

Planetary Gearboxes for NEMA Motors

SureGear® Planetary Gear Reducers for NEMA Motors – Overview

The SureGear PGCN series is a great gearbox (gear reducer) value for servo, stepper, and other motion control applications requiring a NEMA size input/output interface. It offers the best quality available for the price point.

Features

- Wide range of ratios (5, 10, 25, 50, and 100:1)
- Low backlash of 30 arc-min or less
- 20,000 hour service life
- Maintenance free; requires no additional lubrication
- NEMA sizes 17, 23, and 34
- Includes hardware for mounting to SureStep stepper motors
- Optional shaft bushings available for mounting to other motors

Applications

- Material handling
- Pick and place
- Automation
- Packaging
- Other motion control applications requiring a NEMA input/output



SureGear® NEMA Planetary Gearboxes															
Part Number	Price	Ratio	NEMA Frame Size	Nominal Output Torque (N·m [lb-in])	Maximum Acceleration Torque (N·m [lb-in])	Emergency Stop Torque (N·m [lb-in])	Standard Output Backlash (arc-min)	Allowable Radial Load (N [lb])	Allowable Axial Load (N [lb])	Torsional Stiffness (N·m/arc-min [lb-in/arc- min])	Mass Moment of Inertia (kg·cm2 [lb-in2])	Efficiency (%)	Approx Weight (kg [lb])	Fits SureStep Stepper Motor (STP-MTR, STP-MTRH, STP-MTRAC)	Drawing Links
PGCN17-055M	\$411.00	5:1	17	6.5 [58]	13 [115]	26 [230]	<25	361 [81]	298 [67]	0.8 [7.5]	0.0096 [0.003]	94	0.45 [1.0]	STP-MTR(x)-17xxx(x)	PDF
PGCN17-105M	\$411.00	10:1		5.0 [44]	10 [89]	20 [177]	<25			0.5 [4.4]	0.0078 [0.003]	94	0.45 [1.0]		PDF
PGCN17-255M	\$516.00	25:1		16 [142]	20 [177]	32 [283]	<30			0.8 [7.5]	0.0096 [0.003]	92	0.55 [1.2]		PDF
PGCN17-505M	\$516.00	50:1		16 [142]	20 [177]	32 [283]	<30			0.8 [7.5]	0.0078 [0.003]	92	0.55 [1.2]		PDF
PGCN17-1005M	\$516.00	100:1		5.0 [44]	10 [89]	20 [177]	<30			0.5 [4.4]	0.0078 [0.003]	92	0.55 [1.2]		PDF
PGCN23-0525	\$453.00	5:1	23	6.5 [58]	13 [115]	26 [230]	<20	476 [81]	425 [67]	0.9 [8.0]	0.04 [0.014]	94	0.45 [1.0]	STP-MTR(x)-23xxx(x)	PDF
PGCN23-1025	\$453.00	10:1		5.0 [44]	10 [89]	20 [177]	<20			0.6 [5.3]		94	0.45 [1.0]		PDF
PGCN23-2525	\$531.00	25:1		16 [142]	20 [177]	32 [283]	<25			0.9 [8.0]		92	0.55 [1.2]		PDF
PGCN23-5025	\$531.00	50:1		16 [142]	20 [177]	32 [283]	<25			0.9 [8.0]		92	0.55 [1.2]		PDF
PGCN23-10025	\$531.00	100:1		5.0 [44]	10 [89]	20 [177]	<25			0.6 [5.3]		92	0.55 [1.2]		PDF
PGCN34-0550	\$539.00	5:1	34	26 [230]	44 [389]	84 [743]	<15	476 [107]	425 [96]	2.4 [21.2]	0.36 [0.123]	94	1.1 [2.4]	STP-MTR(x)-34xxx(x)*	PDF
PGCN34-1050	\$539.00	10:1		16 [142]	24 [212]	62 [549]	<15			1.3 [11.5]	0.34 [0.116]	94	1.1 [2.4]		PDF
PGCN34-2550	\$731.00	25:1		42 [372]	52 [460]	84 [743]	<20			2.4 [21.2]	0.36 [0.123]	92	1.4 [3.1]		PDF
PGCN34-5050	\$731.00	50:1		42 [372]	52 [460]	84 [743]	<20			2.4 [21.2]	0.34 [0.116]	92	1.4 [3.1]		PDF
PGCN34-10050	\$731.00	100:1		16 [142]	24 [212]	62 [549]	<20			1.3 [11.5]	0.34 [0.116]	92	1.4 [3.1]		PDF
Specifications Applicable to All PGCN Gearboxes															
Nominal Speed (rpm)				3500											
Maximum Input Speed (rpm)				6000											
Mounting Orientation				can be mounted in any orientation											
Environmental Rating				IP64											
Operating Temperature				-20 to 90 °C [-4 to 194 °F]											
Lubrication				Mineral Grease EPO											
Service Life (hrs)				>20,000											

NOTE: SureGear PGCN gearboxes (gear reducers) are not designed for back driving.

*Does NOT fit STP-MTRAC-34156(D)



Accessories

Planetary Gearboxes for NEMA Motors



Typical PGCN Accessory Bushings Typical PGCN Accessory Screws

SureGear® NEMA Planetary Gearbox Accessories			
Part Number	Price	Description	Fits SureGear NEMA Planetary Gearbox
<u>PGCN17-SK</u>	\$3.00	Mounting screws, replacement, for SureGear NEMA size 17 gearboxes (Package of 4)	PGCN17-xxxx
<u>PGCN17-BSH5M</u>	\$26.00	Motor shaft bushing for SureGear NEMA size 17 gearboxes, fits 5mm diameter motor shaft	
<u>PGCN17-BSH8M</u>	\$26.00	Motor shaft bushing for SureGear NEMA size 17 gearboxes, fits 8mm diameter motor shaft	
<u>PGCN17-BSH9M</u>	\$26.00	Motor shaft bushing for SureGear NEMA size 17 gearboxes, fits 9mm diameter motor shaft	
<u>PGCN17-BSH25</u>	\$26.00	Motor shaft bushing for SureGear NEMA size 17 gearboxes, fits 1/4 inch diameter motor shaft	
<u>PGCN23-SK</u>	\$3.00	Mounting screws, replacement, for SureGear NEMA size 23 gearboxes (Package of 4)	PGCN23-xxxx
<u>PGCN23-BSH8M</u>	\$26.00	Motor shaft bushing for SureGear NEMA size 23 gearboxes, fits 8mm diameter motor shaft	
<u>PGCN23-BSH9M</u>	\$26.00	Motor shaft bushing for SureGear NEMA size 23 gearboxes, fits 9mm diameter motor shaft	
<u>PGCN23-BSH25</u>	\$26.00	Motor shaft bushing for SureGear NEMA size 23 gearboxes, fits 1/4 inch diameter motor shaft	
<u>PGCN23-BSH37</u>	\$26.00	Motor shaft bushing for SureGear NEMA size 23 gearboxes, fits 3/8 inch diameter motor shaft	
<u>PGCN34-SK</u>	\$3.00	Mounting screws, replacement, for SureGear NEMA size 34 gearboxes (Package of 4)	PGCN34-xxxx
<u>PGCN34-BSH9M</u>	\$26.00	Motor shaft bushing for SureGear NEMA size 34 gearboxes, fits 9mm diameter motor shaft	
<u>PGCN34-BSH11M</u>	\$26.00	Motor shaft bushing for SureGear NEMA size 34 gearboxes, fits 11mm diameter motor shaft	
<u>PGCN34-BSH37</u>	\$26.00	Motor shaft bushing for SureGear NEMA size 34 gearboxes, fits 3/8 inch diameter motor shaft	
<u>PGCN34-BSH50</u>	\$26.00	Motor shaft bushing for SureGear NEMA size 34 gearboxes, fits 1/2 inch diameter motor shaft	