COMPRESSORS ®	
	Model
	Rated Pressure
I. COOLING DATA	
Cooling System Available [Std., Opt.]	
Standard Ambient Temp. Range [°F]	
VENTILATION OF COMPRESSOR ROOM	
Air Inlet Opening [sq. ft. free area] (A/C) Z	
Air Inlet Opening [sq. ft. free area] (W/C) Z	
Solution A (forced ventilation with exhaust fan) as shown	n in service manual
Cooling Fan Capacity [CFM] (A/C)	
Cooling Fan Capacity [CFM] (W/C)	
Solution B (exhaust air used for space heating) as show	n in service manua
Internal Cooling Fan Capacity [CFM] (A/C)	
Internal Cooling Ean Conscitut [CEM] (M/C)	
Internal Cooling Fan Capacity [CFM] (W/C) Max. Additional Pressure Drop for Ducts [inch Water Colum	n] (A/C) (W/C)
	See di
Exhaust Air Opening Reference Dimensions (L x W) [in]	
Model shown for reference only	
Actual Duct size may vary with installation	
A Exhaust Fan	
A Exhaust Fan	
B Exhaust Air Duct	
Z Inlet Air Opening	
AIR COOLED DATA	
Internal Cooling Fan Capacity [CFM]	
Approach Temp. [°F]	F
Typical Heat Rejected [BTU / HR]	
Fan Motor [HP]	
WATER COOLED DATA	
Type of heat exchangers	
Internal Cooling Fan Capacity [CFM]	
Approach Temp. [°F]	F
Heat Rejected into Cooling Water [BTU / HR]	
Heat Rejected into Cooling Air [BTU / HR]	
Max. outlet temperature [°F]	
Temperature differential between inlet water and max. disch	arge water temperat
Max. inlet water temperature [°F]	
Min. cooling water flow [gpm]	
Pressure drop across compressor package [psi] WITHOUT	
Pressure drop across compressor package [psi] WITH cooling	ng water throttling va

Installation I Series: 1:1 Direct I Document No.: TI-DATA-201 Versior Revision Date:	Drive CSD 8-CSD SF n: 1.2	.5 SFC C 45T		ST															
	. 00/01/20	20	SFC	45 T					SF	C 55T			SFC 75ST						
e [psig]	110	125	145	175	190	217	110	125	145		190	217	110	125	145	175	190	21	
			145	175	130	217	110	IZJ	145	175	130			125	145	175	130		
			A/C.	W/C					A/C	C, W/C					A/C	, W/C			
			40 -) - 115						- 115			
			16	5.2			19.4								2	23.7			
			6.	.5			7.5									7.5			
							F												
			12,9							5,303						3,246			
			4,4	-14					5	5,297					5	,886			
	Corr	presso	r		Dryer		C	ompress	sor		Dryer			mpress	or		Dryer		
		,709			1,354			5,709			1,354			6,474		2	649 / 135	54	
		,100	2,3	54	1,001			0,100		2,354	1,001			0,111	3	,649			
			0.32 /							2/0.16						/ 0.16			
Irawing for actual dimensions. The actual individual duct dimension will vary for every			32 ×	< 32					32	2 x 32					32	x 32			
installation based on actual length, number and type of bends, accessories etc.														•					
A B	Z								Ree	commei	nded mad dime	chine pla nsions	acement	and		inches			
		1	7							C	Compress	sor to D	uct clear	ance =		15			
		40							L			Left s	ide clear	ance =		15			
		7							R			-	ide clear ont clear			40 50			
40									г BK				ack clear			50 40			
50 40																			
	-								н			Hei	ght clear	ance =		140			
												•	J						
				<u> </u>					F	. 700									
Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	12.6		<u>5,7</u> 10			<u></u>	1 /	1.4		5,709 12.6	1(0.8	16	2		,474 4.4	11	2.6	
tereferice conditions. 14.5 psia, 50 % relative number and 00 r infet an temperature.	12.0		185,			5	14	+.4	-	23,000		5.0		.∠	-	+.4 5,000	12		
				.5						1.5						<u>0,000</u> 1.7			
		stainl	ess stee	el, plate	type			stain	nless st	teel, plat	te type			sta	inless st	eel, plate	type		
			2,3							2,354					3	,649			
Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.			1.							1.8						1.8			
			181,							9,500						1,000			
Discharge temperature limited for new treated water (to provent calcification)			16,3							9,672						3,699			
Discharge temperature limited for non-treated water (to prevent calcification). ture [°F]		20	12	20	50			20		120	50			20		120	50		
		<u>20</u> 104			<u> </u>			104			<u> </u>			104			<u> </u>		
		16.6			6.7			20.2			8.1			25.0			10.0		
ing valve		5.8			2.9			8.7			2.9			13.1			2.9		
alve		15			5			20			5			32			6		

T 75	ST																		
SFC	45T					SFC	55T					SFC	75ST						
45	175	190	217	110	125	145	175	190	217	110	125	145	175	190	217				
	W/C						W/C						, W/C						
40 -						<u>40 -</u>							, <u>115</u>						
16	5.2					19).4			23.7									
6.	5					7.	.5			7.5									
40.0	240					15 (202												
<u>12,9</u> 4,4						<u> </u>	303 997						,246 886						
<u> </u>	· · · ·					0,2	.07						000						
		Dryer		Co	ompresso	or		Dryer		Co	ompress	or		Dryer					
		1,354			5,709			1,354			6,474			649 / 13	54				
$\frac{2,3}{32/}$	654 70.16						854 / 0.16					· · ·	649 / 0.16						
32 x	(32					32 >	< 32					32	x 32						
						Reco	ommenc			acement	and								
								dimen	nsions				inches						
							Co	mpress	or to Du	uct clear	ance =		15						
								-											
						L			Left si	de clear	ance =		15						
						R			Right si	de clear	ance =		40						
						F			Fro	ont clear	ance =		50						
						BK			Ba	ck clear	ance =		40						
						н			Heig	ght clear	ance =		140						
5,7	09					5,7	'09					6,	474	1					
10			9	14	.4		2.6	10).8	16	.2		.4	1	2.6				
<u>185,</u>						-	,000 5						5,000						
Ι.	5					I.	.5						.7						
sstee	el, plate	type			stainl	ess ste	el, plate	type			sta	inless ste	el, plate	e type					
2,3	54					2,3	354					3,	649						
1.							.8						.8						
181,						•	,500 672						,000 ,699						
<u>16,3</u> 12						,	20						,099 20						
		50			20			50			20			50					
		68			104			68			104			68					
		6.7			20.2			8.1			25.0			10.0					
		<u>2.9</u> 5			8.7 20			<u>2.9</u> 5			<u>13.1</u> 32			<u>2.9</u> 6					
		J			20			J			JZ			0					

5,709			5,709			
10.8	9	14.4	12.6	10.8	16.2	
185,000			223,000			
1 5			1 5			

1.0	.J						
steel, plate type	stainless ste	el, plate type	stai				
2,354	2,3	354					
1.8	1						
181,500	219	,500					
16,322	19,	19,672					
120	1:	20					
50	20	50	20				
68	104	68	104				
6.7	20.2	8.1	25.0				
2.9	8.7	2.9	13.1				
5	20	5	32				



	Model
Rat	ed Pressure [psig]
II. ELECTRICAL DATA	Electrical data may vary in accordance with i
DRIVE MOTOR	
Motor HP	
Insulation Class	
Standard Voltage	
Full Load Amps [FLA] @ 460V/3ph/60Hz	
Full Load Amps [FLA] @ 575V/3ph/60Hz	
FAN MOTOR (A/C)	
Insulation Class	
Fan Motor [HP]	
Full Load Amps [FLA] @ 460V/3ph/60Hz	
Full Load Amps [FLA] @ 575V/3ph/60Hz	
FAN MOTOR (W/C)	
Insulation Class	
Fan Motor [HP], Single Speed	
Full Load Amps [FLA] @ 460V/3ph/60Hz	
Full Load Amps [FLA] @ 575V/3ph/60Hz	
TOTAL PACKAGE DATA (A/C)	
(open) delta or three-phase star with non-grounded neutral. The r configuration output as shown on the right. In a symmetrical th sup	
Continuous Duty [Hours per day]	
Control Cabinet Class (NEMA)	
Short Circuit Current Rating (SCCR) [kA] @ 460V/3ph/60Hz	
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz	
Package Full Load Amps @ 460V/3ph/60Hz [FLA]	
Package Full Load Amps @ 575V/3ph/60Hz [FLA]	
Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz	Dual-element time-delay fuse; based on 2017 I
Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz	
Recommended Disconnect Wire Size [AWG/kcmil] @	Based on 2017 NEC 110.14(C), 220.3, 3 ²
460V/3ph/60Hz	430.22, 430.24 and 670.4(A). Use multi-stra
Recommended Disconnect Wire Size [AWG/kcmil] @	ambient temperature, with 60°C insulation r
575V/3ph/60Hz	
TOTAL PACKAGE DATA (W/C)	
Package Full Load Amps @ 460V/3ph/60Hz [FLA]	
Package Full Load Amps @ 575V/3ph/60Hz [FLA]	

Fackage Full Luau Amps @ 5757/3ph/00HZ [FLA]

Installation Data Sheet Series: 1:1 Direct Drive CSD.5 SFC

Document No.: TI-DATA-2018-CSD SFC 45T 55T

	Revision Date	e: 06/01/	2020					
	Model			SF	C 45T			
Rate	ed Pressure [psig]	110	125	145	175	190	217	11
	Electrical data may vary in accordance with motor manufacturer's specifications. Motors are E	EISA comp	oliant.					
					60			
					F			
				460V/	3ph/60H	Z		
					93			<u> </u>
					CF			
								T
					F			
					1.5			
					2.5 CF			
					F			
				(0.13			
					.45			
					CF			
nded neutral. The m In a symmetrical the	Also do NOT operate package on power supplies like, for example, a three-phase nachine requires a symmetrical three-phase power supply transformer with a WYE ree-phase supply the phase angles and voltages are all the same. Other power olies are not suitable.	2	4 ¹ -14	1	4-wire		tar (wye) Itral);
					24			
					12			
0V/3ph/60Hz					50			<u> </u>
5V/3ph/60Hz					CF			
LA]					<u>98</u>			-
LA]					CF			+
2 460V/3ph/60Hz	Dual-element time-delay fuse; based on 2017 NEC 240.6, 430.52, and Tables 430.52, 430.248, and				125			
2 575V/3ph/60Hz	430.250				CF			
mil] @	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		1/0 AV	/G per p	hase an	d groun	d	
mil] @	ambient temperature, with 60°C insulation rated wire if package FLA x 1.25 is less than 100A o 75°C temperature rated wire for 100A and larger	r			CF			
LA]					96			

	06/01/2020	SFC	45T					SFC	55T					SFC	C 75ST					
	110 125	145	175	190	217	110	125	145	175	190	217	110	125	145	175	190	217			
lotors are EIS	A compliant.																			
		6				75							100							
						F								460\//	$\frac{F}{2ph/COH}$	-				
		460V/3p 9				460V/3ph/60Hz									<u>3ph/60Hz</u> 152	<u></u>				
		 C				114 CF									CF					
			-					F						F						
	<u> </u>							<u> </u>							1.7					
	2.5 CF							2. C							2.9 CF					
			•						•											
	F							F			F									
	0.13					0.13									0.13					
			45 F			1.45 CF							1.45 CF							
		0	· I					C												
e-phase h a WYE	WYE 4-wire:			;	3-wire;						ded neutral									
power	1 TIM		4-wire;					44	<u>ұ</u> т	=	3-wire;			, ,						
ower	2 NIN	<u>1</u> 2	4-wire; ground 4					2		_	3-wire;				24					
oower	2 NIN	12 1	4-wire; ground 4 2					1	2		3-wire;				12					
oower	L'NIN	12 1 5	4-wire; ground 4 2 0					1: 5	2 0		3-wire;				12 50					
oower	NIM	12 1	4 2 0 F					1	2 0 F		3-wire;				12					
power	N IN	12 1 5 C	4-wire; ground 4 2 0 F 8					1: 5 C	2 0 F 5		3-wire;				12 50 CF					
power	<u>n</u> <u>i</u> <u>i</u> <u>i</u>	12 1 5 C 9 C	4-wire; ground 4 2 0 F 8					1 5 C 11	2 0 F 5 F		3-wire;				12 50 CF 142					
	<u>n</u> <u>i</u>	12 1 5 C 9 C	4-wire; ground 4 2 0 F 8 F 8 F 25					1 5 C 11 C	2 0 F 5 F		3-wire;				12 50 CF 142 CF					
430.248,and 430.250. 3)(a), 430.6, sed on 40oC	1/0 AV	12 1 5 C 9 C 12	4-wire; ground 4 2 0 F 8 F 25 F	ed neut			2/0 AW(1 5 C 11 C 15	2 0 F 5 F 60 F	grounc	3-wire; ground				12 50 CF 142 CF 200	d ground				
30.248,and 430.250. 3)(a), 430.6, ed on 40oC nan 100A or	1/0 AV	12 1 5 C 9 C 12 12 C	4-wire; ground 4 2 0 F 8 F 25 F 25 F	ed neut			2/0 AW(1 5 C 11 C 15 C	2 0 F 5 F 60 F ase and	ground	3-wire; ground			VG per p	12 50 CF 142 CF 200 CF	d ground				
430.248,and 430.250. 3)(a), 430.6,	1/0 AV	2 1 5 C 9 C 12 12 VG per ph	4-wire; ground 4 2 0 F 8 F 25 F ase and F	ed neut			2/0 AW	1: 5 C 11 C 15 C 3 per ph	2 D F 5 F 60 F ase and F	ground	3-wire; ground			VG per p	12 50 CF 142 CF 200 CF CF	d ground				

KAESER Compressors	Series: 1 Document No.: Th	allation Data S 1:1 Direct Drive C -DATA-2018-CSD Version: 1.2 ision Date: 06/01/	SD.5 SFC SFC 45T											
Μ	odel			SFC 45T					SFC	55T				
	essure [psig]	110	125	145 175	190	217	110	125		T T	190	217	110	125
INSTALLATION and MAINTENANCE DATA		I I U			150		110	120	140	110	130			
A/C with Super Soundproofing [dB(A)]				73					7	74				
W/C with Super Soundproofing [dB(A)]	SOUND PRESSURE LEVEL [Measured in dB(A) according to ISO 2151 using	ISO 9614-2]		70						⁷ 2				
A/C Air Discharge [inches NPT or Flange]				, ,						NPT				
W/C Air Discharge [inches NPT or Flange]										NPT				
Cooling Water Connection [inches NPT or Flange]										/4 NPT				
Power Input Conduit Opening(s) [inches]										<u>, 2 1/4</u>				
Condensate Drain Connection [NPT]										<u>x 1/4</u>				
Width [inches]										85				
Depth [inches]										3 3/4				
Height [inches]								74		C, 76 1/8	W/C			
Floor Space [sq. ft.]										5 5/6				
Weight (A/C) [lb]				3,005					3,1					
Weight (W/C) [lb]	Weight may vary based on aire	end selected.		3,005					3,1					
COMPRESSOR FLUID DATA														
Fluid Capacity (A/C) [gal]				9.5					9.	.5				
Fluid Capacity (W/C) [gal]				9.5					9.					
Flow Rate [gal/min]				19.8					19					
Typical Oil Consumption [fl. Oz./100 h]				7.8					9.					
Standard Fluid Type				Sigma M-460					Sigma					
MAINTENANCE PARTS				<u></u>										
Air Inlet Filter								F	3.4149.1	& 6.5993	3.0			
Filter Mat (optional)										87.0 (x2)				
Filter Mat for Control Cabinet										.00040 (x				
Fluid Filter										1493.0				
Fluid Separator Kit										3571.0				
Maintenance Kit for Optional 5-year warranty										CSD5SFC	S			
Maintenance Kit for Optional 5-year warranty, with food-grade lubricant										CSD5SFC				
DRYER DATA - FOR T MODELS														
Dryer Model				ABT 105					ABT	105				ABT 125
Maximum Inlet Air Pressure (Compressed Air at Inlet to Dryer) [psig]				232					23					
Nominal Pressure Drop at Rated Flow [psid]				1.5						.5				
Rated Pressure Dewpoint [°F] at Standard Conditions	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air	temperature.		38					3					
Pressure Dewpoint per ISO 8573-1.							Cla	ass 4 - 6	•	on ambier	nt cond	itions.		
REFRIGERATION SYSTEM DATA - FOR T MODELS														
Compressor Type			7	R24KRE-TFD					ZR24KF	RE-TFD				
BTU/Refrigeration ASHRAE				15,000					15,0					
Outlet Air Temperature (Nominal at Rated Conditions) [°F]	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air	temperature.		73					7	· <u>·</u> 2				
Refrigerant Type	, ,			R-513A					R-5 [^]	 13A				
GWP (Global Warming Potential)				631					63					
CO2 equivalent [t]				0.91					0.9				1.()4
Refrigerant Charge [lb]				3.2					3.				3.	
Air Flow Across Condenser [CFM]				1,354					1,3				2,6	
				1,00 F						<u> </u>			2,0	

Installation Data Sheet

