

STOKES 6" SERIES MECHANICAL BOOSTER PUMPS

THE INTELLIGENT CHOICE



Stokes 6" series mechanical boosters are designed to be used in conjunction with rotary piston, dry vacuum, rotary vane, liquid ring or on the inlet of the backing pump to create a compact integrated package to increase pumping speed at working pressures and reduce the pump down time significantly.

The 6" Series are available in bare-shaft or direct drive motor variants, horizontal or vertical gas flow and with a single mechanical seal or a Process Isolation variant with 5 mechanical seals for optimum protection from dust and particulate contamination in arduous applications. Also By-pass variants are available which eliminate the need for pressure switches making the 6" Series one of the most versatile and flexible boosters.



Features and Benefits

Robust

- Over 80 years of time tested proven performance with experienced service and technical support.
- Increased lifetime, reliability and simple to use – large diameter shafts, ring feeder keyless gear locking system and dynamically balanced impellers.

Reliable

- Easy to maintain – single mechanical seal.
- Increased productivity – 5 seal design for optimal process protection.

Versatile

- Configured for your needs – bare shaft or direct drive, 1800-3600 rpm. Vertical or horizontal gas flow orientation with by-pass versions available.
- Simple to service – simple maintenance requirements result in long term reliability.

Applications

- Automotive.
- Chemical processing.
- Heat treatment.
- Leak detection.
- Metallurgy.
- PET processing.
- Pharmaceuticals.
- Thermal processing.
- Transformer drying and cable fluid conditioning.
- Vacuum coating.
- Vacuum melting.
- Many other industrial applications.

Pump Range

Stokes

- | | |
|-------|-------|
| - 607 | - 61B |
| - 615 | - 622 |

Performance Curves

Stokes 607

Stokes 607 Series Mechanical Booster



Displacement	
Direct drive 1800 rpm	1040 m ³ h ⁻¹ 612 cfm
Direct drive 3000 rpm	1733 m ³ h ⁻¹ 1020 cfm
Direct drive 3600 rpm	2080 m ³ h ⁻¹ 1224 cfm

* Note: H = Horizontal Gas Flow
V = Vertical Gas Flow

Ordering information

Product description	Order no:
607 MHR CE, IE3 7.5 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz (3000/3600 rpm)	900607MHR940
607 MHR CE, IE3 7.5 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	900607MHR934
607 MVR CE, IE3 7.5 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz (3000/3600 rpm)	900607MVR940
607 MHR CE, IE3 7.5 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	900607MVR934
607 MHR (bare shaft) Horizontal flow	900-607-MHR
607 MHR (bare shaft) Horizontal flow (pfpe pre.)	900607MHR101
607 MVR (bare shaft) Vertical flow	900-607-MVR
607 MVR (bare shaft) Vertical flow (pfpe prep.)	900607MVR101
607 MHR (bare shaft) Horizontal flow	900-607-MHR
607 MVR (bare shaft) Vertical flow	900-607-MVR
607 MH20, 20 hp, 230/460 V, 3-ph, 60 Hz @ 1800 rpm	900-607-MH20
607 MV05, 5 hp, 230/460 V, 3-ph, 60 Hz @ 1800 rpm	900-607-MV05
607 MV20, 20 hp, 230/460 V, 3-ph, 60 Hz @ 1800 rpm	900-607-MV20
607 MH05, 5 hp, 230/460 V, 3-ph, 60 Hz @ 1800 rpm	900-607-MH05

*Note: 607, 615 61B and 622 vertical gas flow
boosters do not include mounting feet.
6" Mounting foot kit 426-715-002

Stokes 607 Series Process Isolation Booster



Displacement	
Direct drive 1800 rpm	1040 m ³ h ⁻¹ 612 cfm
Direct drive 3000 rpm	1733 m ³ h ⁻¹ 1020 cfm
Direct drive 3600 rpm	2080 m ³ h ⁻¹ 1224 cfm

* Note: H = Horizontal Gas Flow
V = Vertical Gas Flow

Ordering information

Product description	Order no:
607 5HR CE, IE3 7.5 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz (3000/3600 rpm)	9006075HR940
607 5HR CE, IE3 7.5 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	9006075HR934
607 5VR CE, IE3 7.5 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz (3000/3600 rpm)	9006075VR940
607 5HR CE, IE3 7.5 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	9006075VR934
607 5HR (bare shaft) Horizontal flow	900-607-5HR
607 5VR (bare shaft) Vertical flow	900-607-5VR
607 5H10, 10 hp, 230/460 V, 3-ph, 900-607-5H10_60 Hz @ 1800 rpm	900-607-5H10
607 5V10, 10 hp, 230/460 V, 3-ph, 60 Hz @ 1800 rpm	900-607-5V10

Performance Curves

Stokes 615

Stokes 615 Series Mechanical Booster



	Displacement	
V Belt 2750 rpm	3375 m ³ h ⁻¹	2000 cfm
Direct drive 1800 rpm	2210 m ³ h ⁻¹	1300 cfm
Direct drive 3000 rpm	3685 m ³ h ⁻¹	2170 cfm
Direct drive 3600 rpm	4420 m ³ h ⁻¹	2600 cfm

* Note: H = Horizontal Gas Flow
V = Vertical Gas Flow

Stokes 615 Series Process Isolation Booster



	Displacement	
V Belt 2750 rpm	3375 m ³ h ⁻¹	2000 cfm
Direct drive 3000 rpm	3685 m ³ h ⁻¹	2170 cfm
Direct drive 3600 rpm	4420 m ³ h ⁻¹	2600 cfm

* Note: H = Horizontal Gas Flow
V = Vertical Gas Flow

Ordering information

Product description	Order no:
615 MHR CE, IE3 11 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz (3000/3600 rpm)	900615MHR940
615 MHR CE, IE3 11 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	900615MHR934
615 MVR CE, IE3 11 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz (3000/3600 rpm)	900615MVR940
615 MVR CE, IE3 11 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	900615MVR934
615 MHR (bare shaft) Horizontal flow	900-615-MHR
615 MHR (bare shaft) Horizontal flow (pfpe pre.)	900615MHR101
615 MVR (bare shaft) Vertical flow	900-615-MVR
615 MVR (bare shaft) Vertical flow (pfpe prep.)	900615MVR101
615 MH10, 10 hp, 230/460 V, 3-ph, 60 Hz @ 1800 rpm	900-615-MH10
615 MH15, 15 hp, 230/460 V, 3-ph, 60 Hz @ 3600 rpm	900-615-MH15
615 MV10, 10 hp, 230/460 V, 3-ph, 60 Hz @ 1800 rpm	900-615-MV10
615 MV15, 15 hp, 230/460 V, 3-ph, 60 Hz @ 3600 rpm	900-615-MV15

*Note: 607, 615 61B and 622 vertical gas flow boosters do not include mounting feet.
6" Mounting foot kit 426-715-002

Ordering information

Product description	Order no:
615 5HR CE, IE3 11 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz (3000/3600 rpm)	9006155HR940
615 5HR CE, IE3 11 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	9006155HR934
615 5VR CE, IE3 11 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz(3000/3600 rpm)	9006155VR940
615 5VR CE, IE3 11 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	9006155VR934
615 5HR (bare shaft) Horizontal flow	900-615-5HR
615 5VR (bare shaft) Vertical flow	900-615-5VR
615 5H15, 15 hp, 230/460 V, 3-ph, 60 Hz @ 3600 rpm	900-615-MH15
615 5V15, 15 hp, 230/460 V, 3-ph, 60 Hz @ 3600 rpm	900-615-5V15

For performance curves of the various Stokes 6" booster coupled with a backing pump please consult Edwards

Stokes 61B

Stokes 61B Series By-Pass Mechanical Booster



	Displacement	
V Belt 2750 rpm	3375 m ³ h ⁻¹	2000 cfm
Direct drive 1800 rpm	2210 m ³ h ⁻¹	1300 cfm
Direct drive 3000 rpm	3685 m ³ h ⁻¹	2170 cfm
Direct drive 3600 rpm	4420 m ³ h ⁻¹	2600 cfm

Ordering information

Product description	Order no:
61B MHR CE, IE3 18.5 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz (3000/3600 rpm)	90061BMHR940
61B MHR CE, IE3 18.5 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	90061BMHR934
61B MVR CE, IE3 18.5 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz (3000/3600 rpm)	90061BMVR940
61B MVR CE, IE3 18.5 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	90061BMVR934
61B MHR (bare shaft) Horizontal flow	900-61B-MHR
61B MVR (bare shaft) Vertical flow	900-61B-MVR
61B MH10, 10 hp, 230/460 V, 3-ph, 60 Hz @ 1800 rpm	900-61B-MH10
61B MH25, 25 hp, 230/460 V, 3-ph, 60 Hz @ 3600 rpm	900-61B-MH25
61B MV10, 10 hp, 230/460 V, 3-ph, 60 Hz @ 1800 rpm	900-61B-MV10
61B MV25, 25 hp, 230/460 V, 3-ph, 60 Hz @ 3600 rpm	900-61B-MV25

*Note: 607, 615 61B and 622 vertical gas flow boosters do not include mounting feet.

6" Mounting foot kit 426-715-002

Stokes 61B Series Process Isolation Booster



	Displacement	
V Belt 2750 rpm	3375 m ³ h ⁻¹	2000 cfm
Direct drive 3000 rpm	3685 m ³ h ⁻¹	2170 cfm
Direct drive 3600 rpm	4420 m ³ h ⁻¹	2600 cfm


Ordering information

Product description	Order no:
61B 5HR CE, IE3 18.5 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz (3000/3600 rpm)	90061B5HR940
61B MHR CE, IE3 18.5 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	90061B5HR934
61B 5VR CE, IE3 18.5 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz (3000/3600 rpm)	90061B5VR940
61B 5VR CE, IE3 18.5 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	90061B5VR934
61B 5HR (bare shaft) Horizontal flow	900-61B-5HR
61B 5VR (bare shaft) Vertical flow	900-61B-5VR
61B 5H25, 25 hp, 230/460 V, 3-ph, 60 Hz @ 3600 rpm	900-61B-5H
61B 5V25, 25 hp, 230/460 V, 3-ph, 60 Hz @ 3600 rpm	900-61B-5V25

Performance Curves

Stokes 622

Stokes 622 Series Mechanical Booster




	Displacement	
V Belt 2750 rpm	2750 m ³ h ⁻¹	3000 cfm
Direct drive 3000 rpm	5525 m ³ h ⁻¹	3254 cfm
Direct drive 3600 rpm	6528 m ³ h ⁻¹	3840 cfm

Ordering information

Product description	Order no:
622 MHR CE, IE3 18.5 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz (3000/3600 rpm)	900622MHR940
622 MHR CE, IE3 18.5 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	900622MHR934
622 MVR CE, IE3 18.5 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz(3000/3600 rpm)	900622MVR940
622 MVR CE, IE3 18.5 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	900622MVR934
622 MHR (bare shaft) Horizontal flow	900-622-MHR
622 MVR (bare shaft) Vertical flow	900-622-MVR
622 MH25, 25 hp, 230/460 V, 3-ph, 60 Hz @ 3600 rpm	900-622-MH25
622 MV25, 25 hp, 230/460 V, 3-ph, 60 Hz @ 3600 rpm	900-622-MV25

* Note: 607, 615 61B and 622 vertical gas flow boosters do not include mounting feet.
6" Mounting foot kit 426-715-002

Stokes 622 Series Process Isolation Booster



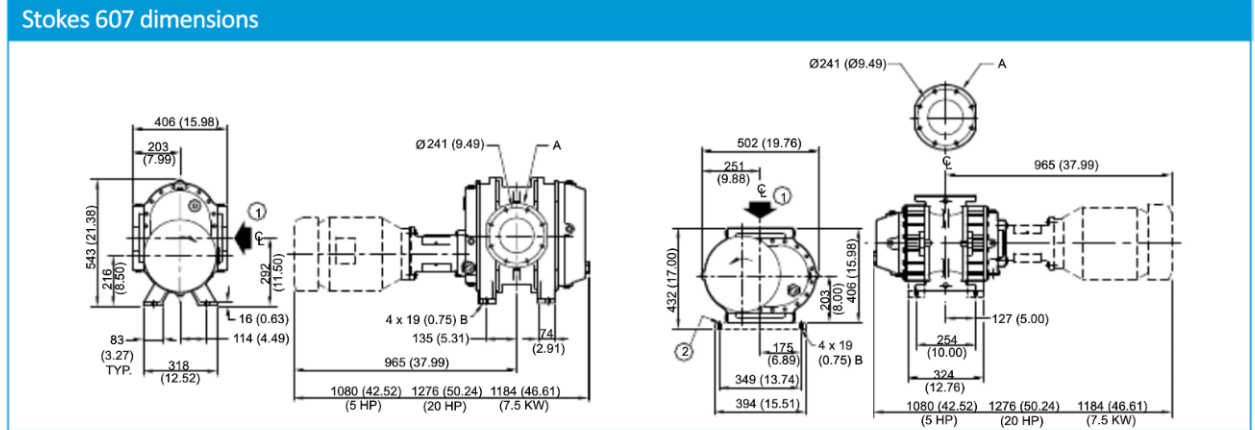
	Displacement	
V Belt 2750 rpm	2750 m ³ h ⁻¹	3000 cfm
Direct drive 3000 rpm	5525 m ³ h ⁻¹	3254 cfm
Direct drive 3600 rpm	6528 m ³ h ⁻¹	3840 cfm

Ordering information

Product description	Order no:
622 SHR CE, IE3 18.5 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz (3000/3600 rpm)	9006225HR940
622 SHR CE, IE3 18.5 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	9006225HR934
622 SVR CE, IE3 18.5 kW, EU/US/CH 50/60Hz 380-400v 50Hz /230/460v 60Hz (3000/3600 rpm)	9006225VR940
622 SVR CE, IE3 18.5 kW, Asia 50/60Hz 200v 50/60Hz 380v 60Hz (3000/3600 rpm)	9006225VR934
622 SHR (bare shaft) Horizontal flow	900-622-5HR
622 MVR (bare shaft) Vertical flow	900-622-5VR
622 SH25, 25 hp, 230/460 V, 3-ph, 60 Hz @ 3600 rpm	900-622-5H25
622 SV25, 25 hp, 230/460 V, 3-ph, 60 Hz @ 3600 rpm	900-622-5V25

For performance curves of the various Stokes 6" booster coupled with a backing pump please consult Edwards

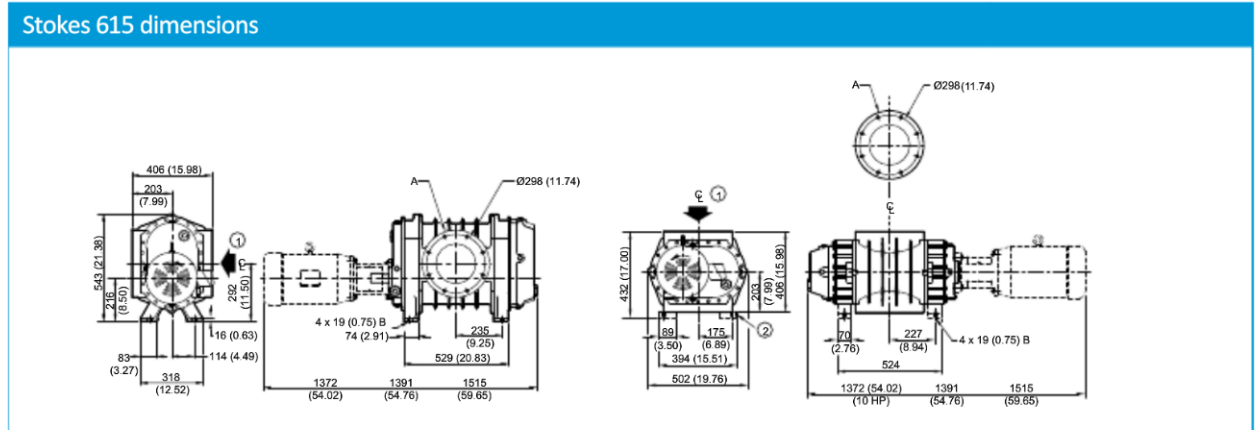
Dimensions



A 6" pipe flange connection 11" (279 mm) OD x (152 mm) ID 8 x 3/4⁻¹⁰ NC-2B x 1 1/8" (29 mm) holes straddle both CL both flanges

B DIA. Holes

- ① STD Inlet
- ② Optional feet



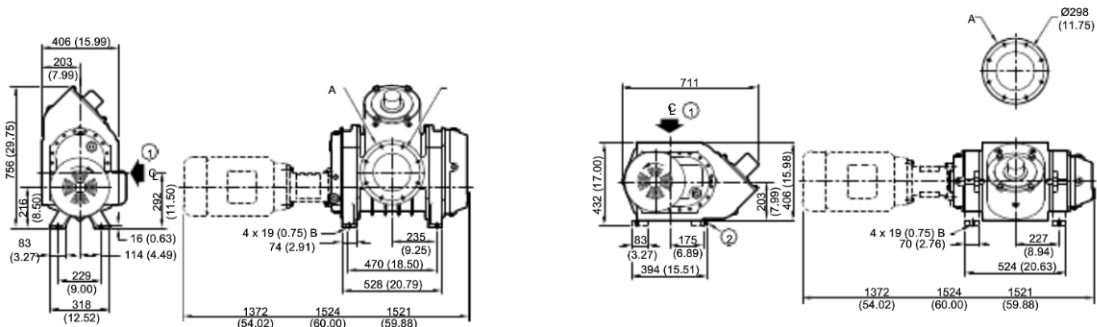
A 8" pipe flange connection 13 1/2" (343 mm) OD x 8" (203 mm) ID 8 x 3/4⁻¹⁰ NC-2B x 1 1/8" (29 mm) holes straddle both CL both flanges

B DIA. Holes

- ① STD Inlet
- ② Optional feet

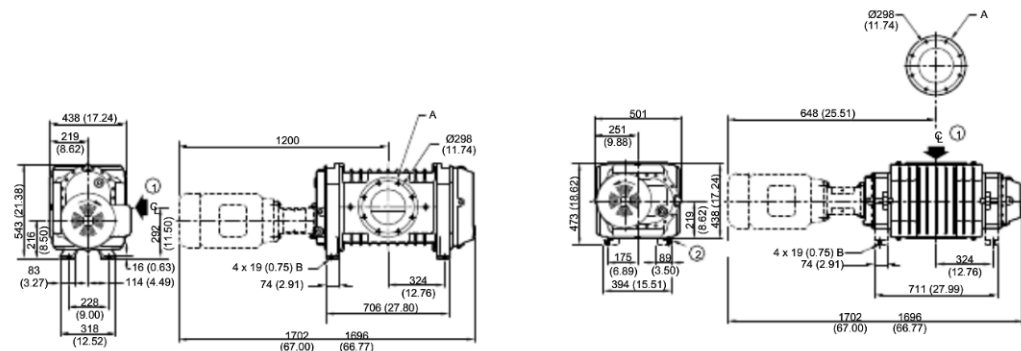
Product length may vary due to motor variant, contact Edwards for specific size for specific regions and voltage variants.

Stokes 61B dimensions



- A 8" pipe flange connection 13 1/2" (343 mm) OD x 8" (203 mm) ID 8 x 3/4⁻¹⁰ NC-2B x 1 1/8" (29 mm) holes straddle both CL both flanges
- B DIA. Holes
- 1 STD Inlet
- 2 Optional feet

Stokes 622 dimensions



- A 8" pipe flange connection 13 1/2" (343 mm) OD x 8" (203 mm) ID 8 x 3/4⁻¹⁰ NC-2B x 1 1/8" (29 mm) holes straddle both CL both flanges
- B DIA. Holes
- 1. STD Inlet
- 2. Optional feet

Product length may vary due to motor variant, contact Edwards for specific size for specific regions and voltage variants.

Technical Data



	Units	607	607 PIB	615	615 PIB
Displacement					
V belt 2750 rpm	m ³ h ⁻¹ /ft ³ min ⁻¹	1589/935	1589/935	3375/2000	3375/2000
Direct drive 1800 rpm	m ³ h ⁻¹ /ft ³ min ⁻¹	1040/612	-	2210/1300	-
Direct drive 3000 rpm	m ³ h ⁻¹ /ft ³ min ⁻¹	1733/1020	1733/1020	3685/2170	3685/2170
Direct drive 3600 rpm	m ³ h ⁻¹ /ft ³ min ⁻¹	2080/1224	2080/1224	4420 /2600	4420/2600
Inlet/outlet flanges	ASA/ANSI flange	6"		8"	
Motor power	hp (kW)	5/20 (7.5)	10 (7.5)	10 (11)	15 (11)
Cooling method		Air cooled	-	Air cooled	-
By-pass available					
Cooling water	l min ⁻¹ /gal min ⁻¹	-	7.6-11.4/2-3	-	7.6-11.4/2-3
Oil capacity (horizontal flow)	litre/gal	1.9/0.51	1.9/0.51	1.9/0.51	1.9/0.51
Oil capacity (vertical flow)	litre/gal	4.1/1.1			
Max pressure differential	mbar/Torr	506/380			
Max temp rise	°C/F	135/275			
Max discharge temp	°C/F	191/375			
Weight bare shaft	kg/lbs	215/475		234/515	
Weight TEFC direct drive	kg/lbs	408/900	345/760	390/860	397/875
Recommended oil		V- Lube H			



	Units	61B	61B PIB	622	622 PIB
Displacement					
V belt 2750 rpm	m ³ h ⁻¹ /ft ³ min ⁻¹	3375/2000	3375/2000	5100/3000	5100/3000
Direct drive 1800 rpm	m ³ h ⁻¹ /ft ³ min ⁻¹	2210/1300	-	-	5525/2350
Direct drive 3000 rpm	m ³ h ⁻¹ /ft ³ min ⁻¹	3685/2170	3685/2170	5525/2350	6630/3900
Direct drive 3600 rpm	m ³ h ⁻¹ /ft ³ min ⁻¹	4420/2600		6630/3900	
Inlet/outlet flanges	ASA/ANSI flange	8"			
Motor power	hp (kW)	1 10/25 (8.5)		25 (18.5)	
Cooling method		Air cooled		Air cooled	
By-pass available		Yes		-	-
Cooling water	l min ⁻¹ /gal min ⁻¹	-	7.6-11.4/2-3	-	7.6-11.4/2-3
Oil capacity (horizontal flow)	litre/gal	1.9/0.51	1.9/4.1	1.9/0.51	1.9/4.1
Oil capacity (vertical flow)	litre/gal	4.1/1.1	4.1/8.8	4.1/1.1	4.1/8.8
Max pressure differential	mbar/Torr			333/250	333/250
Max temp rise	°C/F	135/275		151/27	121/250
Max discharge temp	°C/F	191/375		177/350	
Weight bare shaft	kg/lbs	284/625		335/740	
Weight TEFC direct drive	kg/lbs	530/1170	538/1185	617/1360	625/1370
Recommended oil		-		V-Lube H	