

Building automation modular solutions



Gearbox

Combined with our modular motors through use of a simple mounting flange, our gearbox range offers a range of gear ratios and comes as standard with a hollow shaft.

Motor

With options in both motor voltage and output speed, you can configure your DC brushed or DC brushless motor to meet your exact performance requirements.

Encoder

Add our incremental encoder to your modular configuration to enable further control to the power supply of your system.

Brake

Intelligently designed to fit around our encoders through use of a mounting flange, our 1.5 Nm brakes combine seamlessly with our modular range motors.



Controller

Our Parvalux controller, designed with parent company maxon, offers precise control with both our PMDC and BLDC motors.

Shaft

Secured through a keyway and slot, our shaft extension kits offer a quick-fit solution where a hollow shaft isn't quite right for your application.

Simply Modular

Quick to configure. Quick to build. Quick to deliver.

Configure your own solution online; selecting your motor and gearbox, and adding accessories such as encoders, brakes, controllers, and shaft extension kits to create a solution perfectly suited to your specific application.

Visit www.parvalux.com to build your own solution through our online product configurator.

Available in quantities of up to **10 pieces**

Building Automation

Building automation touches many people's lives, often without them even realising. Revolving, hinged or sliding security points, elevator doors, car park barriers, roller blinds, CCTV, and HVAC applications all fall under the building automation umbrella and each application requires reliable motor drives in order to function.

Electric door manufacturers are increasingly seeking greater efficiency in door motor drive units, as well as needing long-term reliability and durability. Parvalux delivers on all fronts with a range of AC and DC brushed and brushless geared motors trusted globally in buildings and on mass transit systems, such as train, bus and elevator doors.

Access control systems such as security barriers, swipe card or proximity entry points in office buildings benefit from leveraging IoT (Internet of Things) technologies; however, these essential functions are only effective when allied to reliable and durable motor drives.

With an expanding population all over the world, ease of access in public places is of paramount importance in ensuring the efficient and safe movement of people from one place to another. This in turn has seen growth in the need for reliable building automation solutions in a number of applications worldwide. With a higher level of competition in this sector, the Parvalux modular range can provide a quicker route from concept to manufacture, enabling you to gain an advantage against your competitors.

We also have extensive experience in providing geared motor solutions to a number of different door automation applications, such as;

- Access control
- Shutter and blind closers
- Pool cover closers



Door automation

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Access control

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Recommended combinations for these applications will be added in the near future. Please contact our sales team if assistance is needed in selecting your solution.

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Door automation

The Parvalux Modular Range includes a range of geared motor combinations perfectly suited to door automation solutions.

Whether your requirement includes sliding, spinning, or a simple hinge opening mechanism, our modular range motors will allow for a rapid delivery when prototyping your door automation solution.

PMDC	BLDC
→ BRx70-GB12	→ PBL70-GB12
→ BRx90-GB12	→ PBL86-GB12
→ BRx90-GB9	→ PBL86-GB9



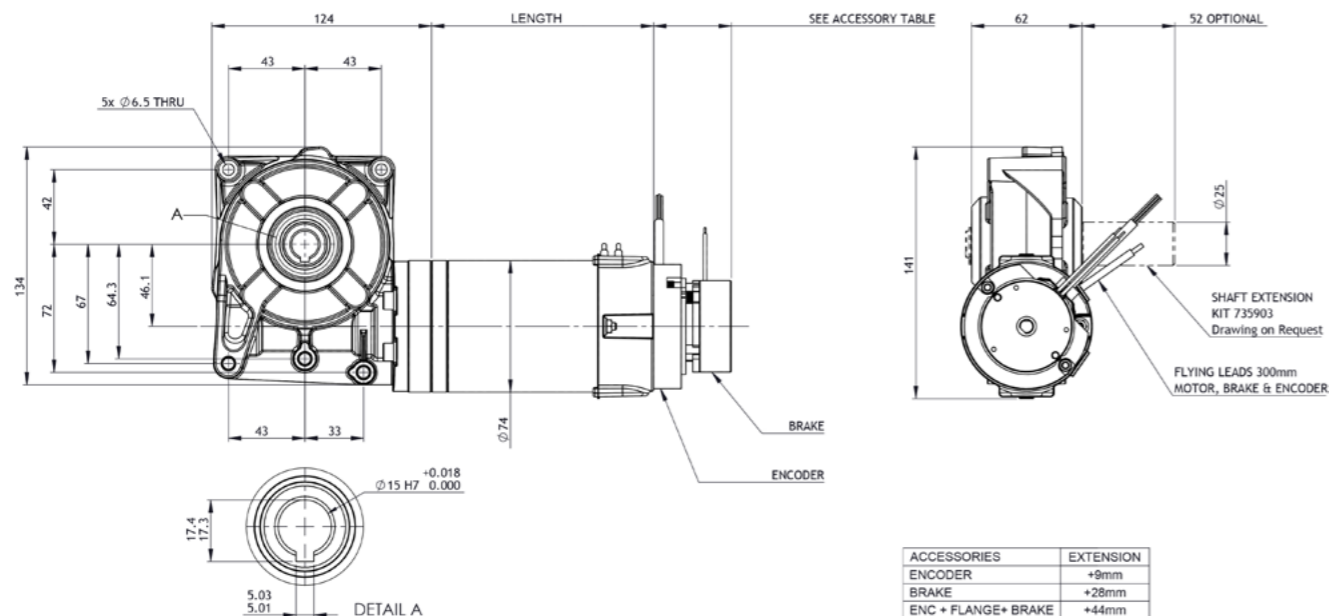
BRx70-GB12

PMDC right-angle geared motor

12 - 48 V // 79 - 157 W // 50 - 200 rpm // 2.8 - 26.4 Nm

Door automation solution

all dimensions in mm



Combination data							
Motor		BRx70-40	BRx70-40	BRx70-40	BRx70-60	BRx70-60	BRx70-60
Voltage	V	12 - 48	12 - 48	12 - 48	12 - 48	12 - 48	12 - 48
Nominal motor power	W	79	79	79	157	157	157
Gearbox ratio	:1	15	30	60	15	30	60
Nominal speed	rpm	200	100	50	200	100	50
Nominal continuous torque (S1)	Nm	2.8	4.9	7.5	5.6	9.8	15.0
Nominal intermittent torque (S2 - 15 minutes)	Nm	4.7	8.2	12.6	9.9	17.2	26.4

Motor data							
Motor		BRx70-40 12V	BRx70-40 24V	BRx70-40 48V	BRx70-60 12V	BRx70-60 24V	BRx70-60 48V
Part number		781092	781093	781094	781095	781096	781097
Nominal power	W	79	79	79	157	157	157
Nominal voltage	V	12	24	48	12	24	48
Nominal speed	rpm	3000	3000	3000	3000	3000	3000
Nominal continuous torque (S1)	Nm	0.25	0.25	0.25	0.50	0.50	0.50
Nominal intermittent torque (S2 - 15 minutes)	Nm	0.42	0.42	0.42	0.88	0.88	0.88
Weight	Kg	1.85	1.85	1.85	2.25	2.25	2.25
Length	mm	125	125	125	146	146	146

Gearbox data				
Part number		735900	735901	735902
Ratio	:1	15	30	60
Max. continuous torque (S1) ¹	Nm	30.0	30.0	30.0
Max. intermittent torque	Nm	48.0	48.0	48.0
Efficiency	%	75	65	50
Max. axial load (dynamic)	N	600	600	600
Max. radial load, 12mm from flange	N	800	800	800
Weight	Kg	1.5	1.5	1.5
Gear material		Bronze	Bronze	Bronze

¹S1 duty cycle based on 3000rpm input speed

Combination accessories							
Brake	Part number	Encoder	Part Number	Controller	Part Number	Shaft extension	Part number
1.5 Nm	735914	Incremental	735912	SC 50/15	735903	GB12 shaft	735898
Mounting flange	781277						

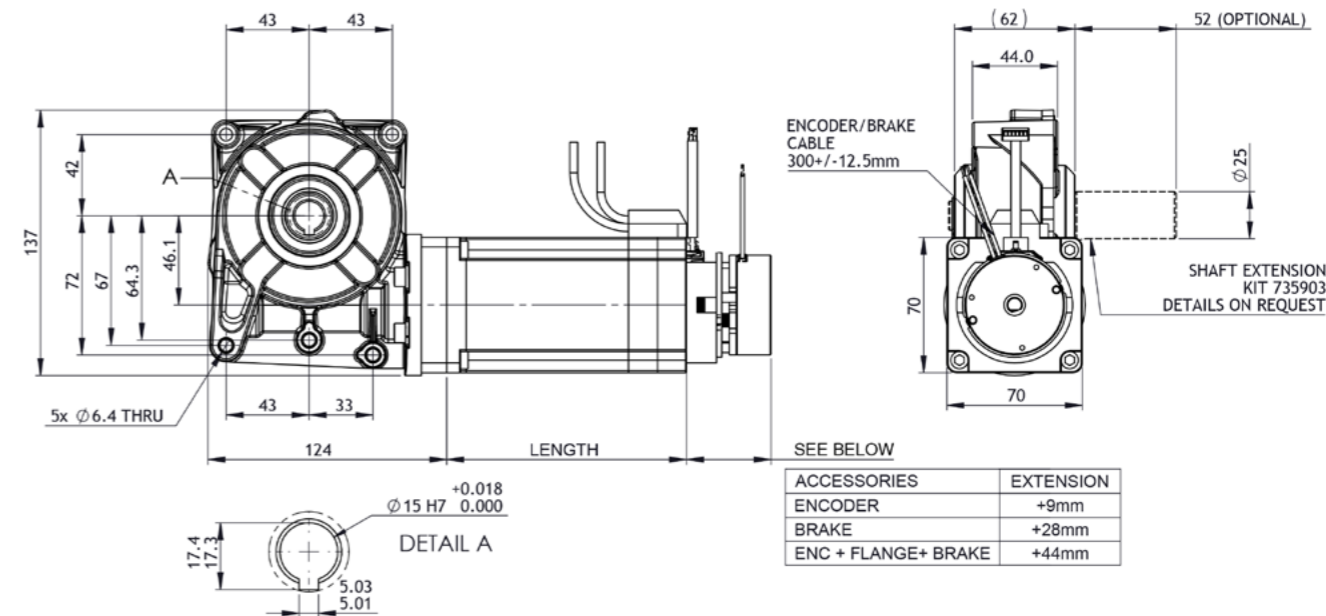
PBL70-GB12

BLDC right-angle geared motor

48 V // 363 - 415 W // 75 - 300 rpm // 8.7 - 46.5 Nm

Door automation solution

all dimensions in mm



Combination data							
Motor		PBL70-70	PBL70-70	PBL70-70	PBL70-80	PBL70-80	PBL70-80
Voltage	V	48	48	48	48	48	48
Nominal motor power	W	363	363	363	415	415	415
Gearbox ratio	:1	15	30	60	15	30	60
Nominal speed	rpm	300	150	75	300	150	75
Nominal continuous torque (S1)	Nm	8.7	15.0	23.1	9.9	17.2	26.4
Nominal intermittent torque (S2 - 15 minutes)	Nm	15.2	26.3	40.5	17.4	30.2	46.5

Motor data				Connection details		
Motor		PBL70-70 48V	PBL70-80 48V	Lead colour	Lead gauge	Function
Part number		776622	776623	Red	UL1569/26 AWG	VCC
Nominal power	W	363	415	Black	UL1569/26 AWG	GND
Nominal voltage	V	48	48	Blue	UL1569/26 AWG	Hall A
Nominal speed	rpm	4500	4500	Green	UL1569/26 AWG	Hall B
Nominal continuous torque (S1)	Nm	0.77	0.88	White	UL1569/26 AWG	Hall C
Nominal intermittent torque (S2 - 15 minutes)	Nm	1.35	1.54	Red	UL3266/16 AWG	Phase U
Weight	Kg	2.20	2.60	Yellow	UL3266/16 AWG	Phase V
Length	mm	114	124	Black	UL3266/16 AWG	Phase W

Gearbox data				
Part number		735900	735901	735902
Ratio	:1	15	30	60
Max. continuous torque (S1) ¹	Nm	30.0	30.0	30.0
Max. intermittent torque	Nm	48.0	48.0	48.0
Efficiency	%	75	65	50
Max. axial load (dynamic)	N	600	600	600
Max. radial load, 12mm from flange	N	800	800	800
Weight	Kg	1.5	1.5	1.5
Gear material		Bronze	Bronze	Bronze

¹S1 duty cycle based on 3000rpm input speed

Combination accessories							
Brake	Part number	Encoder	Part Number	Controller	Part Number	Shaft extension	Part number
1.5 Nm	735914	Incremental	735912	SC 50/15	738950	GB12 shaft	735903
Mounting flange	781281						

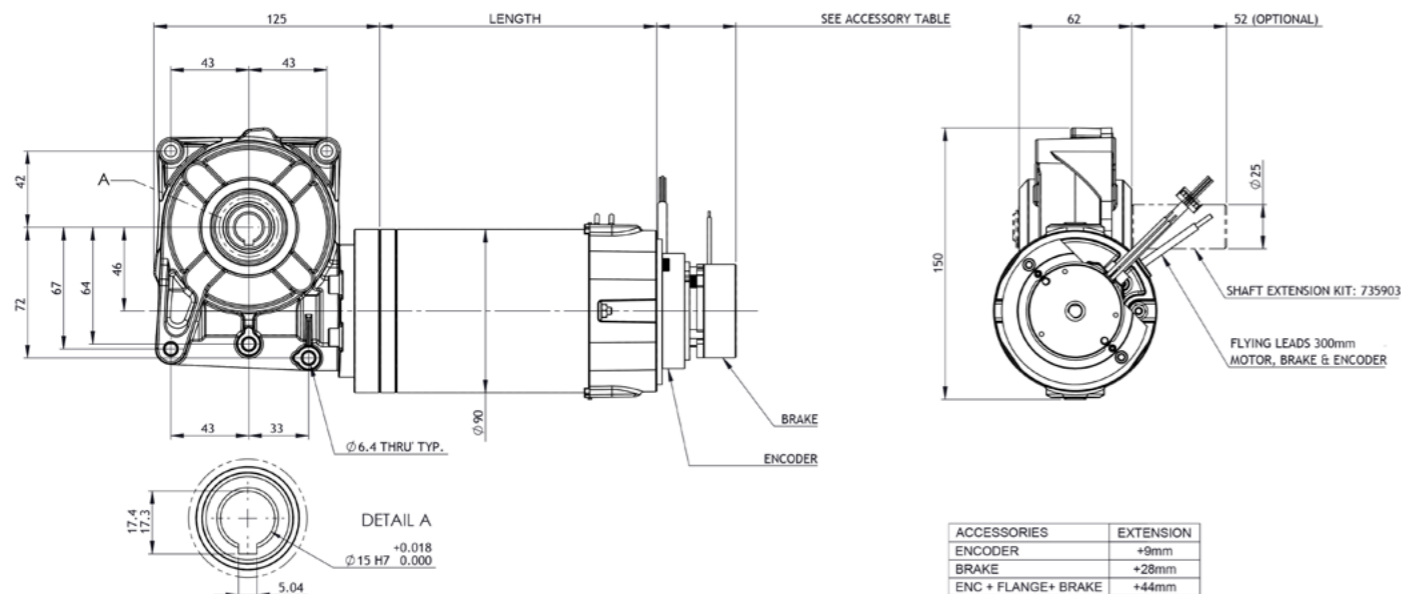
BRx90-GB12

PMDC right-angle geared motor

12 - 48 V // 157 - 283 W // 50 - 200 rpm // 7.5 - 45.0 Nm

Door automation solution

all dimensions in mm



Combination data

Motor	BRx90-50	BRx90-50	BRx90-50	BRx90-75	BRx90-75	BRx90-75
Voltage	V	12 - 48	12 - 48	12 - 48	12 - 48	12 - 48
Nominal motor power	W	157 - 210	157 - 210	157 - 210	236 - 283	236 - 283
Gearbox ratio	:1	15	30	60	15	30
Nominal speed	rpm	200	100	50	200	100
Nominal continuous torque (S1)	Nm	7.5	16.4	20.1	10.1	21.9
Nominal intermittent torque (S2 - 15 minutes)	Nm	13.2	22.8	35.1	16.9	29.3

Motor data

Motor	BRx90-50 12V	BRx90-50 24V	BRx90-50 48V	BRx90-75 12V	BRx90-75 24V	BRx90-75 48V
Part number	781102	781103	781104	781106	781107	781108
Nominal power	W	157	210	210	236	283
Nominal voltage	V	12	24	48	12	24
Nominal speed	rpm	3000	3000	3000	3000	3000
Nominal continuous torque (S1)	Nm	0.50	0.67	0.67	0.90	0.90
Nominal intermittent torque (S2 - 15 minutes)	Nm	1.17	1.17	1.17	1.50	1.50
Weight	Kg	3.60	3.60	3.60	4.00	4.00
Length	mm	153	153	153	183	183

Gearbox data

Part number	735900	735901	735902
Ratio	:1	15	30
Max. continuous torque (S1) ¹	Nm	30.0	30.0
Max. intermittent torque	Nm	48.0	48.0
Efficiency	%	75	65
Max. axial load (dynamic)	N	600	600
Max. radial load, 12mm from flange	N	800	800
Weight	Kg	1.5	1.5
Gear material		Bronze	Bronze

¹S1 duty cycle based on 3000rpm input speed

Combination accessories

Brake	Part number	Encoder	Part Number	Controller	Part Number	Shaft extension	Part number
1.5 Nm	735914	Incremental	735912	SC 50/15	735903	GB12 shaft	735898
Mounting flange	781279						

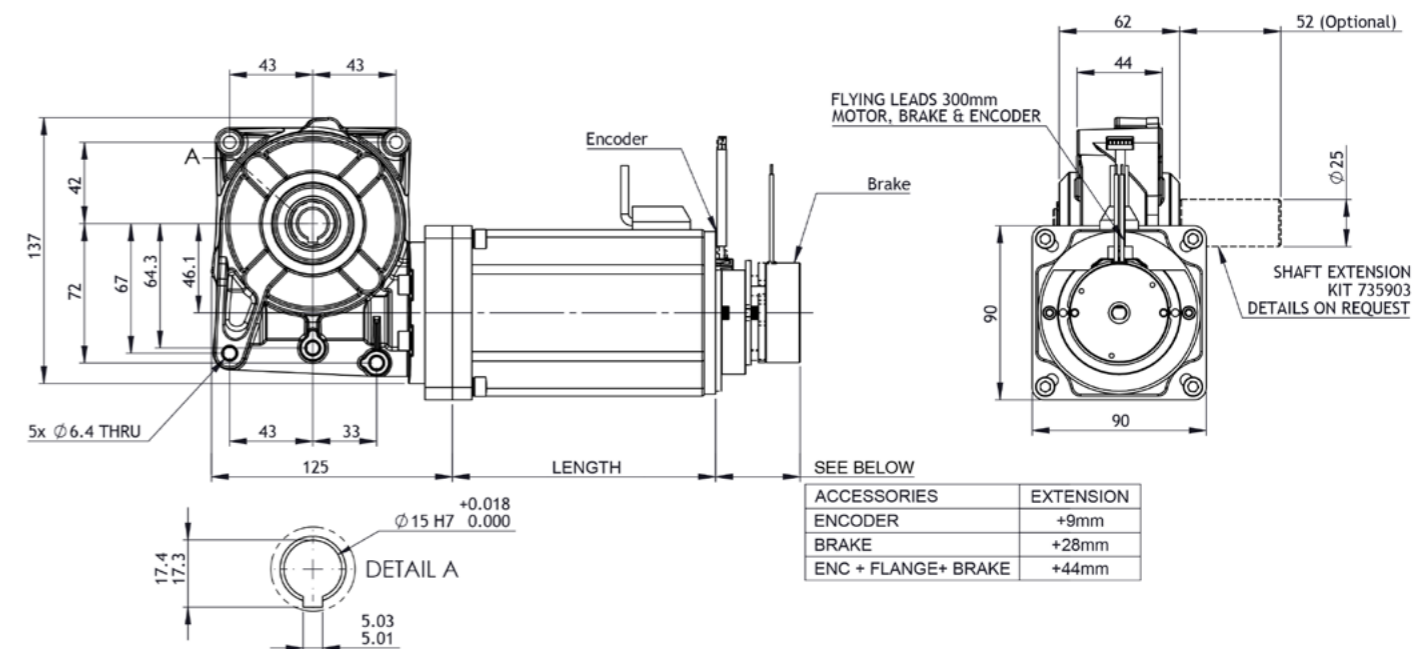
PBL86-GB12

BLDC right-angle geared motor

48 V // 419 - 586 W // 67 - 267 rpm // 11.3 - 48.0 Nm

Door automation solution

all dimensions in mm



Combination data

Motor	PBL86-55	PBL86-55	PBL86-55	PBL86-80	PBL86-80	PBL86-80
Voltage	V	48	48	48	48	48
Nominal motor power	W	419	419	419	586	586
Gearbox ratio	:1	15	30	60	15	30
Nominal speed	rpm	267	133	67	267	133
Nominal continuous torque (S1)	Nm	11.3	19.5	30.0	15.8	27.3
Nominal intermittent torque (S2 - 15 minutes)	Nm	19.7	34.1	48.0	27.6	47.8

Motor data

Motor	PBL86-55 48 V	PBL86-80 48 V
Part number	776624	776625
Nominal power	W	419
Nominal voltage	V	48
Nominal speed	rpm	4000
Nominal continuous torque (S1)	Nm	1.00
Nominal intermittent torque (S2 - 15 minutes)	Nm	1.75
Weight	Kg	3.20
Length	mm	111

Connection details

Lead colour	Lead gauge	Function
Red	UL1569/26 AWG	VCC
Black	UL1569/26 AWG	GND
Blue	UL1569/26 AWG	Hall A
Green	UL1569/26 AWG	Hall B
White	UL1569/26 AWG	Hall C
Red	UL1569/14 AWG	Phase U
Yellow	UL1569/14 AWG	Phase V
Black	UL1569/14 AWG	Phase W

Gearbox data

Part number	735900	735901	735902
Ratio	:1	15	30
Max. continuous torque (S1) ¹	Nm	30.0	30.0
Max. intermittent torque	Nm	48.0	48.0
Efficiency	%	75	65
Max. axial load (dynamic)	N	600	600
Max. radial load, 12mm from flange	N	800	800
Weight	Kg	1.5	1.5
Gear material		Bronze	Bronze

¹S1 duty cycle based on 3000rpm input speed

Combination accessories

Brake	Part number	Encoder	Part Number	Controller	Part Number	Shaft extension	Part number
1.5 Nm	735914	Incremental	735912	SC 50/15	738950	GB12 shaft	735903
Mounting flange	781284						

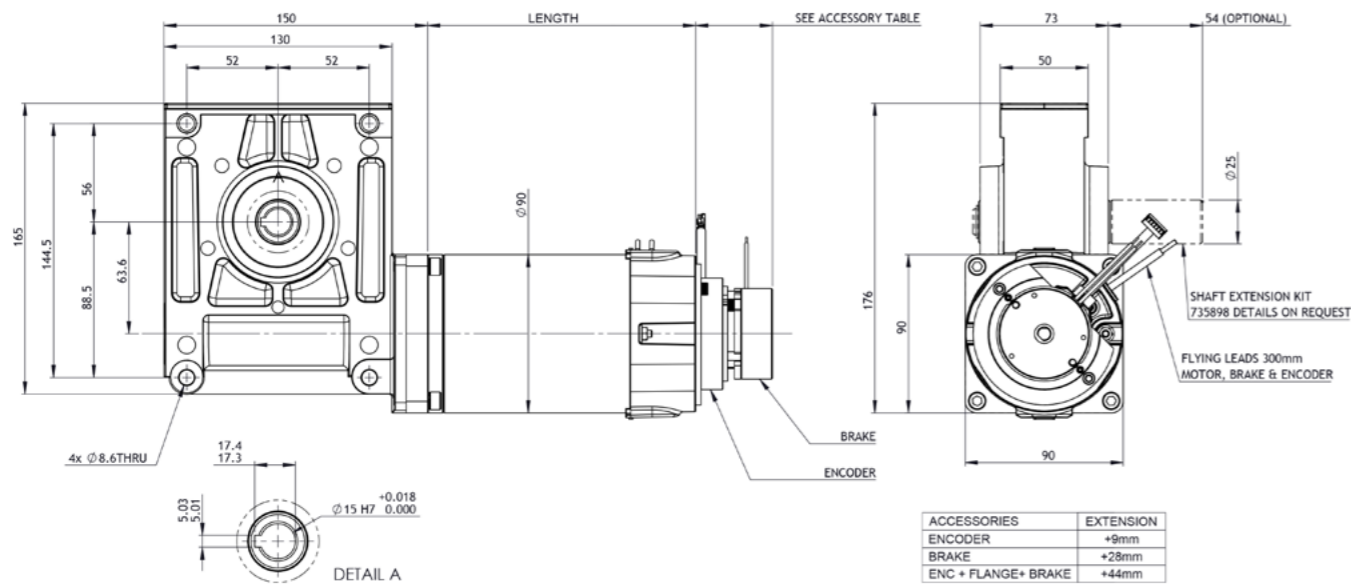
BRx90-GB9

PMDC right-angle geared motor

12 - 48 V // 157 - 283 W // 50 - 200 rpm // 8.5 - 58.5 Nm

Door automation solution

all dimensions in mm



Combination data							
Motor		BRx90-50	BRx90-50	BRx90-50	BRx90-75	BRx90-75	BRx90-75
Voltage	V	12 - 48	12 - 48	12 - 48	12 - 48	12 - 48	12 - 48
Nominal motor power	W	157 - 210	157 - 210	157 - 210	236 - 283	236 - 283	236 - 283
Gearbox ratio	:1	15	30	60	15	30	60
Nominal speed	rpm	200	100	50	200	100	50
Nominal continuous torque (S1)	Nm	8.5	15.1	26.1	11.5	20.3	35.1
Nominal intermittent torque (S2 - 15 minutes)	Nm	14.9	26.3	45.6	19.1	33.8	58.5

Motor data							
Motor		BRx90-50 12V	BRx90-50 24V	BRx90-50 48V	BRx90-75 12V	BRx90-75 24V	BRx90-75 48V
Part number		781102	781103	781104	781106	781107	781108
Nominal power	W	157	210	210	236	283	283
Nominal voltage	V	12	24	48	12	24	48
Nominal speed	rpm	3000	3000	3000	3000	3000	3000
Nominal continuous torque (S1)	Nm	0.50	0.67	0.67	0.90	0.90	0.90
Nominal intermittent torque (S2 - 15 minutes)	Nm	1.17	1.17	1.17	1.50	1.50	1.50
Weight	Kg	3.60	3.60	3.60	4.00	4.00	4.00
Length	mm	153	153	153	183	183	183

Gearbox data				
Part number		735894	735895	735896
Ratio	:1	15	30	60
Max. continuous torque (S1) ¹	Nm	50.0	50.0	50.0
Max. intermittent torque	Nm	80.0	80.0	80.0
Efficiency	%	85	75	65
Max. axial load (dynamic)	N	600	600	600
Max. radial load, 12mm from flange	N	800	800	800
Weight	Kg	2.3	2.3	2.3
Gear material		Composite	Composite	Composite

¹ S1 duty cycle based on 3000rpm input speed

Combination accessories							
Brake	Part number	Encoder	Part Number	Controller	Part Number	Shaft extension	Part number
1.5 Nm	735914	Incremental	735912	SC 50/15	738950	GB9 shaft	735898
Mounting flange	781279						

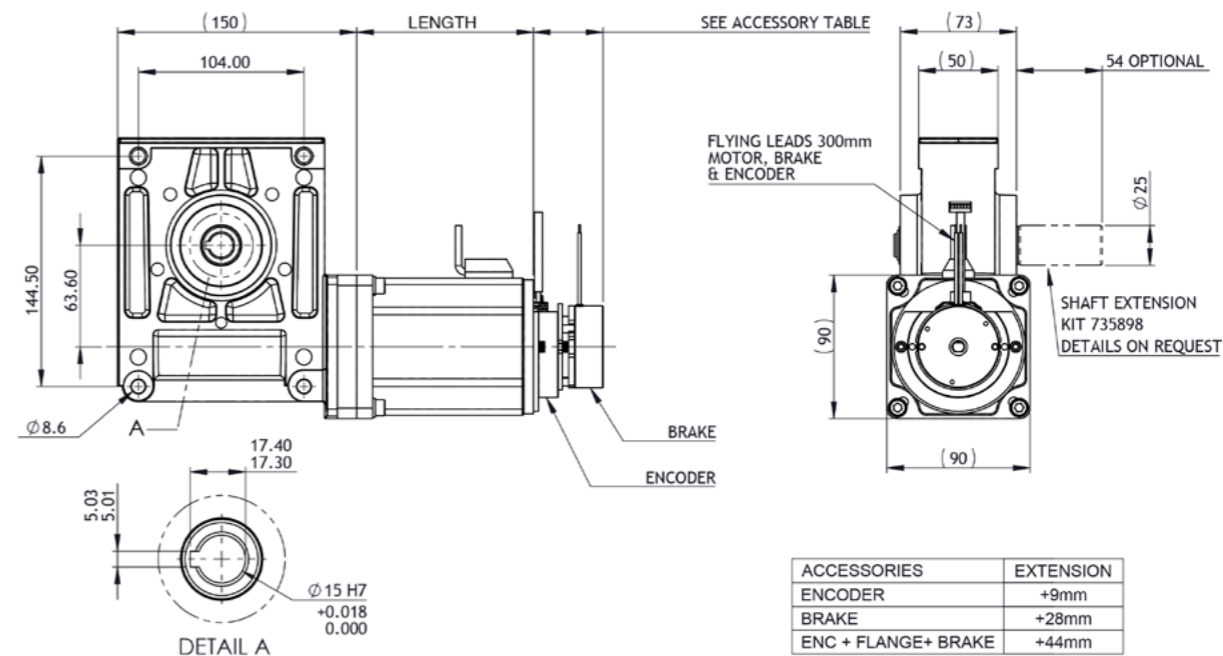
PBL86-GB9

BLDC right-angle geared motor

48 V // 419 - 586 W // 67 - 267 rpm // 12.8 - 80.0 Nm

Door automation solution

all dimensions in mm



Combination data							
Motor		PBL86-55	PBL86-55	PBL86-55	PBL86-80	PBL86-80	PBL86-80
Voltage	V	48	48	48	48	48	48
Nominal motor power	W	419	419	419	586	586	586
Gearbox ratio	:1	15	30	60	15	30	60
Nominal speed	rpm	267	133	67	267	133	67
Nominal continuous torque (S1)	Nm	12.8	22.5	39.0	17.9	31.5	50.0
Nominal intermittent torque (S2 - 15 minutes)	Nm	22.3	39.4	68.3	31.2	55.1	80.0

Motor data				Connection details		
Motor		PBL86-55 48 V	PBL86-80 48 V	Lead colour	Lead gauge	Function
Part number		776624	776625	Red	UL1569/26 AWG	VCC
Nominal power	W	419	586	Black	UL1569/26 AWG	GND
Nominal voltage	V	48	48	Blue	UL1569/26 AWG	Hall A
Nominal speed	rpm	4000	4000	Green	UL1569/26 AWG	Hall B
Nominal continuous torque (S1)	Nm	1.00	1.40	White	UL1569/26 AWG	Hall C
Nominal intermittent torque (S2 - 15 minutes)	Nm	1.75	2.45	Red	UL1569/14 AWG	Phase U
Weight	Kg	3.20	4.20	Yellow	UL1569/14 AWG	Phase V
Length	mm	111	136	Black	UL1569/14 AWG	Phase W

Gearbox data				
Part number		735894	735895	735896
Ratio	:1	15	30	60
Max. continuous torque (S1) ¹	Nm	50.0	50.0	50.0
Max. intermittent torque	Nm	80.0	80.0	80.0
Efficiency	%	85	75	65
Max. axial load (dynamic)	N	600	600	600
Max. radial load, 12mm from flange	N	800	800	800
Weight	Kg	2.3	2.3	2.3
Gear material		Composite	Composite	Composite

¹ S1 duty cycle based on 3000rpm input speed

Combination accessories							
Brake	Part number	Encoder	Part Number	Controller	Part Number	Shaft extension	Part number
1.5 Nm	735914	Incremental	735912	SC 50/15	738950	GB9 shaft	735898
Mounting flange	781284						

Access control

The Parvalux Modular Range includes a range of geared motor combinations perfectly suited to access control solutions.

Security barriers, swipe card entrances, and proximity entry points often utilise Parvalux electric motors in the opening and closing of their intelligent systems.

If you're currently building an access control system, our brushed and brushless modular solutions can offer a quicker route to proof of concept, enabling you to gain a competitive advantage over your competitors.

PMDC	BLDC
→ BRx63-GB28	→ PBL60-GB28
→ BRx70-GB12	→ PBL70-GB12
→ BRx90-GB12	→ PBL86-GB12
→ BRx90-GB9	→ PBL86-GB9

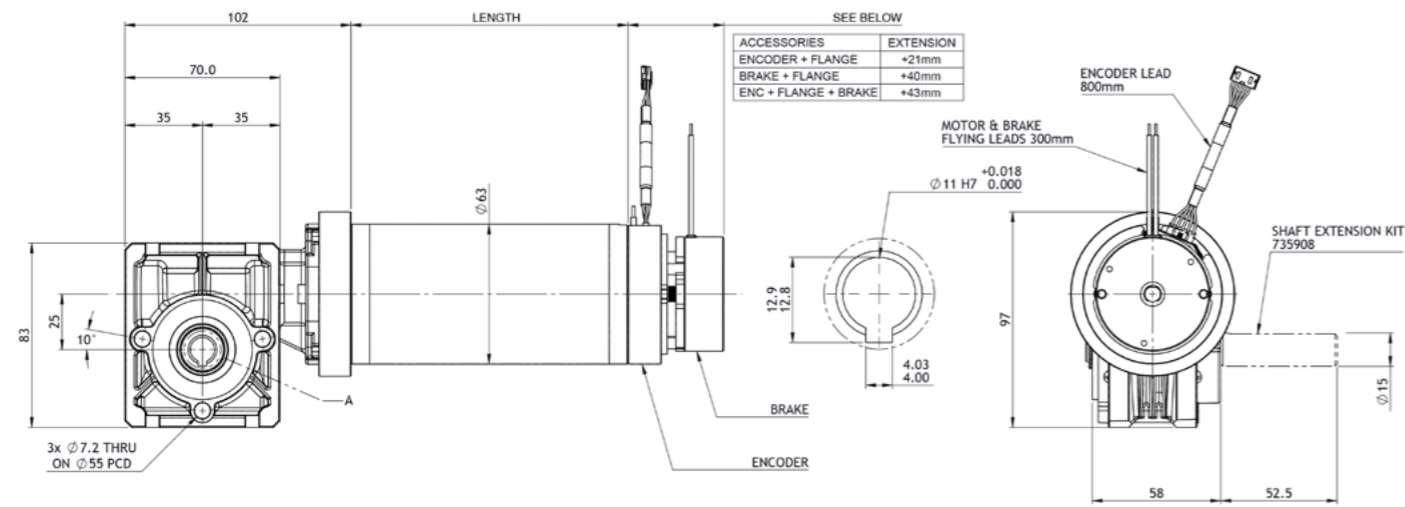


BRx63-GB28 PMDC right-angle geared motor

12 - 48 V // 47 - 85 W // 42 - 200 rpm // 1.9 - 8.0 Nm

Access control solution

all dimensions in mm



Combination data

Motor	BRx63-25	BRx63-25	BRx63-25	BRx63-55	BRx63-55	BRx63-55
Voltage	V	12 - 48	12 - 48	12 - 48	12 - 48	12 - 48
Nominal motor power	W	47 - 57	47 - 57	47 - 57	79 - 85	79 - 85
Gearbox ratio	:1	15	30	60	15	30
Nominal speed	rpm	167 - 200	83 - 100	42 - 50	187 - 200	93 - 100
Nominal continuous torque (S1)	Nm	1.9	3.0	4.9	2.9	4.5
Nominal intermittent torque (S2 - 15 minutes)	Nm	3.2	5.0	8.0	4.9	7.4

Motor data

Motor	BRx63-25 12V	BRx63-25 24V	BRx63-25 48V	BRx63-55 12V	BRx63-55 24V	BRx63-55 48V
Part number	781102	781103	781104	781106	781107	781108
Nominal power	W	47	57	57	79	85
Nominal voltage	V	12	24	48	12	24
Nominal speed	rpm	2500	3000	3000	2800	3000
Nominal continuous torque (S1)	Nm	0.18	0.18	0.18	0.27	0.27
Nominal intermittent torque (S2 - 15 minutes)	Nm	0.30	0.30	0.30	0.45	0.45
Weight	Kg	0.85	0.85	0.85	1.16	1.16
Length	mm	95	95	95	125	125

Gearbox data

Part number	735904	735906	735907
Ratio	:1	15	30
Max. continuous torque (S1) ¹	Nm	5.0	5.0
Max. intermittent torque	Nm	8.0	8.0
Efficiency	%	72	55
Max. axial load (dynamic)	N	300	300
Max. radial load, 12mm from flange	N	400	400
Weight	Kg	0.83	0.83
Gear material	Bronze	Bronze	Bronze

¹S1 duty cycle based on 3000rpm input speed

Combination accessories

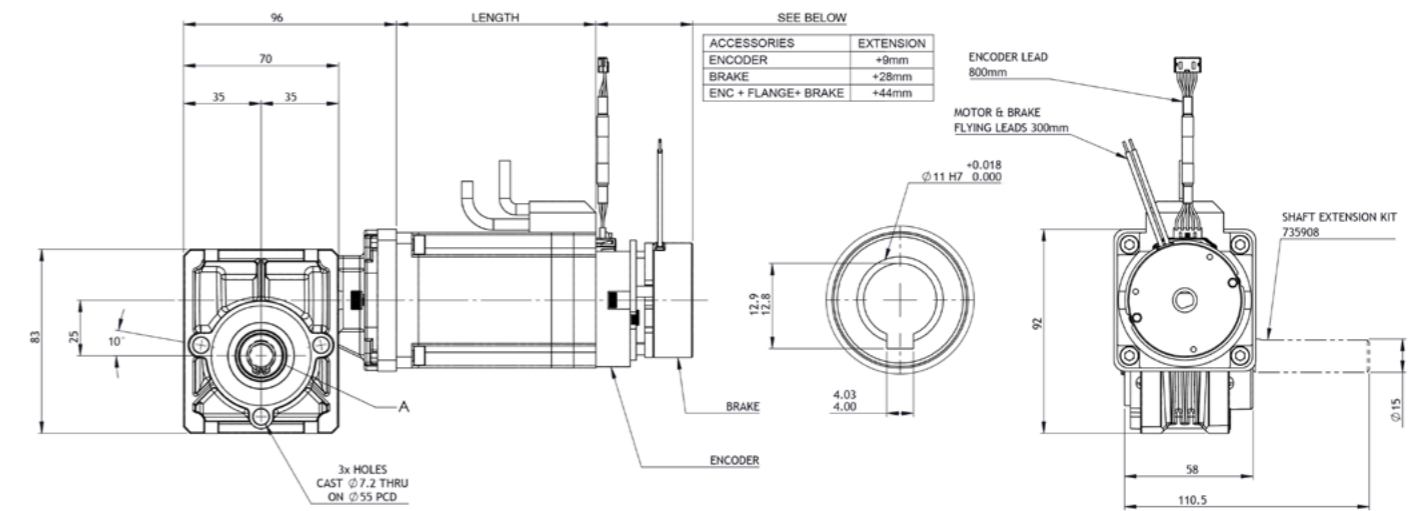
Brake	Part number	Encoder	Part Number	Controller	Part Number	Shaft extension	Part number
1.5 Nm	735914	Incremental	735912	SC 50/15	735903	GB28 shaft	735908
Mounting flange	781276	Mounting flange	781276				

PBL60-GB28 BLDC right-angle geared motor

24 - 48 V // 104 - 157 W // 50 - 200 rpm // 3.7 - 8.0 Nm

Access control solution

all dimensions in mm



Combination data

Motor	PBL60-50	PBL60-50	PBL60-50	PBL60-70	PBL60-70	PBL60-70
Voltage	V	24 - 48	24 - 48	24 - 48	24 - 48	24 - 48
Nominal motor power	W	104	104	104	157	157
Gearbox ratio	:1	15	30	60	15	30
Nominal speed	rpm	200	100	50	200	100
Nominal continuous torque (S1)	Nm	3.6	5.0	5.0	5.0	5.0
Nominal intermittent torque (S2 - 15 minutes)	Nm	6.3	8.0	8.0	8.0	8.0

Motor data

Motor	PBL60-50 24V	PBL60-50 48V	PBL60-70 24V	PBL60-70 48V	Connection details		
Part number	776618	776619	776620	776621	Lead colour	Lead gauge	Function
Nominal power	W	104	104	157	Red	UL1569/26 AWG	VCC
Nominal voltage	V	24	48	24	Black	UL1569/26 AWG	GND
Nominal speed	rpm	3000	3000	3000	Blue	UL1569/26 AWG	Hall A
Nominal continuous torque (S1)	Nm	0.33	0.33	0.50	Green	UL1569/26 AWG	Hall B
Nominal intermittent torque (S2 - 15 minutes)	Nm	0.58	0.58	0.88	White	UL1569/26 AWG	Hall C
Weight	Kg	1.20	1.20	1.60	Red	UL3266/18 AWG	Phase U
Length	mm	90	90	110	Yellow	UL3266/18 AWG	Phase V
					Black	UL3266/18 AWG	Phase W

Gearbox data

Part number	735904	735906	735907
Ratio	:1	15	30
Max. continuous torque (S1) ¹	Nm	5.0	5.0
Max. intermittent torque	Nm	8.0	8.0
Efficiency	%	72	55
Max. axial load (dynamic)	N	300	300
Max. radial load, 12mm from flange	N	400	400
Weight	Kg	0.83	0.83
Gear material	Bronze	Bronze	Bronze

¹S1 duty cycle based on 3000rpm input speed

Combination accessories

Brake	Part number	Encoder	Part Number	Controller	Part Number	Shaft extension	Part number
1.5 Nm	735914	Incremental	735912	SC 50/15	738950	GB28 shaft	735908
Mounting flange	781281						

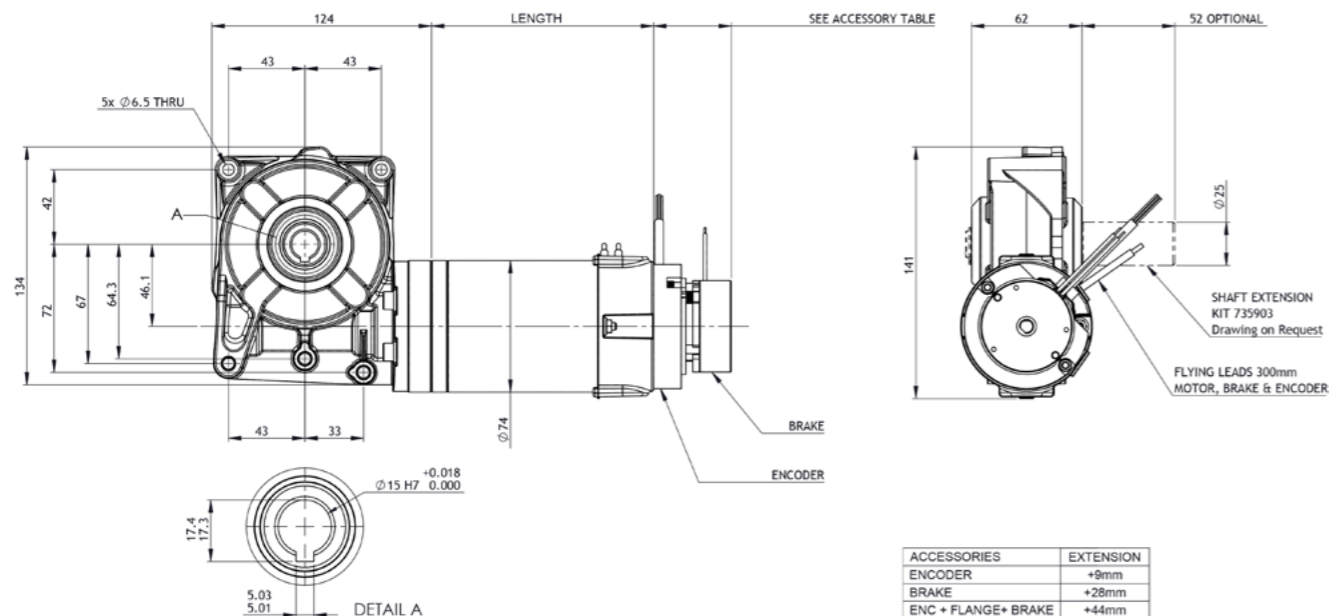
BRx70-GB12

PMDC right-angle geared motor

12 - 48 V // 79 - 157 W // 50 - 200 rpm // 2.8 - 26.4 Nm

Access control solution

all dimensions in mm



Combination data							
Motor		BRx70-40	BRx70-40	BRx70-40	BRx70-60	BRx70-60	BRx70-60
Voltage	V	12 - 48	12 - 48	12 - 48	12 - 48	12 - 48	12 - 48
Nominal motor power	W	79	79	79	157	157	157
Gearbox ratio	:1	15	30	60	15	30	60
Nominal speed	rpm	200	100	50	200	100	50
Nominal continuous torque (S1)	Nm	2.8	4.9	7.5	5.6	9.8	15.0
Nominal intermittent torque (S2 - 15 minutes)	Nm	4.7	8.2	12.6	9.9	17.2	26.4

Motor data							
Motor		BRx70-40 12V	BRx70-40 24V	BRx70-40 48V	BRx70-60 12V	BRx70-60 24V	BRx70-60 48V
Part number		781092	781093	781094	781095	781096	781097
Nominal power	W	79	79	79	157	157	157
Nominal voltage	V	12	24	48	12	24	48
Nominal speed	rpm	3000	3000	3000	3000	3000	3000
Nominal continuous torque (S1)	Nm	0.25	0.25	0.25	0.50	0.50	0.50
Nominal intermittent torque (S2 - 15 minutes)	Nm	0.42	0.42	0.42	0.88	0.88	0.88
Weight	Kg	1.85	1.85	1.85	2.25	2.25	2.25
Length	mm	125	125	125	146	146	146

Gearbox data				
Part number		735900	735901	735902
Ratio	:1	15	30	60
Max. continuous torque (S1) ¹	Nm	30.0	30.0	30.0
Max. intermittent torque	Nm	48.0	48.0	48.0
Efficiency	%	75	65	50
Max. axial load (dynamic)	N	600	600	600
Max. radial load, 12mm from flange	N	800	800	800
Weight	Kg	1.5	1.5	1.5
Gear material		Bronze	Bronze	Bronze

¹S1 duty cycle based on 3000rpm input speed

Combination accessories							
Brake	Part number	Encoder	Part Number	Controller	Part Number	Shaft extension	Part number
1.5 Nm	735914	Incremental	735912	SC 50/15	735903	GB12 shaft	735898
Mounting flange	781277						

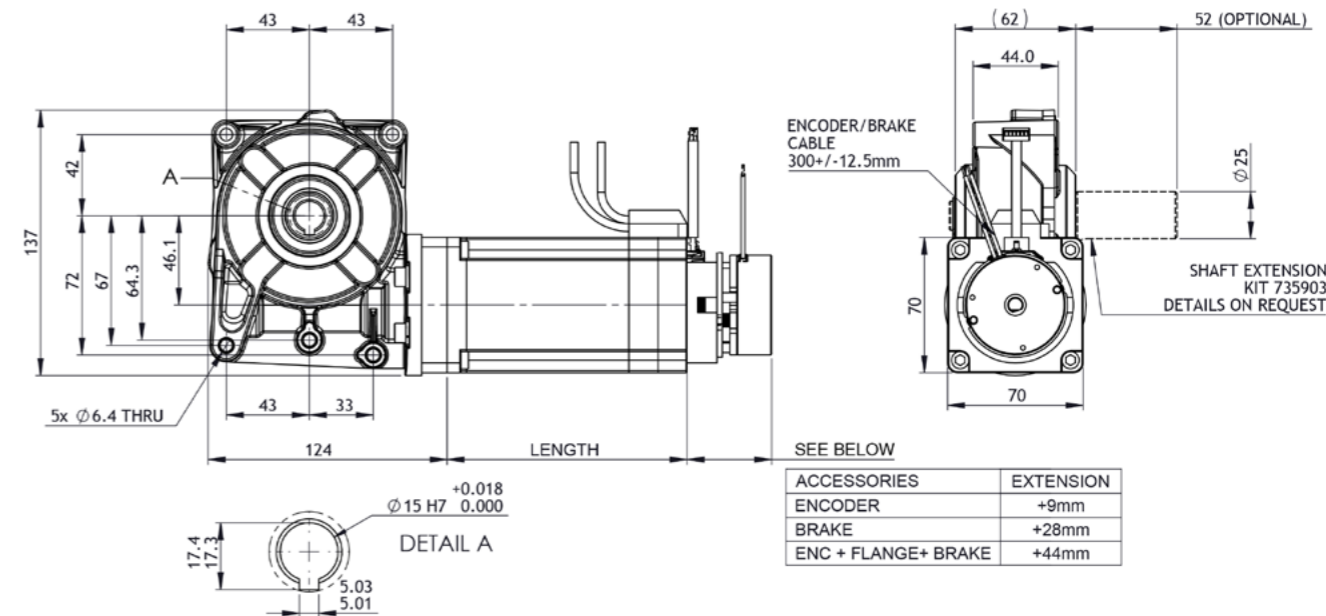
PBL70-GB12

BLDC right-angle geared motor

48 V // 363 - 415 W // 75 - 300 rpm // 8.7 - 46.5 Nm

Access control solution

all dimensions in mm



Combination data							
Motor		PBL70-70	PBL70-70	PBL70-70	PBL70-80	PBL70-80	PBL70-80
Voltage	V	48	48	48	48	48	48
Nominal motor power	W	363	363	363	415	415	415
Gearbox ratio	:1	15	30	60	15	30	60
Nominal speed	rpm	300	150	75	300	150	75
Nominal continuous torque (S1)	Nm	8.7	15.0	23.1	9.9	17.2	26.4
Nominal intermittent torque (S2 - 15 minutes)	Nm	15.2	26.3	40.5	17.4	30.2	46.5

Motor data				Connection details		
Motor		PBL70-70 48V	PBL70-80 48V	Lead colour	Lead gauge	Function
Part number		776622	776623	Red	UL1569/26 AWG	VCC
Nominal power	W	363	415	Black	UL1569/26 AWG	GND
Nominal voltage	V	48	48	Blue	UL1569/26 AWG	Hall A
Nominal speed	rpm	4500	4500	Green	UL1569/26 AWG	Hall B
Nominal continuous torque (S1)	Nm	0.77	0.88	White	UL1569/26 AWG	Hall C
Nominal intermittent torque (S2 - 15 minutes)	Nm	1.35	1.54	Red	UL3266/16 AWG	Phase U
Weight	Kg	2.20	2.60	Yellow	UL3266/16 AWG	Phase V
Length	mm	114	124	Black	UL3266/16 AWG	Phase W

Gearbox data				
Part number		735900	735901	735902
Ratio	:1	15	30	60
Max. continuous torque (S1) ¹	Nm	30.0	30.0	30.0
Max. intermittent torque	Nm	48.0	48.0	48.0
Efficiency	%	75	65	50
Max. axial load (dynamic)	N	600	600	600
Max. radial load, 12mm from flange	N	800	800	800
Weight	Kg	1.5	1.5	1.5
Gear material		Bronze	Bronze	Bronze

¹S1 duty cycle based on 3000rpm input speed

Combination accessories							
Brake	Part number	Encoder	Part Number	Controller	Part Number	Shaft extension	Part number
1.5 Nm	735914	Incremental	735912	SC 50/15	738950	GB12 shaft	735903
Mounting flange	781281						

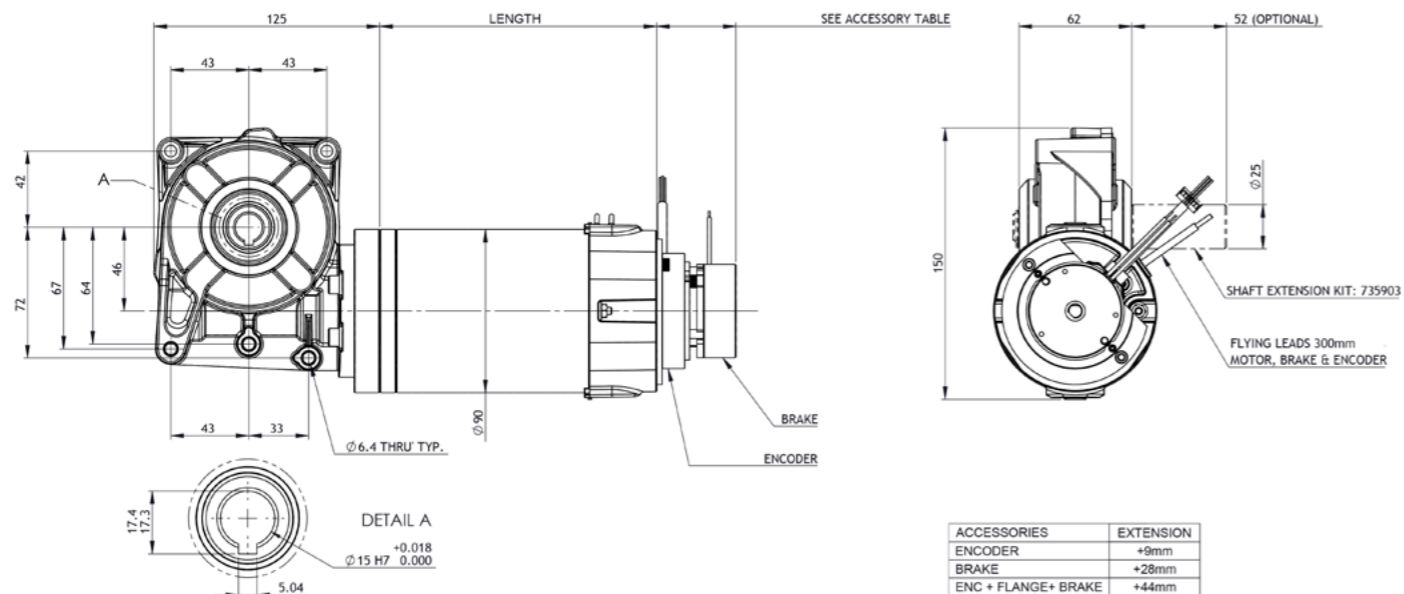
BRx90-GB12

PMDC right-angle geared motor

12 - 48 V // 157 - 283 W // 50 - 200 rpm // 7.5 - 45.0 Nm

Access control solution

all dimensions in mm



Combination data							
Motor		BRx90-50	BRx90-50	BRx90-50	BRx90-75	BRx90-75	BRx90-75
Voltage	V	12 - 48	12 - 48	12 - 48	12 - 48	12 - 48	12 - 48
Nominal motor power	W	157 - 210	157 - 210	157 - 210	236 - 283	236 - 283	236 - 283
Gearbox ratio	:1	15	30	60	15	30	60
Nominal speed	rpm	200	100	50	200	100	50
Nominal continuous torque (S1)	Nm	7.5	16.4	20.1	10.1	21.9	27.0
Nominal intermittent torque (S2 - 15 minutes)	Nm	13.2	22.8	35.1	16.9	29.3	45.0

Motor data							
Motor		BRx90-50 12V	BRx90-50 24V	BRx90-50 48V	BRx90-75 12V	BRx90-75 24V	BRx90-75 48V
Part number		781102	781103	781104	781106	781107	781108
Nominal power	W	157	210	210	236	283	283
Nominal voltage	V	12	24	48	12	24	48
Nominal speed	rpm	3000	3000	3000	3000	3000	3000
Nominal continuous torque (S1)	Nm	0.50	0.67	0.67	0.90	0.90	0.90
Nominal intermittent torque (S2 - 15 minutes)	Nm	1.17	1.17	1.17	1.50	1.50	1.50
Weight	Kg	3.60	3.60	3.60	4.00	4.00	4.00
Length	mm	153	153	153	183	183	183

Gearbox data				
Part number		735900	735901	735902
Ratio	:1	15	30	60
Max. continuous torque (S1) ¹	Nm	30.0	30.0	30.0
Max. intermittent torque	Nm	48.0	48.0	48.0
Efficiency	%	75	65	50
Max. axial load (dynamic)	N	600	600	600
Max. radial load, 12mm from flange	N	800	800	800
Weight	Kg	1.5	1.5	1.5
Gear material		Bronze	Bronze	Bronze

¹S1 duty cycle based on 3000rpm input speed

Combination accessories							
Brake	Part number	Encoder	Part Number	Controller	Part Number	Shaft extension	Part number
1.5 Nm	735914	Incremental	735912	SC 50/15	735903	GB12 shaft	735898
Mounting flange	781279						

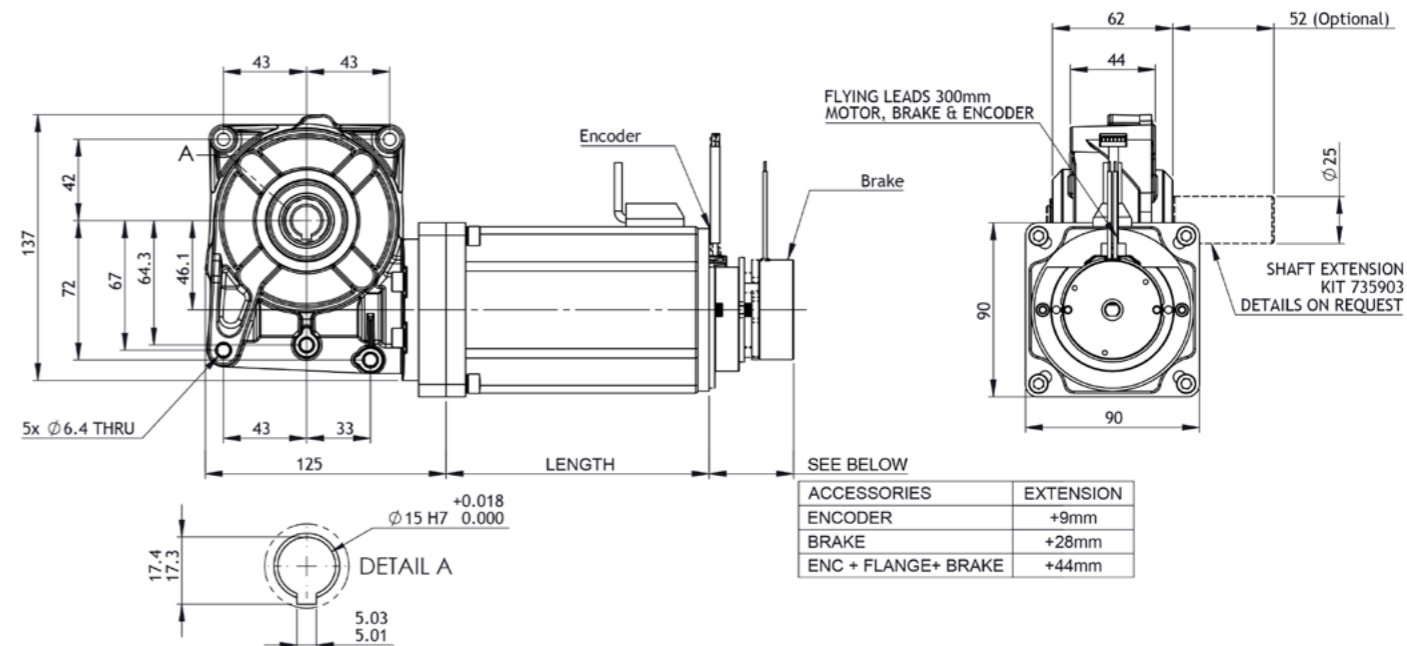
PBL86-GB12

BLDC right-angle geared motor

48 V // 419 - 586 W // 67 - 267 rpm // 11.3 - 48.0 Nm

Access control solution

all dimensions in mm



Combination data							
Motor		PBL86-55	PBL86-55	PBL86-55	PBL86-80	PBL86-80	PBL86-80
Voltage	V	48	48	48	48	48	48
Nominal motor power	W	419	419	419	586	586	586
Gearbox ratio	:1	15	30	60	15	30	60
Nominal speed	rpm	267	133	67	267	133	67
Nominal continuous torque (S1)	Nm	11.3	19.5	30.0	15.8	27.3	30.0
Nominal intermittent torque (S2 - 15 minutes)	Nm	19.7	34.1	48.0	27.6	47.8	48.0

Motor data				Connection details		
Motor		PBL86-55 48 V	PBL86-80 48 V	Lead colour	Lead gauge	Function
Part number		776624	776625	Red	UL1569/26 AWG	VCC
Nominal power	W	419	586	Black	UL1569/26 AWG	GND
Nominal voltage	V	48	48	Blue	UL1569/26 AWG	Hall A
Nominal speed	rpm	4000	4000	Green	UL1569/26 AWG	Hall B
Nominal continuous torque (S1)	Nm	1.00	1.40	White	UL1569/26 AWG	Hall C
Nominal intermittent torque (S2 - 15 minutes)	Nm	1.75	2.45	Red	UL1569/14 AWG	Phase U
Weight	Kg	3.20	4.20	Yellow	UL1569/14 AWG	Phase V
Length	mm	111	136	Black	UL1569/14 AWG	Phase W

Gearbox data				
Part number		735900	735901	735902
Ratio	:1	15	30	60
Max. continuous torque (S1) ¹	Nm	30.0	30.0	30.0
Max. intermittent torque	Nm	48.0	48.0	48.0
Efficiency	%	75	65	50
Max. axial load (dynamic)	N	600	600	600
Max. radial load, 12mm from flange	N	800	800	800
Weight	Kg	1.5	1.5	1.5
Gear material		Bronze	Bronze	Bronze

¹S1 duty cycle based on 3000rpm input speed

Combination accessories							
Brake	Part number	Encoder	Part Number	Controller	Part Number	Shaft extension	Part number
1.5 Nm	735914	Incremental	735912	SC 50/15	738950	GB12 shaft	735903
Mounting flange	781284						

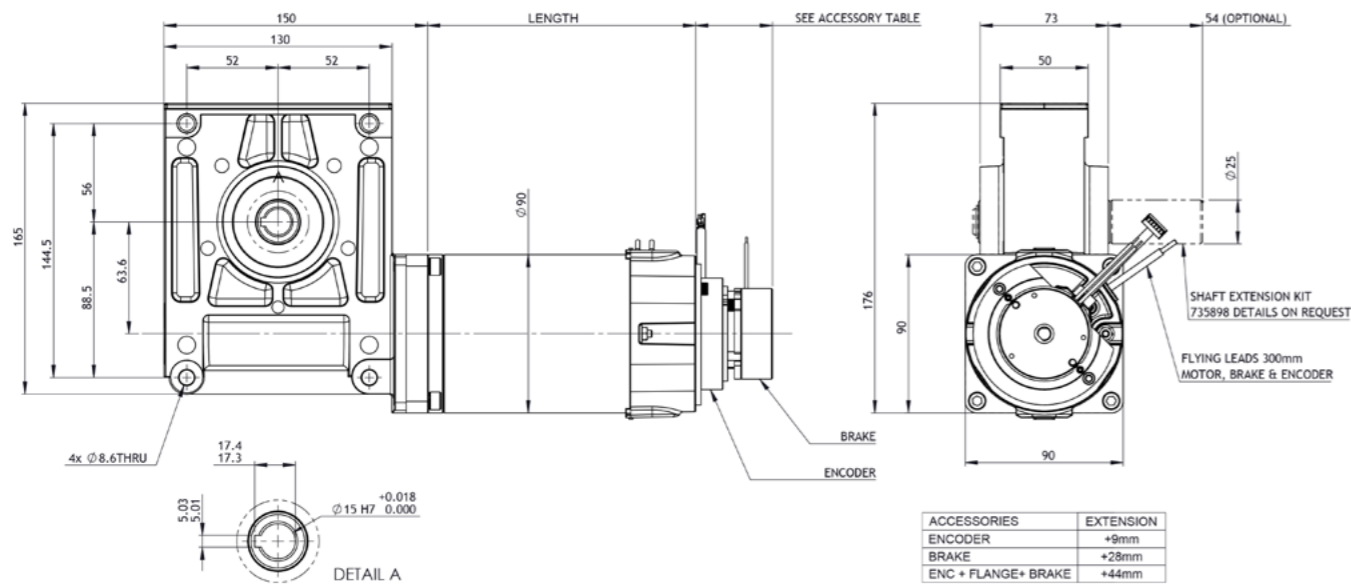
BRx90-GB9

PMDC right-angle geared motor

12 - 48 V // 157 - 283 W // 50 - 200 rpm // 8.5 - 58.5 Nm

Access control solution

all dimensions in mm



Combination data							
Motor		BRx90-50	BRx90-50	BRx90-50	BRx90-75	BRx90-75	BRx90-75
Voltage	V	12 - 48	12 - 48	12 - 48	12 - 48	12 - 48	12 - 48
Nominal motor power	W	157 - 210	157 - 210	157 - 210	236 - 283	236 - 283	236 - 283
Gearbox ratio	:1	15	30	60	15	30	60
Nominal speed	rpm	200	100	50	200	100	50
Nominal continuous torque (S1)	Nm	8.5	15.1	26.1	11.5	20.3	35.1
Nominal intermittent torque (S2 - 15 minutes)	Nm	14.9	26.3	45.6	19.1	33.8	58.5

Motor data							
Motor		BRx90-50 12V	BRx90-50 24V	BRx90-50 48V	BRx90-75 12V	BRx90-75 24V	BRx90-75 48V
Part number		781102	781103	781104	781106	781107	781108
Nominal power	W	157	210	210	236	283	283
Nominal voltage	V	12	24	48	12	24	48
Nominal speed	rpm	3000	3000	3000	3000	3000	3000
Nominal continuous torque (S1)	Nm	0.50	0.67	0.67	0.90	0.90	0.90
Nominal intermittent torque (S2 - 15 minutes)	Nm	1.17	1.17	1.17	1.50	1.50	1.50
Weight	Kg	3.60	3.60	3.60	4.00	4.00	4.00
Length	mm	153	153	153	183	183	183

Gearbox data				
Part number		735894	735895	735896
Ratio	:1	15	30	60
Max. continuous torque (S1) ¹	Nm	50.0	50.0	50.0
Max. intermittent torque	Nm	80.0	80.0	80.0
Efficiency	%	85	75	65
Max. axial load (dynamic)	N	600	600	600
Max. radial load, 12mm from flange	N	800	800	800
Weight	Kg	2.3	2.3	2.3
Gear material		Composite	Composite	Composite

¹ S1 duty cycle based on 3000rpm input speed

Combination accessories							
Brake	Part number	Encoder	Part Number	Controller	Part Number	Shaft extension	Part number
1.5 Nm	735914	Incremental	735912	SC 50/15	738950	GB9 shaft	735898
Mounting flange	781279						

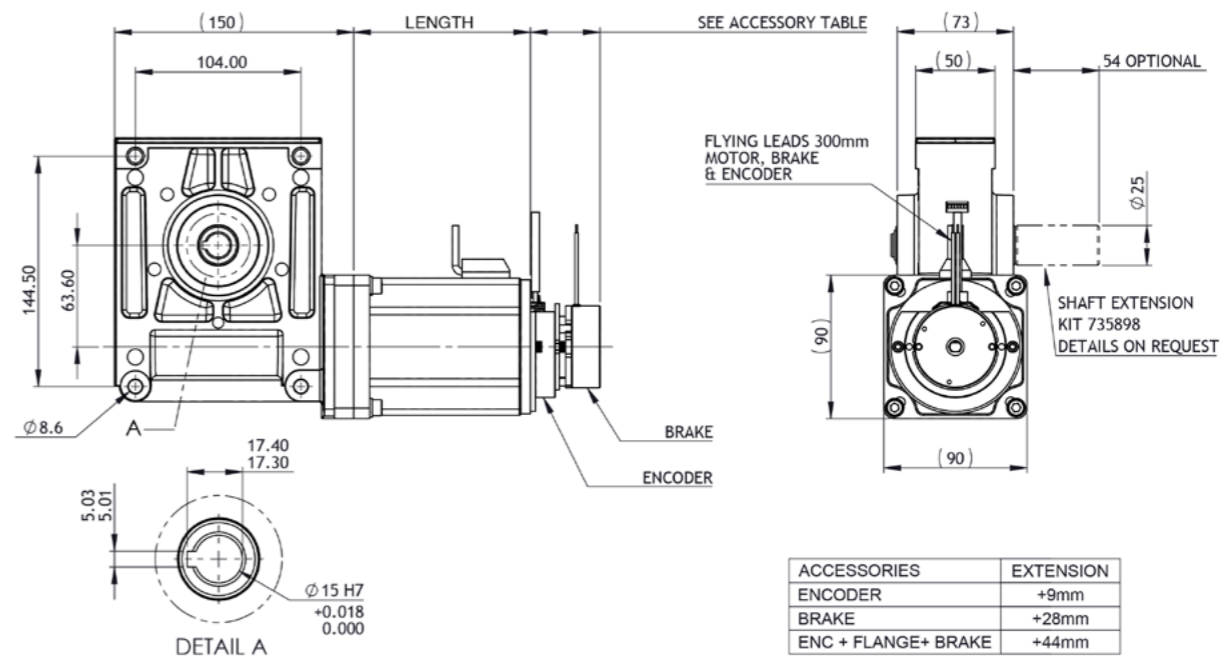
PBL86-GB9

BLDC right-angle geared motor

48 V // 419 - 586 W // 67 - 267 rpm // 12.8 - 80.0 Nm

Access control solution

all dimensions in mm



Combination data							
Motor		PBL86-55	PBL86-55	PBL86-55	PBL86-80	PBL86-80	PBL86-80
Voltage	V	48	48	48	48	48	48
Nominal motor power	W	419	419	419	586	586	586
Gearbox ratio	:1	15	30	60	15	30	60
Nominal speed	rpm	267	133	67	267	133	67
Nominal continuous torque (S1)	Nm	12.8	22.5	39.0	17.9	31.5	50.0
Nominal intermittent torque (S2 - 15 minutes)	Nm	22.3	39.4	68.3	31.2	55.1	80.0

Motor data				Connection details		
Motor		PBL86-55 48 V	PBL86-80 48 V	Lead colour	Lead gauge	Function
Part number		776624	776625	Red	UL1569/26 AWG	VCC
Nominal power	W	419	586	Black	UL1569/26 AWG	GND
Nominal voltage	V	48	48	Blue	UL1569/26 AWG	Hall A
Nominal speed	rpm	4000	4000	Green	UL1569/26 AWG	Hall B
Nominal continuous torque (S1)	Nm	1.00	1.40	White	UL1569/26 AWG	Hall C
Nominal intermittent torque (S2 - 15 minutes)	Nm	1.75	2.45	Red	UL1569/14 AWG	Phase U
Weight	Kg	3.20	4.20	Yellow	UL1569/14 AWG	Phase V
Length	mm	111	136	Black	UL1569/14 AWG	Phase W

Gearbox data				
Part number		735894	735895	735896
Ratio	:1	15	30	60
Max. continuous torque (S1) ¹	Nm	50.0	50.0	50.0
Max. intermittent torque	Nm	80.0	80.0	80.0
Efficiency	%	85	75	65
Max. axial load (dynamic)	N	600	600	600
Max. radial load, 12mm from flange	N	800	800	800
Weight	Kg	2.3	2.3	2.3
Gear material		Composite	Composite	Composite


¹ S1 duty cycle based on 3000rpm input speed

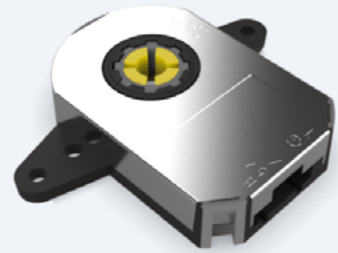
Combination accessories							
Brake	Part number	Encoder	Part Number	Controller	Part Number	Shaft extension	Part number
1.5 Nm	735914	Incremental	735912	SC 50/15	738950	GB9 shaft	735898
Mounting flange	781284						

Modular Accessories

Fine tune your configuration

Here at Parvalux, we appreciate that sometimes it's the small things that can really make a difference. That's why we offer a range of accessories to enable more precise control of your motor-gearbox system.

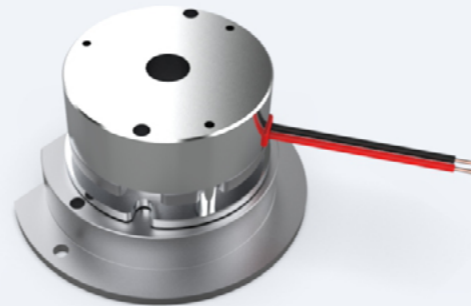
 Our 1.5 Nm brake can be used on our PBL60, PBL70, and PBL86 brushless motors, and our BRx63, BRx70, and BRx90 brushed motors.



Encoders

Add our incremental encoder to your modular configuration to enable further control to the power supply of your system.

Our incremental encoder offers 48 - 2048 PPR, 6.0 mA of current consumption, and fits seamlessly to the rear of the PMDC and BLDC motors within the modular range.



Brakes

Adding a brake to your modular configuration couldn't be easier. Mounting directly to the back of the motor, or onto a mounting flange that fits around the encoder when needed, our 1.5 Nm brake adds that extra reassurance when holding a load on your system.

Currently, the 1.5 Nm brake is only suitable for a few motors within the modular range, however, we plan to extend our brake range in the near future.



Shafts

Our current range of modular gearboxes are supplied with a hollow shaft as standard; however, we also offer shaft extension kits for both our GB9 and GB12 gearboxes.

Secured through a keyway and slot, our shaft extension kits offer a quick-fit solution where a hollow shaft isn't quite right for your application.



Controllers

Intelligent motion control can extend the possibilities of your configuration.

The Parvalux SC 50/15 controller has been developed in conjunction with our parent company, maxon, and integrates seamlessly with the PMDC and BLDC motors within the modular range.

Standard range

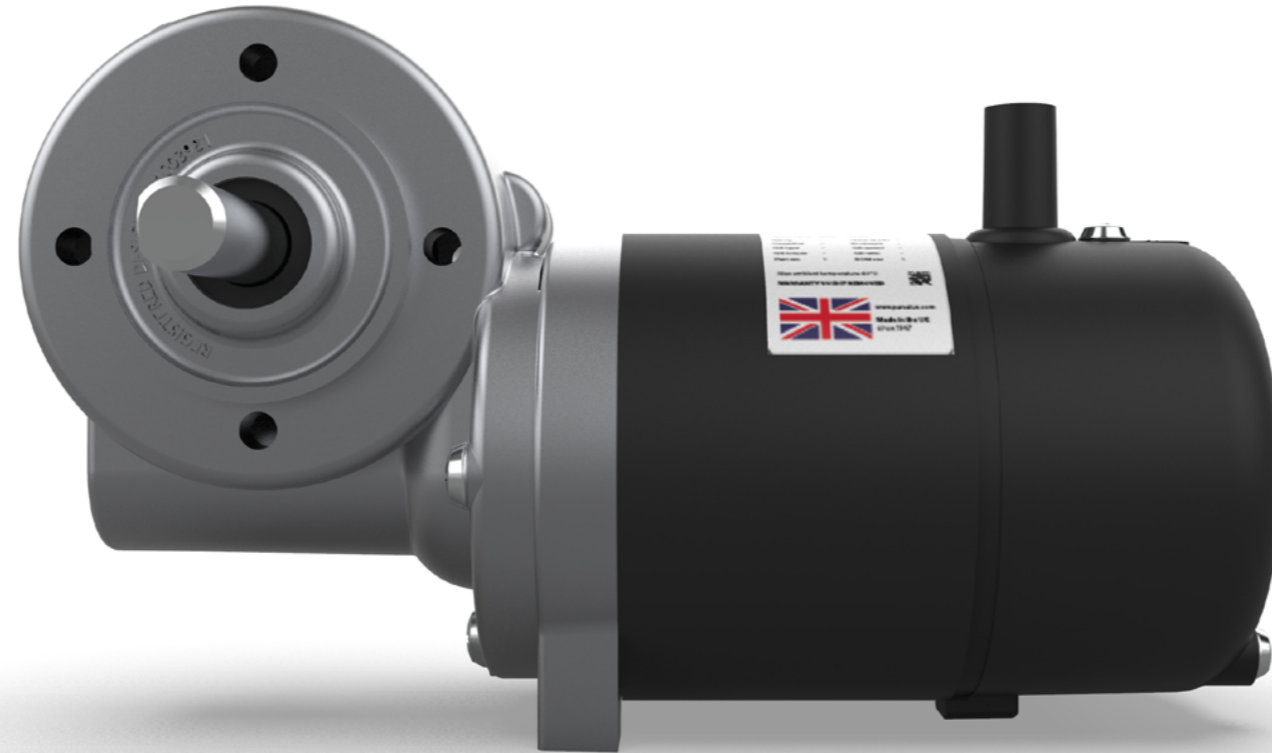
With selected motor voltages and speeds, as well as specific gear ratios offered on our modular gearboxes, we recognise that the output performance of our modular range may not meet your exact specification - for instances such as these, our standard range of products are on-hand for applications outside of our modular capabilities.

Our standard range includes a wider selection of PMDC, BLDC, and AC motors - as well as a range of right-angle and inline gearboxes. Offering a wider range of options for each product type, including variances in motor voltage and output speed, as well as a greater number of ratios for the gearbox range, the standard range extends our capabilities where the modular range can not currently meet requirements.

The tables below shows the performance range of each product type.

Motor range		BLDC	PMDC	AC
Voltage	V	12 - 48	12 - 220	115 - 400
Output speed	rpm	3000 - 4000	1500 - 4500	50 - 60
Power	W	110 - 147	15 - 236	1400 - 3400
Continuous torque	Nm	0.35	0.05 - 0.90	8 - 250
Intermittent torque	Nm	0.60	0.08 - 1.50	0.05 - 1.30

Gearbox range		Right-angle	Inline
Continuous torque	Nm	2.0 - 120.0	7.0 - 74.0
Intermittent torque	Nm	3.2 - 300.0	7.0 - 100.0



Semi-custom design

We also a wide range of semi-custom options for our standard range. This is includes modifications in shaft length, diameter and position, to special windings for alterations in voltage and output speed.

Our team of engineers can quickly customise any aspect of your product to perfectly suit your desired application - a number of our customisation options are shown below:

- Shaft modifications
- Improved IP rating
- Custom paint finish
- Alternate mounting options
- Accessories

Fully custom design

Where possible, our sales team will always attempt to offer a standard solution, even if slightly customised, to meet your applications requirements. However, sometimes a standard solution wont quite meet the expectations of your final product.

In times such as these, our experienced team of expert design engineers are on-hand to design and prototype a fully custom solution, from scratch, to met your exact specification. Whether it's fitting your motor-gearbox inside the constraints of your chassis, increasing torque or fine-tuning the output speed of your solution, our engineers our well-versed in producing custom design solutions.

Our team includes some of the brightest engineering minds, who work alongside project managers and product specialists, to ensure that Parvalux remains at the cutting edge of electric geared motor design and manufacturing.

Please get in touch with your local sales contact, found on the next page, to discuss the possibilities available in the design and manufacture of your geared-motor solution.


Made in the UK...

...Available Worldwide


Parvalux products are used in a range of different industries all over the world, so it's important that we can support you wherever you may be.

Our global network ensures that we can answer your questions quickly and clearly, and, of course, get your order to you as soon as possible.


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