

Installation Data Sheet

Series: 1:1 Direct Drive CSDX.5

Document No.: TI-DATA-2018-CSD 100 125

Version: 1.1 Revision Date: 10/28/19

	Revision Date: 10/28/19	T						т				
	Model				D 100						D 125	
	Pressure [psig]	110	125	145	175	190	217	110	125	145	175	190 2
I. COOLING DATA		T										
Cooling System Available [Std., Opt.]			A/C, W/C					, W/C				
Standard Ambient Temp. Range [°F]				40	- 115					40	- 115	
VENTILATION OF COMPRESSOR ROOM		ı						_				
Air Inlet Opening [sq. ft. free area] (A/C) Z	(A/C) Z		19.4							2	3.7	
Air Inlet Opening [sq. ft. free area] (W/C) Z			3.2						3.2			
Solution A (forced ventilation with exhaust fan) as shown in service	e manual											
Cooling Fan Capacity [CFM] (A/C)				14	1,714					17	,657	
Cooling Fan Capacity [CFM] (W/C)				2	,354					2,	766	
Solution B (exhaust air used for space heating) as shown in service	e manual							•				
Internal Cooling Fan Capacity [CFM] (A/C)				6	,474					7,	652	
nternal Cooling Fan Capacity [CFM] (W/C)				1	,001					1,	001	
Max. Additional Pressure Drop for Ducts [inch Water Column] (A/C) (V	V/C)			0.24	1/0.12					0.24	/ 0.12	
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.			40	x 40					40	x 40	
Model shown for reference only					Rec	ommen	ded mad	chine p	acement	and		
Actual Duct size may vary with installation	β					Recommended machine placement and dimensions				inches		
	7					•		1- -	Nuct also			45
						C	ompres	sor to L	Ouct clea	rance =		15
					L			Left	side clea	rance =		15
A Exhaust Fan	15]				R			Right	side clea	rance =		50
	- 15 The N											
B Exhaust Air Duct					F			F	ront clea	rance =		50
					•			-				
7 Inlot Air Opening	40				DΙ			Б	Back clea	rango –		40
Z Inlet Air Opening	50 - 60				BK				oack ciea	rance =		40
	30											
					Н			He	ight clea	rance =		140
AIR COOLED DATA		I										
nternal Cooling Fan Capacity [CFM]				T	,474	Г	_	ļ.,		·	652	Т
Approach Temp. [°F]	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	12	2.6		8.01		9	1	2.6	L	0.8	9
Typical Heat Rejected [BTU / HR]					8,000						2,000	
Fan Motor [HP]					1.3						1.9	
NATER COOLED DATA										• •		
Type of heat exchangers			stainless steel, plate ty								type	
nternal Cooling Fan Capacity [CFM]	D. (1,001			1,001						
Approach Temp. [°F]	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.		5.4 312,000				5.4 365.500					
Heat Rejected into Cooling Water [BTU / HR]									365,500 26,058		<u> </u>	
Heat Rejected into Cooling Air [BTU / HR]	Discharge temperature limited for non-treated water (to provent calcification)		25,234 122		26,058			•				
Max. outlet temperature [°F] Temperature differential between inlet water and max, discharge water:	Discharge temperature limited for non-treated water (to prevent calcification).	cation).		20				20			ZZ	50
Temperature differential between inlet water and max. discharge water	emperature [F]		104			50 68			20 104			50 68
Max. inlet water temperature [°F]			30			12			35			14
Min. cooling water flow [gpm] Pressure drop across compressor package [psi] WITHOUT cooling wat	er throttling valve		7			12			0			2
			36			7			<u>9</u> 48			9
Pressure drop across compressor package [psi] WITH cooling water th	ouing valve		30			1			40			3



Installation Data Sheet

Series: 1:1 Direct Drive CSDX.5
Document No.: TI-DATA-2018-CSD 100 125
Version: 1.1
Revision Date: 10/28/19

	Model	CSD 100	CSD 125						
	ted Pressure [psig]		217 110 125 145 175 190 217						
II. ELECTRICAL DATA	Electrical data may vary in accordance with motor manufacturer's specifications. Motors are EIS	SA compliant.							
DRIVE MOTOR									
Motor HP		100	125						
Insulation Class		100\//2mb/00\ -	400) //2mb/001 I=						
Standard Voltage		460V/3ph/60Hz	460V/3ph/60Hz						
Full Load Amps [FLA] @ 208V/3ph/60Hz		235	270						
Full Load Amps [FLA] @ 230V/3ph/60Hz Full Load Amps [FLA] @ 460V/3ph/60Hz		114	135						
Full Load Amps [FLA] @ 460 V/3ph/60Hz Full Load Amps [FLA] @ 575 V/3ph/60Hz		97	109						
FAN MOTOR (A/C)			100						
Insulation Class		F	F						
Fan Motor [HP]		1.3	1.9						
Full Load Amps [FLA] @ 208V/3ph/60Hz		-	-						
Full Load Amps [FLA] @ 230V/3ph/60Hz		6.0	6.0						
Full Load Amps [FLA] @ 460V/3ph/60Hz		2.9	2.9						
Full Load Amps [FLA] @ 575V/3ph/60Hz		2.5	2.5						
FAN MOTOR (W/C)									
Insulation Class		F	F						
Fan Motor [HP], Single Speed		0.13	0.13						
Full Load Amps [FLA] @ 208V/3ph/60Hz		-	-						
Full Load Amps [FLA] @ 230V/3ph/60Hz		1.45	1.45						
Full Load Amps [FLA] @ 460V/3ph/60Hz		1.45	1.45						
Full Load Amps [FLA] @ 575V/3ph/60Hz TOTAL PACKAGE DATA (A/C)		1.45	1.45						
output as shown on the right. In a symmetrical three-phase supply t	equires a symmetrical three-phase power supply transformer with a WYE configuration the phase and voltages are all the same. Other power supplies are not suitable.	4-wire; grounded neutral	3-wire; grounded neutral						
Continuous Duty [Hours per day]		24							
Control Cabinet Class (NEMA)			24						
		12	24 12						
Short Circuit Current Rating (SCCR) [kA] @ 460V/3ph/60Hz		12 50	12 50						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz		12	12						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz Package Full Load Amps @ 208V/3ph/60Hz [FLA]		12 50 50 -	12 50 50 -						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz Package Full Load Amps @ 208V/3ph/60Hz [FLA] Package Full Load Amps @ 230V/3ph/60Hz [FLA]		12 50 50 - 281	12 50 50 - 317						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz Package Full Load Amps @ 208V/3ph/60Hz [FLA] Package Full Load Amps @ 230V/3ph/60Hz [FLA] Package Full Load Amps @ 460V/3ph/60Hz [FLA]		12 50 50 - 281 136	12 50 50 - 317 158						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz Package Full Load Amps @ 208V/3ph/60Hz [FLA] Package Full Load Amps @ 230V/3ph/60Hz [FLA] Package Full Load Amps @ 460V/3ph/60Hz [FLA] Package Full Load Amps @ 575V/3ph/60Hz [FLA]		12 50 50 - 281 136 116	12 50 50 - 317 158 128						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz Package Full Load Amps @ 208V/3ph/60Hz [FLA] Package Full Load Amps @ 230V/3ph/60Hz [FLA] Package Full Load Amps @ 460V/3ph/60Hz [FLA]		12 50 50 - 281 136 116	12 50 50 - 317 158						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz Package Full Load Amps @ 208V/3ph/60Hz [FLA] Package Full Load Amps @ 230V/3ph/60Hz [FLA] Package Full Load Amps @ 460V/3ph/60Hz [FLA] Package Full Load Amps @ 575V/3ph/60Hz [FLA]	Dual-element time-delay fuse; based on 2017 NEC 240.6, 430.52, and Tables 430.52, 430.248,and 430.250.	12 50 50 - 281 136 116	12 50 50 - 317 158 128						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz Package Full Load Amps @ 208V/3ph/60Hz [FLA] Package Full Load Amps @ 230V/3ph/60Hz [FLA] Package Full Load Amps @ 460V/3ph/60Hz [FLA] Package Full Load Amps @ 575V/3ph/60Hz [FLA] Recommended Disconnect Fuse Size [Amps] @ 230V/3ph/60Hz		12 50 50 - 281 136 116 400	12 50 50 - 317 158 128 450						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz Package Full Load Amps @ 208V/3ph/60Hz [FLA] Package Full Load Amps @ 230V/3ph/60Hz [FLA] Package Full Load Amps @ 460V/3ph/60Hz [FLA] Package Full Load Amps @ 575V/3ph/60Hz [FLA] Recommended Disconnect Fuse Size [Amps] @ 230V/3ph/60Hz Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz Recommended Disconnect Fuse Size [AWG/kcmil] @	430.250.	12 50 50 - 281 136 116 400 200 150 2 x 3/0 AWG per phase	12 50 50 - 317 158 128 450						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz Package Full Load Amps @ 208V/3ph/60Hz [FLA] Package Full Load Amps @ 230V/3ph/60Hz [FLA] Package Full Load Amps @ 460V/3ph/60Hz [FLA] Package Full Load Amps @ 575V/3ph/60Hz [FLA] Recommended Disconnect Fuse Size [Amps] @ 230V/3ph/60Hz Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz		12 50 50 - 281 136 116 400 200 150 2 x 3/0 AWG per phase	12 50 50 - 317 158 128 450 225 175						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz Package Full Load Amps @ 208V/3ph/60Hz [FLA] Package Full Load Amps @ 230V/3ph/60Hz [FLA] Package Full Load Amps @ 460V/3ph/60Hz [FLA] Package Full Load Amps @ 575V/3ph/60Hz [FLA] Recommended Disconnect Fuse Size [Amps] @ 230V/3ph/60Hz Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 230V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz	Hased 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	12 50 50 - 281 136 116 400 200 150 2 x 3/0 AWG per phase	12 50 50 - 317 158 128 450 225 175 2 x 4/0 AWG per phase						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz Package Full Load Amps @ 208V/3ph/60Hz [FLA] Package Full Load Amps @ 230V/3ph/60Hz [FLA] Package Full Load Amps @ 460V/3ph/60Hz [FLA] Package Full Load Amps @ 575V/3ph/60Hz [FLA] Package Full Load Amps @ 575V/3ph/60Hz [FLA] Recommended Disconnect Fuse Size [Amps] @ 230V/3ph/60Hz Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 230V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 230V/3ph/60Hz 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	12 50 50 - 281 136 116 400 200 150 2 x 3/0 AWG per phase 2 x 3 AWG per phase and ground	12 50 50 - 317 158 128 450 225 175 2 x 4/0 AWG per phase 2 x 2 AWG per phase and ground						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz Package Full Load Amps @ 208V/3ph/60Hz [FLA] Package Full Load Amps @ 230V/3ph/60Hz [FLA] Package Full Load Amps @ 460V/3ph/60Hz [FLA] Package Full Load Amps @ 575V/3ph/60Hz [FLA] Recommended Disconnect Fuse Size [Amps] @ 230V/3ph/60Hz Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 230V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/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	12 50 50 - 281 136 116 400 200 150 2 x 3/0 AWG per phase 2 x 3 AWG per phase and ground	12 50 50 - 317 158 128 450 225 175 2 x 4/0 AWG per phase 2 x 2 AWG per phase and ground						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz Package Full Load Amps @ 208V/3ph/60Hz [FLA] Package Full Load Amps @ 230V/3ph/60Hz [FLA] Package Full Load Amps @ 460V/3ph/60Hz [FLA] Package Full Load Amps @ 575V/3ph/60Hz [FLA] Package Full Load Amps @ 575V/3ph/60Hz [FLA] Recommended Disconnect Fuse Size [Amps] @ 230V/3ph/60Hz Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 230V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/3ph/60Hz TOTAL PACKAGE DATA (W/C)	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	12 50 50 - 281 136 116 400 200 150 2 x 3/0 AWG per phase 2 x 3 AWG per phase and ground 2/0 AWG per phase and ground	12 50 50 - 317 158 128 450 225 175 2 x 4/0 AWG per phase 2 x 2 AWG per phase and ground						
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz Package Full Load Amps @ 208V/3ph/60Hz [FLA] Package Full Load Amps @ 230V/3ph/60Hz [FLA] Package Full Load Amps @ 460V/3ph/60Hz [FLA] Package Full Load Amps @ 575V/3ph/60Hz [FLA] Package Full Load Amps @ 575V/3ph/60Hz [FLA] Recommended Disconnect Fuse Size [Amps] @ 230V/3ph/60Hz Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 230V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/3ph/60Hz TOTAL PACKAGE DATA (W/C) Package Full Load Amps @ 208V/3ph/60Hz [FLA]	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	12 50 50 - 281 136 116 400 200 150 2 x 3/0 AWG per phase 2 x 3 AWG per phase and ground 2/0 AWG per phase and ground	12 50 50 - 317 158 128 450 225 175 2 x 4/0 AWG per phase 2 x 2 AWG per phase and ground 3/0 AWG per phase and ground -						



Installation Data Sheet

Series: 1:1 Direct Drive CSDX.5
Document No.: TI-DATA-2018-CSD 100 125
Version: 1.1
Revision Date: 10/28/19

Model Rated Pressure [psig]		CSD 100								CSD 125					
		110	125	145	175	190	217	110	0 125	145	175	190 2	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]		72							73					
W/C with Super Soundproofing [dB(A)]	300ND 1 INESSURE LEVEL [INTERSURED III UD(A) according to 130 2131 using 130 9014-2]	71								72					
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]		2 x 2 1/4 & 4 x 1													
Condensate Drain Connection [NPT]								1/4							
Width [inches]								83							
Depth [inches]							5	50 3/4							
Height [inches]						7	6 3/4 A/C	C, <mark>78</mark> 1	1/8 W/C						
Floor Space [sq. ft.]							2	29 1/4							
Weight (A/C) [lb]	— Weight may vary based on airend selected.		3,836							4,255					
Weight (W/C) [lb]	vveight may vary basea on an ena selectea.	3,836							4,255						
COMPRESSOR FLUID DATA															
Fluid Capacity (A/C) [gal]					13.7					1	3.7				
Fluid Capacity (W/C) [gal]		13.2				3.2									
Flow Rate [gal/min]		33.0				3.0									
Typical Oil Consumption [fl. Oz./100 h]		12.3					14.1								
Standard Fluid Type				Sigm	na M-460					Sigma	a M-460				
MAINTENANCE PARTS															
Air Inlet Filter		6.4148.1 + 6.4993.0													
Filter Mat (optional)		6.1945.0 (2x)													
Filter Mat for Control Cabinet		7.4519.0 (2x)													
Fluid Filter		6.4693.0													
Fluid Separator Kit		6.3623.0													
Maintenance Kit for Optional 5-year warranty		ANAKCSDX5S													
Maintenance Kit for Optional 5-year warranty, with food-grade lubric	ant	ANAKCSDX5F													