

**Dry-running Screw Compressor  
Installation Data Sheet**

Model	DSG 180-2 SFC			DSG 220-2 SFC			DSG 260-2 SFC			DSG 290-2 SFC		
	100	125	145	100	125	145	100	125	145	100	125	145

<b>I. Cooling Data</b>												
Rated Pressure [psig]	100	125	145	100	125	145	100	125	145	100	125	145
Cooling System Available [Std., Opt.]	A/C, W/C			A/C, W/C			A/C, W/C			A/C, W/C		
Standard Ambient Temp. Range [°F]	40 - 115			40 - 115			40 - 115			40 - 115		
Ventilation Inlet Air Opening [sq. ft. free area] (A/C) Z	25.8			31.2			42			47.4		
Ventilation Inlet Air Opening [sq. ft. free area] (W/C) Z	4.3			5.4			6.5			7.5		
Max. Additional Pressure Drop for Ducts [inch Water Column] (A/C)   (W/C)	0.80 / 0.32			0.64 / 0.32			0.48 / 0.32			0.32 / 0.32		
Exhaust Air Opening Reference Dimensions (L x W) [in.]	See Dimensional Drawing											

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

**A Exhaust Air Duct**  
**V Exhaust Fan**  
**Z Ventilation Inlet Air Opening**

*\*minimum clearance, if no crane is available*

<b>Air-cooled Data</b>													
Internal Cooling Fan Capacity [CFM]	14,126			14,126			14,126			14,126			
Approach Temp. [°F]	<i>Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.</i>												
	7.2			9			10.8			14.4			
<b>Water-cooled Data</b>													
Internal Cooling Fan Capacity [CFM]	2,649			2,649			2,649			2,649			
Approach Temp. [°F]	<i>Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.</i>												
	3.6			5.4			7.2			10.8			
Cooling Water Connection [inches NPT]	1 1/2			1 1/2			1 1/2			1 1/2			
Cooling Water Flow f. Heating Up ΔT=18°F [gal/min]	45.8			55		55.5		66.5		66		76.6   83.2	
Cooling Water Pressure Loss at ΔT=18°F [psi]	5.8			8.7			13.1			21.8			

**II. Electrical Data**

Do NOT operate package on any unsymmetrical power supply. Also do NOT operate package on power supplies, 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.

<b>Drive Motor</b>												
Motor [hp]	<i>Electrical data may vary in accordance with motor manufacturer's specifications. Motors are EISA compliant. Main power supply and overcurrent protection must be installed by a qualified electrician in accordance with NEC, OSHA, and any applicable local codes.</i>											
	150			175			200			250		
NEMA Nominal Efficiency %	96.20%			95.80%			95.80%			96.20%		
Enclosure Type	IP55 (TEFC)			IP55 (TEFC)			IP55 (TEFC)			IP55 (TEFC)		
Insulation Class	F			F			F			F		
Standard Voltage	460V/3ph/60Hz			460V/3ph/60Hz			460V/3ph/60Hz			460V/3ph/60Hz		
Full Load Amps [FLA]	163			189			231			285		
<b>Fan Motor (A/C)</b>												
Insulation Class	F			F			F			F		
Fan Motor [hp]	7.5			7.5			7.5			7.5		
Nominal Efficiency %	91.00%			91.00%			91.00%			91.00%		
Full Load Amps [FLA]	10.3			10.3			10.3			10.3		



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Doc: TI-IDS-2014-DSG SFC  
Version: 2.1  
Rev. Date: 02/04/2022

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	100	125	145	100	125	145	100	125	145	100	125	145			
<b>Rated Pressure [psig]</b>	<b>100</b>	<b>125</b>	<b>145</b>	<b>100</b>	<b>125</b>	<b>145</b>	<b>100</b>	<b>125</b>	<b>145</b>	<b>100</b>	<b>125</b>	<b>145</b>			
<b>Fan Motor (W/C)</b>															
Insulation Class	F			F			F			F					
Fan Motor [hp]	0.75			0.75			0.75			0.75					
Nominal Efficiency %	77.00%			77.00%			77.00%			77.00%					
Full Load Amps [FLA]	1.47			1.47			1.47			1.47					
<b>Total Package Data (A/C)</b>															
Control Cabinet Class (NEMA)	12			12			12			12					
Short Circuit Current Rating [kA rms sym]	Field installed fuse required, see below*			50			50			50					
Package Full Load Amps [FLA]	252			252			310			375					
Recommended Disconnect Fuse Size [Amps]	*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			350			350			400			500		
Recommended Disconnect Wire Size [AWG/kcmil]	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 3/0 AWG per phase			2 x 3/0 AWG per phase			2 x 4/0 AWG per phase			2 x 300 kcmil per phase		
Minimum Recommended Ground Wire Size	We recommend using 1 full size conductor for the ground. The minimum ground wire size given above is per the 2020 NEC Table 250.122.			2 x 3/0 AWG per phase			2 x 3/0 AWG per phase			2 x 4/0 AWG per phase			2 x 300 kcmil per phase		
<b>Total Package Data (W/C)</b>															
Package Full Load Amps [FLA]	244			244			302			367					
Recommended Disconnect Fuse Size [Amps]	*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			350			350			400			500		
Recommended Disconnect Wire Size [AWG/kcmil]	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 2/0 AWG per phase			2 x 2/0 AWG per phase			2 x 4/0 AWG per phase			2 x 300 kcmil per phase		
Minimum Recommended Ground Wire Size	We recommend using 1 full size conductor for the ground. The minimum ground wire size given above is per the 2020 NEC Table 250.122.			2 x 2/0 AWG per phase			2 x 2/0 AWG per phase			2 x 4/0 AWG per phase			2 x 300 kcmil per phase		
<b>III. Basic Specifications</b>															
Super Soundproofing [dB(A)] w/o ducting (A/C)   (W/C)	Measured in dB(A) according to ISO 2151 using ISO 9614-2. Tolerance +/- 3 dB(A).			81 / 70			81 / 71			82 / 74			84 / 75		
Super Soundproofing [dB(A)] with ducting (A/C)   (W/C)				79 / 70			79 / 71			80 / 74			82 / 75		
A/C Air Discharge [inches Flange]	3 ASME B16.5 class 150			3 ASME B16.5 class 150			3 ASME B16.5 class 150			3 ASME B16.5 class 150					
Total Oil Charge (A/C) [gal]	12.4			12.4			12.4			12.4					
Total Oil Charge (W/C) [gal]	11.9			11.9			11.9			11.9					
Maximum Altitude [ft.]	Higher altitudes are permissible only after consultation with the manufacturer.			1,640			1,640			1,640			1,640		
Power Input Conduit Opening(s) [in.]	2 x Ø 3"			2 x Ø 3"			2 x Ø 3"			2 x Ø 3"					
Dimensions (W x D x H) [in.] (A/C)	135 1/4 x 68 7/8 x 93 7/8			135 1/4 x 68 7/8 x 93 7/8			135 1/4 x 68 7/8 x 93 7/8			135 1/4 x 68 7/8 x 93 7/8					
Dimensions (W x D x H) [in.] (W/C)	135 1/4 x 68 7/8 x 81 1/8			135 1/4 x 68 7/8 x 81 1/8			135 1/4 x 68 7/8 x 81 1/8			135 1/4 x 68 7/8 x 81 1/8					
Weight [lb] (A/C)	9,149			9,370			9,700			10,141					
Weight [lb] (W/C)	8,488			8,708			9,039			9,480					