

# 2100, 2200, 2300, 4100, 6200, MPB Series Side Mount Drive Package for Standard Load 90° Industrial Gearmotors

Installation, Maintenance & Parts Manual



# Featuring: **eDrive**<sup>™</sup> Technology

DORNER MFG. CORP. P.O. Box 20 • 975 Cottonwood Ave. Hartland, WI 53029-0020 USA INSIDE THE USA TEL: 1-800-397-8664 FAX: 1-800-369-2440 OUTSIDE THE USA TEL: 262-367-7600 FAX: 262-367-5827

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# Introduction

#### IMPORTANT

Some illustrations may show guards removed. DO NOT operate equipment without guards.

Upon receipt of shipment:

- Compare shipment with packing slip. Contact factory regarding discrepancies.
- · Inspect packages for shipping damage. Contact carrier regarding damage.
- · Accessories may be shipped loose. See accessory instructions for installation.

Dorner has convenient, pre-configured kits of Key Service Parts for all conveyor products. These time saving kits are easy to order, designed for fast installation, and guarantee you will have what you need when you need it. Key Parts and Kits are marked in the Service Parts section of this manual with the Performance Parts Kits logo [2].

Dorner 2100 Series conveyors are covered by the following patent numbers: 5,131,529, 5,174,435, and corresponding patents and patent applications in other countries.

Cleated Belt Conveyors ..... 10 Preventive Maintenance and Adjustment ...... 13 Required Tools ..... 13 For eDrive style gearmotor ..... 15 For old style gearmotor prior to June 2011...... 16 Motor Replacement ..... 16 DC Variable Speed Motor ..... 17 Side Mount Drive Package for 90° Gearmotors...... 20 4100 Series Adapter Components ...... 22 CE Version Gearmotors ...... 23 

For 6200, 2200, MPB and 2100

Dorner 4100 Series conveyors are covered by patent number 3,923,148, 5,131,529 and corresponding patents and patent applications in other countries.

Dorner 2200, 6200 & MPB Series conveyors are covered by patent number 5,174,435, 6,109,427, 6,298,981, 6,422,382, 6,685,009 and corresponding patents and patent applications in other countries.

Dorner's Limited Warranty applies.

Dorner reserves the right to make changes at any time without notice or obligation.

# Warnings - General Safety



DO NOT TOUCH Gearmotors.

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# **Product Description**

Refer to Figure 1 for typical conveyor components.

- 1 Conveyor
- 2 Mounting Bracket
- 3 Gearmotor
- 4 Coupling



Figure 1

### NOTE

The 90° industrial gearhead changed configuration in 2011. See below for configuration details.



Mount Packages with Old Style Gearmotors prior to June 2011

Figure 2



Mount Packages with eDrive Gearmotors Figure 3

# **Specifications**

#### **Gearmotor Mounting Package Models:**

Example:



### **Table 1: Gearmotor Specifications**

#### **U.S. Version**

	Single Phase	Three Phase	DC Variable Speed	Brushless DC
Output Power		0.25 hp	(0.19 kw)	·
Input Voltage	115 Volts A.C.	208 to 230/460 Volts A.C.	130 Volts D.C.	*115/230 Volts D.C.
Input Frequency	60 Hz		N/A	60 Hz
Input Current	5.0 Amperes	1.2 /0.6 Amperes	2.2 Amperes	8.8 / 3.4 Amperes
Motor RPM	1725		2500	3000
Gearmotor Ratios	5:1, 10:1, 20:1, 40:1, 60:1			•
Frame Size	NEMA 42 CZ			
Motor Type	Totally Enclosed, Fan-cooled Totally Enclosed, Non-ventilated		Totally Enclosed, Non-ventilated	

\* Controller Inputs

**CE Version** 

	Single Phase	Three Phase	VFD Variable Speed
Output Power		0.18 kw	•
Input Voltage	230 Volts A.C.	230/400 Volts A.C.	230 Volts D.C.
Input Frequency	50 Hz		25 to 63 Hz
Input Current	1.6 Amperes	1.42 /0.8 Amperes	1.4 Amperes
Gearmotor Ratios	5:1, 10:1, 20:1, 40:1, 60:1		
Protection Rating	IP55		
Frame Size	IEC 63 B5		

# **Specifications**

### Table 2: RPM/Torque for Standard Load Fixed Speed 90° 60 Hz Gearmotors

#### **U.S. Version**

	Gearmotors		
Part Number	RPM	In Ib	N-m
32M060EL4(vp)F(n)	29	226	25.5
32M040EL4(vp)F(n)	43	237	26.8
32M020EL4(vp)F(n)	86	142	16
32M010EL4(vp)F(n)	173	78	8.8
32M005EL4(vp)F(n)	345	41	4.6

(vp) = voltage and phase

11 = 115 V, 1-phase

23 = 208 – 230/460 V, 3-phase

(n) = Reversing Capability

N = No Reversing Capability

R = With Reversing Capability

\* = Nosebar transfers operate at maximum 77Ft/min (23.5M/min) belt speed

#### **CE Version**

Gearmotors		
Part Number	RPM	N-m
62Z060ES4(vp)FN	23	26.4
62Z040ES4(vp)FN	35	28.9
62Z020ES4(vp)FN	70	19.4
62Z010ES4(vp)FN	140	10.7
62Z005ES4(vp)FN	280	5.6

(vp) = voltage and phase

21 = 230 V, 1-phase

23 = 230 V, 3-phase

43 = 400 V, 3-phase

# Table 3: RPM/Torque for Standard Load Variable Speed 90° DC GearmotorsU.S. Version

	Gearmotors		
Part Number	Max RPM	In-lb	N-m
32M060ELD3DEN	5-42	198	22.4
32M040ELD3DEN	8-63	163	18.4
32M020ELD3DEN	15-125	98	11.1
32M010ELD3DEN	30-250	54	6.1
32M005ELD3DEN	60-500	28	3.2

\* = Nosebar transfers operate at maximum 77Ft/min (23.5M/min) belt speed

#### **CE Version**

Gearmotors			
Part Number	RPM @50 Hz	N-m	
62Z060ES423EN	9-23	26.4	
62Z040ES423EN	14-35	28.9	
62Z020ES423EN	28-70	19.4	
62Z010ES423EN	56-140	10.7	
62Z005ES423EN	111-280	5.6	

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# **Specifications**

### Table 4: RPM/Torque for Brushless DC Gearmotors

Heavy L	Heavy Load Gearmotors		
Part Number	RPM	In-Ib	N-m
62M060ESBDDEN	2-50	106	12.4
62M040ESBDDEN	3-75	123	14.3
62M020ESBDDEN	5-150	89	10.4
62M010ESBDDEN	10-300	49	5.7
62M005ESBDDEN	20-600	25	2.9

#### NOTE

For belt speed other than those listed, contact factory for details.

#### **Table 5: Conveyor Belt Speed Factor**

Series	Ft/revolution	M/revolution
2200 / 2300	0.350	0.107
2100 / 4100 / 6100 / 6200	0.278	0.085
2200 MPB	0.590	0.180
2200 Precision Move	0.394	0.120
2200 / 2300 Modular Belt	0.394	0.120

#### Belt Speed Calculation: How to Calculate Belt Speed

- 1. Determine gearmotor RPM from tables 2-4.
- 2. Determine conveyor speed factor using table 5. Based on your conveyor type, select the appropriate factor.
- 3. Calculate belt speed:

Example: Belt Speed = Gearmotor RPM (tables 2-4) x Conveyor Speed Factor (table 5)

2200 Series standard load variable speed 60:1 gearmotor.

Gearmotor =	32M060ELD3DEN	= 5 - 42 RPM
Speed Factor =	2200 Series	= 0.350 ft/min per RPM
Minimum Belt Speed =	5 x 0.350	= 1.75 Ft/min
Maximum Belt Speed =	42 x 0.350	= 14.70 Ft/min

### **Required Tools**

- Hex key wrenches: 3 mm, 5 mm
- Large flat-blade screwdriver
- Torque wrench

### Mounting



**Installation Component List:** 

- 1 Drive Assembly
- 2 M6x25 Socket Head Screws (2x)
- 1. Typical components (Figure 4)



Figure 4

### NOTE

Flat belt mounting package shown above (*Figure 4*), cleated belt mounting package similar.

### NOTE

Gearmotor may be operated in positions 1, 2, 3 or 4 (*Figure 5*).



#### Figure 5

If required, change gearmotor position by removing four (4) screws (Figure 6, item 1). Rotate gearmotor to other position (Figure 5) and replace screws (Figure 6, item 1). Tighten to 100 in-lb (12 N-m).



Figure 6

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#### For 4100 and 2100 Flat Belt Conveyors

#### **IMPORTANT**

On 4 inch (95 mm) and wider conveyors, the hex broach is offset from center towards the drive side for hex shaft engagement.

1. The figures below show gearmotor mounting for 4100 and 2100 series conveyors.

### NOTE

Gearmotor bottom mount assembly is mounted to spacer plate (Figure 7, item 1) and (Figure 8, item 1).



4100 Series Figure 7



2100 Series Figure 8

2. Locate drive mounting position and remove two (2) screws (Figure 9, item 1).



Figure 9

3. Install M6x8 socket head screw (Figure 10, item 1) and washer.



4. Insert hex shaft (Figure 11, item 1) into coupling.



Figure 11



#### NOTE

Coupling has two (2) set screws (Figure 12, item 1).



Figure 12

 Remove fan guard (Figure 13, item 1) and rotate fan to align set screws (Figure 14, item 1) with access slot (Figure 14, item 2). Tighten to 32 in-lb (3.7 N-m). Repeat for second set screw.



Figure 13



Figure 14

 Insert hex shaft (Figure 15, item 1) into drive pulley hex bushing and slide drive against conveyor. Install two (2) screws (Figure 15, item 2). Tighten to 80 in-lb (9 N-m).



Figure 15

For 6200, 2200, MPB and 2100 Cleated Belt Conveyors



- The figures below show gearmotor mounting for 6200, 2200 and MPB series conveyors.
- For 6200 series models, gearmotor and drive plate are mounted to spacer plate (Figure 16, item 1).



6200 Series Figure 16

• For 2200 and MPB models, gearmotor and drive plate are mounted to head plate (Figure 17, item 1) and (Figure 18, item 1).







**MPB Series** 

Figure 18

#### NOTE

6200 conveyor shown, 2200 and MPB cleated belt conveyors similar.

Locate drive output shaft. Remove two screws (Figure 19, item 1). Install key (Figure 19, item 2).



Figure 19

 Slide coupling over drive output shaft and install gear reducer assembly (Figure 20, item 1) with screws (Figure 20, item 2). Tighten to 80 in-lb (9 N-m).



Figure 20



### NOTE

Coupling has two (2) set screws (Figure 21, item 1).



Figure 21

 Remove fan guard (Figure 23, item 1), and rotate fan to align set screws (Figure 22, item 1) with access slot (Figure 22, item 2). Tighten to 32 in-lb (3.7 N-m). Repeat for second set screw.



Figure 22



 Apply anti-seize compound to motor shaft before assembling to gearbox. Install motor assembly (Figure 23, item 2) and secure with four bolts (Figure 23, item 3).



Figure 23

### **Required Tools**

- Hex key wrenches: 2.5 mm, 3 mm, 5 mm
- Large flat-blade screwdriver
- Adjustable wrench (for hexagon head screws)
- External snap ring pliers
- Torque wrench

### **Gear Reducer Replacement**





eDrive Gearmotor

Figure 25

#### NOTE

Coupling has two (2) set screws (Figure 21, item 1).

- Remove fan guard (Figure 23, item 1) and rotate fan to align set screws (Figure 22, item 1) with access slot (Figure 22, item 2). Loosen set screw. Repeat for second set screw.
- 2. Remove two (2) screws (Figure 20, item 2). Remove drive assembly (Figure 20, item 1).
- 3. Remove four (4) screws (Figure 26, item 1) and remove mounting bracket & tube (Figure 26, item 2).



Figure 26

Old Style Gearmotor prior to June 2011 Figure 24

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4. Loosen two (2) set screws (Figure 27, item 1) and detach coupling (Figure 27, item 2) from gear reducer.



Figure 27

5. Remove gear reducer output shaft key (**Figure** 27, item 3).

### NOTE

Step 6 and (Figure 28, item 2) is required for standard load VFD gearmotors only.

6. Loosen four (4) socket head screws (Figure 28, item 1) and detach spacer (Figure 28, item 2) from gear reducer (Figure 28, item 3).



Figure 28

 Remove four screws (Figure 29, item 1). Detach motor (Figure 29, item 2) from gear reducer (Figure 29, item 3). Retain shaft key (Figure 29, item 4).



Figure 29

8. Remove two (2) screws (Figure 30, item 1) and detach output shaft cover (Figure 30, item 2).



Figure 30

9. Remove driveshaft:

### NOTE

Follow proper procedure below depending upon old or new style gearmotor assembly.

#### For eDrive style gearmotor

1. Loosen driveshaft bolt (Figure 31, item 1).



Figure 31

- 2. Hold the driveshaft with a wrench (**Figure 31, item 2**) as shown to keep shaft from turning, while removing screw with hex wrench (**Figure 31, item 3**).
- 3. Remove driveshaft (Figure 32, item 1) and key (Figure 32, item 2).



Figure 32

4. Replace gear reducer (**Figure 32, item 3**).

5. Apply anti-seize (Figure 33, item 1) to shaft.



#### Figure 33

6. Replace the original shaft components into new gear reducer (see **Figure 32**).

#### IMPORTANT

Be extremely careful when coupling motor to gear reducer. Avoid misalignment and forcing the connection causing possible permanent gear reducer seal damage.

- Hold the driveshaft with a wrench (Figure 31, item 2) as shown to keep shaft from turning, while installing screw with hex wrench (Figure 31, item 3). Tighten screw to 100 in-lb (11.5 Nm) for 42CZ or 350 in-lb (39.5 Nm) for 56C, 63B5 and 71B5.
- Apply anti-seize to motor shaft before assembling to gearbox. With key (Figure 29, item 2) in keyway, slide motor (Figure 29, item 2) and gear reducer (Figure 29, item 3) together. Install screws (Figure 29, item 1) and tighten.
- 9. Install spacer (Figure 28, item 2) onto gear reducer (Figure 28, item 3) with four (4) socket head screws (Figure 28, item 1).
- 10. Attach coupling (**Figure 27, item 2**) to gear reducer shaft. Tighten two set screws (**Figure 27, item 1**) to 32 in-lb (3.7 Nm).
- 11. Attach mounting bracket & tube (Figure 26, item 2) to gearmotor. Tighten screws (Figure 26, item 1) to 103 in-lb (12 Nm).
- 12. Complete installation steps:
- See "4100 and 2100 Flat Belt Conveyors" section on page 9.
- See "6200 2200, MPB and 2100 Cleated Belt Conveyors" section on page 10.

#### For old style gearmotor prior to June 2011

1. Loosen six (6) set screws (Figure 34, item 1). Remove drive shaft (Figure 34, item 2) and key (Figure 34, item 3).



Figure 34

2. Apply anti-seize (Figure 35, item 1) to shaft.



Figure 35

3. Replace the original shaft components into new gear reducer (**Figure 34**).

### IMPORTANT

Be extremely careful when coupling motor to gear reducer. Avoid misalignment and forcing the connection causing possible permanent gear reducer seal damage.

- Apply anti-seize to motor shaft before assembling to gearbox. With key (Figure 29, item 4) in keyway, slide motor (Figure 29, item 2) and gear reducer (Figure 29, item 3) together. Install screws (Figure 29, item 1) and tighten.
- 5. Install spacer (Figure 28, item 2) onto gear reducer (Figure 28, item 3) with four (4) socket head screws (Figure 28, item 1).
- 6. With output shaft key (Figure 27, item 3) in keyway, attach coupling (Figure 27, item 2) to gear reducer shaft. Tighten two set screws (Figure 27, item 1) to 32 in-lb (3.7 Nm).
- 7. Attach mounting bracket & tube (Figure 26, item 2) to gearmotor. Tighten screws (Figure 26, item 1) to 103 in-lb (12 Nm).

- 8. Complete installation steps:
- See "4100 and 2100 Flat Belt Conveyors" section on page 9.
- See "6200 2200, MPB and 2100 Cleated Belt Conveyors" section on page 10.

### **Motor Replacement**



Hazardous voltage will cause severe injury or death. LOCKOUT POWER BEFORE before wiring.

#### Single Phase Motor

1. For single phase motor, unplug power cord from outlet.

#### Three Phase Motor

1. Loosen terminal box screws (Figure 36, item 1) and remove cover (Figure 36, item 2).



Figure 36

- 2. Record wire colors connecting to wires 1, 2 and 3. Loosen wire nuts and remove wires 1, 2 and 3.
- 3. Loosen cord grip and remove cord.

#### **DC Variable Speed Motor**

1. For DC variable speed motor, unplug motor cord at disconnect (Figure 37, item 1).



Figure 37

#### **Brushless Motor**

1. Twist covers (Figure 38, item 1) apart.



Figure 38

2. Remove outer cord cover (Figure 39, item 1) from inner cord cover (Figure 39, item 2).



Figure 39

3. Open inner cord cover (Figure 40, item 1).



Figure 40

4. Unplug motor cord connectors (Figure 41, item 1) and signal cable connectors (Figure 41, item 2).



Figure 41

#### All Models

 Remove four screws (Figure 42, item 1). Detach motor (Figure 42, item 2) from gear reducer (Figure 42, item 3). Retain motor output shaft key (Figure 42, item 4).



Figure 42

### IMPORTANT

Be extremely careful when coupling motor to gear reducer. Avoid misalignment and forcing the connection causing possible permanent gear reducer seal damage.  Apply anti-seize to motor shaft before assembling to gearbox. With key (Figure 43, item 1) in keyway, slide motor and gear reducer together. Install screws (Figure 42, item 1) and tighten.





- 3. Replace wiring:
- For a single phase motor, reverse step 1 in "Single Phase Motor" on page 16.
- For a three phase motor, reverse steps 1-3, in "Three Phase Motor" on page 16.
- For a DC variable speed motor, reverse step 1 on "DC variable Speed Motor" on page 17.
- For a brushless motor, reverse steps 1-2 on "Brushless Motor" on page 17.

## Notes

### NOTE

For replacement parts other than those shown in this section, contact an authorized Dorner Service Center or the factory. Key Service Parts and Kits are identified by the Performance Parts Kits logo 🖙. Dorner recommends keeping these parts on hand.

### Side Mount Drive Package for 90° Gearmotors



Item	PartNumber	Description
1	807-2059	Drive-Bearing Shaft Cover (for E-Drive
-		42CZ C Face Gearmotors)
	807-2016	Drive-Bearing Shaft Cover (for E-Drive 56
		C Face, IEC 63B5 and IEC 71B5
		Gearmotors)
	300139	Drive-Bearing Shaft Cover (for Old Style
0	242525	Gearmotors, Prior to June 2011)
2	242525 450266M	Side Drive Plate (2200 & MPB Series) Side Drive Plate (2100, 4100 & 6200
	400200101	Side Drive Plate (2100, 4100 & 6200 Series
3	400028	Side Drive Spacer Guard
-	450475	Side Drive Spacer Guard (for Old Style
		Gearmotors, Prior to June 2011)
4	202273	Output Shaft (for E-Drive 42CZ C Face
		Gearmotors)
	350120	Output Shaft (for E-Drive 56 C Face
		Gearmotors)
	350135	Output Shaft (for E-Drive IEC 63B5 and
	450444M	IEC 71B5 Gearmotors) Output Shaft (for Old Style Gearmotors,
	450444101	Prior to June 2011)
5	807-995	Flex Coupling
	807-996	Flex Coupling (for 2100 & 4100 Series)
6	912-084	Square Key, 0.188 x 1.50
-	980636M	Square Key, 6 mm x 36 mm (for E-Drive
		IEC 63B5 and IEC 71B5 Gearmotors)
7	920416M	Socket Head Screw, M470 x 16 mm
		(2100 & 4100 Series)
8	920612M	Socket Head Screw, M6-1.00 x 12 mm
9	920625M	Socket Head Screw, M6-1.00 x 25 mm
	920630M	Socket Head Screw, M6-1.00 x 14 mm
		(4100 Series 1" - 2" (25 mm -52 mm) Wide Conveyors)
	242525M	Socket Head Screw, M6-1.00 x 30 mm
	LALOLOW	(6200 Series)
	920635M	Socket Head Screw, M6-1.00 x 35 mm
		(2100 Series)
10	920690M	Socket Head Screw, M6-1.00 x 90 mm
11	980416M	Square Key, 4 mm x 16 mm
12	400026	Spacer Ring (for E-Drive 42CZ C Face
	050445	Gearmotors)
	350115	Adapter (for E-Drive 56 C Face, IEC 63B5 and IEC 71B5 Gearmotors)
13	920893M	Low Head Cap Screw, M8-1.25 x 16 mm
10	020030IVI	(for E-Drive 42CZ C Face Gearmotors)
	931020M	Flat Head Screw M10-1.50 x 20 mm (for E-
		Drive 56 C Face, IEC 63B5 and IEC 71B5
		Gearmotors)
14	605280P	Washer
15	920620M	Socket Head Screw, M6-1.00 x 20 mm (for
		E-Drive 56 C Face, IEC 63B5 and IEC 71B5 Gearmotors)
16	618898	Retaining Sleeve 3" - 12" (76 mm - 305
10	010090	mm) Wide (4100 Series)
	200399M	Retaining Sleeve (2100 Series Flat Belt
		Conveyors)
	200223M	Retaining Sleeve (2100 Series Cleated
		Belt Conveyors)

Item	Part Number	Description
		Description
17	697863M	Spacer Plate (for 4100 Series)
	203975M	Spacer Plate (for 2100 Series)
18	616301	Outboard Drive Shaft 1" (25 mm) Wide
		(4100 Series)
	616302	Outboard Drive Shaft 2" (51 mm) Wide
		(4100 Series)
	616303	Outboard Drive Shaft 3" (76 mm) Wide
		(4100 Series)
	616304	Outboard Drive Shaft 4" (102 mm) Wide
		(4100 Series)
	616305	Outboard Drive Shaft 5" (127 mm) Wide
		(4100 Series)
	616306	Outboard Drive Shaft 6" (152 mm) Wide
		(4100 Series)
	616308	Outboard Drive Shaft 8" (203 mm) Wide
		(4100 Series)
	616310	Outboard Drive Shaft 10" (254 mm) Wide
		(4100 Series)
	616312	Outboard Drive Shaft 12" (305 mm) Wide
		(4100 Series)
	203968	Outboard Drive Shaft 18" (457 mm) Wide
		(2100 Series)
	203971	Outboard Drive Shaft 21" (533 mm) Wide
		(2100 Series)
	203974	Outboard Drive Shaft 24" (610 mm) Wide
10	45000714	(2100 Series)
19	450027M	Spacer Plate (6200 Series)
20	807-952	Groove Pin (6200 Series)
21	920608M	Socket Head Screw, M6-1.00 x 8 mm
22	807-2092	Washer

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### 4100 Series Adapter Components





Item	Part Number	Description
1	450374	Drive Adaptor Plate
2	609486	Mounting Block 1" (25mm)
	609487	Mounting Block 2" (51mm)
	609488	Mounting Block 3" (76mm)
	609479	Mounting Block 4" (102mm)
	609480	Mounting Block 5" (127mm)
	609481	Mounting Block 6" (152mm)
	609482	Mounting Block 7" (178mm)
	609483	Mounting Block 8" (203mm)
	609484	Mounting Block 10" (254mm)
	609485	Mounting Block 12" (305mm)
3	613602P	Bolt/Flat Washer Assembly
4	910-126	Hex Nut with Lock Washer
5	930612M	Flat Head Screw M6 x 12mm

### U.S. Version Gearmotors



Item	Part Number	Description
1	62MES411FN	Motor, 0.25 Hp (0.19 Kw) 115/230 Volts, 60 Hz, 1-Phase
ليسا	62MES423FN	Motor, 0.25 Hp (0.19 Kw) 208- 230/460 Volts, 60 Hz, 3-Phase
	62MSD3DEN	Motor, 0.25 Hp (0.19 Kw) 130 Volts DC
	32MS423EI*	Motor, 0.25 Hp (0.19 Kw) 230/460 Volts DC, 60 Hz, 3-Phase Variable Frequency/Indexing
	62M060ESBDDEN	Motor, 0.25HP, (0.19 Kw), 50 RPM, Brushless DC
	62M040ESBDDEN	Motor, 0.25HP, (0.19 Kw), 75 RPM, Brushless DC
	62M020ESBDDEN	Motor, 0.25HP, (0.19 Kw), 150 RPM, Brushless DC
	62M010ESBDDEN	Motor, 0.25HP, (0.19 Kw), 300 RPM, Brushless DC
	62M005ESBDDEN	Motor, 0.25HP, (0.19 Kw), 600 RPM, Brushless DC
2	32M005EL	Gear Reducer, 5:1, 42CZ
	32M010EL	Gear Reducer, 10:1, 42CZ
	32M020EL	Gear Reducer, 20:1, 42CZ
	32M040EL	Gear Reducer, 40:1, 42CZ
	32M060EL	Gear Reducer, 60:1, 42CZ
	32M005ES	Gear Reducer, 5:1, 56C (for motors with part numbers ending with EI or EN only)
	32M010ES	Gear Reducer, 10:1, 56C (for motors with part numbers ending with EI or EN only)
	32M020ES	Gear Reducer, 20:1, 56C (for motors with part numbers ending with EI or EN only)
	32M040ES	Gear Reducer, 40:1, 56C (for motors with part numbers ending with EI or EN only)
	32M060ES	Gear Reducer, 60:1, 56C (for motors with part numbers ending with EI or EN only)
*This motor is rated at 1/2 hp when running as a fixed speed motor at 60 hz or when used as an indexing motor. When used as a variable speed motor, the HP rating is reduced to 1/4 hp.		

### **CE** Version Gearmotors



Item	Part Number	Description
1 D	826-281	Motor, 0.19 Kw 230 Volts, 1400 RPM 50 Hz, 1-Phase
	826-284	Motor, 0.19 Kw 230/400 Volts, 1400 RPM 50 Hz, 3-Phase
2	62Z005ES	Gear Reducer, 5:1, 63 B5
	62Z010ES	Gear Reducer, 10:1, 63 B5
	62Z020ES	Gear Reducer, 20:1, 63 B5
	62Z040ES	Gear Reducer, 40:1, 63 B5
	62Z060ES	Gear Reducer, 60:1, 63 B5

2100, 2200, 2300, 4100, 6200, MPB Series Side Mount Drive Package for Standard Load 90° Industrial Gearmotors851-253 Rev. K23Dorner Mfg. Corp.

## **Return Policy**

Returns must have prior written factory authorization or they will not be accepted. Items that are returned to Dorner without authorization will not be credited nor returned to the original sender. When calling for authorization, please have the following information ready for the Dorner factory representative or your local distributor:

- 1. Name and address of customer.
- 2. Dorner part number(s) of item(s) being returned.
- 3. Reason for return.
- 4. Customer's original order number used when ordering the item(s).
- 5. Dorner or distributor invoice number (if available, part serial number).

A representative will discuss action to be taken on the returned items and provide a Returned Goods Authorization (RMA) number for reference. RMA will automatically close 30 days after being issued. To get credit, items must be new and undamaged. There will be a return charge on all items returned for credit, where Dorner was not at fault. It is the customer's responsibility to prevent damage during return shipping. Damaged or modified items will not be accepted. The customer is responsible for return freight.

#### Conveyors and conveyor accessories

Standard catalog conveyors	30%
MPB, 7200, 7300 Series, cleated and specialty belt	50%
AquaGard & AquaPruf Series conveyors	non-returnable items
Engineered to order products	case by case
Drives and accessories	30%
Sanitary stand supports	non-returnable items

#### Parts

Standard stock parts
Plastic chain, cleated and specialty belts

30% non-returnable items

Returns will not be accepted after 60 days from original invoice date. The return charge covers inspection, cleaning, disassembly, disposal and reissuing of components to inventory. If a replacement is needed prior to evaluation of returned item, a purchase order must be issued. Credit (if any) is issued only after return and evaluation is complete.

Dorner has representatives throughout the world. Contact Dorner for the name of your local representative. Our Customer Service Team will gladly help with your questions on Dorner products.

For a copy of Dorner's Warranty, contact factory, distributor, service center or visit our website at www.dorner.com.

For replacement parts, contact an authorized Dorner Service Center or the factory.



Dorner Mfg. Corp. reserves the right to change or discontinue products without notice. All products and services are covered in accordance with our standard warranty. All rights reserved. © Dorner Mfg. Corp. 2012

#### DORNER MFG. CORP.

975 Cottonwood Ave., PO Box 20 Hartland, WI 53029-0020 USA TEL 1-800-397-8664 (USA) FAX 1-800-369-2440 (USA) Internet: www.dorner.com

Outside the USA: TEL 1-262-367-7600 FAX 1-262-367-5827