



Installation Data Sheet
 Series: 1:1 Direct Drive CSD.6 SFC
 Document No.: TI-DATA-2023-CSD SFC 45 55 75S
 Preliminary Data Release Date: 05/30/2023
 Version 1.1

Model	SFC 45					SFC 55					SFC 75S							
Rated Pressure [psig]	100	110	125	150	175	110	125	145	175	190	217	110	125	145	175	190	217	
I. COOLING DATA																		
Cooling System Available [Std., Opt.]	A/C, W/C					A/C, W/C					A/C, W/C							
Standard Ambient Temp. Range [°F]	40 - 115					40 - 115					40 - 115							
VENTILATION OF COMPRESSOR ROOM																		
Air Inlet Opening [sq. ft. free area] (A/C) Z	14.0					16.1					20.5							
Air Inlet Opening [sq. ft. free area] (W/C) Z	4.3					4.3					5.4							
Solution A (forced ventilation with exhaust fan) as shown in service manual																		
Cooling Fan Capacity [CFM] (A/C)	11,183					12,949					15,892							
Cooling Fan Capacity [CFM] (W/C)	2,649					2,943					3,532							
Solution B (exhaust air used for space heating) as shown in service manual																		
Internal Cooling Fan Capacity [CFM] (A/C)	5,003					5,886					6,474							
Internal Cooling Fan Capacity [CFM] (W/C)	1,001					1,001					1,001							
Max. Additional Pressure Drop for Ducts [Inch Water Column] (A/C) (W/C)	0.32 / 0.16					0.32 / 0.16					0.24 / 0.16							
Exhaust Air Opening Reference Dimensions (L x W) [in]	35 x 35					35 x 35					35 x 35							
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.																		
Model shown for reference only Actual Duct size may vary with installation																		
Solution A Exhaust Fan																		
Solution B Exhaust Duct																		
Ventilation of Compressor Room Z																		
Coming Soon																		
AIR COOLED DATA																		
Internal Cooling Fan Capacity [CFM]	5,003					5,886					6,474							
Approach Temp. [°F]	12.6					10.8	14.4	12.6	10.8	12.6	14.4	10.8	12.6	14.4	10.8	12.6	14.4	10.8
Typical Heat Rejected [BTU / HR]	181,000					219,500					279,000							
Fan Motor [HP]	2.5					2.5					2.5							
WATER COOLED DATA																		
Type of heat exchangers	stainless steel, plate type					stainless steel, plate type					stainless steel, plate type							
Internal Cooling Fan Capacity [CFM]	1,001					1,001					1,001							
Approach Temp. [°F]	1.8					1.8					1.8							
Typical Heat Rejected into Cooling Water [BTU / HR]	TBD					TBD					TBD							
Heat Rejected into Cooling Air [BTU / HR]	TBD					TBD					TBD							
Max. outlet temperature [°F]	TBD					TBD					TBD							
Discharge temperature limited for non-treated water (to prevent calcification).																		
Temperature differential between inlet water and max. discharge water temperature [°F]	TBD					TBD					TBD							
Max. inlet water temperature [°F]	TBD					TBD					TBD							
Min. cooling water flow [gpm]	TBD					TBD					TBD							
Pressure drop across compressor package [psi] WITHOUT cooling water throttling valve	TBD					TBD					TBD							
Pressure drop across compressor package [psi] WITH cooling water throttling valve	TBD					TBD					TBD							



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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	60					75					100									
Insulation Class	F					F					F									
Standard Voltage	460V					460V					460V									
Type	SynRM					SynRM					SynRM									
FAN MOTOR (A/C)																				
Insulation Class	F					F					F									
Fan Motor [HP]	2.5					2.5					2.5									
Full Load Amps [FLA] @ 460V/3ph/60Hz	TBD					TBD					TBD									
Full Load Amps [FLA] @ 575V/3ph/60Hz	TBD					TBD					TBD									
FAN MOTOR (W/C)																				
Insulation Class	F					F					F									
Fan Motor [HP], Single Speed	0.13					0.13					0.13									
Full Load Amps [FLA] @ 460V/3ph/60Hz	1.45					1.45					1.45									
Full Load Amps [FLA] @ 575V/3ph/60Hz	CF					CF					CF									
TOTAL PACKAGE DATA (A/C)																				
<p>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.</p>																				
<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					24									
Control Cabinet Class (NEMA)	12					12					12									
Short Circuit Current Rating (SCCR) [kA] @ 460V/3ph/60Hz	Field installed fuse required, see below*					50					50									
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz	Field installed fuse required, see below*					TBD					TBD									
Package Full Load Amps @ 460V/3ph/60Hz [FLA]	94					111					137									
Package Full Load Amps @ 575V/3ph/60Hz [FLA]	TBD					TBD					TBD									
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					125					150					200				
Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz						TBD					TBD					TBD				
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.					1/0 AWG per phase and ground					2/0 AWG per phase and ground					3/0 AWG per phase and ground				
Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/3ph/60Hz						TBD					TBD					TBD				
TOTAL PACKAGE DATA (W/C)																				
Package Full Load Amps @ 460V/3ph/60Hz [FLA]	91					108					134									
Package Full Load Amps @ 575V/3ph/60Hz [FLA]	TBD					TBD					TBD									



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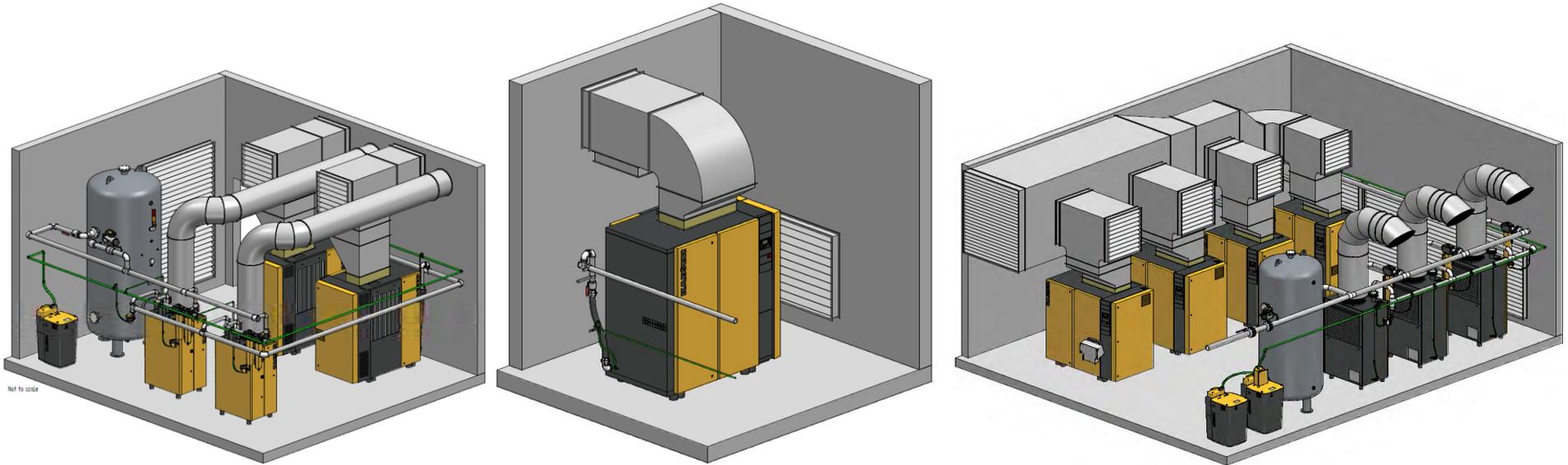
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	100	110	125	150	175	110	125	145	175	190	217	110	125	145	175	190	217			
INSTALLATION and MAINTENANCE DATA																				
A/C with Super Soundproofing [dB(A)]	SOUND PRESSURE LEVEL [Measured in dB(A) according to ISO 2151 using ISO 9614-2]																			
W/C with Super Soundproofing [dB(A)]	68					70					73									
A/C Air Discharge [inches NPT or Flange]	68					70					73									
W/C Air Discharge [inches NPT or Flange]						2 NPT														
Cooling Water Connection [inches NPT or Flange]						2 NPT														
Power Input Conduit Opening(s) [inches]						1 1/4														
Condensate Drain Connection [NPT]						2 1/4														
Width [inches]						1/4 NPT														
Depth [inches]						72 1/2														
Height [inches]						43 1/4														
Floor Space [sq. ft.]						74 3/4														
Weight (A/C) [lb]						21 69/89														
Weight (W/C) [lb]						3,020					3,064					3,131				
Weight may vary based on airend selected.																				
COMPRESSOR FLUID DATA																				
Fluid Capacity (A/C) [gal]	3,020					3,064					3,131									
Fluid Capacity (W/C) [gal]	3,020					3,064					3,131									
Flow Rate [gal/min]	9.2					9.2					9.2									
Typical Oil Consumption [fl. Oz./100 h]	8.1					8.1					8.1									
Standard Fluid Type	21.1					21.1					21.1									
	8.7					10.3					12.9									
	Sigma S-460					Sigma S-460					Sigma S-460									
MAINTENANCE PARTS																				
Air Inlet Filter						4E0302.0														
Filter Mat (optional)						6.1687.0 (x2)														
Filter Mat for Control Cabinet						7.4519.00040 (x5)														
Fluid Filter						6.4493.0														
Fluid Separator Kit						6.3571.0														
Maintenance Kit for Optional 5-year warranty						ANAKCSD6SFCS														
Maintenance Kit for Optional 5-year warranty, with food-grade lubricant						ANAKCSD6SFCF														

Model Rated Pressure [psig]	SFC 45					SFC 55					SFC 75S					
	100	110	125	150	175	110	125	145	175	190	217	110	125	145	175	190

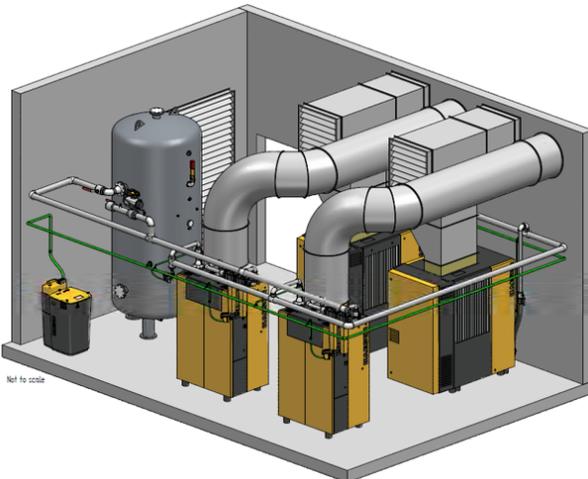
SAMPLE SKETCHES

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



2x CSD 100S / 2x TE 122 / 2x F142 KE / 2x F142KA

Duct / Pipe connection CSD.6



2x CSD 100S / 2x TF 230 / 2x F142 KE,KA

Example designs only, not for construction purposes.