Installation Data Sheet - Screw Blower

Series: FBS.1
Document Number: TI.BIDS-019
Version: 1.5
Revision Date: 07/27/2022

Package Model	FBS 660 STC (L & M)						
Electrical Data							
Horsepower	**40**	**50**	**60**	**75**	**100**	**125**	**150**
Voltage (3ph/60Hz)	460	460	460	460	460	460	460
Short Circuit Current Rating (SCCR) [kA] 460V/3ph/60Hz	50	50	50	50	50	50	50
Package FLA +/- 10%	57.1	68.1	82.1	98.1	128.1	153.1	187.1
Disconnect Fuse [Amp]	70	80	100	110	150	175	225
Recommended Wire Size (75°C or higher) [AWG]	1 x 4 x 4	1 x 4 x 3	1 x 4 x 2	1 x 4 x 1/0	1 x 4 x 3/0	2 x 4 x 2	2 x 4 x 1/0
Maximum Feed Terminal [AWG]	See wiring diagram						
Motor Data							
Insulation Class	F	F	F	F	F	F	F
Enclosure Type	TEFC	TEFC	TEFC	TEFC	TEFC	TEFC	TEFC
Motor Rated Current +/- 10%	47	57	70	83	114	135	160
Nominal Efficiency [%]	92.4	93	93.6	93.6	95	95.4	95

Notes:
1. Time delay (dual element) fuse; Class J ≤ 600A (e.g. AJT).
2. Fuse and wire sizes determined in accordance to NEC 240.6, 430.52 and tables 250.122, 430.248, 430.250.
3. Breaker should be suitable for a heavy duty starting load and of inverse time delay design that complies to regulations outlines in NEC 430.52.
4. Ground wire size should be equal to conductor size.

Oil System Data	
Drive End Capacity [qt.]	1.0
Gear End Capacity [qt.]	2.0
Oil Type (Synthetic)	G-680
Working Pressure	
FBS 660 L STC pr	Continued working pressures below 2.2 psig are not permitted
FBS 660 M STC pr	Continued working pressures below 4.4 psig are not permitted

Package Connections							
HP	**40**	**50**	**60**	**75**	**100**	**125**	**150**
Width (in.)	87 5/8	87 5/8	87 5/8	87 5/8	87 5/8	87 5/8	87 5/8
Depth (in.)	76 7/16	76 7/16	76 7/16	76 7/16	76 7/16	76 7/16	76 7/16
Height (in.)	75 11/16	75 11/16	75 11/16	75 11/16	75 11/16	75 11/16	75 11/16
Floor (sq. ft.)	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2
Weight (lb.)	4636	4680	4735	5121	5297	5573	5716
Connection Size (in.)	8	8	8	8	8	8	8
Type	ANSI 125/150	ANSI 125/150	ANSI 125/150	ANSI 125/150	ANSI 125/150	ANSI 125/150	ANSI 125/150

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General Information

Floating Relay Contacts

Contacts:

- X12:	1 and 2	Operation
- X12:	3 and 4	Ready for operation
- X12:	5 and 6	Group Alarm
- X12:	7 and 8	Group Warning

Ambient and Intake Conditions

Permissible ambient temperature [°F]*	+32 - +113
Permissible temperature [°F]*	+5 to +113
Relative humidity [%]	0 - 80
Maximum elevation [ft.asl]*	3280

**contact Kaeser about deviations in temperature or altitude*

Remote On/Off

Contacts (not floating): powered 24 VDC
-X15: 5 and 6
Function:
- from open to closed: Machine switches on
- from closed to open: Machine switches off

External Alarm

Contacts (not floating): powered 24 VDC
DI: 1.08
Function:
- the machine will switch off in the event of this external fault

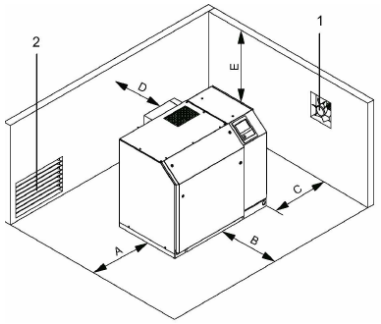
Ventilation of Blower Room

Air Inlet Opening	6.6 sq. ft.
Cooling Fan Capacity (forced ventilation)	1,500 cfm
Max Heat Rejection	47,470 BTU/HR

Ventilation values based on 2300cfm @ 15 psig ΔP, 150Hp and ambient inlet. Max. room temp. = 113° F and cooling air temp = 95° F. Discharge piping length = 5ft.

Model shown for reference only
Actual duct size may vary with installation

1 Exhaust Fan
2 Ventilation Inlet Air Opening

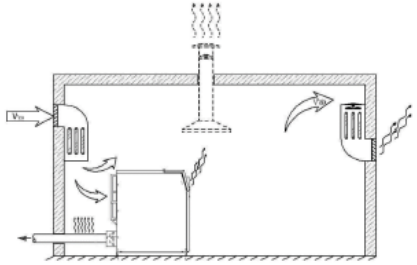


*The foundation must be firm, level and capable of bearing the weight of the machine.

Recommended machine placement and dimensions:

		Inches	
A	Left side clearance =	2.4	(machine-to-machine)
B	Front clearance =	51.2	
C	Right side clearance =	27.6	(machine-to-wall)
D	Back clearance =	39.4	
E	Height clearance =	32.0	

***Version 1: A = 2.4 in., then C = 27.6 in. Version 2: A = 27.6 in., then C = 2.4 in.**



It is recommended to extract the exhaust air from the upper third of the room as this is where the heat collects. The room ventilation openings should be arranged that the current of cooling air flowing through the room passes over the blower inlet and exhaust ports and, if possible, should leave no stagnant air in the room. (A thermal short circuit must be avoided, i.e. discharged cooling air must not find its way to the cooling air inlet.)
The blower must not be positioned so near to a wall that the inflow of cooling air is obstructed.

Pipework should be insulated against heat emission.

If the blower station is located in the middle of a large hall its exhaust air can be extracted by means of a duct positioned above the exhaust port (illustrated in broken lines).