





Installation Data Sheet
 Series: 1:1 Direct Drive ESD.4 SFC
 Document No.: TI-DATA-2017-SFC 200 250
 Version: 3.0
 Revision Date: 04/17/2023

Model	SFC 200						SFC 250										
	Rated Pressure [psig]						110	125	145	175	190	217	110	125	145	175	190
I. COOLING DATA																	
Cooling System Available [Std., Opt.]	A/C, W/C						A/C, W/C										
Standard Ambient Temp. Range [°F]	40 - 115						40 - 115										
VENTILATION OF COMPRESSOR ROOM																	
Air Inlet Opening [sq. ft. free area] (A/C) Z	43.5						60.2										
Air Inlet Opening [sq. ft. free area] (W/C) Z	11.8						12.9										
Solution A (forced ventilation with exhaust fan) as shown in service manual																	
Cooling Fan Capacity [CFM] (A/C)	38,258						47,086										
Cooling Fan Capacity [CFM] (W/C)	8,829						10,594										
Solution B (exhaust air used for space heating) as shown in service manual																	
Internal Cooling Fan Capacity [CFM] (A/C)	17,657						20,012										
Internal Cooling Fan Capacity [CFM] (W/C)	2,943						2,943										
Max. Additional Pressure Drop for Ducts [inch Water Column] (A/C) (W/C)	0.40 / 0.16						0.32 / 0.16										
Exhaust Air Opening Reference Dimensions (L x W) [in]	66 x 66						66 x 66										
<p align="center">Model shown for reference only Actual Duct size may vary with installation</p> <p align="center">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.</p>																	
Solution A Exhaust Fan																	
Solution B Exhaust Duct																	
Ventilation of Compressor Room Z																	
AIR COOLED DATA																	
Internal Cooling Fan Capacity [CFM]	17,657						20,012										
Approach Temp. [°F]	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.						14.4	12.6	10.8	16.2	14.4	12.6					
Typical Heat Rejected [BTU / HR]	721,000						829,000										
Fan Motor [HP], oilcooler aircooler	7.5 / 4.0						7.5 / 4.0										
WATER COOLED DATA																	
Type of heat exchangers	stainless steel, plate-type						stainless steel, plate-type										
Internal Cooling Fan Capacity [CFM]	2,943						2,943										
Approach Temp. [°F]	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.						1.8										
Typical Heat Rejected into Cooling Water [BTU / HR]	Based on highest input kW of machine.						696,000										
Heat Rejected into Cooling Air [BTU / HR]	64,000						71,000										
Max. outlet temperature [°F]	Discharge temperature limited for non-treated water (to prevent calcification).						130										
Temperature differential between inlet water and max. discharge water temperature [°F]	27		54		27		54										
Min. / Max. pressure [psi]	15		145		15		145										
Max. inlet water temperature [°F]	105		77		105		77										
Min. cooling water flow [gpm]	51.5		25.9		59.5		30										
Pressure drop across compressor package [psi] WITHOUT cooling water throttling valve	10.2		3.6		13		4.4										
Pressure drop across compressor package [psi] WITH cooling water throttling valve	14		5		17		6										



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Rated Pressure [psig]												
II. ELECTRICAL DATA <i>Electrical data may vary in accordance with motor manufacturer's specifications. Motors are EISA compliant.</i>												
DRIVE MOTOR												
Motor HP	250						350					
Insulation Class	F						F					
Standard Voltage	460V/3ph/60Hz						460V/3ph/60Hz					
Full Load Amps [FLA] @ 460V/3ph/60Hz	325						380					
Full Load Amps [FLA] @ 575V/3ph/60Hz	245						303					
FAN MOTOR (A/C) Oilcooler												
Insulation Class	F						F					
Fan Motor [HP]	7.5						7.5					
Full Load Amps [FLA] @ 460V/3ph/60Hz	11						11					
Full Load Amps [FLA] @ 575V/3ph/60Hz	8.2						8.2					
FAN MOTOR (A/C) Aircooler												
Insulation Class	F						F					
Fan Motor [HP]	4						4					
Full Load Amps [FLA] @ 460V/3ph/60Hz	6.0						6.0					
Full Load Amps [FLA] @ 575V/3ph/60Hz	4.8						4.8					
FAN MOTOR (W/C)												
Insulation Class	F						F					
Fan Motor [HP], Single Speed	0.5						0.5					
Full Load Amps [FLA] @ 460V/3ph/60Hz	0.6						0.6					
Full Load Amps [FLA] @ 575V/3ph/60Hz	1.2						1.2					
TOTAL PACKAGE DATA (A/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.												
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>three-phase star (wye); 4-wire; grounded neutral</p> </div> <div style="text-align: center;">  <p>three-phase star (wye); 3-wire; grounded neutral</p> </div> </div>												
Continuous Duty [Hours per day]	24						24					
Control Cabinet Class (NEMA)	12						12					
Short Circuit Current Rating (SCCR) [kA] @ 460V/3ph/60Hz	Field installed fuse required, see below*						65					
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz	Field installed fuse required, see below*						65					
Package Full Load Amps @ 460V/3ph/60Hz [FLA]	377						418					
Package Full Load Amps @ 575V/3ph/60Hz [FLA]	291						335					
Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz	*Time delay (dual element) fuse; Class J ≤ 600A (e.g. AJT) / Class L > 600A (e.g. A4BQ). Based on 2020 NEC 240.6, 430.52, and Tables 430.52, 430.248, and 430.250						500					
Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz							400					
Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz	The following multi-strand copper core wires are given according to 2020 NEC 310.14, 310.15, 310.16 and table 310.16 adjusted for 40°C ambient temperature. If other local conditions prevail, for example high temperature, the cross section should be checked and adjusted according to 2020 NEC 110.14(C), 220.3, 310.14, 310.15, 310.16, 430.6, 430.22, 430.24, 670.4(A) and other local codes.						2 x 300 kcmil per phase and ground					
Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/3ph/60Hz							2 x 4/0 AWG per phase and ground					
TOTAL PACKAGE DATA (W/C)												
Package Full Load Amps @ 460V/3ph/60Hz [FLA]	366						407					
Package Full Load Amps @ 575V/3ph/60Hz [FLA]	281						325					



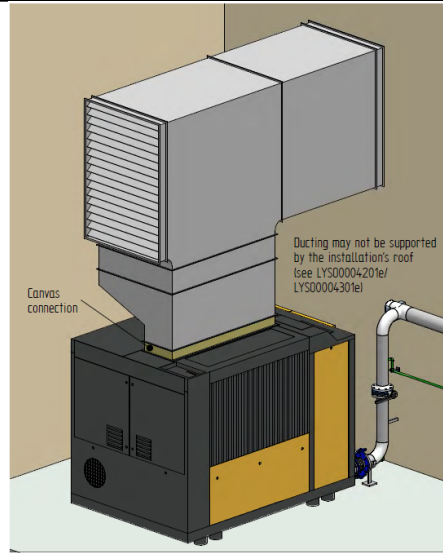
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INSTALLATION and MAINTENANCE DATA												
A/C with Super Soundproofing [dB(A)]	SOUND PRESSURE LEVEL [Measured in dB(A) according to ISO 2151 using ISO 9614-2]					76			77			
W/C with Super Soundproofing [dB(A)]						74			74			
A/C Air Discharge [inches NPT or Flange]						4 ASME B16.5 class 150						
W/C Air Discharge [inches NPT or Flange]						4 ASME B16.5 class 150						
Cooling Water Connection [inches NPT or Flange]						1 1/2 ASME B16.5 class 150						
Power Input Conduit Opening(s) [inches]						2 x 3			2 x 3			
Condensate Drain Connection [NPT]						1/2			1/2			
Width [inches]						126			126			
Depth [inches]						79 7/8			79 7/8			
Height [inches]						84 1/4			84 1/4			
Floor Space [sq. ft.]						69 8/9			69 8/9			
Weight (A/C) [lb]						12,081			12,478			
Weight (W/C) [lb]						12,081			12,478			
COMPRESSOR FLUID DATA												
Fluid Capacity (A/C) [gal]						35.7			35.7			
Fluid Capacity (W/C) [gal]						30.4			30.4			
Flow Rate [gal/min]						89.8			89.8			
Typical Oil Consumption [fl. Oz./100 h]						32.8			37.6			
Standard Fluid Type						Sigma S-460			Sigma S-460			
MAINTENANCE PARTS												
Air Inlet Filter & Pre Filter for Inlet Filter						4E0304.0						
Filter Mat (optional)						6.1943.0 (x4)						
Filter Mat for Control Cabinet						7.4519.00040 (x1); 7.4519.00010 (x4); 5.3353.00040 (x1)						
Fluid Filter						6.4693.0						
Fluid Separator Kit						6.3559.00010						
Maintenance Kit for Optional 5-year warranty						ANAKESDSFC4S						
Maintenance Kit for Optional 5-year warranty, with food-grade lubricant						ANAKESDSFC4F						

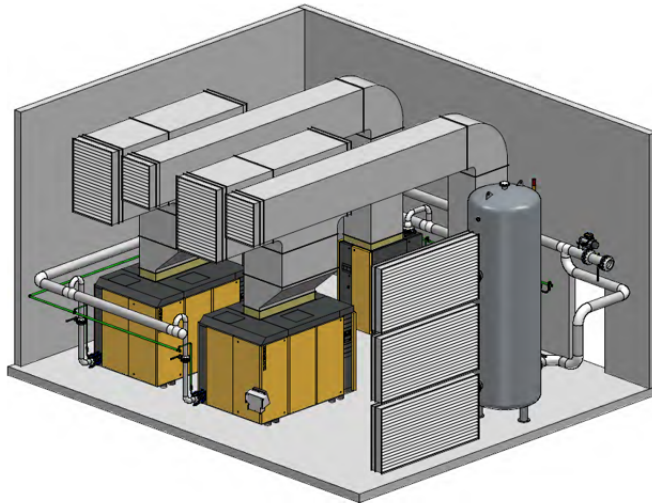
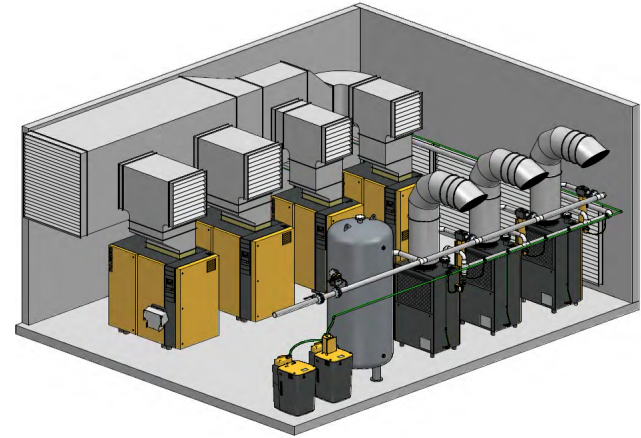
Model	SFC 200						SFC 250					
	110	125	145	175	190	217	110	125	145	175	190	217
Rated Pressure [psig]												

SAMPLE SKETCHES

Sample Installation Planning
Examples of room ventilation and ductwork
Please note the upsizing required for compressor exhaust ducts



Duct / pipe connection ESD



1:60
2x ESD 300 / 2x TG980 / 2x F530 KE,KA

Example designs only, not for construction purposes.