



**Installation Data Sheet**  
 Series: 1:1 Direct Drive CSD.6  
 Document No.: TI-DATA-2023-CSD 90T 110T 130T  
 Preliminary Data Release Date: 05/30/2023  
 Version: 1.1

Model Rated Pressure [psig]	CSD 90T					CSD 110T					CSD 130T						
	100	110	125	150	175	100	110	125	150	175	217	100	110	125	150	175	217
<b>I. COOLING DATA</b>																	
Cooling System Available [Std., Opt.]	AC / WC					AC / WC					AC / WC						
Standard Ambient Temp. Range [°F]	40-115					40-115					40-115						
<b>VENTILATION OF COMPRESSOR ROOM</b>																	
Air Inlet Opening [sq. ft. free area] (A/C) Z	15.1					17.2					21.5						
Air Inlet Opening [sq. ft. free area] (W/C) Z	6.5					6.5					6.5						
<b>Solution A (forced ventilation with exhaust fan) as shown in service manual</b>																	
Cooling Fan Capacity [CFM] (A/C)	11,772					14,126					17,069						
Cooling Fan Capacity [CFM] (W/C)	4,120					4,120					4,120						
<b>Solution B (exhaust air used for space heating) as shown in service manual</b>																	
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]	33 x 33					33 x 33					33 x 33						
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.																	
<b>Model shown for reference only</b> <b>Actual Duct size may vary with installation</b>																	
<div style="border: 1px solid green; padding: 2px; display: inline-block;">Solution A Exhaust Fan</div> <div style="border: 1px solid red; padding: 2px; display: inline-block; margin-left: 20px;">Solution B Exhaust Duct</div> <div style="border: 1px solid blue; padding: 2px; display: inline-block; margin-left: 20px;">Ventilation of Compressor Room Z</div>																	
Coming Soon																	
<b>AIR COOLED DATA</b>																	
Internal Cooling Fan Capacity [CFM]	5,003					5,886					6,474						
Approach Temp. [°F]	10.8	10.8	9	14.4	12.6	10.8	9	18	16.2	14.4	12.6	10.8	9				
Typical Heat Rejected [BTU / HR]	185,500					225,500					285,500						
Fan Motor [HP]	2.5					2.5					2.5						
<b>WATER COOLED DATA</b>																	
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]	171,500					209,000					266,500						
Heat Rejected into Cooling Air [BTU / HR]	TBD					TBD					TBD						
Max. outlet temperature [°F]	TBD					TBD					TBD						
Temperature differential between inlet water and max. discharge water temperature [°F]	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD				
Max. inlet water temperature [°F]	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD				
Min. cooling water flow [gpm]	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD				
Pressure drop across compressor package [psi] WITHOUT cooling water throttling valve	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD				
Pressure drop across compressor package [psi] WITH cooling water throttling valve	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD				



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**II. ELECTRICAL DATA** *Electrical data may vary in accordance with motor manufacturer's specifications. Motors are EISA compliant.*

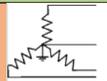
<b>DRIVE MOTOR</b>																
Motor HP	60					75					100					
Insulation Class	F					F					F					
Standard Voltage	460/3/60					460/3/60					460/3/60					
Full Load Amps [FLA] @ 208V/3ph/60Hz	154					187					N/A					
Full Load Amps [FLA] @ 230V/3ph/60Hz	141					172					N/A					
Full Load Amps [FLA] @ 460V/3ph/60Hz	69					85					114					
Full Load Amps [FLA] @ 575V/3ph/60Hz	57					69					93					

<b>FAN MOTOR (A/C)</b>																
Insulation Class	F					F					F					
Fan Motor [HP]	2.5					2.5					2.5					
Full Load Amps [FLA] @ 208V/3ph/60Hz	TBD					TBD					TBD					
Full Load Amps [FLA] @ 230V/3ph/60Hz	TBD					TBD					TBD					
Full Load Amps [FLA] @ 460V/3ph/60Hz	TBD					TBD					TBD					
Full Load Amps [FLA] @ 575V/3ph/60Hz	TBD					TBD					TBD					

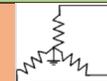
<b>FAN MOTOR (W/C)</b>																
Insulation Class	F					F					F					
Fan Motor [HP], Single Speed	0.13					0.13					0.13					
Full Load Amps [FLA] @ 208V/3ph/60Hz	1.45					N/A					N/A					
Full Load Amps [FLA] @ 230V/3ph/60Hz	1.45					1.45					N/A					
Full Load Amps [FLA] @ 460V/3ph/60Hz	1.45					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.



**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	Field installed fuse required, see below*					50					50									
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz	Field installed fuse required, see below*					50					50									
Package Full Load Amps @ 208V/3ph/60Hz [FLA]	194					N/A					N/A									
Package Full Load Amps @ 230V/3ph/60Hz [FLA]	178					211					N/A									
Package Full Load Amps @ 460V/3ph/60Hz [FLA]	87					104					128									
Package Full Load Amps @ 575V/3ph/60Hz [FLA]	72					85					104									
Recommended Disconnect Fuse Size [Amps] @ 208V/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					250					N/A									
Recommended Disconnect Fuse Size [Amps] @ 230V/3ph/60Hz						250					300					N/A				
Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz						125					150					175				
Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz						110					125					150				
Recommended Disconnect Wire Size [AWG/kcmil] @ 208V/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.					300 kcmil per phase and ground					N/A									
Recommended Disconnect Wire Size [AWG/kcmil] @ 230V/3ph/60Hz						300 kcmil per phase and ground					350 kcmil per phase and ground					N/A				
Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz						1 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						2 AWG per phase and ground					1 AWG per phase and ground					2/0 AWG per phase and ground				

**TOTAL PACKAGE DATA (W/C)**

Package Full Load Amps @ 208V/3ph/60Hz [FLA]	188					N/A					N/A				
Package Full Load Amps @ 230V/3ph/60Hz [FLA]	173					206					N/A				
Package Full Load Amps @ 460V/3ph/60Hz [FLA]	85					102					126				
Package Full Load Amps @ 575V/3ph/60Hz [FLA]	70					90					103				



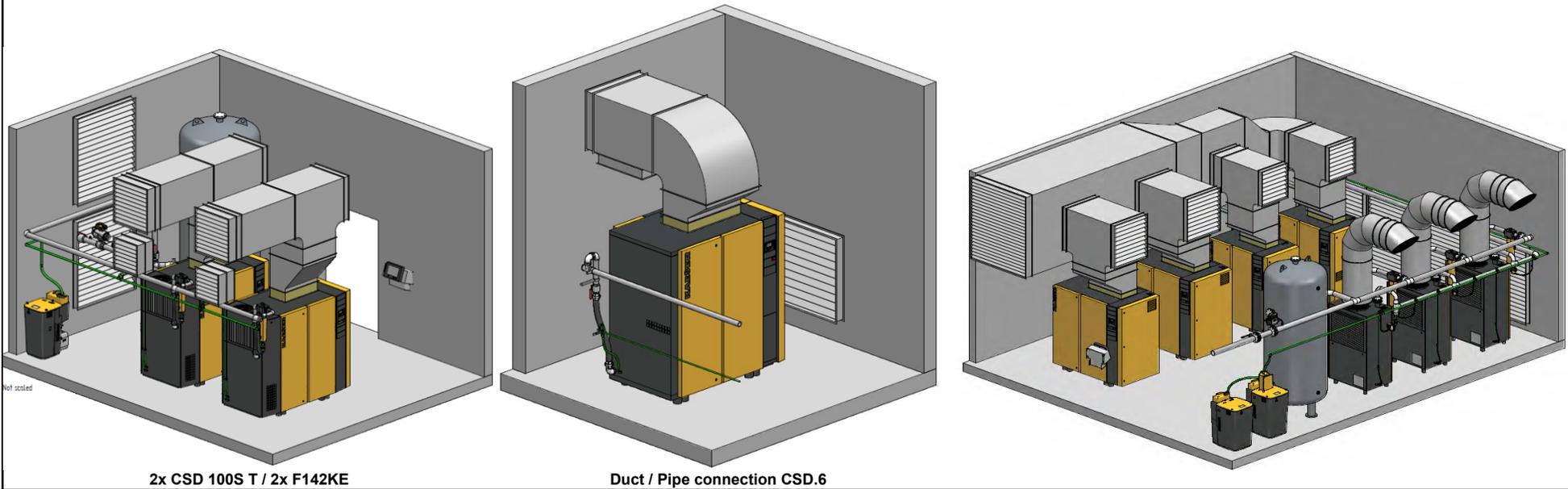
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Model	CSD 90T					CSD 110T					CSD 130T						
	100	110	125	150	175	100	110	125	150	175	217	100	110	125	150	175	217
<b>INSTALLATION and MAINTENANCE DATA</b>																	
A/C with Super Soundproofing [dB(A)]	SOUND PRESSURE LEVEL [Measured in dB(A) according to ISO 2151 using ISO 9614-2]										67		69		72		
W/C with Super Soundproofing [dB(A)]											69		69		74		
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]											2-1/4 NPT						
Condensate Drain Connection [NPT]											1/4 NPT						
Width [inches]											86.875						
Depth [inches]											43.25						
Height [inches]											74.75						
Floor Space [sq. ft.]											26.1						
Weight (A/C) [lb]	3,395					3,549					3,748						
Weight (W/C) [lb]	2,954					3,109					3,527						
<b>COMPRESSOR FLUID DATA</b>																	
Fluid Capacity (A/C) [gal]	9.2					9.2					9.2						
Fluid Capacity (W/C) [gal]	8.1					8.1					8.1						
Flow Rate [gal/min]	21.1					21.1					21.1						
Typical Oil Consumption [fl. Oz./100 h]	8.5					10.2					13.1						
Standard Fluid Type	S-460					S-460					S-460						
<b>MAINTENANCE PARTS</b>																	
Air Inlet Filter											4E0302.0						
Filter Mat (optional)											6.1687.0 (x2)						
Filter Mat for Control Cabinet											7.4519.0 (x2)						
Fluid Filter											6.4493.0						
Fluid Separator Kit											6.3571.0						
Maintenance Kit for Optional 5-year warranty											ANAKCSD6S						
Maintenance Kit for Optional 5-year warranty, with food-grade lubricant											ANAKCSD6F						
<b>DRYER DATA - FOR T MODELS</b>																	
Dryer Model	ABT 132					ABT 132					ABT 132						
Maximum Inlet Air Pressure (Compressed Air at Inlet to Dryer) [psig]	232					232					232						
Nominal Pressure Drop at Rated Flow [psid]	TBD					TBD					TBD						
Rated Pressure Dewpoint [°F] at Standard Conditions	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.										37.4		37.4		37.4		
Pressure Dewpoint per ISO 8573-1											Class 4 - 6 based on ambient conditions						
<b>REFRIGERATION SYSTEM DATA - FOR T MODELS</b>																	
Compressor Type	TBD					TBD					TBD						
BTU/Refrigeration ASHRAE	TBD					TBD					TBD						
Outlet Air Temperature (Nominal at Rated Conditions) [°F]	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.										TBD		TBD		TBD		
Refrigerant Type	R-513A					R-513A					R-513A						
GWP (Global Warming Potential)	631					631					631						
CO2 equivalent [t]	0.66					0.66					0.66						
Refrigerant Charge [lb]	2.3					2.3					2.3						
Air Flow Across Condenser [CFM]	1,295					1,295					1,295						

Model	CSD 90T					CSD 110T					CSD 130T						
Rated Pressure [psig]	100	110	125	150	175	100	110	125	150	175	217	100	110	125	150	175	217

**SAMPLE SKETCHES**

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



**Example designs only, not for construction purposes.**