

Installation Data Sheet
Series: Direct Drive HSD SFC
Document No.: TI-DATA-2016-SFC 410 - 575V
Version: 1.1
Revision Date: 04/17/2023

Model Rated Pressure [psig]	SFC 410 - 575V/3ph/60Hz				
	100	110	125	145	175

I. COOLING DATA

Cooling System Available [Std., Opt.]	W/C
Standard Ambient Temp. Range [°F]	40 - 115

VENTILATION OF COMPRESSOR ROOM

Air Inlet Opening [sq. ft. free area] (W/C) Z	19.4
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Solution A (forced ventilation with exhaust fan) as shown in service manual

Cooling Fan Capacity [CFM] (W/C)	14,714
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Solution B (exhaust air used for space heating) as shown in service manual

Internal Cooling Fan Capacity [CFM] (W/C)	5,886
Max. Additional Pressure Drop for Ducts [inch Water Column] (W/C)	0.16

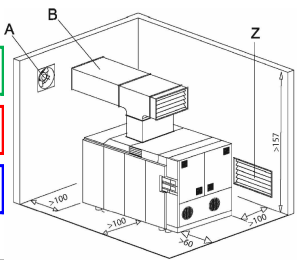
Exhaust Air Opening Reference Dimensions (L x W) [in]	See drawing for actual dimensions. The actual individual duct dimension will vary for every installation based on actual length, number and type of bends, accessories etc.	36 x 67
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Model shown for reference only
Actual Duct size may vary with installation

Solution A Exhaust Fan

Solution B Exhaust Duct

Ventilation of Compressor Room Z



WATER COOLED DATA

Type of heat exchangers	stainless steel, plate-type	
Internal Cooling Fan Capacity [CFM]	5,886	
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. 1,148,000	
Heat Rejected into Cooling Air [BTU / HR]	125,000	
Max. outlet temperature [°F]	Discharge temperature limited for non-treated water (to prevent calcification). 130	
Temperature differential between inlet water and max. discharge water temperature [°F]	27	54
Max. inlet water temperature [°F]	105	68
Min. cooling water flow [gpm]	70.5 / 44	35.2 / 22
Pressure drop across compressor package [psi] WITHOUT cooling water throttling valve	17.5 / 7.5	4.5 / 3
Pressure drop across compressor package [psi] WITH cooling water throttling valve	24 / 10	6 / 4

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

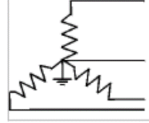
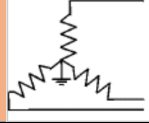
DRIVE MOTOR

Motor HP	<i>Motor A</i>	350
Insulation Class	<i>Motor A</i>	F
Standard Voltage	<i>Motor A</i>	575V/3ph/60Hz
Full Load Amps [FLA] @ 460V/3ph/60Hz	<i>Motor A</i>	Not Available
Full Load Amps [FLA] @ 575V/3ph/60Hz	<i>Motor A</i>	308
Motor HP	<i>Motor B</i>	250
Insulation Class	<i>Motor B</i>	F
Standard Voltage	<i>Motor B</i>	575V/3ph/60Hz
Full Load Amps [FLA] @ 460V/3ph/60Hz	<i>Motor B</i>	Not Available
Full Load Amps [FLA] @ 575V/3ph/60Hz	<i>Motor B</i>	200

FAN MOTOR (W/C)

Insulation Class		F
Fan Motor [HP], Single Speed		1.1
Full Load Amps [FLA] @ 460V/3ph/60Hz		Not Available
Full Load Amps [FLA] @ 575V/3ph/60Hz		2.4

TOTAL PACKAGE DATA (W/C)

<p>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.</p>		<p style="text-align: center;">three-phase star (wye); 4-wire; grounded neutral</p>		<p style="text-align: center;">three-phase star (wye); 3-wire; grounded neutral</p>
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Continuous Duty [Hours per day]		24
Control Cabinet Class (NEMA)		12
Short Circuit Current Rating (SCCR) [kA] @ 460V/3ph/60Hz	Field installed fuse required, see below*	Not Available
Short Circuit Current Rating (SCCR) [kA] @ 575V/3ph/60Hz	Field installed fuse required, see below*	50
Package Full Load Amps @ 460V/3ph/60Hz [FLA]		Not Available
Package Full Load Amps @ 575V/3ph/60Hz [FLA]		551
Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz		Not Available
Recommended Disconnect Fuse Size [Amps] @ 575V/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	800
Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz		Not Available
Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/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.	3 x 300 kcmil per phase and ground

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INSTALLATION and MAINTENANCE DATA					
W/C with Super Soundproofing [dB(A)]	SOUND PRESSURE LEVEL [Measured in dB(A) according to ISO 2151 using ISO 9614-2]				75
W/C Air Discharge [inches NPT or Flange]	6 ASME B16.5 class 150				
Cooling Water Connection [inches NPT or Flange]	4 x 2 NPT				
Power Input Conduit Opening(s) [inches]	4 x 3 in				
Condensate Drain Connection [NPT]	2 x 1/2				
Width [inches]	172				
Depth [inches]	84 1/2				
Height [inches]	92 1/2				
Floor Space [sq. ft.]	101				
Weight (W/C) [lb]	Weight may vary based on airend selected.				20,091
COMPRESSOR FLUID DATA					
Fluid Capacity (W/C) [gal]	2 x 31.7				
Flow Rate [gal/min]	2 x 73				
Typical Oil Consumption [fl. Oz./100 h]	66.1				
Standard Fluid Type	Sigma S-460				
MAINTENANCE PARTS					
Air Inlet Filter	4E0305.0 (x2)				
Filter Mat (optional)	402703.0 (x2)				
Filter Mat for Control Cabinet	7.4519.00010 (x6); 5.3353.00020 ; 7.4519.0 (x2)				
Fluid Filter	6.4693.0 (x6)				
Fluid Separator Kit	6.3559.00010 (x2)				
Maintenance Kit for Optional 5-year warranty	ANAKHSDSFC3S				
Maintenance Kit for Optional 5-year warranty, with food-grade lubricant	ANAKHSDSFC3F				

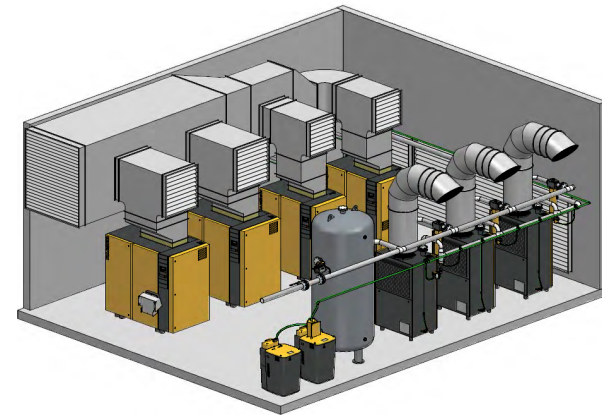
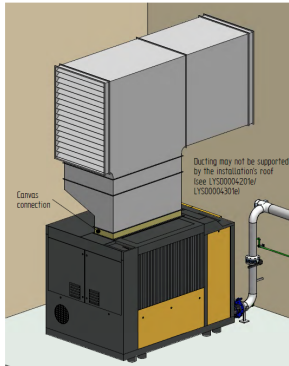
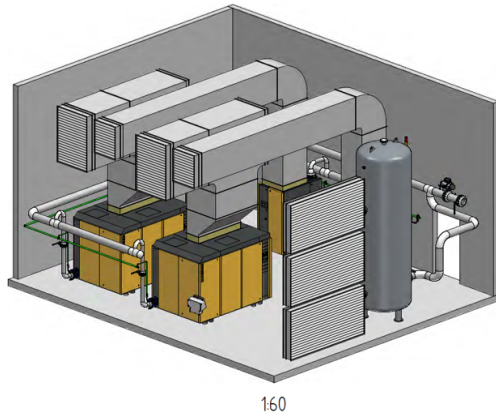
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SAMPLE SKETCHES

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.