

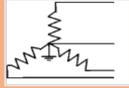
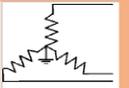


Installation Data Sheet
 Series: 1:1 Direct Drive CSD.5 SFC
 Document No.: TI-DATA-2018-CSD SFC 45T 55T 75ST
 Version: 1.2
 Revision Date: 06/01/2020

Model	SFC 45T						SFC 55T						SFC 75ST					
	110	125	145	175	190	217	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	16.2						19.4						23.7					
Air Inlet Opening [sq. ft. free area] (W/C) Z	6.5						7.5						7.5					
Solution A (forced ventilation with exhaust fan) as shown in service manual																		
Cooling Fan Capacity [CFM] (A/C)	12,949						15,303						18,246					
Cooling Fan Capacity [CFM] (W/C)	4,414						5,297						5,886					
Solution B (exhaust air used for space heating) as shown in service manual																		
Internal Cooling Fan Capacity [CFM] (A/C)	Compressor 5,709			Dryer 1,354			Compressor 5,709			Dryer 1,354			Compressor 6,474			Dryer 2649 / 1354		
Internal Cooling Fan Capacity [CFM] (W/C)	2,354						2,354						3,649					
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]	32 x 32						32 x 32						32 x 32					
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>Model shown for reference only Actual Duct size may vary with installation</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>A Exhaust Fan</p> <p>B Exhaust Air Duct</p> <p>Z Inlet Air Opening</p> </div> <div style="width: 35%; text-align: center;"> </div> <div style="width: 30%;"> <p>Recommended machine placement and dimensions</p> <p>Compressor to Duct clearance = 15 inches</p> <p>L Left side clearance = 15</p> <p>R Right side clearance = 40</p> <p>F Front clearance = 50</p> <p>BK Back clearance = 40</p> <p>H Height clearance = 140</p> </div> </div>																		
AIR COOLED DATA																		
Internal Cooling Fan Capacity [CFM]	5,709						5,709						6,474					
Approach Temp. [°F]	12.6						14.4						16.2					
Typical Heat Rejected [BTU / HR]	185,000						223,000						285,000					
Fan Motor [HP]	1.5						1.5						1.7					
WATER COOLED DATA																		
Type of heat exchangers	stainless steel, plate type						stainless steel, plate type						stainless steel, plate type					
Internal Cooling Fan Capacity [CFM]	2,354						2,354						3,649					
Approach Temp. [°F]	1.8						1.8						1.8					
Heat Rejected into Cooling Water [BTU / HR]	181,500						219,500						281,000					
Heat Rejected into Cooling Air [BTU / HR]	16,322						19,672						23,699					
Max. outlet temperature [°F]	120						120						120					
Temperature differential between inlet water and max. discharge water temperature [°F]	20		50		20		50		20		50		20		50			
Max. inlet water temperature [°F]	104		68		104		68		104		68		104		68			
Min. cooling water flow [gpm]	16.6		6.7		20.2		8.1		25.0		10.0		13.1		2.9			
Pressure drop across compressor package [psi] WITHOUT cooling water throttling valve	5.8		2.9		8.7		2.9		13.1		2.9		32		6			
Pressure drop across compressor package [psi] WITH cooling water throttling valve	15		5		20		5		32		6							



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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/3ph/60Hz					460V/3ph/60Hz					460V/3ph/60Hz									
Full Load Amps [FLA] @ 460V/3ph/60Hz	93					114					152									
Full Load Amps [FLA] @ 575V/3ph/60Hz	CF					CF					CF									
FAN MOTOR (A/C)																				
Insulation Class	F					F					F									
Fan Motor [HP]	1.5					1.5					1.7									
Full Load Amps [FLA] @ 460V/3ph/60Hz	2.5					2.5					2.9									
Full Load Amps [FLA] @ 575V/3ph/60Hz	CF					CF					CF									
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)																				
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					24									
Control Cabinet Class (NEMA)	12					12					12									
Short Circuit Current Rating (SCCR) [kA] @ 460V/3ph/60Hz	50					50					50									
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz	CF					CF					CF									
Package Full Load Amps @ 460V/3ph/60Hz [FLA]	98					115					142									
Package Full Load Amps @ 575V/3ph/60Hz [FLA]	CF					CF					CF									
Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz	Dual-element time-delay fuse; based on 2017 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						CF					CF					CF				
Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz	Based on 2017 NEC 110.14(C), 220.3, 310.15, Table 310.15(B)(2)(a), 310.15(B)(3)(a), 430.6, 430.22, 430.24 and 670.4(A). Use multi-strand copper core wire. Size calculated based on 40oC 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.					1/0 AWG per phase and ground					2/0 AWG per phase and ground					4/0 AWG per phase and ground				
Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/3ph/60Hz						CF					CF					CF				
TOTAL PACKAGE DATA (W/C)																				
Package Full Load Amps @ 460V/3ph/60Hz [FLA]	96					113					140									
Package Full Load Amps @ 575V/3ph/60Hz [FLA]	CF					CF					CF									



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INSTALLATION and MAINTENANCE DATA																		
A/C with Super Soundproofing [dB(A)]	73					74					75							
W/C with Super Soundproofing [dB(A)]	71					72					73							
A/C Air Discharge [inches NPT or Flange]						2 NPT												
W/C Air Discharge [inches NPT or Flange]						2 NPT												
Cooling Water Connection [inches NPT or Flange]						1 1/4 NPT												
Power Input Conduit Opening(s) [inches]						1 x 2 1/4												
Condensate Drain Connection [NPT]						2 x 1/4												
Width [inches]						85												
Depth [inches]						43 3/4												
Height [inches]						74 3/4 A/C, 76 1/8 W/C												
Floor Space [sq. ft.]						25 5/6												
Weight (A/C) [lb]	3,005					3,137					3,247							
Weight (W/C) [lb]	3,005					3,137					3,247							
COMPRESSOR FLUID DATA																		
Fluid Capacity (A/C) [gal]	9.5					9.5					9.5							
Fluid Capacity (W/C) [gal]	9.5					9.5					9.5							
Flow Rate [gal/min]	19.8					19.8					19.8							
Typical Oil Consumption [fl. Oz./100 h]	7.8					9.4					11.6							
Standard Fluid Type	Sigma M-460					Sigma M-460					Sigma M-460							
MAINTENANCE PARTS																		
Air Inlet Filter						6.4149.1 & 6.5993.0												
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						ANAKCSD5SFCS												
Maintenance Kit for Optional 5-year warranty, with food-grade lubricant						ANAKCSD5SFCF												
DRYER DATA - FOR T MODELS																		
Dryer Model	ABT 105					ABT 105					ABT 125		ABT 105					
Maximum Inlet Air Pressure (Compressed Air at Inlet to Dryer) [psig]	232					232							232					
Nominal Pressure Drop at Rated Flow [psid]	1.5					1.5							1.5					
Rated Pressure Dewpoint [°F] at Standard Conditions	38					38							38					
Pressure Dewpoint per ISO 8573-1.											Class 4 - 6 based on ambient conditions.							
REFRIGERATION SYSTEM DATA - FOR T MODELS																		
Compressor Type	ZR24KRE-TFD					ZR24KRE-TFD					ZR28KRE-TFD							
BTU/Refrigeration ASHRAE	15,000					15,000					16,400							
Outlet Air Temperature (Nominal at Rated Conditions) [°F]	73					72					75							
Refrigerant Type	R-513A					R-513A					R-513A							
GWP (Global Warming Potential)	631					631					631							
CO2 equivalent [t]	0.91					0.91					1.04		0.91					
Refrigerant Charge [lb]	3.2					3.2					3.6		3.2					
Air Flow Across Condenser [CFM]	1,354					1,354					2,649		1,354					