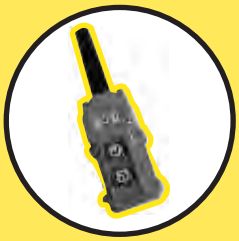
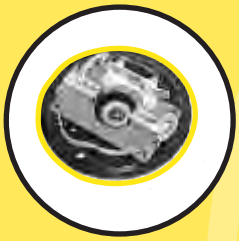
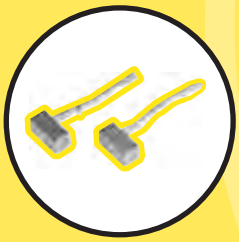
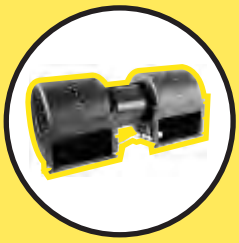
Power Products Handbook





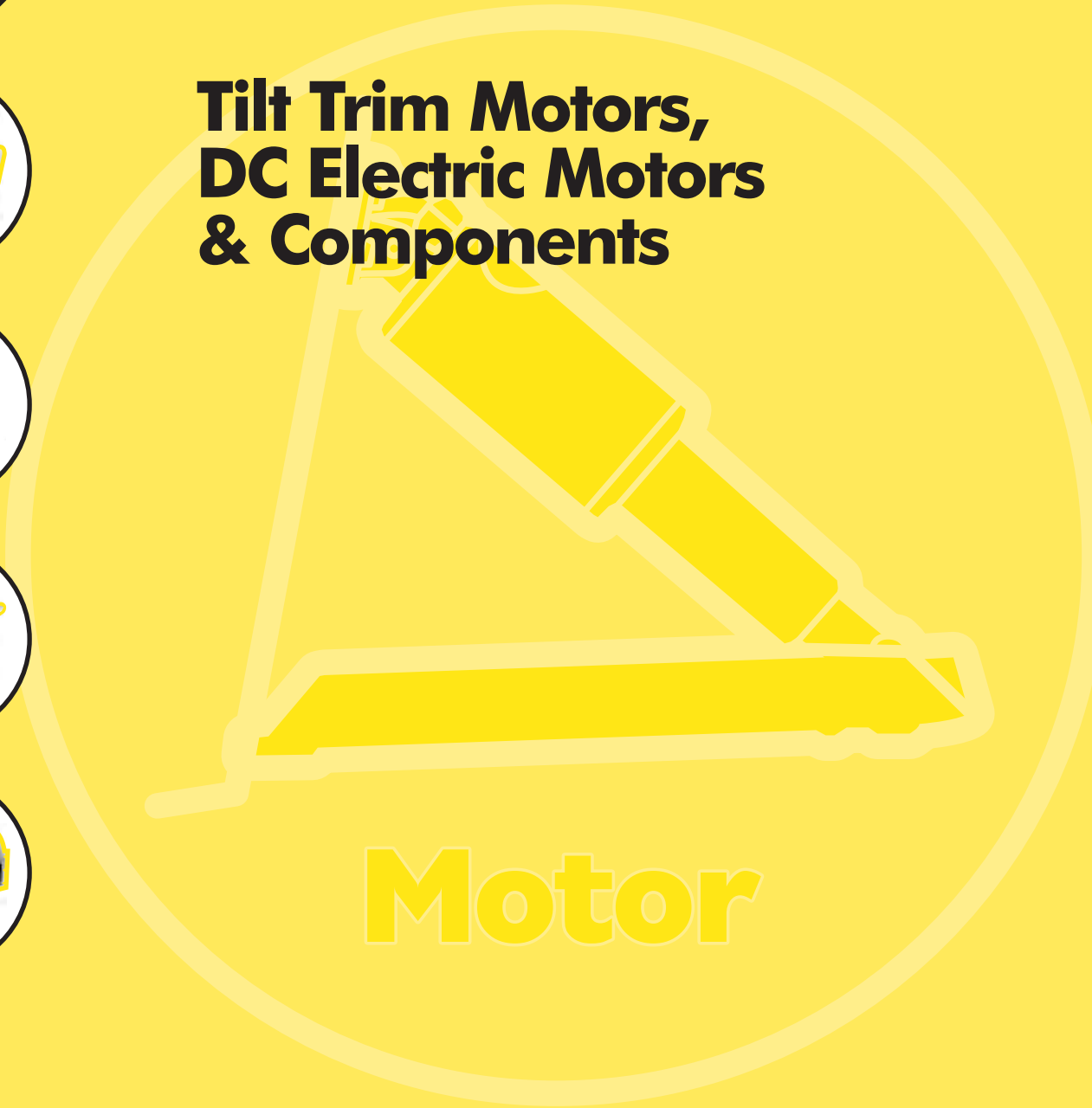




PART 8

Tilt Trim

Tilt Trim Motors, DC Electric Motors & Components



PART 8 TILT / TRIM

CONTENTS

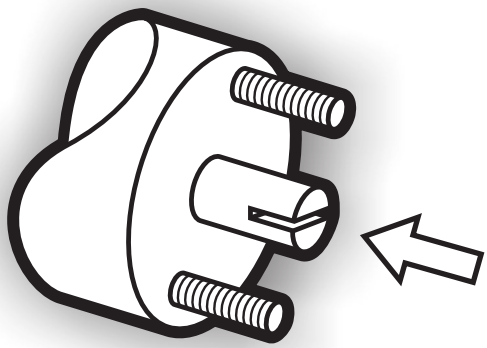
TILT / TRIM MOTORS & COMPONENTS TO SUIT:

Mercury	233
Mercruiser	233
OMC	233
Volvo Penta	233
Repair Parts & Solenoids	234

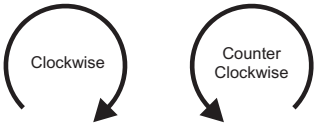
ELECTRIC MOTORS TO SUIT:

Winch Motors	235
Hydraulic Pump Motors	235
Blower Fan Assemblies	245
Blower Fan Motors	247
Repair Parts	238

KEY SYMBOLS



ROTATION OF MOTORS SHOWN IN THIS MANUAL ARE FROM THE DRIVE END



2(0)	2 Mount Holes Unthreaded
2(2)	2 Mount Holes Threaded
A:	Nose Cone Spiggot diameter
B:	Pre-mesh pinion measurement
	Number of Teeth on Pinion, Direction of Rotation

Tilt / Trim Motors

TTM 111862

12V
Suits Mercury, Mercruiser marine
CW or Anti CW rotation

TTM 111863

12V
Suits OMC marine
CW or Anti CW rotation

Brush holder Assembly BHD 110638

TTM 111864

12V
Suits OMC, Evinrude, Johnson
CW or Anti CW rotation
2 wire

TTM 112152

12V
Suits Mercruiser
CW or Anti CW rotation
3 wire motor, pump & reservoir

TTM 112153

12V
Suits Volvo Penta (late)
Complete w/ oildyne pump
2 wire

TTM 112562

12V
Suits OMC Stern Drive
3 wire

Shaft Dimensions:

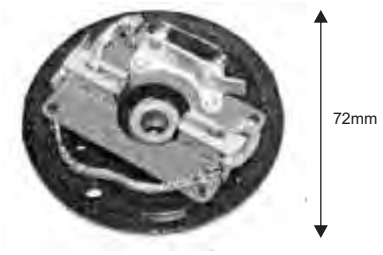
Diameter: 8mm
Length: 8mm
Slot Size: 3mm x 9mm

A:39mm

Large range of Tilt Trim Motors available on indent

Components

BHD 111637



C/E Bracket to suit Tilt Trim motors

Brushes to Suit: HBR 67
Bracket OD: 72mm
Brush Size: 6x6mm
Bush ID: 8mm

BHD 111638

C/E Bracket to suit Tilt Trim motors

Suits Prestolite ETK - 4102
Brushes to Suit: HBR 67
Bracket OD: 76mm
Brush size: 6x6mm
Bush ID: 8mm

HBR 67

DC Motor Brush set

Size: 6 x 6 x 12mm

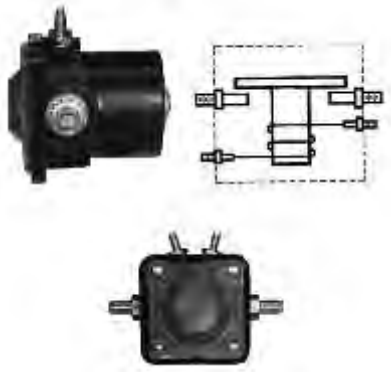
BKT 11012

Commutator End Bracket
Suits OMC Tilt Trim motor

SND 80275

12V Solenoid
Suits Mercury
Insulated return
4 terminals

SND 139859



12V Solenoid
Suit OMC
Insulated return
4 terminals
W/ epoxy

DC Motors

WMR 0002

2 Button Pendant Switch
To operate hydraulic tilt motors, winch motors, etc.
Rainproof

WMR 0004

4 Button Pendant Switch
To operate hydraulic tilt motors, etc
Rain Proof

192582

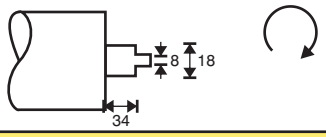
4 wire 5.5mtr Suzi Cable

192583

5 wire 5.5mtr Suzi Cable

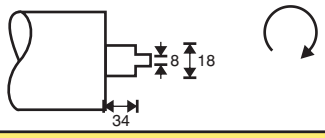
WMR 5197

12V 2.0kW
Tongue Shaft
115mm Diameter
CW



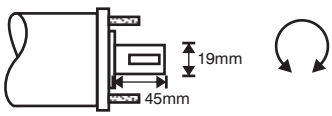
WMR 5196

24V 2.0kW
Tongue Shaft
115mm Diameter
CW



WMR 4401

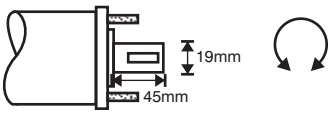
24V 1.8kW
114mm Diameter
Reversible, W/keyway
OL: 172mm
Suits Ramsey Winches



DC Motors

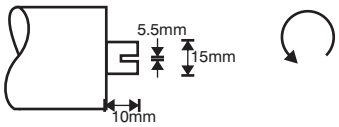
WMR 4402

12V 1.8kW
114mm Diameter
Reversible, W/keyway
OL: 172mm
Suits Ramsey Winches



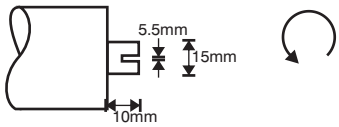
WMR 5176

24V 2.2kW
Slotted Shaft
115mm Diameter
CCW
OL: 155mm



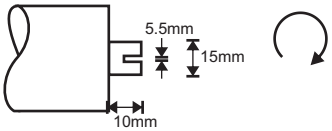
WMR 112311

12V 2.0kW
Slotted Shaft
115mm Diameter
CCW
OL: 155mm



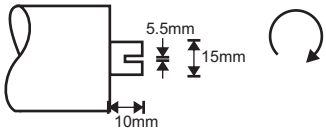
WMR 112318

24V 2.5kW
Slotted Shaft
115mm Diameter
CW
OL: 160mm



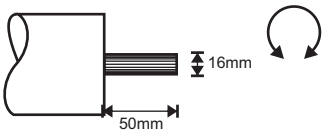
WMR 112317

12V 2.0kW
Slotted Shaft
115mm Diameter
CW
OL: 160mm



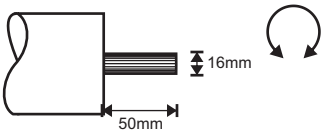
WMR 4636

24V 2.0kW
Splined Shaft
112mm Diameter
Reversible
OL: 175mm
Suits Warn Winches



WMR 4743

12V 1.6kW
Splined Shaft
112mm Diameter
Reversible
OL: 175mm
Suits Warn Winches



WMR 160005

12V 40W
Shaft: 8mm x 22mm L
OD: 60mm, L: 121mm
Single Speed
Reversible

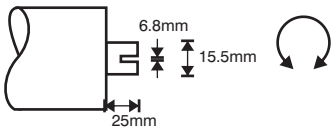
WMR 160006

24V 40W
Shaft: 8mm x 22mm L
OD: 60mm, L: 121mm
Single Speed
Reversible

DC Motors

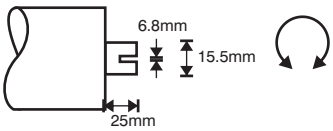
WMR 1628

24V 0.8kW
Slotted Shaft
79mm Diameter
Reversible
OL: 140mm



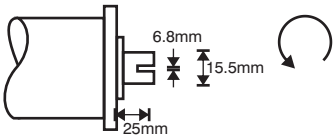
WMR 1629

12V 0.5kW
Slotted Shaft
79mm Diameter
Reversible
OL: 140mm

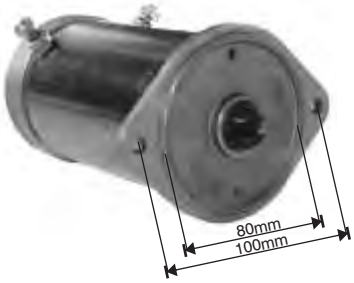


WMR 1712

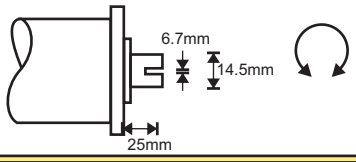
12V 0.8kW
Slotted Shaft
79mm Diameter
CCW
OL: 140mm



WMR 112864

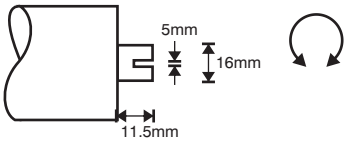


24V 0.8kW
Slotted Shaft
80mm Diameter
Reversible



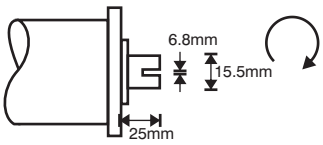
WMR 111861

12V
Slotted Shaft
80mm Diameter
CW or CCW

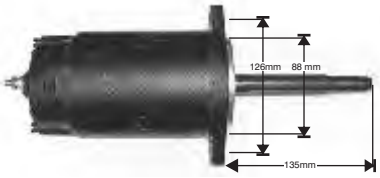


WMR 112481

12V 0.8kW
Slotted Shaft
76mm Diameter
CW



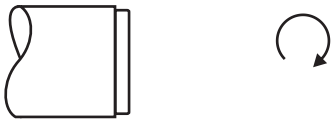
WMR 3876



12V
2M100 Inertia motor to be adapted for winch application
100mm OD
335mm OL
CW

WMR 111091

24V 2kW
Slotted Shaft
114mm Diameter
2100 RPM
Suits Zepro Tail Lift Systems



Brackets, Brush Holders and Brushes

BKT 136655

12V CE Bracket
Suits Warn, Ramsey, Rule motors
Brushes to suit: SBR 140714

BHD 230402

Brush Holder
Suits BKT 136655
Brushes to suit: SBR 140714
or SBR 8000

BHD 906472

Brush Holder
24V
Iskra AMJ.... motors
Brushes to suit: SBR 5838

BHD 230987

Prestolite Brush Holder
Brushes size: 8.8 x 17.6mm

BHD 136930

Prestolite Brush Holder
Brushes to suit: SBR 140712
SBR 140713

BHD 908019

Brush Holder
24v
Iskra AMJ.... motors
Brushes to suit: SBR 140408

BHD 860000

Brush Holder w/ Brushes
Suits CW MBJ series winch motors
Brush size: 8.8 x 19mm

BHD 860001

Brush Holder w/ Brushes
Suits MEZ7002 CW
Brush size: 8.8 x 19mm

EC 9101

Main Stud / Insulator Kit
Suits Monark motor brush sets

Brackets, Brush Holders and Brushes

SBR 9

Brush Set
24V
6.5 x 14 x 20mm
EFFEL

DYBR 188

Brush Set
12V
6 x 14 x 23mm
EFFEL / HITACHI

SBR 8593

Brush Set
12V
8.8 x 19 x 13mm

SBR 5702

Brush Set
12V / 24V
9.5 x 19 x 18mm

SBR 5830

Brush Set
12V / 24V
7 x 16 x 20mm
Cima, Haly.

SBR 5837

Brush Set
12V
9 x 16 x 23mm

SBR 8587

Brush Set
Suits MBJ series starters
Brush size: 8.8 x 17.6 x 16.6mm

SBR 8588

Brush Set
Suits ML-20-12JS
Brush size: 8.8 x 19 x 14mm

SBR 8589

Brush Set
Suits MDR, ML, MMT, MMZ Series
Brush Size: 8.6 x 18.9 x 16.6mm

Brackets, Brush Holders and Brushes

SBR 8590

Brush Set
12V
Suits Pump motors
Brush size: 8.8 x 19 x 14mm

SBR 8591

Brush Set
12V
Suits Winch motors
Brush size: 8.8 x 19 x 14mm

SBR 8592

Brush Set w/ Post
12V
Suits Winch motors
Brush size: 8.8 x 19 x 14mm

SBR 5838

Brush Set
24V
9 x 16 x 23mm

SBR 5882

Brush Set
12V / 24V
9.5 x 19 x 18mm
Prestolite

SBR 5883

Brush Set
12V / 24V
8.7 x 17.5 x 12.7mm

SBR 8000

Brush Set
12V / 24V
4.7 x 7.8 x 10mm
Warn, Ramsey, Rule, American Bosch

SBR 8586

Brush Set
12V / 24V
8.8 x 17.6 x 17mm

SBR 139394

Brush Set
12V
6.1 x 9.1 x 15

Brackets, Brush Holders and Brushes

SBR 140408

Brush Set
12V / 24V
9 x 13 x 25mm
EFFEL, Iskra, Bosch

SBR 140410

Brush Set
12V / 24V
9 x 20 x 28mm

SBR 140574

Brush Set
12V
7 x 10 x 15.2mm

SBR 140712

Brush Set
12V
6.6 x 15.9 x 12.8mm

SBR 140713

Brush Set
12V
6.4 x 15.9 x 12.2mm

SBR 140714

Brush Set
12V / 24V
4.7 x 7.8 x 10mm
Warn, Ramsey, Rule,
American Bosch

SBR 140918

Brush Set
24V
9 x 26 x 25mm

SBR 141049K

Brush Set
12V
7 x 9.4 x 12.1mm

SBR 141052

Brush Set
12V
9.5 x 12.6 x 15.4mm

Brackets, Brush Holders and Brushes

SBR 141053

Brush Set
12V
6.2 x 9.5 x 12.5mm

SBR 141063

Brush Set
12V / 24V
9 x 16 x 17mm

SBR 141068

Brush Set
24V
6 x 22 x 22mm

SBR 141193

Brush Set
24V
10 x 20 x 26mm

SBR 141200

Brush Set
24V
9.4 x 19 x 21mm

SBR 141210

Brush Set
12V
6 x 9 x 16mm

SBR 141213

Brush Set
12V
6.2 x 6.4 x 12.7mm
Prestolite Tilt Trim motor

DYBR 189

Dynamo Brush Set
12V
8 x 14 x 25mm

Brackets, Brush Holders and Brushes

HBR 56

Heater Brush Set
5 x 6 x 13mm

HBR 55

Heater Brush Set
6 x 6 x 11.6mm

HBR 106

Heater Brush Set
8 x 12 x 20mm

HBR 26

Heater Brush Set
6 x 9 x 16.5mm

HBR 57

Heater Brush Set
8 x 8 x 21mm

HBR 54

Heater Brush Set
5 x 6.3 x 10mm

HBR 803

Heater Brush Set
6 x 7 x 16mm

HBR 805

Heater Brush Set
10 x 10 x 16mm

HBR 140164

Heater Brush Set

8 x 10 x 19.5mm

Hydraulic Solenoids

SC 1012 L 12v
SC 1024 L 24v

Hydraulic Electrical Solenoid
Valve Coil
w/ leads
Size H37, W33, I.D 10mm

SC 1312 L 12v
SC 1324 L 24v

Hydraulic Electrical Solenoid
Valve Coil
w/ leads
Size H37, W33, I.D 13mm

SC 1612 L 12v
SC 1624 L 24v

Hydraulic Electrical Solenoid
Valve Coil
w/ leads
Size H51, W44, I.D 16mm

SC 2112 L 12v
SC 2124 L 24v

Hydraulic Electrical Solenoid
Valve Coil
w/ leads
Size H60, W44, I.D 21mm

SC 1312 D 12v
SC 1324 D 24v

Hydraulic Electrical Solenoid
Valve Coil
w/ DIN plug
Size H37, W33, I.D 13mm

SC 1612 D 12v
SC 1624 D 24v

Hydraulic Electrical Solenoid
Valve Coil
w/ DIN plug
Size H51, W44, I.D 16mm

SC 2112 D 12v
SC 2124 D 24v

Hydraulic Electrical Solenoid
Valve Coil
w/ DIN plug
Size H60, W44, I.D 21mm

EP 1000

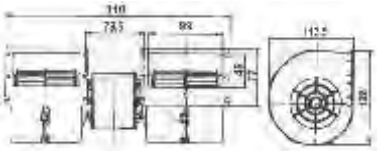
3 Pin DIN plug
to suit solenoid coils

Blower Fan Assemblies - Commercial

BFM 160483 12V

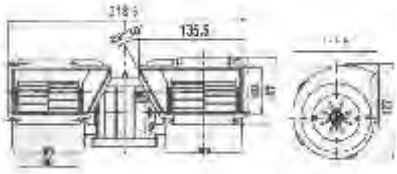
Replacing Spal 008-A45-02

3 Speed
Air Flow full speed 750 m³/H



BFM 160510 12V

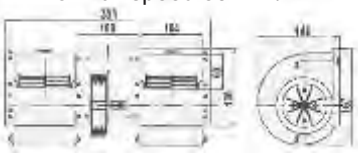
Suits Ford, New Holland
Replacing Spal 005-A45-02
3 Speed
Air Flow full speed 650 m³/H



BFM 160511 12V

Suits Deutz, New Holland
Replacing Spal 006-A45-22
Valeo W962011T
Fasco 2819330030

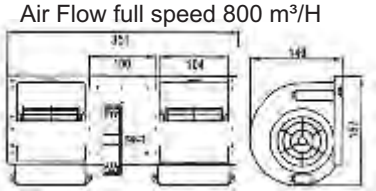
1 Speed
Air Flow full speed 831 m³/H



BFM 160647 12V

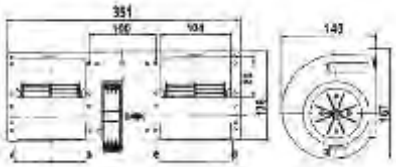
Suits Ford, New Holland
Replacing Spal 006-A46-22
Ford 9968969

3 Speed
Air Flow full speed 800 m³/H



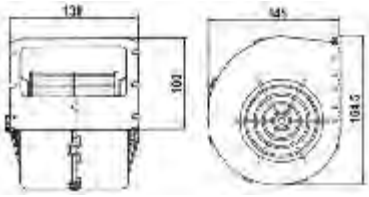
BFM 160512 24V

Replacing Spal 006-800-22
3 Speed
Air Flow full speed 1160 m³/H



BFM 160556 24V

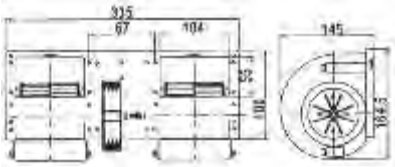
Replacing Spal 006-B46-22
3 Speed
Air Flow full speed 850 m³/H



BFM 160557 24V

Replacing Spal 006-B40-22

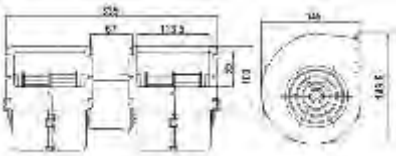
3 Speed
Air Flow full speed 750 m³/H



BFM 160594 24V

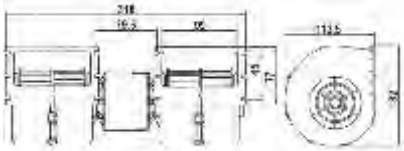
Replacing Spal 006-B40-22

3 Speed
Air Flow full speed 1050 m³/H



BFM 160649 24V

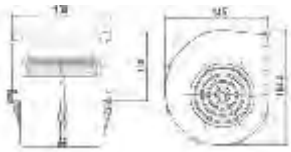
3 Speed
Air Flow full speed 750 m³/H



Brackets, Brush holders and Brushes

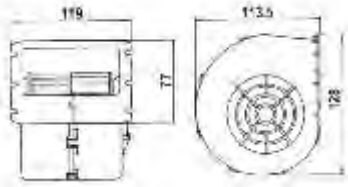
BFM 160592 12V

Suits Renault
Replacing Spal 009-A22-26D
3 Speed
Air Flow full speed 530 m³/H



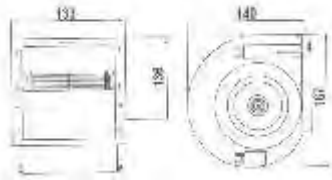
BFM 160593 12V

Replacing Spal 008-A37/C-240
3 Speed
Air Flow full speed 260 m³/H



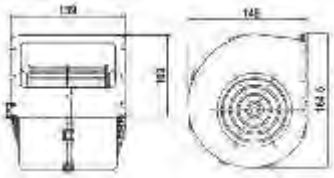
BFM 160639 12V

Replacing Spal 006-A22-26D
3 Speed
Air Flow full speed 490 m³/H



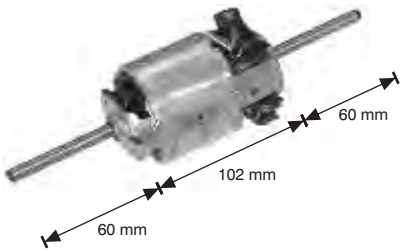
BFM 160596 24V

Suits Coaches
Replacing Spal 006-B29-260
3 Speed
Air Flow full speed 530 m³/H



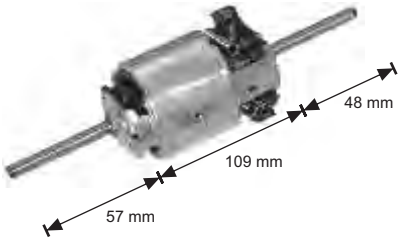
Blower Fan Motors

BFM 170100 12V



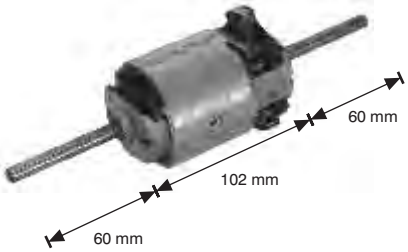
Suits Deutz, John Deere
Replacing 0130 063 028
2 Shafts (5/16)
OD 59.5mm OL 222mm

BFM 170101 24V



Suits Mercedes
Replacing 0130 111 130
2 Shafts (5/16)
OD 73.2mm OL 214mm

BFM 170102 24V

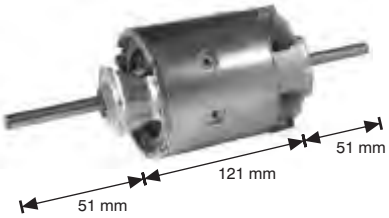


Suits Deutz, John Deere
Replacing 0130 063 029
2 Shafts (5/16)
OD 59mm OL 222mm

BFM 160623 12V

Replacing Bosch 0130 111019

BFM 160622 12V



Suits Massey Ferguson
Replacing Bosch 0130 111 003
2 Shafts 8x51mm (c)
OD 74mm OL 223mm

BFM 160626

Suits Fiat Tractors
Replacing Bosch 0130 063 015
OD 59.5mm

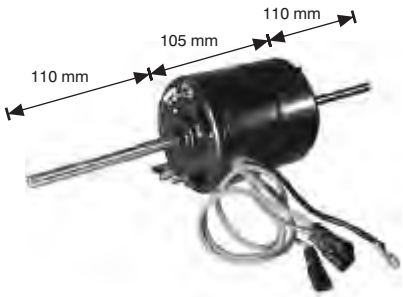
BFM 160005 12v

Shaft: 8mm x 22mm L
OD: 60mm, L: 121mm
Single Speed

BFM 160006 24v

Shaft: 8mm x 22mm L
OD: 60mm, L: 121mm
Single Speed

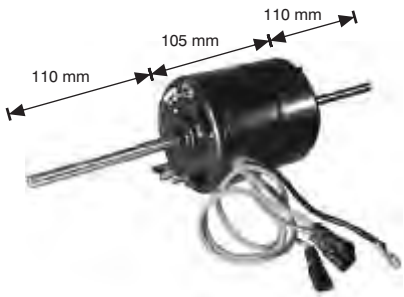
BFM 160250 12v



2 Shafts (3/8)
OD 90mm OL 325mm
3 Speed

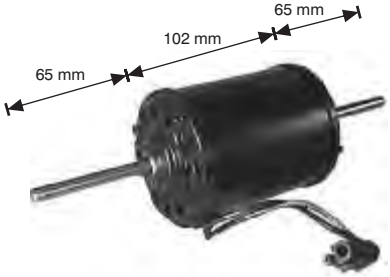
Blower Fan Motors

BFM 160251 24v



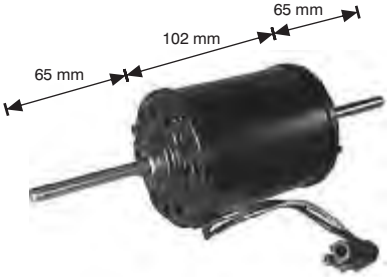
2 Shafts (3/8)
OD 90mm OL 325mm
3 Speed

BFM 160252 24v



2 Shafts (5/16)
OD 82mm OL 232mm
Single Speed

BFM 160253 12v



2 Shafts (5/16)
OD 82mm OL 232mm
Single Speed

BFM 160004 12v 18w

Shaft: 6 x 20mm L
OD: 61mm L 74mm
Single Speed

BFM 160709 12v

Suits Renault
Replacing Bosch 0130 111 156
Bosch 9090 332 204

BFM 160625 12v

Single Shaft
Rubber encased motor

BFM 160674 12v

Suits Mercedes Benz trucks and Valtra Tractors
Replacing 0130 007 001

BFM 160675 12v

Suits Valtra Tractors
Replacing 0130 007 015
CCW

Slimline Thermo Fan Assemblies

640002

Adjustable Universal Fan Switch

- Slide capillary temperature sensing tube inside radiator hose

740812 12v

Radiator Fan
8”
Slimline design

741012 12v

Radiator Fan
10”
Slimline design

741024 24v

Radiator Fan
10”
Slimline design

741212 12v

Radiator Fan
12”
Slimline design

741224 24v

Radiator Fan
12”
Slimline design

741412 12v

Radiator Fan
14”
Slimline design

741424 24v

Radiator Fan
14”
Slimline design

741612 12v

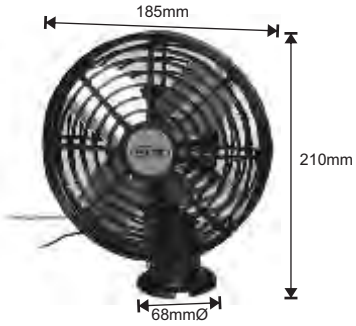
Radiator Fan
16”
Slimline design

Slimline Thermo Fan Assemblies

741624 24v

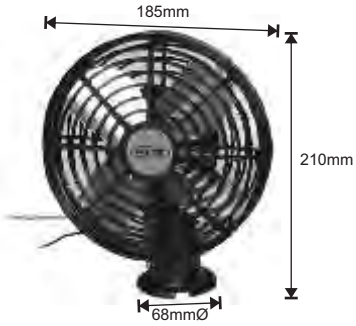
Radiator Fan
16”
Slimline design

KW 207P-12 12v



2 Speed Dash Fan

KW 207P-24 24v



2 Speed Dash Fan