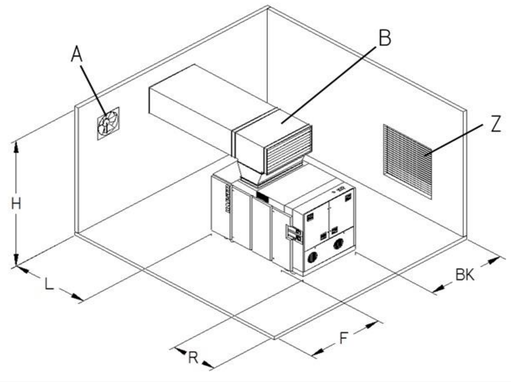
Installation Data Sheet

Series: Direct Drive HSD 60Hz
Document No.: TI-DATA-2016-SFC 410 515
Version: 2.1
Revision Date: 6/1/2020

Model		SFC 410					SFC 515					
Rated Pressure [psig]		**100**	**110**	**125**	**145**	**175**	**100**	**110**	**125**	**145**	**175**	**217**
I. COOLING DATA												
Cooling System Available [Std., Opt.]		W/C					W/C					
Standard Ambient Temp. Range [°F]		40 - 115					40 - 115					
VENTILATION OF COMPRESSOR ROOM												
Air Inlet Opening [sq. ft. **free area**] (W/C) **Z**		19.4					20.5					
Solution A (forced ventilation with exhaust fan) as shown in service manual												
Cooling Fan Capacity [CFM] (W/C)		14,714					15,892					
Solution B (exhaust air used for space heating) as shown in service manual												
Internal Cooling Fan Capacity [CFM] (W/C)		5,886					5,886					
Max. Additional Pressure Drop for Ducts [inch Water Column] (W/C)		0.16					0.16					
Exhaust Air Opening Reference Dimensions (L x W) [in]	See drawing for actual dimensions. The actual individual duct dimension will vary for every installation based on actual length, number and type of bends, accessories etc.	36 x 67					36 x 67					

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



A **Exhaust Fan**

B **Exhaust Air Duct**

Z **Inlet Air Opening**

Recommended machine placement and dimensions **inches**

L	**Left side clearance =**	**100**
R	**Right side clearance =**	**60**
F	**Front clearance =**	**100**
BK	**Back clearance =**	**100**
H	**Height clearance =**	**157**

WATER COOLED DATA					
Type of heat exchangers	stainless steel, plate-type		stainless steel, plate-type	
Internal Cooling Fan Capacity [CFM]	5,886		5,886	
Approach Temp. [°F] Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	1.8		1.8	
Heat Rejected into Cooling Water [BTU / HR]	1,454,500		1,816,000	
Heat Rejected into Cooling Air [BTU / HR]	125,000		155,000	
Max. outlet temperature [°F] Discharge temperature limited for non-treated water (to prevent calcification).	130		130	
Temperature differential between inlet water and max. discharge water temperature [°F]	27	54	27	54
Max. inlet water temperature [°F]	105	68	105	68
Min. cooling water flow [gpm]	70.5 / 44	35.2 / 22	83.6 / 53	41.8 / 26.5
Pressure drop across compressor package [psi] **WITHOUT** cooling water throttling valve	17.5 / 7.5	4.5 / 3	24.5 / 10	6 / 3
Pressure drop across compressor package [psi] **WITH** cooling water throttling valve	24 / 10	6 / 4	33 / 14	8.5 / 4

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Specifications are subject to change without notice.

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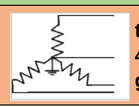
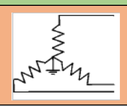
II. ELECTRICAL DATA	***Electrical data may vary in accordance with motor manufacturer's specifications. Motors are EISA compliant.***											
DRIVE MOTOR												
Motor HP	*Motor A*	350					450					
Insulation Class	*Motor A*	F					F					
Standard Voltage	*Motor A*	460V/3ph/60Hz					460V/3ph/60Hz					
Full Load Amps [FLA] @ 460V/3ph/60Hz	*Motor A*	380					510					
Full Load Amps [FLA] @ 575V/3ph/60Hz	*Motor A*	308					396					
Motor HP	*Motor B*	250					250					
Insulation Class	*Motor B*	F					F					
Standard Voltage	*Motor B*	460V/3ph/60Hz					460V/3ph/60Hz					
Full Load Amps [FLA] @ 460V/3ph/60Hz	*Motor B*	245					305					
Full Load Amps [FLA] @ 575V/3ph/60Hz	*Motor B*	200					260					
FAN MOTOR (W/C)												
Insulation Class		F					F					
Fan Motor [HP], Single Speed		1.1					1.1					
Full Load Amps [FLA] @ 460V/3ph/60Hz		1.2					1.2					
Full Load Amps [FLA] @ 575V/3ph/60Hz		2.4					2.4					
TOTAL PACKAGE DATA (W/C)												
Do NOT operate package on any unsymmetrical power supply. Also do NOT operate package on power supplies like, for example, a three-phase (open) delta or three-phase star with non-grounded neutral. The machine requires a symmetrical three-phase power supply transformer with a WYE configuration output as shown on the right. In a symmetrical three-phase supply the phase angles and voltages are all the same. Other power supplies are not suitable.		 **three-phase star (wye); 4-wire; grounded neutral**					 **three-phase star (wye); 4-wire; grounded neutral**					
Continuous Duty [Hours per day]		24					24					
Control Cabinet Class (NEMA)		12					12					
Short Circuit Current Rating (SCCR) [kA] @ 460V/3ph/60Hz		50					50					
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz		50					50					
Package Full Load Amps @ 460V/3ph/60Hz [FLA]		684					850					
Package Full Load Amps @ 575V/3ph/60Hz [FLA]		551					668					
Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz	Dual-element time-delay fuse; based on 2011 NEC 240.6, 430.52, and Tables 430.52, 430.148,and 430.150.4.	1000					1200					
Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz		800					1000					
Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz	Based on 2011 NEC 110.14(C), 220.3, 310.15, Table 310.16, 430.6, 430.22, 430.24 and Tables 430.148 and 430.150. Use multi-strand copper core wire. Size calculated based on 40°C ambient temperature, with 60°C insulation rated wire if package FLA x 1.25 is less than 100A or 75°C temperature rated wire for 100A and larger.	4 x 250 kcmil per phase and ground					4 x 350 kcmil per phase and ground					
Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/3ph/60Hz		3 x 300 kcmil per phase and ground					4 x 250 kcmil per phase and ground					

KAESER COMPRESSORS®

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INSTALLATION and MAINTENANCE DATA												
W/C with Super Soundproofing [dB(A)]	SOUND PRESSURE LEVEL [Measured in dB(A) according to ISO 2151 using ISO 9614-2]	75					76					
W/C Air Discharge [inches NPT or Flange]		6 ASME B16.5 class 150										
Cooling Water Connection [inches NPT or Flange]		4 x 2 NPT										
Power Input Conduit Opening(s) [inches]		4 x 3 in					4 x 3 in					
Condensate Drain Connection [NPT]		2 x 1/2					2 x 1/2					
Width [inches]		172					172					
Depth [inches]		84 1/2					84 1/2					
Height [inches]		92 1/2					92 1/2					
Floor Space [sq. ft.]		101					101					
Weight (W/C) [lb]	Weight may vary based on airend selected.	20,091					21,938					
COMPRESSOR FLUID DATA												
Fluid Capacity (W/C) [gal]		2 x 31.7					2 x 31.7					
Flow Rate [gal/min]		2 x 73					2 x 73					
Typical Oil Consumption [fl. Oz./100 h]		66.1					77.8					
Standard Fluid Type		Sigma M-460					Sigma M-460					
MAINTENANCE PARTS												
Air Inlet Filter		6.6323.1 (x2), 6.4991.0 (x2)										
Filter Mat for Control Cabinet		7.4519.00010 (x6); 5.3353.00020 ; 7.4519.0 (x2); 402703.0 (x2)										
Fluid Filter		6.4693.0 (x6)										
Fluid Separator Kit		6.3559.00010 (x2)										
Maintenance Kit for Optional 5-year warranty		ANAKHSDSFC3S										
Maintenance Kit for Optional 5-year warranty, with food-grade lubricant		ANAKHSDSFC3F										