



CP Pumps BD Motorized Pump Units

Motors 8023ES, 8024ES
8025ES, 8038ES
8041ES

Used on Pump Models: 3CP1120
3CP1130
3CP1140

PUMP FEATURES

- Exclusive CAT PUMPS, specially formulated Hi-Pressure Seals for exceptionally long operation.
- Special concentric, high density, polished, solid ceramic plungers provide a true wear surface and extended seal life.
- Triplex plunger design providing low pulsation and quiet operation.
- Internally lubricated and cooled packings for extended life.

Motors 8026ES, 8027ES
8028ES, 8029ES
8040ES, 8042ES

Used on Pump Models: 5CP2120W
5CP2140WCS
5CP2150W

MOTORIZED UNIT FEATURES

- No pulley selection
- No belt slippage and adjustment
- No bulky belt guards
- No wasted assembly time
- No multiple source purchases

COMMON SPECIFICATIONS

	U.S. Measure	Metric Measure
RPM.....	1725 RPM	(1725 RPM)
Inlet Pressure.....	Flooded to 70 PSI	(Flooded to 4.9 BAR)
Hertz.....	*60 HZ	(*60 HZ)
Motor Type	TEFC	(TEFC)

*All motors available in 50 HZ, 1450 RPM

“Customer confidence is our greatest asset”

3CP MOTORIZED PUMP UNITS

	1.5 HP	3.0 HP	3.0 HP
MOTORIZED UNITS	3CP1130BD151	3CP1120BD31	3CP1120BD33
Shipping Unit Weight	79 lbs.	113 lbs.	92 lbs.
Shipping Unit Dimensions	26.0" x 16.5" x 16.0"	27.5" x 18.5" x 17.5"	27.5" x 18.5" x 17.5"
PUMPS	3CP1130, 3CP1231	3CP1120, 3CP1221	3CP1120, 3CP1221
Volume	2.4 GPM	4.2 GPM	4.2 GPM
Discharge Pressure	100 to 900 PSI	100 to 1000 PSI	100 to 1000 PSI
MOTORS	8023ES	8024ES	8025ES
Flange Assembly — REQUIRED	8001	8002	8002
Horsepower	1.5 HP	3.0 HP	3.0 HP
Phase	Single	Single	Three
Frame Size	56C	184TC	182TC
Volts	115/208/230V	230V	208-230/460V
Maximum Amps	12.8/6.7/6.4 Amps	13.2 Amps	9.0/8.6/4.3 Amps
Service Factor	1.15	1.0	1.15
Maximum Operating Temperature (Ambient)	104°F	104°F	104°F
Shaft Diameter (Hollow)	16.5 mm	16.5 mm	16.5 mm
Thermo Overload	No	Yes	No
Capacitor Start	Yes	Yes	N/A
Insulation	Class B	Class F	Class F
CSA Reference No.	LR-2262	LR-2262	LR-2262
U.L. Reference No.	E-46145	E-46145	E-46145

5CP MOTORIZED PUMP UNITS

	3.0 HP	3.0 HP
MOTORIZED UNITS	5CP2140WBD31	5CP2140WBD33
Shipping Unit Weight.....	123 lbs.	99 lbs.
Shipping Unit Dimensions	27.5" x 18.5" x 17.5"	27.5" x 18.5" x 17.5"
PUMPS	5CP2140WCS	5CP2140WCS
Volume	4.0 GPM	4.0 GPM
Discharge Pressure.....	100 to 1100 PSI	100 to 1100 PSI
MOTORS	8026ES	8027ES
Flange Assembly — REQUIRED	8003	8003
Horsepower	3.0 HP	3.0 HP
Phase	Single	Three
Frame Size	184TC	184TC
Volts	230V	208-230/460V
Maximum Amps	13.2 Amps	9.0/8.6/4.3 Amps
Service Factor	1.0	1.15
Maximum Operating Temperature (Ambient).....	104°F	104°F
Shaft Diameter (Hollow)	20 mm	20 mm
Thermo Overload	Yes	No
Capacitor Start	Yes	N/A
Insulation	Class F	Class F
CSA Reference No.	LR-2262	LR-2262
U.L. Reference No.	E-46145	E-46145

Refer to individual Pump Data Sheet and Service Manual for maintenance parts, service procedures and additional specifications.

All Motors are available in 50 HZ, 1450 RPM. Add .50 to Motorized Unit part number. Allow approximately 6 weeks for delivery on some models.

3CP MOTORIZED PUMP UNITS

3.0 HP	3.0 HP	3.0 HP	3.0 HP	6.0 HP
3CP1130BD31	3CP1130BD33	3CP1140BD31	3CP1140BD33	3CP1120BD63
113 lbs. 27.5" x 18.5" x 17.5"	92 lbs. 27.5" x 18.5" x 17.5"	113 lbs. 27.5" x 18.5" x 17.5"	92 lbs. 27.5" x 18.5" x 17.5"	122 lbs. 27.5" x 18.5" x 17.5"
3CP1130	3CP1130	3CP1140	3CP1140	3CP1120
2.4 GPM 100 to 1700 PSI	2.4 GPM 100 to 1700 PSI	3.6 GPM 100 to 1200 PSI	3.6 GPM 100 to 1200 PSI	4.2 GPM 100 to 2100 PSI
8024ES	8025ES	8024ES	8025ES	8038ES
8002	8002	8002	8002	8002
3.0 HP	3.0 HP	3.0 HP	3.0 HP	6.0 HP
Single	Three	Single	Three	Three
184TC	182TC	184TC	182TC	184TCZ
230V	208-230/460V	230V	208-230/460V	208-230/460V
13.2 Amps	9.0/8.6/4.3 Amps	13.2 Amps	9.0/8.6/4.3 Amps	16.5-16/8 Amps
1.0	1.15	1.0	1.15	1.15
104°F	104°F	104°F	104°F	104°F
16.5 mm	16.5 mm	16.5 mm	16.5 mm	16.5 mm
Yes	No	Yes	No	No
Yes	N/A	Yes	N/A	N/A
Class F	Class F	Class F	Class F	Class F
LR-2262	LR-2262	LR-2262	LR-2262	LR-2262
E-46145	E-46145	E-46145	E-46145	E-46145

5CP MOTORIZED PUMP UNITS

3.0 HP	3.0 HP	5.0 HP	5.0 HP	5.0 HP
5CP2150WBD31	5CP2150WBD33	5CP2140WBD51	5CP2140WBD53	5CP2150WBD51
123 lbs. 27.5" x 18.5" x 17.5"	99 lbs. 27.5" x 18.5" x 17.5"	129 lbs. 27.5" x 18.5" x 17.5"	113 lbs. 27.5" x 18.5" x 17.5"	129 lbs. 27.5" x 18.5" x 17.5"
5CP2150W	5CP2150W	5CP2140WCS	5CP2140WCS	5CP2150W
5.0 GPM 100 to 900 PSI	5.0 GPM 100 to 900 PSI	4.0 GPM 100 to 1800 PSI	4.0 GPM 100 to 1800 PSI	5.0 GPM 100 to 1450 PSI
8026ES	8027ES	8028ES	8029ES	8028ES
8003	8003	8003	8003	8003
3.0 HP	3.0 HP	5.0 HP	5.0 HP	5.0 HP
Single	Three	Single	Three	Single
184TC	182TC	184TC	184TC	184TC
230V	208-230/460V	208-230V	208-230/460V	208-230V
13.2 Amps	9.0/8.6/4.3 Amps	24.0/26.0 Amps	15.0/13.2/6/6 Amps	24.0/26.0 Amps
1.0	1.15	1.0	1.0	1.0
104°F	104°F	104°F	104°F	104°F
20 mm	20 mm	20 mm	20 mm	20 mm
Yes	No	No	No	No
Yes	N/A	Yes	N/A	Yes
Class F	Class F	Class F	Class F	Class F
LR-2262	LR-2262	LR-2262	LR-2262	LR-2262
E-46145	E-46145	E-46145	E-46145	E-46145

Refer to individual Pump Data Sheet and Service Manual for maintenance parts, service procedures and additional specifications.
All Motors are available in 50 HZ, 1450 RPM. Add .50 to Motorized Unit part number. Allow approximately 6 weeks for delivery on some models.

3CP MOTORIZED PUMP UNITS

6.0 HP	6.0 HP	6.0 HP	6.0 HP	6.0 HP
3CP1120BD61	3CP1130BD63	3CP1130BD61	3CP1140BD63	3CP1140BD61
166 lbs. 27.5" x 18.5" x 17.5"	122 lbs. 27.5" x 18.5" x 17.5"	166 lbs. 27.5" x 18.5" x 17.5"	122 lbs. 27.5" x 18.5" x 17.5"	166 lbs. 27.5" x 18.5" x 17.5"
3CP1120	3CP1130	3CP1130	3CP1140	3CP1140
4.2 GPM 100 to 2100 PSI	2.4 GPM 100 to 2200 PSI	2.4 GPM 100 to 2200 PSI	3.6 GPM 100 to 2200 PSI	3.6 GPM 100 to 2200 PSI
8041ES	8038ES	8041ES	8038ES	8041ES
8002	8002	8002	8002	8002
6.0 HP	6.0 HP	6.0 HP	6.0 HP	6.0 HP
Single	Three	Single	Three	Single
213TCZ	184TCZ	213TCZ	184TCZ	213TCZ
208-230V	208-230/460V	208-230V	208-230/460V	208-230V
30-28 Amps	16.5-16/8 Amps	30-28 Amps	26.5-16/8 Amps	30-28 Amps
1.0	1.15	1.0	1.15	1.0
104°F	104°F	104°F	104°F	104°F
16.5 mm	16.5 mm	16.5 mm	16.5 mm	16.5 mm
No	No	No	No	No
Yes	N/A	Yes	N/A	Yes
Class F	Class F	Class F	Class F	Class F
LR-2262	LR-2262	LR-2262	LR-2262	LR-2262
E-46145	E-46145	E-46145	E-46145	E-46145

5CP MOTORIZED PUMP UNITS

5.0 HP	6.0 HP	6.0 HP	6.0 HP	6.0 HP
5CP2150WBD53	5CP2140WBD63	5CP2140WBD61	5CP2150WBD63	5CP2150WBD61
113 lbs. 27.5" x 18.5" x 17.5"	125 lbs. 27.5" x 18.5" x 17.5"	165 lbs. 27.5" x 18.5" x 17.5"	125 lbs. 27.5" x 18.5" x 17.5"	165 lbs. 27.5" x 18.5" x 17.5"
5CP2150W	5CP2140WCS	5CP2140WCS	5CP2150W	5CP2150W
5.0 GPM 100 to 1450 PSI	4.0 GPM 100 to 2200 PSI	4.0 GPM 100 to 2200 PSI	5.0 GPM 100 to 1750 PSI	5.0 GPM 100 to 1750 PSI
8029ES	8040ES	8042ES	8040ES	8042ES
8003	8003	8003	8003	8003
5.0 HP	6.0 HP	6.0 HP	6.0 HP	6.0 HP
Three	Three	Single	Three	Single
184TC	184TCZ	213TCZ	184TCZ	213TCZ
208-230/460V	208-230/460V	208-230V	230-230/460V	208-230V
15.0/13.2/6.6 Amps	16.5-16/8 Amps	30-28 Amps	16.5-16/8 Amps	30-28 Amps
1.0	1.15	1.0	1.15	1.0
104°F	104°F	104°F	104°F	104°F
20 mm	20 mm	20 mm	20 mm	20 mm
No	No	No	No	No
N/A	N/A	Yes	N/A	Yes
Class F	Class F	Class F	Class F	Class F
LR-2262	LR-2262	LR-2262	LR-2262	LR-2262
E-46145	E-46145	E-46145	E-46145	E-46145

Refer to individual Pump Data Sheet and Service Manual for maintenance parts, service procedures and additional specifications.

All Motors are available in 50 HZ, 1450 RPM. Add .50 to Motorized Unit part number. Allow approximately 6 weeks for delivery on some models.

INSTALLATION INSTRUCTIONS

INSTALLATION

Before installing motorized pump unit, check incoming voltage to be certain it does not exceed motor rating as this will result in motor damage. Instructions for electrical connections are on a decal on the motor housing.

Qualified or trained personnel should install equipment. Equipment should be installed in accordance with the National Electrical Code, local codes and with NEMA MG2, Safety Standards for Construction and Guide for Selection, Installation and Use of Electric Motors and Generators.

Review your application flow and pressure requirements. Exceeding the rated pressure of the motorized unit may cause overheating of your motor, high amp draw and result in shortened motor life. Before operation see Pump and Motor Lubrication section.

CAUTION

Some Motor Models Contain No Thermal Protector

A separate overcurrent protection device must be installed to prevent motor burnout and possible fire damage due to overloaded or stalled motor. Motor must be properly grounded.

ASSEMBLY OF ELECTRIC MOTOR AND PUMP

1. A flange assembly is required to mount the electric motor to the pump.
2. Rotate pump shaft so keyway is toward back of pump. **Insert key into pump shaft. To assure key is completely seated, BEVELED END SHOULD BE TOWARD PUMP AND FLAT SURFACE HORIZONTAL WITH SHAFT KEYWAY.** Shaft may not fit into motor if key is improperly installed.
3. Slip lockwashers and washers onto **shaft retaining screw (HH)**. Apply Loctite® 242® to threaded section and thread screw into pump shaft. Torque to 110 in. lbs. (12 Nm).

NOTE: Follow application instructions on Loctite® container.

4. **Mount flange assembly onto pump with extended collar toward pump, side vents to the right and left.** Line up center four threaded holes with those on bearing case.
5. Apply a small amount of Loctite® 242® to the four flat head hex screws and secure flange assembly to pump. Torque to 60-70 in. lbs. (7-8 Nm).
6. Apply Loctite® 242® to two hex head combination (HHC) screws and insert into motor shaft. **Thread into shaft only partially—do not completely into keyway.**

MOUNTING PUMP TO MOTOR

1. Apply **Antiseize lubricant (6106)** to pump shaft and I.D. of motor shaft. Carefully insert pump into hollow motor shaft until flange assembly is flush with motor. **Be certain key on pump shaft lines up with keyway on motor shaft.**
2. Secure pump with flange assembly to motor with four lockwashers and four hex head screws and torque to 50-60 ft. lbs. (67-81 Nm).
3. Using allen T-wrench (34030) secure HHC screws through side vent in flange assembly. Torque to 60-75 in. lbs. (7-8 Nm).

ADAPTER MOUNT ASSEMBLY

8001 Flange Assembly (3CP - 1.5 HP)

- 1 34307 Flange
- 2 34162 Screw, HHC (10-32x1/2)
- 4 34160 Screw, HH (3/8-16x1.25)
- 4 30921 R Lockwasher (3/8")
- 1 30047 Key (M5x5x24)
- 1 6106 Anti-seize
- 1 32145 Screw, Assy HH (M8x20)
- 4 34379 Screw, FH (M6x20)
- 4 126745 R Lockwasher (M6)

8002 Flange Assembly (3CP - 3 HP)

- 1 34308 Flange
- 2 34162 Screw, HHC (10-32x1/2)
- 4 32143 Screw, HH (1/2-13x1.25)
- 4 30908 Lockwasher (1/2")
- 1 30047 Key (M5x5x24)
- 1 6106 Anti-seize
- 1 32145 Screw, Assy, HH (M8x20)
- 4 34379 Screw, FH (M6x20)
- 4 126745 R Lockwasher (M6)

8003 Flange Assembly (5CP - 3 HP, 5 HP, 6 HP)

- 1 34309 Flange
- 2 34162 Screw, HHC (10-32x1/2)
- 4 32143 Screw, HH (1/2-13x1.25)
- 4 30908 Lockwasher (1/2")
- 1 30057 Key (M6x6x25)
- 1 6106 Anti-seize
- 1 32145 Screw, Assy HH (M8x20)
- 4 46403 Screw, FH (M8x25)
- 4 126746 R Lockwasher (M8)

R Components comply with RoHS Directive

WARRANTY

All electric motors are warranted by the manufacture to be free from defects of material and workmanship for **one year from date of shipment.**

See individual pump service manual for pump warranty.

For warranty consideration, ship the defective motor PREPAID directly to Baldor. Contact CAT PUMPS for warranty procedure and the nearest authorized Baldor Service Center.

If you are uncertain as to the cause of failure (Pump or Motor) return the complete assembly PREPAID to CAT PUMPS for evaluation. **Call for RGA number prior to returning.**

See individual pump service manual for pump warranty.

PUMP LUBRICATION

Before starting pump, fill crankcase per specifications with CAT PUMPS special custom-blend, multi-viscosity, ISO-68 petroleum based hydraulic oil with anti-wear, oxidizer, high pressure and rust inhibitor additives. Change initial fill after 50 hours running period. Change oil every 3 months or at 500 hour intervals thereafter.

MOTOR LUBRICATION

This is a ball bearing motor. The bearings have been given initial lubrication at the factory. No lubricant need be added unless motor has been stored for over a year

Baldor motors are pre-greased normally with Shell Oil Company's "Dolium R". Several equivalent greases which are compatible with Baldor furnished grease are Chevron Oil's "SRI No. 2" and Texaco Inc. "Premium RB".

Overgreasing bearings can cause premature failure. Motor is equipped with Alemite fitting. Clean tip of fitting and apply grease gun. Use 1 to 2 strokes. Any excess may drip out the bottom drain during the first 20 minutes of operation.

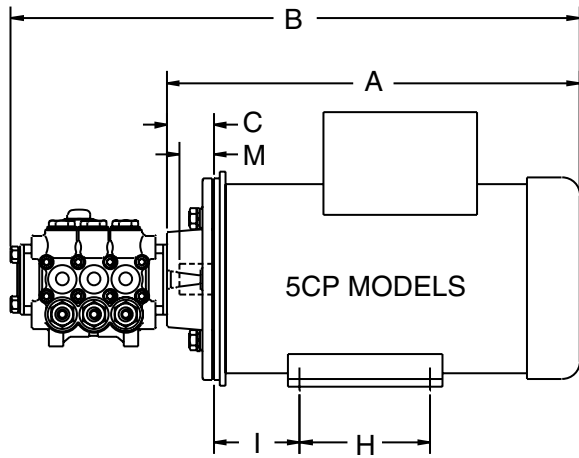
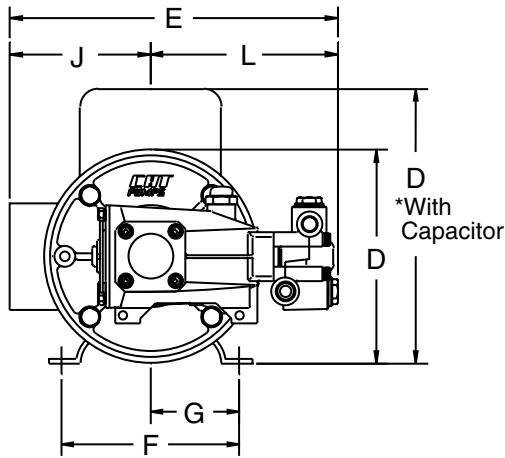
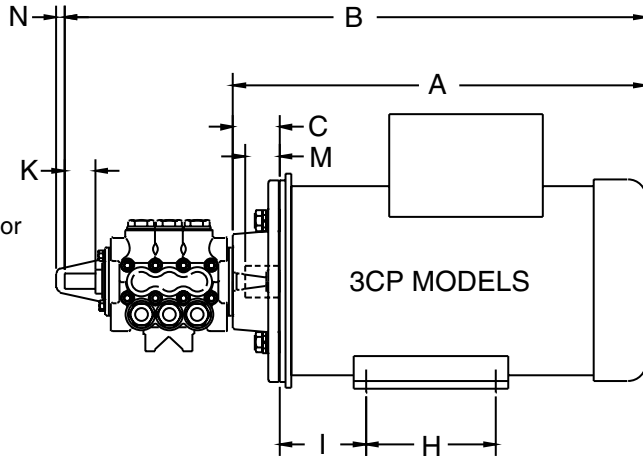
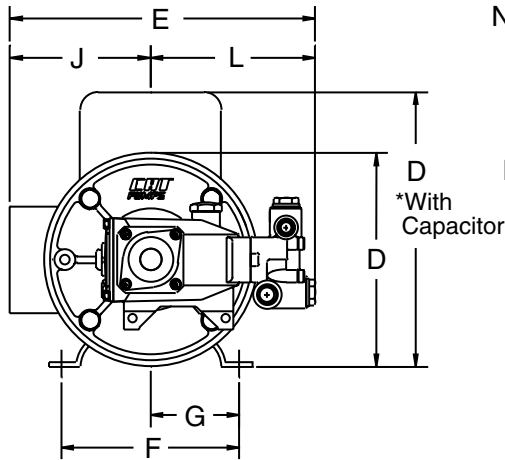
CAUTION

Keep grease clean. Lubricate motors at standstill. Remove and replace drain plugs at standstill. Do not mix petroleum grease and silicone grease in motor bearings.

Suggested Relube Interval

Hours of Service Per Year	NEMA Frame Size 184TCZ
500 Hours	5 Years
Continuous Normal Application	2 Years
Seasonal Service Motor is idle for 6 months or more	1 Year (beginning of season)
Continuous high ambients, dirty or moist locations, high vibration, or shaft end is hot (pump fans)	6 months

DIMENSIONAL



MOTOR	ELEC TYPE	PUMP/SHAFT	A	B	C	D	E	F	G
8023ES	1.5 HP 1 PH	3CP (16.5mm)	14.62 (371)	21.71 (551)	2.00 (51)	*8.38 (213)	12.18 (309)	4.88 (124)	2.44 (62)
8024ES	3 HP 1 PH	3CP (16.5mm)	15.92 (404)	23.01 (584)	1.98 (50)	*11.56 (294)	13.43 (341)	7.50 (191)	3.75 (95)
8025ES	3 HP 3 PH	3CP (16.5mm)	16.01 (407)	23.1 (587)	1.98 (50)	9.00 (229)	12.81 (325)	7.50 (191)	3.75 (95)
8026ES	3 HP 1 PH	5CP (20mm)	15.92 (404)	22.5 (572)	1.98 (50)	*11.56 (294)	14.39 (366)	7.50 (191)	3.75 (95)
8027ES	3 HP 3 PH	5CP (20mm)	16.01 (407)	22.59 (574)	1.98 (50)	9.00 (229)	13.77 (350)	7.50 (191)	3.75 (95)
8028ES	5 HP 1 PH	5CP (20mm)	17.42 (442)	24 (610)	1.98 (50)	*11.56 (294)	13.77 (350)	7.50 (191)	3.75 (95)
8029ES	5 HP 3 PH	5CP (20mm)	17.39 (442)	23.97 (609)	1.98 (50)	9.00 (229)	13.77 (350)	7.50 (191)	3.75 (95)
8038ES	6 HP 3 PH	3CP (16.5mm)	17.48 (444)	24.57 (624)	1.98 (50)	9.00 (229)	12.81 (325)	7.50 (191)	3.75 (95)
8040ES	6 HP 3 PH	5CP (20mm)	17.48 (444)	24.06 (611)	1.98 (50)	9.00 (229)	13.77 (350)	7.50 (191)	3.75 (95)
8041ES	6 HP 1 PH	3CP (16.5mm)	18.67 (474)	25.76 (654)	1.98 (50)	*12.70 (323)	14.26 (362)	8.50 (216)	4.25 (108)
8042ES	6 HP 1 PH	5CP (20mm)	18.67 (474)	25.25 (641)	1.98 (50)	*12.70 (323)	15.22 (387)	8.50 (216)	4.25 (108)

MOTOR	ELEC TYPE	PUMP/SHAFT	H	I	J	K	L	M	N
8023ES	1.5 HP 1 PH	3CP (16.5mm)	3.00 (76)	3.06 (78)	5.25 (133)	1.30 (33)	6.93 (176)	1.47 (37)	0.35 (9)
8024ES	3 HP 1 PH	3CP (16.5mm)	5.50 (140)	3.62 (92)	6.5 (165)	1.30 (33)	6.93 (176)	1.47 (37)	0.35 (9)
8025ES	3 HP 3 PH	3CP (16.5mm)	5.50 (140)	3.62 (92)	5.88 (149)	1.30 (33)	6.93 (176)	1.47 (37)	0.35 (9)
8026ES	3 HP 1 PH	5CP (20mm)	5.50 (140)	3.62 (92)	6.5 (165)	—	7.89 (200)	1.47 (37)	—
8027ES	3 HP 3 PH	5CP (20mm)	5.50 (140)	3.62 (92)	5.88 (149)	—	7.89 (200)	1.47 (37)	—
8028ES	5 HP 1 PH	5CP (20mm)	5.50 (140)	3.62 (92)	5.88 (149)	—	7.89 (200)	1.47 (37)	—
8029ES	5 HP 3 PH	5CP (20mm)	5.50 (140)	3.62 (92)	5.88 (149)	—	7.89 (200)	1.47 (37)	—
8038ES	6 HP 3 PH	3CP (16.5mm)	5.50 (140)	3.62 (92)	5.88 (149)	1.30 (33)	6.93 (176)	1.47 (37)	0.35 (9)
8040ES	6 HP 3 PH	5CP (20mm)	5.50 (140)	3.62 (92)	5.88 (149)	—	7.89 (200)	1.47 (37)	—
8041ES	6 HP 1 PH	3CP (16.5mm)	7.00 (178)	4.50 (114)	7.33 (186)	1.30 (33)	6.93 (176)	1.47 (37)	0.35 (9)
8042ES	6 HP 1 PH	5CP (20mm)	7.00 (178)	4.50 (114)	7.33 (186)	—	7.89 (200)	1.47 (37)	—

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