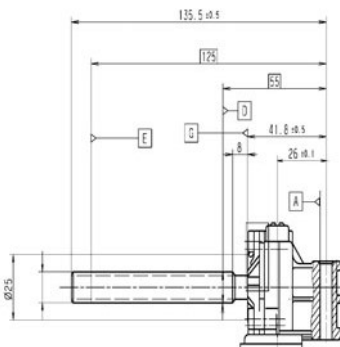
### Characteristic curves



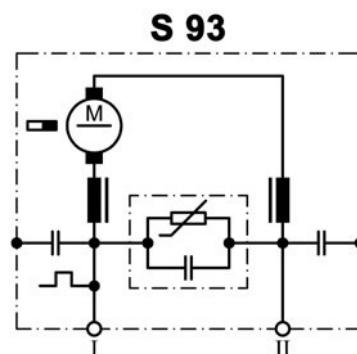
### Motor picture



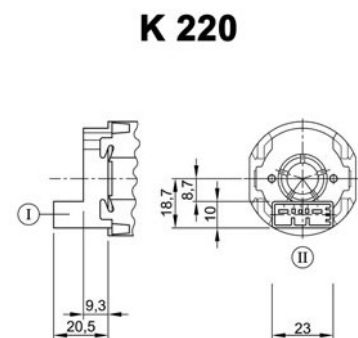
### Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



Output spindle: 7 / 16 Stub ACME RH



I Terminal 1  
II Terminal 5



Connector TYCO C-208-15621 (Z) mating with:  
Connector housing 1379217-3 & cover  
1379218-2  
[www.tycoelectronics.com](http://www.tycoelectronics.com)

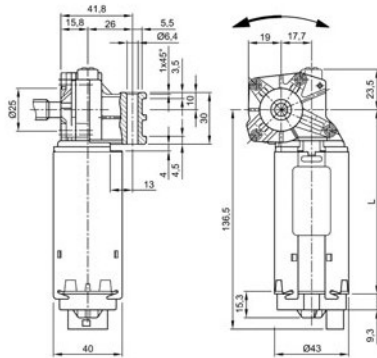
# Series GMPS

## Motor type 405 237

| Design Data           |                       |
|-----------------------|-----------------------|
| Commutation           | Brushed               |
| Direction of rotation | Bi-directional        |
| Bearing type          | A: Sleeve - B: Sleeve |

| Performance data                    |       |       |
|-------------------------------------|-------|-------|
| Rated voltage [V]                   | $U_N$ | 24    |
| Nominal torque [Nm]                 | $M_N$ | 1.50  |
| No-load speed [ $\text{min}^{-1}$ ] | $n_0$ | 145.0 |
| Nominal power [W]                   | $P_N$ | 17.2  |
| Nominal current [A]                 | $I_N$ | 4.5   |
| Nominal force [kN]                  | $F_N$ | 1.50  |
| Duty cycle                          |       | s3    |

0321 BL



| Sensor data     |   |
|-----------------|---|
| Pulses          | 0 |
| Output channels | 0 |

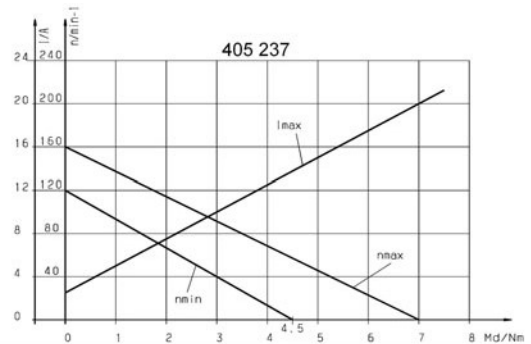
| Other data             |       |
|------------------------|-------|
| Gear ratio             | 29/1  |
| Gear wheel material    |       |
| Suppression components |       |
| Enclosure class        | IP40  |
| Weight [kg]            | 0.880 |

Remarks: L = 116mm

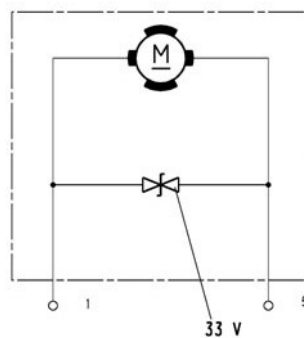
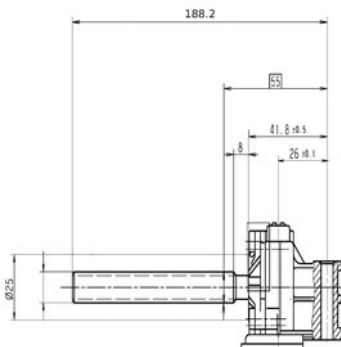
### Motor picture



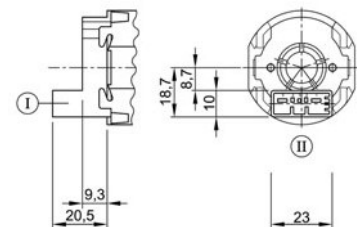
### Characteristic curves



### Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



K 220



Output spindle: 7 / 16 Stub ACME RH

Connector TYCO C-208-15621 (Z) mating with:  
**Connector housing 1379217-3 & cover**  
 1379218-2  
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