

# Parvalux Trusted in Healthcare

### About Us

Parvalux's geared motor solutions are found in a huge range of applications from the safety critical, such as those in healthcare like wheelchairs and patient hoists, to powering the windscreen wipers on the world's largest ships and fastest trains. They are also used extensively in the leisure industry in everything from golf trolleys and carts to caravan movers and clay pigeon traps.

Over the last 70 years we've built up a huge wealth of knowledge of different applications and their specific needs so the customer can trust us to help design the perfect motor and gear solution for their end product. We have thousands of standard combinations of motors and gearboxes which enable rapid prototyping but we can also offer very rapid turnaround on customisation if needed. We can even offer full bespoke design and incorporate additional parts of the customer's drive train.

Parvalux can offer you an easy, quality-assured solution, whatever your requirements:

#### **Production Flexibility**

Low or high volume flexibility with no minimum order quantities.

#### **Technical & Engineering Expertise**

Our wealth of experience and the latest technology means we can meet and support all your solution needs.

#### **Product Modification**

We can customise and configure your product solution to your preferences

#### **Design Capability**

Totally Bespoke Product Design. We can design our products around your application.



#### **Experienced**

70 years experience of geared motor solutions. Over 20 million products shipped



#### **Trusted**

Trusted worldwide by leading manufacturers, in a range of different industries, to power their products



#### Capable

Three state of the art factories in Europe supplying over 275,000 products per year









#### Trusted in Healthcare

With the market set to grow significantly in the future we are investing • Powered Wheelchairs heavily in designing new geared solutions to meet the specific needs • Stairlifts of the healthcare industry. Our application and design engineers are • Patient Hoists well versed in the specific demands of each application - such as high • Vertical Platform Lifts torque, low noise and high efficiency for wheelchairs - and can work • Vehicular Access as an extension of your own design team to ensure you get the perfect solution to power your product.



#### **Trusted at Work** (Brochure Available at Parvalux.com)

Parvalux motors are trusted every day to help people in their work, • Wiper Systems whether its windscreen wipers on a high speed train or a conveyor • Vending Machines belt in a factory, you can trust us to safely power your product. • Industrial Automation We know how important service and support are too, so we have • Cleaning Equipment a dedicated service centre, centrally located in Birmingham. • Farming The team here can supply spares, as well as service, and repair • Energy products as required.



#### **Trusted at Leisure** (Brochure Available at Parvalux.com)

Parvalux has extensive experience in powering leisure applications • Caravan Movers such as Caravan Movers, Golf Buggies and Trolleys, Amusement • Candy Floss Machines machines, Clay Pigeon Traps, and even Candy Floss Machines. Whilst • Amusement Machines we have a huge range of standard products, we pride ourselves • Golf Trolleys on being able to design semi-custom and full bespoke solutions, • Clay Pigeon Traps offering customisation on shafts, windings, and armatures, to fully • Golf Buggies meet the requirements of your application.





### Trusted in Healthcare

Every day hundreds of thousands of people all over the world trust Parvalux to safely power their wheelchairs, patient hoists, stairlifts, vehicle ramps, and vertical lifts. We are world leaders in powering these safety critical applications and are proud of our achievements. With the market set to grow significantly in the future we are investing heavily in designing new geared solutions to meet the specific needs of each application. Our application and design engineers are well versed in the specific demands of each application - such as high torque, low noise and high efficiency for wheelchairs - and can work as an extension of your own design team to ensure you get the perfect solution to power your product.

While our huge range of standard products will allow you to prototype quickly, it's our ability to offer semi-custom or fully bespoke solutions that sets us apart in the market.





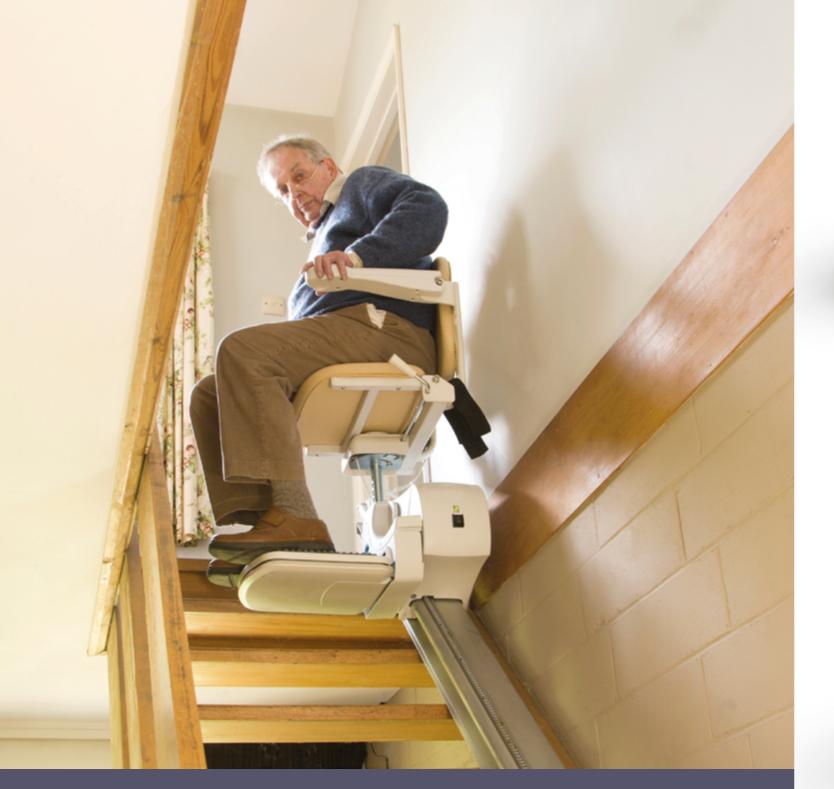






### **Contents**

About Us	01
Overview Trusted in Healthcare	01 03
Stairlifts	05
Straight Curved Accessories	06 07 08
Powered Wheelchairs	09
Paediatric Standard Duty Heavy Duty All Terrain Additional Information Accessories	10 11 13 15 17 18
Patient Hoists	19
External Pinion Internal Pinion Accessories	20 22 24
Vehicle Accessibility	25
Vehicle Accessibility Accessories	26 28
Vertical Platform Lifts	29
Vertical Platform Lifts	30



# **Solutions** | Straight Stairlifts



#### PM90-GB14

Drive Pinion Diameter	120mm (4.72")
Angle of Stairs	50°
Carriage Speed	15cm/s
Total Carriage Weight including user	170Kg (375lbs)
Speed @ Output Shaft	24RPM
Load @ Output Shaft	85Nm (754lb-in)

### **PM90-GB9**

Drive Pinion Diameter	90mm (3.54")
Angle of Stairs	50°
Carriage Speed	15cm/s
Total Carriage Weight including user	170Kg (375lbs)
Speed @ Output Shaft	32RPM
Load @ Output Shaft	64Nm (565lb-in)





### PM90-GB12

Drive Pinion Diameter	60mm (2.36")
Angle of Stairs	50°
Carriage Speed	15cm/s
Total Carriage Weight including user	170Kg (375lbs)
Speed @ Output Shaft	48RPM
Load @ Output Shaft	43Nm (377lb-in)

### With a global ageing population the market for stair lifts is forecast to grow PM92-

significantly as the older generation seek to continue to enjoy their independence. Parvalux has been working with several market leaders for many years and understands the complex operational and safety demands that both stair lift manufacturers and their end customers require. We have geared motor combinations that are suitable for all types of stair lift be they for straight, curved, narrow or wide stairs and are experienced in providing motors for both the main drive and levelling aspects of stair lifts.

### PM92-GB14

Drive Pinion Diameter	120mm (4.72")
Angle of Stairs	50°
Carriage Speed	11cm/s
Total Carriage Weight including user	227Kg (500lbs)
Speed @ Output Shaft	18RPM
Load @ Output Shaft	114Nm (1007lb-in)



**Stairlifts** 

### **Solutions** | Curved Stairlifts



#### PM90-GB14

Drive Pinion Diameter	120mm (4.72")
Angle of Stairs	50°
Carriage Speed	15cm/s
Total Carriage Weight including user	170Kg (375lbs)
Speed @ Output Shaft	24RPM
Load @ Output Shaft	85Nm (754lb-in)

#### **PM63-GB9**

Drive Pinion Diameter	75mm (2.95")
Angle of Stairs	50°
Carriage Speed	15cm/s
Total Carriage Weight including user	170Kg (375lbs)
Speed @ Output Shaft	38RPM
Load @ Output Shaft	53Nm (471lb-in)



#### PM63-GB12

Drive Pinion Diameter	50mm (1.96")
Angle of Stairs	50°
Carriage Speed	15cm/s
Total Carriage Weight including user	170Kg (375lbs)
Speed @ Output Shaft	57RPM
Load @ Output Shaft	36Nm (314lb-in)

#### PM92-GB14

07

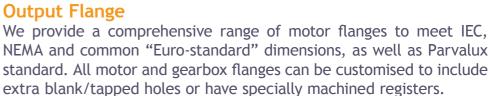
Drive Pinion Diameter	100mm (3.93")
Angle of Stairs	50°
Carriage Speed	13cm/s
Total Carriage Weight including user	227kg (500lbs)
Speed @ Output Shaft	25RPM
Load @ Output Shaft	95Nm (839lb-in)



### **Accessories** | Modifications & Fully Bespoke Design



### specific requirements. Shaft material is carbon-steel as standard, with alternative materials available on request



We offer a range of single or double ended shafts for our complete

motor and gearbox range. We can produce special keyways, shafts with flats, drilled/tapped shafts, cross-drilled shafts, and special fittings to



#### Cable

Shaft

Apart from our standard length of cable, alternative lengths can be specified according to your needs which can be assembled in a cable loom as required. Further options include 3 core cables, cable screening, and a huge range of connectors or crimps.



#### **Tachogenerator**

Our standard brushless tachogenerator is a single phase AC 24 pole design providing 200Hz/krpm output. Mounted to the rear of the motor, the device offers simple and cost-effective feedback.



We provide a standard range of high-quality spring applied brakes to provide either static-holding or dynamic braking. Our standard ranges from 0.4Nm - 1.0Nm operating on a low voltage DC supply or a single phase AC supply.



#### Encoder

We provide a standard range of HEDS compatible dual channel encoders offering 200 - 1250CPR output (500CPR as standard) with index pulse. These high-performance encoders are mounted to the rear of the motor; however, we are also able to provide custom-specific mounting on the gearbox output shaft.



#### **Paint Finish**

Standard paint finish is Parvalux blue applied to induction, series wound and permanent geared motors. Planetary geared motors are powder coated blue and DC brushless motors are painted black. Alternative paint colours are available on request.



#### **Fully Bespoke Solutions**



As well as providing a large range of design options based on customising existing designs, we are able to provide bespoke solutions (out-and-out specials) for medium-high volume applications. In such cases our in-house design team are able to model new designs to allow rapid prototyping and test. With a strong design element as well as modern manufacturing and low cost supply chain, we are often able to provide cost-effective solutions quickly.



www.parvalux.com | +44(0)1202 512 575 | sales@parvalux.com



### **Powered Wheelchairs**

We have extensive knowledge and experience of designing and manufacturing bespoke DC motor-gearbox units for wheelchair power assist, powered chairs, and mobility scooter applications, providing the mobility-impaired with vital means of independence and freedom.

Our standard wheelchair products cover chairs suitable for a range of weight capacities. From PMDC to BLDC motors and highly efficient worm wheel and hypoid gearboxes, we have the product to suit any powered wheelchair in today's market.

### **Solutions** | Paediatric Powered Wheelchairs



#### PM70-GB12

Total Weight Capacity Chair & User	227kg (500lbs)
Available Speeds	4-6mph (6.4-9.7kph)
Motor Type	PMDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	82%
Gearbox Peak Efficiency	75%
System Peak Efficiency	62%
Max Rated Power	350 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB

### PBL60-GB12

Total Weight Capacity Chair & User	227kg (500lbs)
Available Speeds	4-6mph (6.4-9.7kph)
Motor Type	PBLDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	85%
Gearbox Peak Efficiency	75%
System Peak Efficiency	64%
Max Rated Power	350 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB



# **Solutions** | Standard Duty Powered Wheelchairs



### PM70-GB12

Total Weight Capacity Chair & User	227kg (500lbs)
Available Speeds	4-6mph (6.4-9.7kph)
Motor Type	PMDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	82%
Gearbox Peak Efficiency	75%
System Peak Efficiency	62%
Max Rated Power	350 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB

### PBL60-GB12

Total Weight Capacity Chair & User	227kg (500lbs)
Available Speeds	4-6mph (6.4-9.7kph)
Motor Type	PBLDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	85%
Gearbox Peak Efficiency	75%
System Peak Efficiency	64%
Max Rated Power	350 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB

### PM90-GB12

Total Weight Capacity Chair & User	285kg (630lbs)
Available Speeds	4-8mph (6.4-12.8kph)
Motor Type	PMDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	84%
Gearbox Peak Efficiency	75%
System Peak Efficiency	63%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB
·	



### PBL86-GB12

Total Weight Capacity Chair & User	285kg (630lbs)
Available Speeds	4-8mph (6.4-12.8kph)
Motor Type	PBLDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	88%
Gearbox Peak Efficiency	75%
System Peak Efficiency	66%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB



### PM90-GB9



Total Weight Capacity Chair & User	320kg (700lbs)
Available Speeds	4-8mph (6.4-12.8kph)
Motor Type	PMDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	84%
Gearbox Peak Efficiency	80%
System Peak Efficiency	67%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB

### PBL86-GB9



Total Weight Capacity Chair & User	363kg (800lbs)
Available Speeds	4-8mph (6.4-12.8kph)
Motor Type	PBLDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	88%
Gearbox Peak Efficiency	80%
System Peak Efficiency	70%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB

# **Solutions** | Heavy Duty Powered Wheelchairs



### PM90-GB9

Total Weight Capacity Chair & User	320kg (700lbs)
Available Speeds	4-8mph (6.4-12.8kph)
Motor Type	PMDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	84%
Gearbox Peak Efficiency	80%
System Peak Efficiency	67%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB



### PBL86-GB9

Total Weight Capacity Chair & User	363kg (800lbs)
Available Speeds	4-8mph (6.4-12.8kph)
Motor Type	PBLDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	88%
Gearbox Peak Efficiency	80%
System Peak Efficiency	70%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB

### PM90-GB14

Total Weight Capacity Chair & User	320kg (700lbs)
Available Speeds	4-8mph (6.4-12.8kph)
Motor Type	PMDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	84%
Gearbox Peak Efficiency	80%
System Peak Efficiency	67%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB



### PBL86-GB14

Total Weight Capacity Chair & User	363kg (800lbs)
Available Speeds	4-6mph (6.4-9.7kph)
Motor Type	PBLDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	88%
Gearbox Peak Efficiency	80%
System Peak Efficiency	70%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB
<u> </u>	



### PM90-HEG



Total Weight Capacity Chair & User	320kg (700lbs)
Available Speeds	4-8mph (6.4-12.8kph)
Motor Type	PMDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	88%
Gearbox Peak Efficiency	89%
System Peak Efficiency	78%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB





Total Weight Capacity Chair & User	285kg (630lbs)
Available Speeds	4-6mph (6.4-9.7kph)
Motor Type	PBLDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	88%
Gearbox Peak Efficiency	89%
System Peak Efficiency	78%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB

# **Solutions** | All Terrain Powered Wheelchairs

### PM90-GB9

Total Weight Capacity Chair & User	320kg (700lbs)
Available Speeds	4-8mph (6.4-12.8kph)
Motor Type	PMDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	84%
Gearbox Peak Efficiency	80%
System Peak Efficiency	67%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB

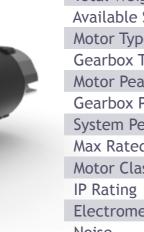
### PM90-GB14

15

Total Weight Capacity Chair & User	320kg (700lbs)
Available Speeds	4-8mph (6.4-12.8kph)
Motor Type	PMDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	84%
Gearbox Peak Efficiency	80%
System Peak Efficiency	67%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB



### PM90-HEG



Total Weight Capacity Chair & User	320kg (700lbs)
Available Speeds	4-8mph (6.4-12.8kph)
Motor Type	PMDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	88%
Gearbox Peak Efficiency	89%
System Peak Efficiency	78%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB

# **Solutions** | All Terrain Powered Wheelchairs



### PBL86-GB9

Total Weight Capacity Chair & User  Available Speeds  Available Speeds  Motor Type  Gearbox Type  Motor Peak Efficiency  Gearbox Peak Efficiency  System Peak Efficiency  Max Rated Power  Motor Class  363kg (800lbs)  4-8mph (6.4-12.8kph)  PBLDC  Worm Wheel  88%  80%  70%  70%  Total Weight Capacity Chair & User  4-8mph (6.4-12.8kph)  PBLDC  Worm Wheel  70%  70%  70%  Total Weight Capacity Chair & User  Total Weight
Motor Type PBLDC  Gearbox Type Worm Wheel  Motor Peak Efficiency 88%  Gearbox Peak Efficiency 80%  System Peak Efficiency 70%  Max Rated Power 700 Watts
Gearbox Type Worm Wheel  Motor Peak Efficiency 88%  Gearbox Peak Efficiency 80%  System Peak Efficiency 70%  Max Rated Power 700 Watts
Motor Peak Efficiency 88%  Gearbox Peak Efficiency 80%  System Peak Efficiency 70%  Max Rated Power 700 Watts
Gearbox Peak Efficiency 80% System Peak Efficiency 70% Max Rated Power 700 Watts
System Peak Efficiency 70%  Max Rated Power 700 Watts
Max Rated Power 700 Watts
Motor Class F
IP Rating Up to IP56
Electromechanical Brake Yes
Noise 55dB

### PBL86-GB14

Total Weight Capacity Chair & User	363kg (800lbs)
Available Speeds	4-6mph (6.4-9.7kph)
Motor Type	PBLDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	88%
Gearbox Peak Efficiency	80%
System Peak Efficiency	70%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB



### PBL86-HEG



Total Weight Capacity Chair & User	285kg (630lbs)
Available Speeds	4-6mph (6.4-9.7kph)
Motor Type	PBLDC
Gearbox Type	Worm Wheel
Motor Peak Efficiency	88%
Gearbox Peak Efficiency	89%
System Peak Efficiency	78%
Max Rated Power	700 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Yes
Noise	55dB

### **Additional Information** | Powered Wheelchairs

Wheel Diameter	Weight Limit
12"	400kg (882lbs)
13"	360kg (794lbs)
14"	340kg (750lbs)
15"	320kg (705lbs)
16"	300kg (661lbs)
17"	280kg (617lbs)

### At a Glance | Powered Wheelchairs



### **Paediatric Powered Wheelchairs**

Weight Capacity Up to 227kg (500lbs)

Products PM90-GB12 | PBL70-GB12



### **Standard Duty Powered Wheelchairs**

Weight Capacity 227kg (500lbs) to 363kg (800lbs)

Products PM70-GB12 | PM90-GB12 | PM90-GB9 | PBL60-GB12 PBL86-GB12 | PBL86-GB9



### **Heavy Duty Powered Wheelchairs**

Weight Capacity 227kg (500lbs) to 363kg (800lbs)

Products PM90-GB9 | PM90-GB14 | PM90-HEG | PBL86-GB9 PBL86-GB14 | PBL86-HEG



### **All Terrain Powered Wheelchairs**

Weight Capacity 227kg (500lbs) to 363kg (800lbs)

Products PM90-GB9 | PM90-GB14 | PM90-HEG | PBL86-GB9 PBL86-GB14 | PBL86-HEG

### **Accessories** | Modifications & Fully Bespoke Design



We offer a range of single or double ended shafts for our complete motor and gearbox range. We can produce special keyways, shafts with flats, drilled/tapped shafts, cross-drilled shafts, and special fittings to specific requirements. Shaft material is carbon-steel as standard, with alternative materials available on request



#### **Output Flange**

We provide a comprehensive range of motor flanges to meet IEC, NEMA and common "Euro-standard" dimensions, as well as Parvalux standard. All motor and gearbox flanges can be customised to include extra blank/tapped holes or have specially machined registers.



#### Cable

Apart from our standard length of cable, alternative lengths can be specified according to your needs which can be assembled in a cable loom as required. Further options include 3 core cables, cable screening, and a huge range of connectors or crimps.



#### **Tachogenerator**

Our standard brushless tachogenerator is a single phase AC 24 pole design providing 200Hz/krpm output. Mounted to the rear of the motor, the device offers simple and cost-effective feedback.



We provide a standard range of high-quality spring applied brakes to provide either static-holding or dynamic braking. Our standard ranges from 0.4Nm - 1.0Nm operating on a low voltage DC supply or a single phase AC supply.



#### Encoder

We provide a standard range of HEDS compatible dual channel encoders offering 200 - 1250CPR output (500CPR as standard) with index pulse. These high-performance encoders are mounted to the rear of the motor; however, we are also able to provide custom-specific mounting on the gearbox output shaft.



#### Paint Finish

Standard paint finish is Parvalux blue applied to induction, series wound and permanent geared motors. Planetary geared motors are powder coated blue and DC brushless motors are painted black. Alternative paint colours are available on request.



#### **Fully Bespoke Solutions**

As well as providing a large range of design options based on customising existing designs, we are able to provide bespoke solutions (out-and-out specials) for medium-high volume applications. In such cases our in-house design team are able to model new designs to allow rapid prototyping and test. With a strong design element as well as modern manufacturing and low cost supply chain, we are often able to provide cost-effective solutions quickly.







### **Patient Hoists**

Safety is obviously critical when it comes to powering products that help move vulnerable people and Parvalux has been trusted to power Patient Winches and Hoists for many years. We know how important it is to get the right combination of torque, power, and speed, and how essential it is that operation is as quiet as possible too.

We can provide solutions suitable for all types and weights of patients, from paediatric to bariatric (more than 250Kg), with solutions being suitable for battery or mains operation. We have experience in stand-alone and a variety of ceiling mounted systems too.

### **Solutions** | External Pinion Patient Hoists



#### PM10-GB28

**External Spur Gear** (Shaft meets with external gear)

Drive Pinion Diameter	75mm (2.95")
Lifting Speed	3.5cm/s
Lifting Weight	136Kg (300lbs)
Speed @ Output Shaft	58RPM
Load @ Output Shaft	10Nm (88lb-in)
	Lifting Speed Lifting Weight Speed @ Output Shaft

### PM10-GB28

External Spur Gear (Shaft meets with external gear)

(0.11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	3-11
Drive Pinion Diameter	75mm (2.95")
Lifting Speed	3.5cm/s
Lifting Weight	205Kg (450lbs)
Speed @ Output Shaft	58RPM
Load @ Output Shaft	14Nm (123lb-in)





PM11-GB28

External Spur Gear (Shaft meets with external gear)

Drive Pinion Diameter	75mm (2.95")
Lifting Speed	3.5cm/s
Lifting Weight	227Kg (500lbs)
Speed @ Output Shaft	48RPM
Load @ Output Shaft	15Nm (132lb-in)

#### PM11-GB28

External Spur Gear (Shaft meets with external gear)

	<b>3</b> ,
Drive Pinion Diameter	75mm (2.95")
Lifting Speed	3.5cm/s
Lifting Weight	284Kg (625lbs)
Speed @ Output Shaft	58RPM
Load @ Output Shaft	19Nm (168lb-in)



### **Solutions** | External Pinion Patient Hoists (continued)



PM3-GB0
External Spur Gear (Shaft meets with external gear)

•	<b>3</b> /
Drive Pinion Diameter	75mm (2.95")
Lifting Speed	3.5cm/s
Lifting Weight	318Kg (700lbs)
Speed @ Output Shaft	58RPM
Load @ Output Shaft	22Nm (194lb-in)

### **Solutions** | Internal Pinion Patient Hoists



PM10-MWS

Internal Spur Gear (Shaft directly drives lifting strap)

3.5cm/s
136Kg (300lbs)
11RPM
45Nm (398lb-in)

PM4-M

External Spur Gear (Shaft meets with external gear)

External Spar Ocal (Share meets with external gear)		
Drive Pinion Diameter	75mm (2.95")	
Lifting Speed	3.5cm/s	
Lifting Weight	364Kg (800lbs)	
Speed @ Output Shaft	58RPM	
Load @ Output Shaft	25Nm (221lb-in)	



#### PM10-GB36

**Internal Spur Gear** (Shaft directly drives lifting strap)

internal spair ocal (share affectly arriv	es thems strup)
Lifting Speed	3.5cm/s
Lifting Weight	205Kg (450lbs)
Speed @ Output Shaft	11RPM
Load @ Output Shaft	67Nm (592lb-in)





PM4-GB12

External Spur Gear (Shaft meets with external gear)

Drive Pinion Diameter	75mm (2.95")
Lifting Speed	3.5cm/s
Lifting Weight	455Kg (1000lbs)
Speed @ Output Shaft	58RPM
Load @ Output Shaft	31Nm (274lb-in)



### PM10-GB36

Internal Spur Gear (Shaft directly drives lifting strap)

•	
Lifting Speed	3.5cm/s
Lifting Weight	227Kg (500lbs)
Speed @ Output Shaft	11RPM
Load @ Output Shaft	74Nm (654lb-in)

### PM3-LWS

**Internal Spur Gear** (Shaft directly drives lifting strap)

		3 17
Lifting Speed		3.5cm/s
Lifting Weight		284Kg (625lbs)
Speed @ Output	Shaft	11RPM
Load @ Output !	Shaft	90Nm (796lb-in)



### **Solutions** | Internal Pinion Patient Hoists (continued)

PM11-GB39 Internal Spur Gear (Shaft directly drives lifting strap)

Lifting Speed	3.5cm/s
Lifting Weight	318Kg (700lbs)
Speed @ Output Shaft	11RPM
Load @ Output Shaft	100Nm (885lb-in)

### PM90-GB14

Internal Spur Gear (Shaft directly drives lifting stran)

internal spur dear (shart directly drives	tirting strap)
Lifting Speed	3.5cm/s
Lifting Weight	364Kg (800lbs)
Speed @ Output Shaft	11RPM
Load @ Output Shaft	119Nm (1053lb-in)





PM90-GB14 **Internal Spur Gear** (Shaft directly drives lifting strap)

www.parvalux.com | +44(0)1202 512 575 | sales@parvalux.com

Lifting Speed	3.5cm/s
Lifting Weight	455Kg (1000lbs)
Speed @ Output Shaft	11RPM
Load @ Output Shaft	150Nm (1328lb-in)

### **Accessories** | Modifications & Fully Bespoke Design



#### Shaft

We offer a range of single or double ended shafts for our complete motor and gearbox range. We can produce special keyways, shafts with flats, drilled/tapped shafts, cross-drilled shafts, and special fittings to specific requirements. Shaft material is carbon-steel as standard, with alternative materials available on request



#### **Output Flange**

We provide a comprehensive range of motor flanges to meet IEC, NEMA and common "Euro-standard" dimensions, as well as Parvalux standard. All motor and gearbox flanges can be customised to include extra blank/tapped holes or have specially machined registers.



#### Cable

Apart from our standard length of cable, alternative lengths can be specified according to your needs which can be assembled in a cable loom as required. Further options include 3 core cables, cable screening, and a huge range of connectors or crimps.



#### **Tachogenerator**

Our standard brushless tachogenerator is a single phase AC 24 pole design providing 200Hz/krpm output. Mounted to the rear of the motor, the device offers simple and cost-effective feedback.



We provide a standard range of high-quality spring applied brakes to provide either static-holding or dynamic braking. Our standard ranges from 0.4Nm - 1.0Nm operating on a low voltage DC supply or a single phase AC supply.



#### Encoder

We provide a standard range of HEDS compatible dual channel encoders offering 200 - 1250CPR output (500CPR as standard) with index pulse. These high-performance encoders are mounted to the rear of the motor; however, we are also able to provide custom-specific mounting on the gearbox output shaft.



#### **Paint Finish**

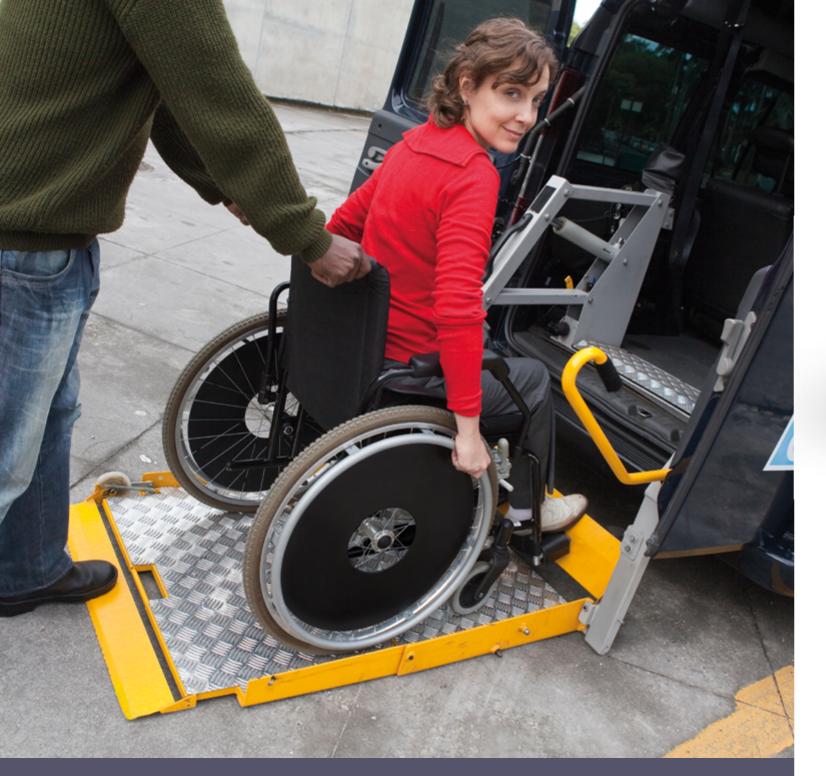
Standard paint finish is Parvalux blue applied to induction, series wound and permanent geared motors. Planetary geared motors are powder coated blue and DC brushless motors are painted black. Alternative paint colours are available on request.



#### **Fully Bespoke Solutions**

As well as providing a large range of design options based on customising existing designs, we are able to provide bespoke solutions (out-and-out specials) for medium-high volume applications. In such cases our in-house design team are able to model new designs to allow rapid prototyping and test. With a strong design element as well as modern manufacturing and low cost supply chain, we are often able to provide cost-effective solutions quickly.





# **Solutions** | Vehicle Accessibility



### PM4-MB

Max Torque	30Nm
Speed Range	Up to 50RPM
Motor Type	PMDC
Gearbox Type	Worm Wheel
Max Rated Power	350 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Optional

### PM5-MWS

Max Torque	50Nm
Speed Range	Up to 15RPM
Motor Type	PMDC
Gearbox Type	Spur
Max Rated Power	400 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Optional



# **Vehicle Accessibility**

Driven both by legislation and the desire for freedom the market for Vehicle Accessibility Solutions has grown enormously in recent years. Parvalux has extensive knowledge in helping to design the perfect geared solution for this demanding application. High starting torque and safe reliable operation are obviously critical and our years of experience, and ability to offer semi-custom or fully bespoke designs, means that Parvalux can be relied upon to ensure the perfect solution for your product. Depending on the nature of the vehicle we have 12V, 24V and 230V powered solutions to meet your needs.

### **Solutions** | Vehicle Accessibility (continued)

# **Accessories** | Modifications & Fully Bespoke Design



#### Shaft

We offer a range of single or double ended shafts for our complete motor and gearbox range. We can produce special keyways, shafts with flats, drilled/tapped shafts, cross-drilled shafts, and special fittings to specific requirements. Shaft material is carbon-steel as standard, with alternative materials available on request



#### PM4-LWS

50Nm

**PMDC** 

Spur

Up to 15RPM

350 Watts

Up to IP56

www.parvalux.com | +44(0)1202 512 575 | sales@parvalux.com

**Optional** 

Class F

Max Torque	100Nm
Speed Range	Up to 10RPM
Motor Type	PMDC
Gearbox Type	Spur
Max Rated Power	350 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Optional

#### **Output Flange**

We provide a comprehensive range of motor flanges to meet IEC, NEMA and common "Euro-standard" dimensions, as well as Parvalux standard. All motor and gearbox flanges can be customised to include extra blank/tapped holes or have specially machined registers.



#### Cable

Apart from our standard length of cable, alternative lengths can be specified according to your needs which can be assembled in a cable loom as required. Further options include 3 core cables, cable screening, and a huge range of connectors or crimps.



#### **Tachogenerator**

Our standard brushless tachogenerator is a single phase AC 24 pole design providing 200Hz/krpm output. Mounted to the rear of the motor, the device offers simple and cost-effective feedback.



We provide a standard range of high-quality spring applied brakes to provide either static-holding or dynamic braking. Our standard ranges from 0.4Nm - 1.0Nm operating on a low voltage DC supply or a single phase AC supply.



#### Encoder

We provide a standard range of HEDS compatible dual channel encoders offering 200 - 1250CPR output (500CPR as standard) with index pulse. These high-performance encoders are mounted to the rear of the motor; however, we are also able to provide custom-specific mounting on the gearbox output shaft.



#### Paint Finish

Standard paint finish is Parvalux blue applied to induction, series wound and permanent geared motors. Planetary geared motors are powder coated blue and DC brushless motors are painted black. Alternative paint colours are available on request.



#### **Fully Bespoke Solutions**

As well as providing a large range of design options based on customising existing designs, we are able to provide bespoke solutions (out-and-out specials) for medium-high volume applications. In such cases our in-house design team are able to model new designs to allow rapid prototyping and test. With a strong design element as well as modern manufacturing and low cost supply chain, we are often able to provide cost-effective solutions quickly.

28





27

**PM4-GB36** 

Max Torque

Motor Type

Motor Class

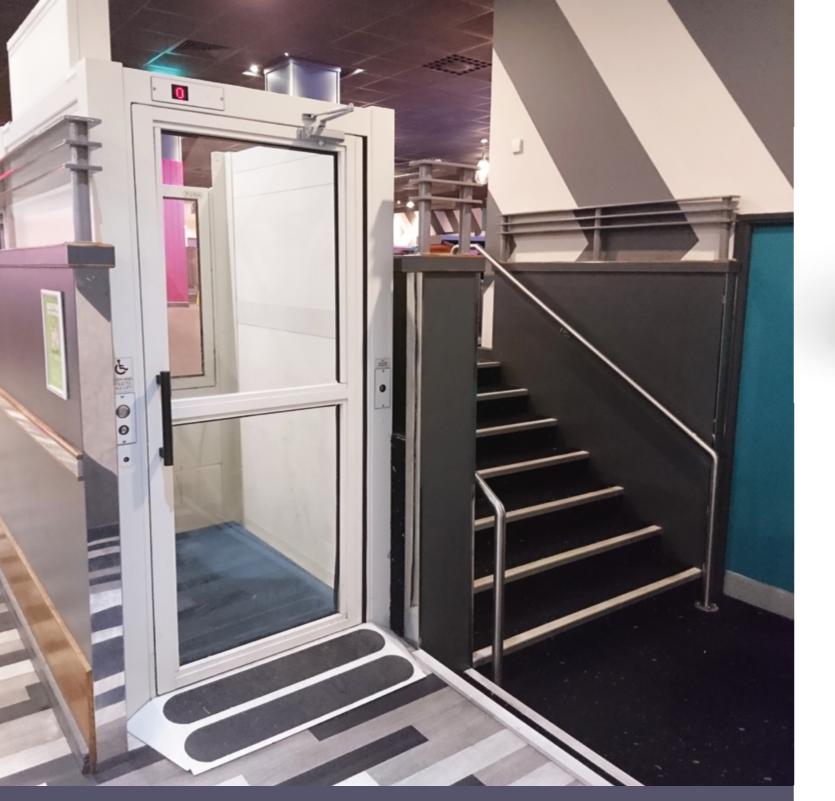
IP Rating

Speed Range

Gearbox Type

Max Rated Power

Electromechanical Brake



## **Solutions** | Vertical Platform Lifts



### PM90-GB9

Max Torque	60Nm
Speed Range	Up to 50RPM
Motor Type	PMDC
Gearbox Type	Spur
Max Rated Power	500 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Optional

#### PM90-GB14

Max Torque	150Nm
Speed Range	Up to 15RPM
Motor Type	PMDC
Gearbox Type	Spur
Max Rated Power	500 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Optional



## **Vertical Platform Lifts**

The requirements of a high starting torque and safe reliable operation make Parvalux Geared Motors perfectly suited for use in Vertical Platform Lift applications. The Parvalux Design team can offer both semi-custom and fully bespoke designs to meet your requirements in operation weight, time, and speed, etc. and will work with you to provide the perfect geared motor solution to meet any specification that you may require.

www.parvalux.com | +44(0)1202 512 575 | sales@parvalux.com



### PM50-LWS

Max Torque	100Nm
Speed Range	Up to 10RPM
Motor Type	PMDC
Gearbox Type	Spur
Max Rated Power	500 Watts
Motor Class	Class F
IP Rating	Up to IP56
Electromechanical Brake	Optional
·	

**E&OE:** Whilst every effort has been made to ensure the accuracy of the information in this catalogue purchasers should ensure they receive the latest specifications for the product they are purchasing. Product specifications and appearances may change due to our commitment to continuous product improvement.

**Terms and Conditions:** All sales are subject to our Terms and Conditions available from our website www.parvalux.com



www.parvalux.com sales@parvalux.com +44 (0)1202 512575

490 Wallisdown Road Bournemouth BH11 8PU United Kingdom