

# Parallel-Shaft PMDC Brush Gear Motors PLC 30 & 36 Series

## 3/8 HP, Multi-Reduction, Spur/Helical

Allied Motion's PLC series parallel shaft, permanent magnet DC brush gear motors are designed for medical mobility applications such as residential stair lifts.

The reliable PLC series is provided with a 2-pole (model 30) or a 4-pole (model 36) PMDC motor. Standard winding voltages are 120 and 24 VDC with other voltages up to 240 VDC available upon request. Rated output power ranges up to 3/8 HP.

In addition to medical mobility and residential lifts, the PLC series is an ideal choice for wire feeding or material handling conveyor applications, as well as for marine applications such as boat and anchor lifting.

### Options

- High temperature Class H (180 °C) winding insulation
- Weather-proof (IP65) design
- Integral electric holding brake
- Custom leads and/or connectors
- Shaft extension and mounting provisions for an encoder
- Plastic or powdered metal gears
- Up to a 3/4" diameter output shaft



### Features & Benefits

- Parallel shaft gear motor with up to 3/8 HP continuous output power
- Designed for medical mobility applications
- 2- or 4-pole PMDC motor with choice of 12 to 240 VDC winding
- Multi-stage gearbox design permits a wide range of gear ratios
- Alloy steel gears enable handling heavy loads
- Die cast aluminum gearbox for strength and minimum weight
- Class A (105 °C) winding insulation
- Cartridge-style brushes for easy maintenance
- Long-life synthetic grease lubrication

### QuickShip Products

Some of the part number configurations for this product are in stock and available for ***immediate delivery!***

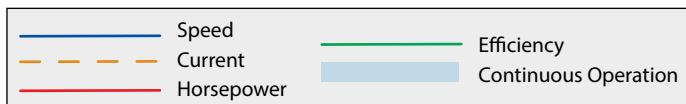
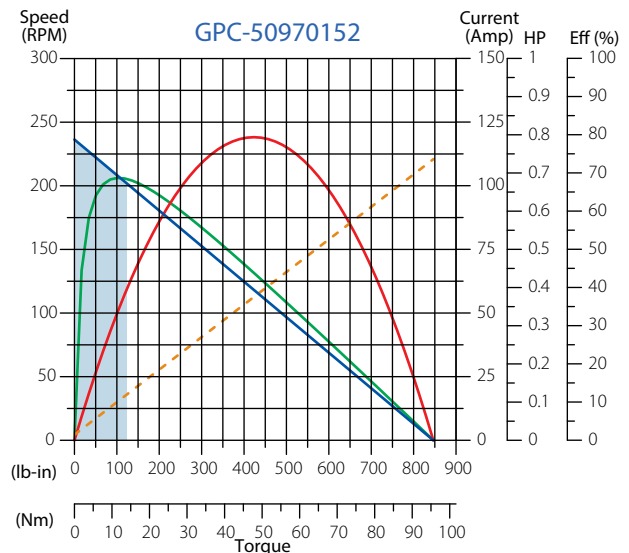
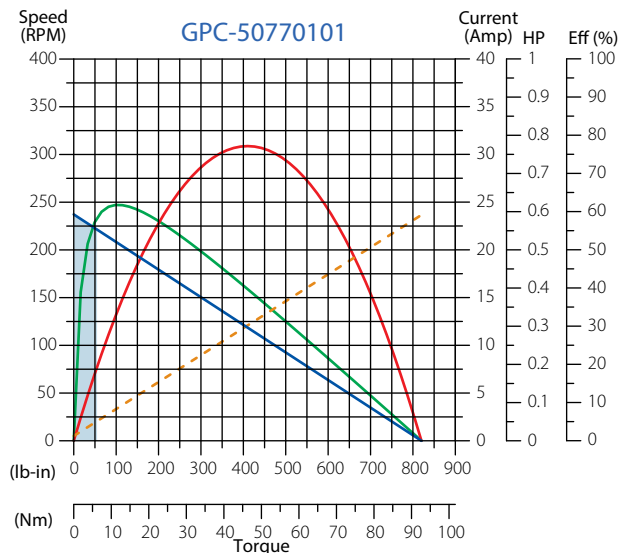
Look for the QuickShip symbol next to available part numbers. Then, click on the part number to go directly to our online store.



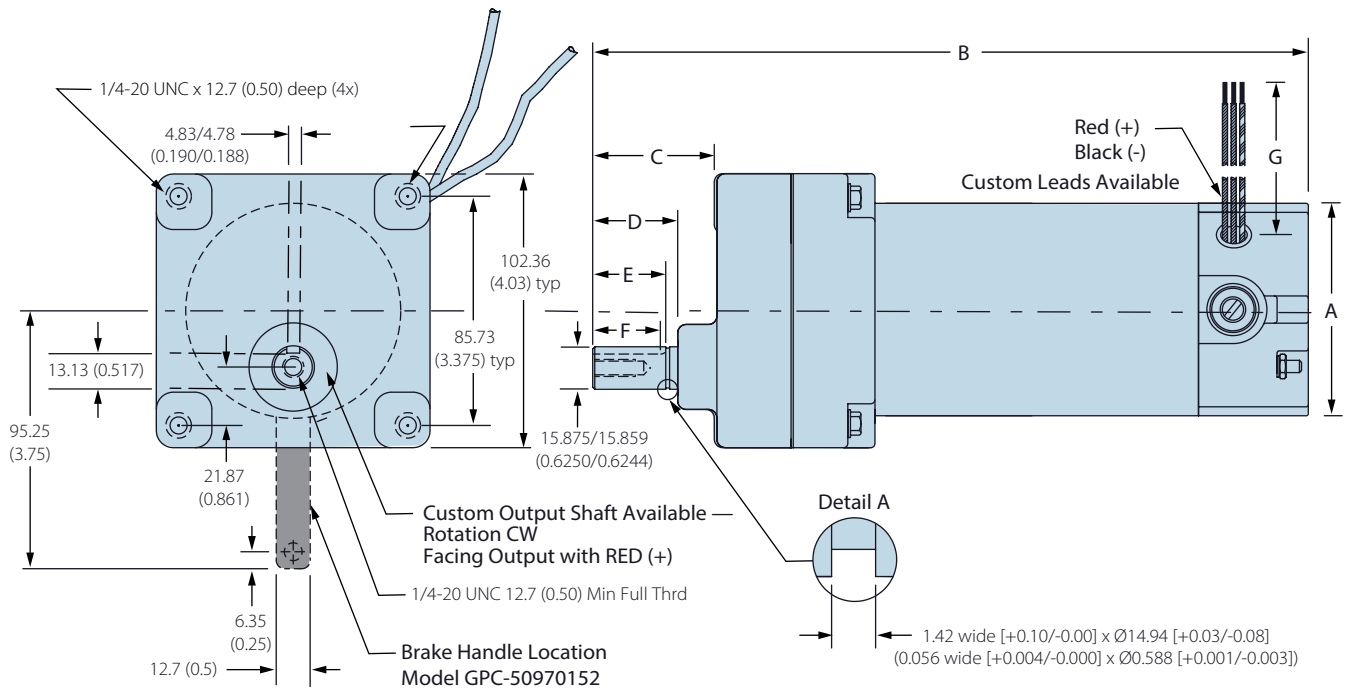
## PLC 30/36 Series Gear Motors – Specifications

Model	GPC-50770101		GPC-50970152	
Type	Parallel-shaft			
Motor Type	2-pole PMDC brush		4-pole PMDC brush	
Frame Size	82.0 mm (3.23 in)		92.0 mm (3.62 in)	
Winding Voltage	12 VDC		24VDC	
Torque	Rated	6.2 Nm (55 lb.in)	14.0 Nm (124 lb.in)	
	Peak	71.9 Nm (636.4 lb.in)	79 Nm (699.2 lb.in)	
Rated Speed	221 rpm		202 rpm	
No-load Speed	221 - 253 rpm		215 - 235 rpm	
Rated Power	144 W (0.19 HP)		297 W (0.4 HP)	
Current — ADC	Rated	2.4	18	
	Peak	28	92	
	No-load	0.5	2.2	
Gear Ratio	20.4:1			
Peak Efficiency	50%		68%	
Rotation (shaft view)	CW (positive voltage to positive motor terminal)			
Bearing Type	Bronze bushing & needle roller bearing		Needle roller bearing	
Backlash (no load)	15.1 - 45.4 arcmin			
Weight	4.4 kg (9.7 lb)		4.8 kg (10.6 lb)	
Ambient Operating Temperature at Rated Duty	22 °C max			
Ambient Storage Temperature	-30 to 80 °C			
IP Rating	IP 52			

## PLC 30/36 Series Gear Motors – Performance



## PLC 30/36 Series Gear Motors Dimensions — mm (in)



Model	A	B	C	D	E	F
GPC-50770101	82.3 (3.2)	267.7 ± 1.3 (10.54 ± 0.05)	45.99 ± 0.76 (1.81 ± 0.03)	31.78 ± 0.76 (1.25 ± 0.03)	27.31 ± 0.127 (1.075 ± 0.005)	24.536 ± 0.127 (0.966 ± 0.005)
GPC-50970152	91.5 (3.6)	276.6 ± 2.1 (10.89 ± 0.08)	51.82 ± 0.76 (2.04 ± 0.03)	37.59 ± 0.76 (1.48 ± 0.03)	33.66 ± 0.127 (1.325 ± 0.005)	30.886 ± 0.127 (1.216 ± 0.005)
<b>G</b>						
GPC-50770101	18/3 SJOW-A or SJOOW, 300V, wht, blk, grn; 431.8 ± 25.4 (17.0 ± 1.0) Lg Amp insulated female term# 2-520183-2					
GPC-50970152	x4 14 AWG (x2 motor, x2 brake), 812.8 ± 25.4 (32.0 ± 1.0) Lg 32.0 ± 1.0 (812.8 ± 25.4) Lg, 0.375 (9.53) stripped ends					

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