



NIDEC MOTORS & ACTUATORS ⇄ MOTOR SERIES

0321 (GMPS)

⇄ DC MOTORS WITH WORM GEAR



⇄ TECHNICAL DESCRIPTION

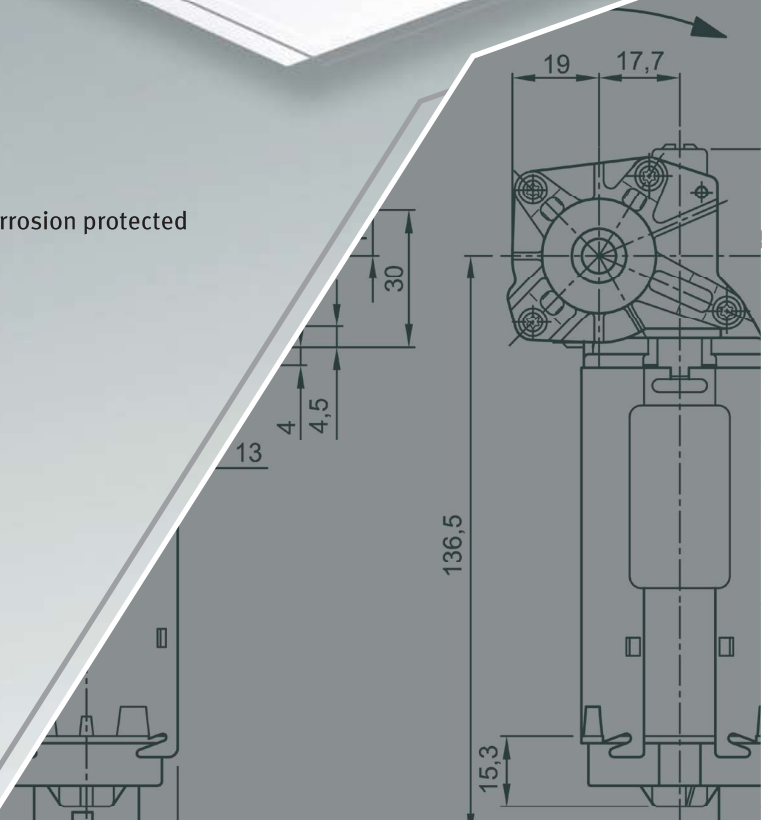
Motorhousing:	sheet metal, rolled & corrosion protected
Excitation field:	permanent magnet
Type of gear mesh:	worm gear
Gear housing:	zinc die cast
Gear wheel material:	plastic
Lubrication:	grease
Mechanical interface:	steel lead screw
Electric interface:	connector
Sensor:	optional
Thermal protection:	optional
EMC suppression:	optional

⇄ INDUSTRIAL APPLICATION

Home automation

⇄ AUTOMOTIVE APPLICATION

Seat tilt and height adjustment



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

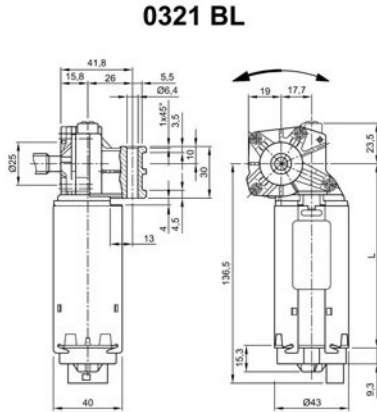
Performance data		
Rated voltage [V]	U_N	12
Nominal torque [Nm]	M_N	1.50
No-load speed [min^{-1}]	n_0	180.0
Nominal power [W]	P_N	21.3
Nominal current [A]	I_N	9.0
Nominal force [kN]	F_N	2.00
Duty cycle	s3	

Sensor data	
Pulses	29
Output channels	1

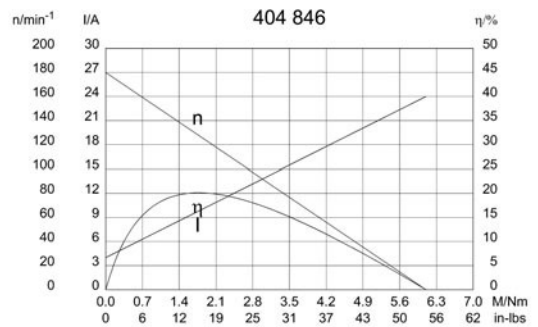
Other data	
Gear ratio	29/1
Gear wheel material	plastic
Suppression components	5,5 μ H, 47nF, (0,47 μ F)
Enclosure class	IP 40
Weight [kg]	0,880

Remarks: L = 116mm, 1 start worm

Characteristic curves

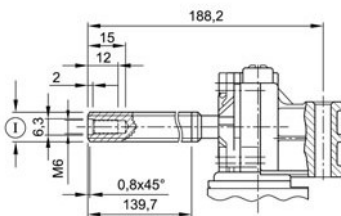


Motor picture



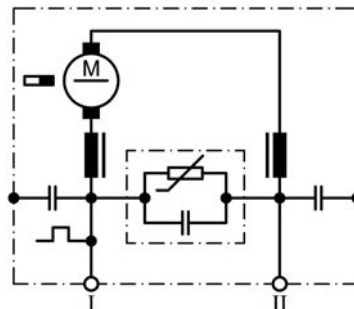
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

W 288



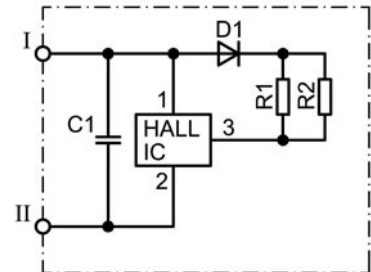
shape 7/16-8 STUB ACME RH, pressure angle 20°, pitch 3,175mm (0,125"), no of starts 1

S 93



I Terminal 1
 II Terminal 5

S 85



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

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

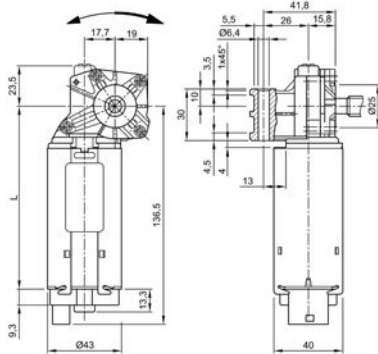
Performance data		
Rated voltage [V]	U_N	12
Nominal torque [Nm]	M_N	1.50
No-load speed [min^{-1}]	n_0	180.0
Nominal power [W]	P_N	21.3
Nominal current [A]	I_N	6.0
Nominal force [kN]	F_N	2.00
Duty cycle	s3	

Sensor data	
Pulses	29
Output channels	1

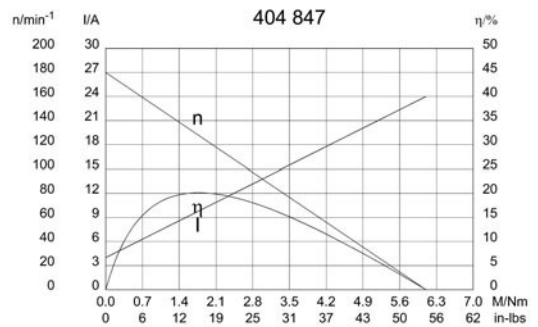
Other data	
Gear ratio	29/1
Gear wheel material	plastic
Suppression components	5,5 μ H, 47nF, (0,47 μ F)
Enclosure class	IP 40
Weight [kg]	0,880

Remarks: L = 116mm, 1 start worm

0321 BR

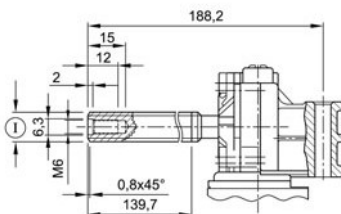


Motor picture



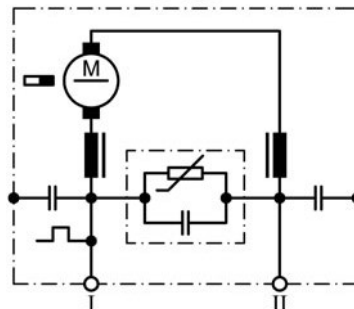
Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)

W 288



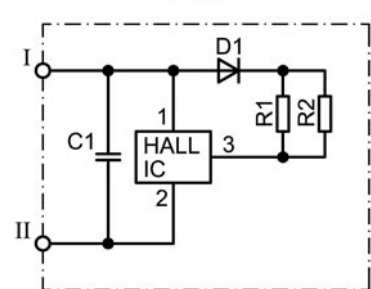
shape 7/16-8 STUB ACME RH, pressure angle 20°, pitch 3,175mm (0,125"), no of starts 1

S 93



I Terminal 1
 II Terminal 5

S 85



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

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

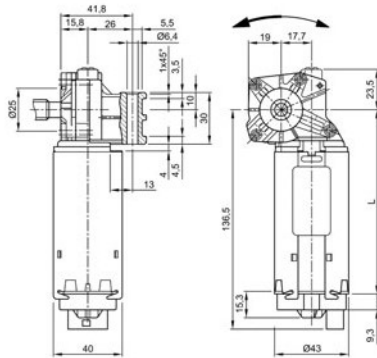
Performance data		
Rated voltage [V]	U_N	12
Nominal torque [Nm]	M_N	1.50
No-load speed [min^{-1}]	n_0	145.0
Nominal power [W]	P_N	16.6
Nominal current [A]	I_N	6.0
Nominal force [kN]	F_N	1.50
Duty cycle	s3	

Sensor data	
Pulses	29
Output channels	1

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

Remarks: 1 start worm

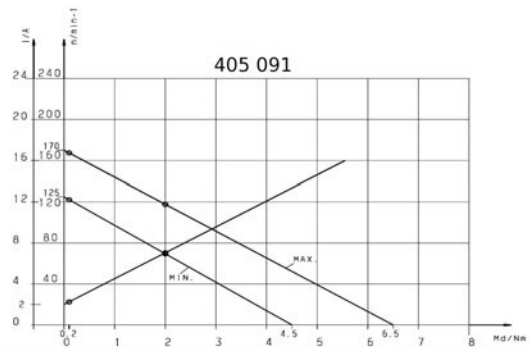
0321 BL



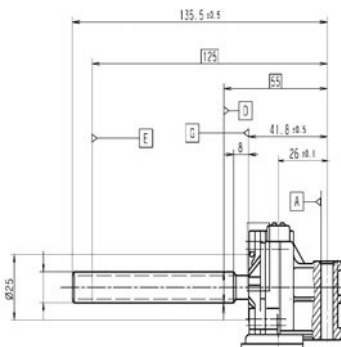
Motor picture



Characteristic curves

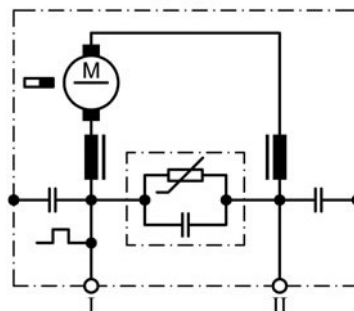


Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



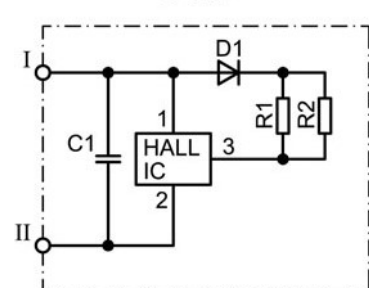
Output spindle: 7 / 16 Stub ACME RH

S 93



I Terminal 1
 II Terminal 5

S 85



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

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

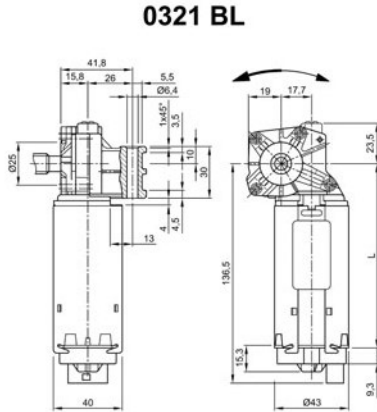
Performance data		
Rated voltage [V]	U_N	12
Nominal torque [Nm]	M_N	1.50
No-load speed [min^{-1}]	n_0	145.0
Nominal power [W]	P_N	16.6
Nominal current [A]	I_N	6.0
Nominal force [kN]	F_N	1.50
Duty cycle	s3	

Sensor data	
Pulses	0
Output channels	0

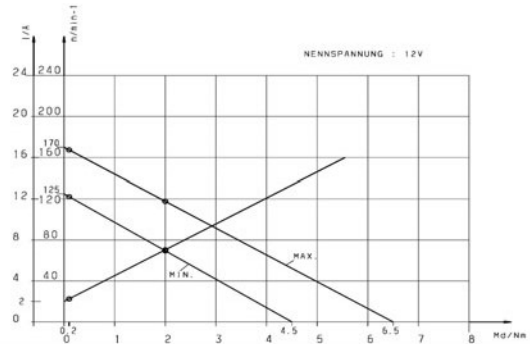
Other data	
Gear ratio	29/1
Gear wheel material	
Suppression components	5,5 μ H, 47nF, (0,47 μ F)
Enclosure class	IP40
Weight [kg]	0,880

Remarks: 1 start worm

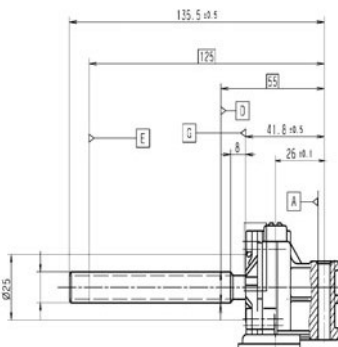
Characteristic curves



Motor picture

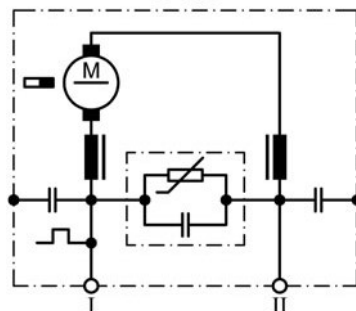


Output shaft drawing (W), Wiring diagrams (S) and Connector layout (K)



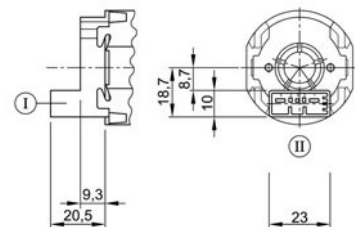
Output spindle: 7 / 16 Stub ACME RH

S 93



I Terminal 1
 II Terminal 5

K 220

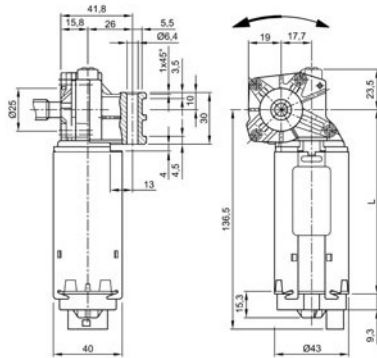


Connector TYCO C-208-15621 (Z) mating with:
 Connector housing 1379217-3 & cover
 1379218-2
www.tycoelectronics.com

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 [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

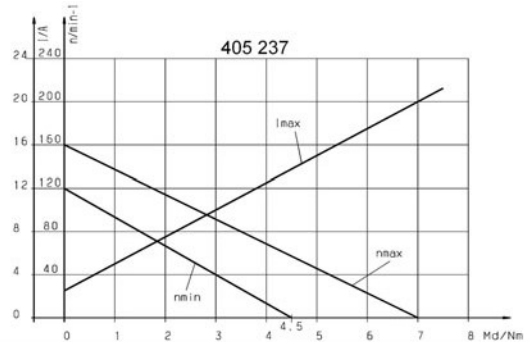
Other data	
Gear ratio	29/1
Gear wheel material	
Suppression components	
Enclosure class	IP40
Weight [kg]	0.880

Remarks: L = 116mm

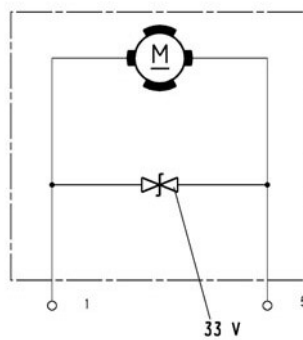
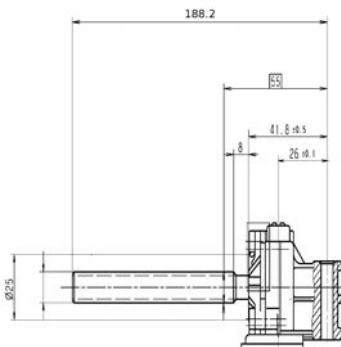
Motor picture



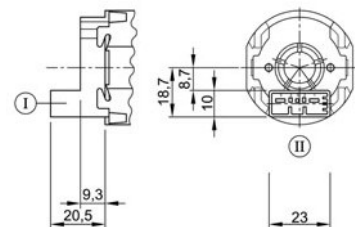
Characteristic curves



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
www.tycoelectronics.com

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