



Installation Data Sheet
 Series: Direct Drive DSDX.3 60Hz
 Document No.: TI-DATA-2016-DSD SFC 132 160
 Version: 2.7
 Revision Date: 04/17/2023

Model	SFC 132					SFC 160					
Rated Pressure [psig]	110	125	145	175	217	110	125	145	175	217	
I. COOLING DATA											
Cooling System Available [Std., Opt.]	A/C, W/C					A/C, W/C					
Standard Ambient Temp. Range [°F]	40 - 115					40 - 115					
VENTILATION OF COMPRESSOR ROOM											
Air Inlet Opening [sq. ft. free area] (A/C) Z	37.6					46.2					
Air Inlet Opening [sq. ft. free area] (W/C) Z	8.6					9.7					
Solution A (forced ventilation with exhaust fan) as shown in service manual											
Cooling Fan Capacity [CFM] (A/C)	29,429					35,315					
Cooling Fan Capacity [CFM] (W/C)	6,474					7,652					
Solution B (exhaust air used for space heating) as shown in service manual											
Internal Cooling Fan Capacity [CFM] (A/C)	12,949					12,949					
Internal Cooling Fan Capacity [CFM] (W/C)	2,943					2,943					
Max. Additional Pressure Drop for Ducts [inch Water Column] (A/C) (W/C)	0.40 / 0.24					0.32 / 0.24					
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. 58 x 58					58 x 58					
<p align="center">Model shown for reference only Actual Duct size may vary with installation</p> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 10px;">Solution A Exhaust Fan</div> <div style="border: 1px solid black; padding: 2px; margin-right: 10px;">Solution B Exhaust Duct</div> <div style="border: 1px solid black; padding: 2px;">Ventilation of Compressor Room Z</div> </div>											
AIR COOLED DATA											
Internal Cooling Fan Capacity [CFM]	12,949					12,949					
Approach Temp. [°F]	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.					14.4	12.6	10.8	18	16.2	14.4
Typical Heat Rejected [BTU / HR]	518,000					618,500					
Fan Motor [HP], oilcooler aircooler	4 / 1					4 / 1					
WATER COOLED DATA											
Type of heat exchangers	stainless steel, plate-type					stainless steel, plate-type					
Internal Cooling Fan Capacity [CFM]	2,943					2,943					
Approach Temp. [°F]	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.					1.8					
Typical Heat Rejected into Cooling Water [BTU / HR]	Based on highest input kW of machine.					512,000					
Heat Rejected into Cooling Air [BTU / HR]						45,000					
Max. outlet temperature [°F]	Discharge temperature limited for non-treated water (to prevent calcification).					132					
Temperature differential between inlet water and max. discharge water temperature [°F]						27	54	27	54	27	54
Max. inlet water temperature [°F]						105	78	105	78	105	78
Min. cooling water flow [gpm]						36.5	18.5	45.3	22.9	36.5	18.5
Pressure drop across compressor package [psi] WITHOUT cooling water throttling valve						8.7	2.9	11.6	4.4	8.7	2.9
Pressure drop across compressor package [psi] WITH cooling water throttling valve						13	4	18	5	13	4



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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			200					250		
Insulation Class			F					F		
Standard Voltage			460V/3ph/60Hz					460V/3ph/60Hz		
Full Load Amps [FLA] @ 460V/3ph/60Hz			205					245		
Full Load Amps [FLA] @ 575V/3ph/60Hz			CF					200		
FAN MOTOR (A/C) Oilcooler										
Insulation Class			F					F		
Fan Motor [HP]			4					4		
Full Load Amps [FLA] @ 460V/3ph/60Hz			6					6		
Full Load Amps [FLA] @ 575V/3ph/60Hz			CF					4.8		
FAN MOTOR (A/C) Aircooler										
Insulation Class			F					F		
Fan Motor [HP]			1					1		
Full Load Amps [FLA] @ 460V/3ph/60Hz			1.76					1.76		
Full Load Amps [FLA] @ 575V/3ph/60Hz			CF					1.41		
FAN MOTOR (W/C)										
Insulation Class			F					F		
Fan Motor [HP], Single Speed			0.3					0.3		
Full Load Amps [FLA] @ 460V/3ph/60Hz			0.6					0.6		
Full Load Amps [FLA] @ 575V/3ph/60Hz			CF					1.2		
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		
Control Cabinet Class (NEMA)			12					12		
Short Circuit Current Rating (SCCR) [kA] @ 460V/3ph/60Hz		Field installed fuse required, see below*	65					65		
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz		Field installed fuse required, see below*	CF					65		
Package Full Load Amps @ 460V/3ph/60Hz [FLA]			306					306		
Package Full Load Amps @ 575V/3ph/60Hz [FLA]			CF					246		
Recommended Disconnect Fuse Size [Amps] @ 460V/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	400					400		
Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz			CF					350		
Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/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.	2 x 4/0 AWG per phase and ground			2 x 4/0 AWG per phase and ground				
Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/3ph/60Hz			CF			2 x 2/0 AWG per phase and ground				
TOTAL PACKAGE DATA (W/C)										
Package Full Load Amps @ 460V/3ph/60Hz [FLA]			301					301		
Package Full Load Amps @ 575V/3ph/60Hz [FLA]			CF					242		



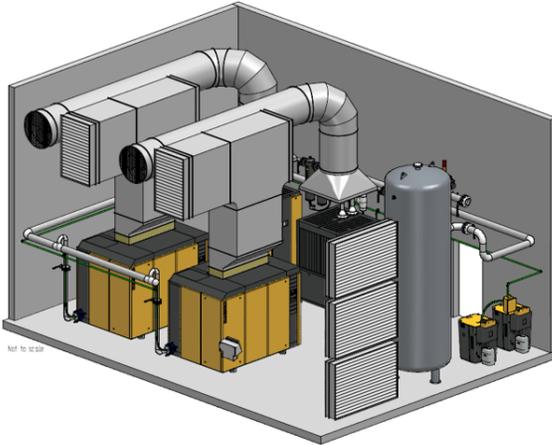
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INSTALLATION and MAINTENANCE DATA										
A/C with Super Soundproofing [dB(A)]	SOUND PRESSURE LEVEL [Measured in dB(A) according to ISO 2151 using ISO 9614-2]					75				
W/C with Super Soundproofing [dB(A)]	69					70				
A/C Air Discharge [inches NPT or Flange]	3 ASME B16.5 class 150									
W/C Air Discharge [inches NPT or Flange]	3 ASME B16.5 class 150									
Cooling Water Connection [inches NPT or Flange]	1 1/2 ASME B16.5 class 150									
Power Input Conduit Opening(s) [inches]	2 x 3 in					2 x 3 in				
Condensate Drain Connection [NPT]	1/2					1/2				
Width [inches]	115 3/4					115 3/4				
Depth [inches]	75 1/4					75 1/4				
Height [inches]	84 1/4					84 1/4				
Floor Space [sq. ft.]	60 1/2					60 1/2				
Weight (A/C) [lb]	10,362					10,582				
Weight (W/C) [lb]	9,921					10,141				
COMPRESSOR FLUID DATA										
Fluid Capacity (A/C) [gal]	28.3					28.3				
Fluid Capacity (W/C) [gal]	24.6					24.6				
Flow Rate [gal/min]	60.8					60.8				
Typical Oil Consumption [fl. Oz./100 h]	24.3					28.8				
Standard Fluid Type	Sigma S-460					Sigma S-460				
MAINTENANCE PARTS										
Air Inlet Filter	4E0304.0									
Filter Mat (optional)	6.1943.000200 (4x)									
Filter Mat for Control Cabinet	7.4519.00010 (4x) + 7.4519.00040 (1x) + 5.3353.00040 (1x)									
Fluid Filter	6.4693.0 (2x)									
Fluid Separator Kit	6.4273.0									
Maintenance Kit for Optional 5-year warranty	ANAKDSDXSF3S									
Maintenance Kit for Optional 5-year warranty, with food-grade lubricant	ANAKDSDXSF3F									

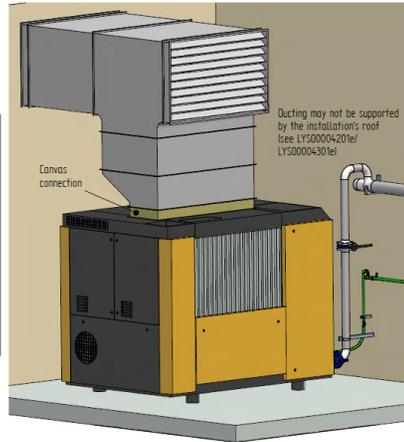
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Rated Pressure [psig]										

SAMPLE SKETCHES

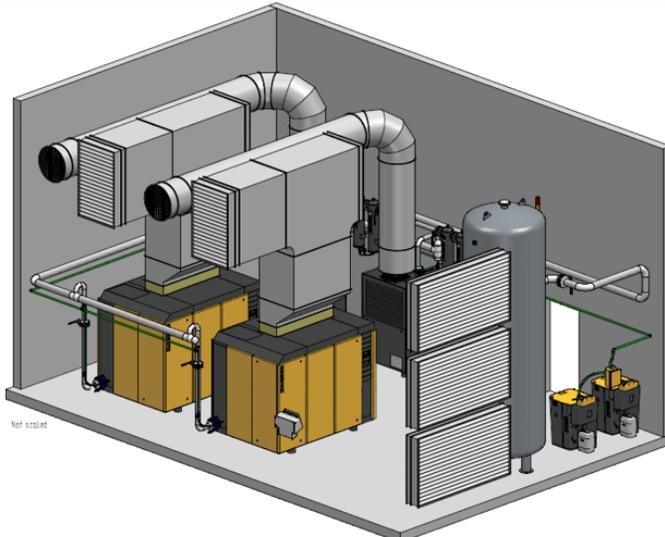
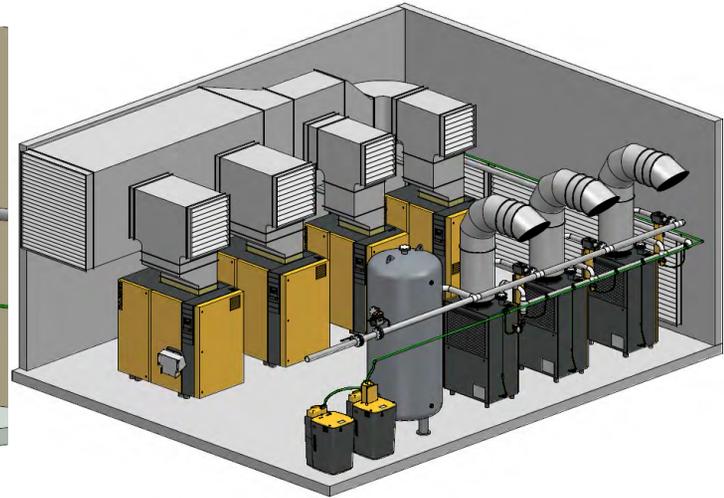
Sample Installation Planning
Examples of room ventilation and ductwork
Please note the upsizing required for compressor exhaust ducts



2x DSD 250 / 2x TI601 / 2x F350 KE,KA



Duct / pipe connection DSDX



2x DSD 250 / 2x TF340 / 2x F350 KE,KA

Example designs only, not for construction purposes.