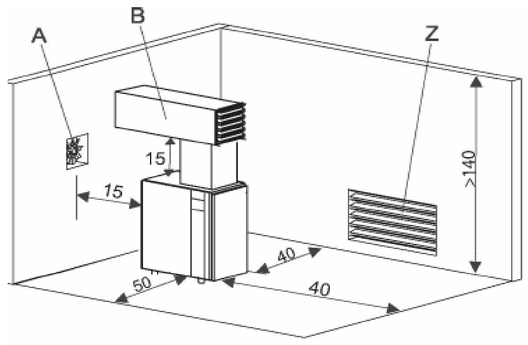
Installation Data Sheet

Series: 1:1 Direct Drive CSD.5
Document No.: TI-DATA-2018-CSD 60 75 100S
Version: 1.2
Revision Date: 06/01/2020

Model	CSD 60						CSD 75						CSD 100S					
Rated Pressure [psig]	**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**	12.9						15.1						19.4					
Air Inlet Opening [sq. ft. **free area**] (W/C) **Z**	2.2						2.2						3.2					
Solution A (forced ventilation with exhaust fan) as shown in service manual																		
Cooling Fan Capacity [CFM] (A/C)	10,006						11,772						14,714					
Cooling Fan Capacity [CFM] (W/C)	1,471						1,766						2,354					
Solution B (exhaust air used for space heating) as shown in service manual																		
Internal Cooling Fan Capacity [CFM] (A/C)	5,709						5,709						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] 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.	32 x 32						32 x 32						32 x 32					

Model shown for reference only
Actual Duct size may vary with installation



A	**Exhaust Fan**	
B	**Exhaust Air Duct**	
Z	**Inlet Air Opening**	

Recommended machine placement and dimensions **inches**

	Compressor to duct clearance =	**15**
L	**Left side clearance =**	**15**
R	**Right side clearance =**	**40**
F	**Front clearance =**	**50**
BK	**Back clearance =**	**40**
H	**Height clearance =**	**140**

AIR COOLED DATA						
Internal Cooling Fan Capacity [CFM]	5,709		5,709		6,474	
Approach Temp. [°F] Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	9		9		12.6	
Typical Heat Rejected [BTU / HR]	175,500		210,500		259,500	
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]	1,001		1,001		1,001	
Approach Temp. [°F] Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.	1.8		1.8		1.8	
Heat Rejected into Cooling Water [BTU / HR]	175,500		211,000		260,500	
Heat Rejected into Cooling Air [BTU / HR]	15,034		18,097		21,033	
Max. outlet temperature [°F] Discharge temperature limited for non-treated water (to prevent calcification).	120		120		120	
Temperature differential between inlet water and max. discharge water temperature [°F]	20	50	20	50	20	50
Max. inlet water temperature [°F]	104	68	104	68	104	68
Min. cooling water flow [gpm]	17	7	20	8	25	10
Pressure drop across compressor package [psi] **WITHOUT** cooling water throttling valve	6	3	9	3	13	3
Pressure drop across compressor package [psi] **WITH** cooling water throttling valve	24	CF	35	CF	CF	9

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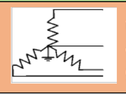
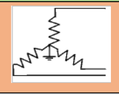
II. ELECTRICAL DATA	***Electrical data may vary in accordance with motor manufacturer's specifications. Motors are EISA compliant.***																	
DRIVE MOTOR																		
Motor HP	60						75						100					
Insulation Class	F						F						F					
Standard Voltage	460V/3ph/60Hz						460V/3ph/60Hz						460V/3ph/60Hz					
Full Load Amps [FLA] @ 208V/3ph/60Hz	154						187						-					
Full Load Amps [FLA] @ 230V/3ph/60Hz	141						172						-					
Full Load Amps [FLA] @ 460V/3ph/60Hz	69						85						114					
Full Load Amps [FLA] @ 575V/3ph/60Hz	57						69						93					
FAN MOTOR (A/C)																		
Insulation Class	F						F						F					
Fan Motor [HP]	1.5						1.5						1.7					
Full Load Amps [FLA] @ 208V/3ph/60Hz	5.5						5.5						-					
Full Load Amps [FLA] @ 230V/3ph/60Hz	5.0						5.0						-					
Full Load Amps [FLA] @ 460V/3ph/60Hz	2.5						2.5						2.9					
Full Load Amps [FLA] @ 575V/3ph/60Hz	2.0						2.0						2.4					
FAN MOTOR (W/C)																		
Fan Motor [HP], Single Speed	0.13						0.13						0.13					
Full Load Amps [FLA] @ 208V/3ph/60Hz	1.45						1.45						-					
Full Load Amps [FLA] @ 230V/3ph/60Hz	1.45						1.45						-					
Full Load Amps [FLA] @ 460V/3ph/60Hz	1.45						1.45						1.45					
Full Load Amps [FLA] @ 575V/3ph/60Hz	1.45						1.45						1.45					
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.	 **three-phase star (wye); 4-wire; grounded neutral**						 **three-phase star (wye); 3-wire; grounded neutral**											
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	30						30						30					
Package Full Load Amps @ 208V/3ph/60Hz [FLA]	174						206						-					
Package Full Load Amps @ 230V/3ph/60Hz [FLA]	159						190						-					
Package Full Load Amps @ 460V/3ph/60Hz [FLA]	78						94						115					
Package Full Load Amps @ 575V/3ph/60Hz [FLA]	64						76						94					
Recommended Disconnect Fuse Size [Amps] @ 208V/3ph/60Hz	Dual-element time-delay fuse; based on 2017 NEC 240.6, 430.52, and Tables 430.52, 430.248,and 430.250.						250						300					-
Recommended Disconnect Fuse Size [Amps] @ 230V/3ph/60Hz							225						250					-
Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz							110						125					150
Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz							90						110					125
Recommended Disconnect Wire Size [AWG/kcmil] @ 208V/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.						250 kcmil per phase and ground						350 kcmil per phase and ground					-
Recommended Disconnect Wire Size [AWG/kcmil] @ 230V/3ph/60Hz							4/0 AWG per phase and ground						300 kcmil per phase and ground					-
Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz							2 AWG per phase and ground						1/0 AWG per phase and ground					3/0 AWG per phase and ground
Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/3ph/60Hz							3 AWG per phase and ground						2 AWG per phase and ground					1/0 AWG per phase and ground
TOTAL PACKAGE DATA (W/C)																		
Package Full Load Amps @ 208V/3ph/60Hz [FLA]	169						202						-					
Package Full Load Amps @ 230V/3ph/60Hz [FLA]	155						185						-					
Package Full Load Amps @ 460V/3ph/60Hz [FLA]	77						92						113					
Package Full Load Amps @ 575V/3ph/60Hz [FLA]	64						75						93					

KAESER COMPRESSORS®

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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]	71						72						73					
W/C with Super Soundproofing [dB(A)]		69						70						71					
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]		2 x 1 1/4 NPT																	
Power Input Conduit Opening(s) [inches]		1 x 2 1/4																	
Condensate Drain Connection [NPT]		1/4																	
Width [inches]		69 1/4																	
Depth [inches]		43 3/4																	
Height [inches]		74 3/4 A/C, 76 1/8 W/C																	
Floor Space [sq. ft.]		21																	
Weight (A/C) [lb]	Weight may vary based on airend selected.	2,615						2,813						2,846					
Weight (W/C) [lb]		2,615						2,813						2,846					
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]		7.2						8.6						10.4					
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 (2x)																	
Filter Mat for Control Cabinet		7.4519.0 (2x)																	
Fluid Filter		6.4493.0																	
Fluid Separator Kit		6.3571.0																	
Maintenance Kit for Optional 5-year warranty		ANAKCSD5S																	
Maintenance Kit for Optional 5-year warranty, with food-grade lubricant		ANAKCSD5F																	