

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

Model	DSG 140-2			DSG 180-2			DSG 220-2			DSG 260-2			DSG 290-2		
	100	125	145	100	125	145	100	125	145	100	125	145	100	125	145

I. Cooling Data															
Rated Pressure [psig]															
Cooling System Available [Std., Opt.]	A/C, W/C			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			40 - 115		
Ventilation Inlet Air Opening [sq. ft. free area] (A/C) Z	24.8			26.9			32.3			43.1			53.8		
Ventilation Inlet Air Opening [sq. ft. free area] (W/C) Z	5.4			5.4			5.4			10.8			10.8		
Max. Additional Pressure Drop for Ducts [inch Water Column] (A/C) (W/C)	0.80 / 0.32			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

Air-cooled Data															
Internal Cooling Fan Capacity [CFM]	14,126			14,126			14,126			14,126			14,126		
Approach Temp. [°F]	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.														
	5.4			7.2			9			10.8			12.6		
Water-cooled Data															
Internal Cooling Fan Capacity [CFM]	2,649			2,649			2,649			2,649			2,649		
Approach Temp. [°F]	Reference conditions: 14.5 psia, 30% relative humidity and 68°F inlet air temperature.														
	3.6			3.6			5.4			7.2			9		
Cooling Water Connection [inches NPT]	1 1/2			1 1/2			1 1/2			1 1/2			1 1/2		
Cooling Water Flow f. Heating Up ΔT=27°F [gal/min]	26.4			32.1		29.1	36.1		34.8	43.6		41.8	46.7		50.2
Cooling Water Pressure Loss at ΔT=27°F [psi]	2.9			3.6			4.4			5.8			8.7		

II. Electrical Data															
Drive Motor															
Motor [hp]	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.														
	125			150			175			200			250		
NEMA Nominal Efficiency %	96.20%			95.40%		96.20%	95.80%		95.80%		95.80%		96.20%		
Enclosure Type	IP55 (TEFC)			IP55 (TEFC)			IP55 (TEFC)			IP55 (TEFC)			IP55 (TEFC)		
Insulation Class	F			F			F			F			F		
Standard Voltage	460V/3ph/60Hz			460V/3ph/60Hz			460V/3ph/60Hz			460V/3ph/60Hz			460V/3ph/60Hz		
Full Load Amps [FLA]	143			163		171	194		215		265				
Fan Motor (A/C)															
Insulation Class	F			F			F			F			F		
Fan Motor [hp]	7.5			7.5			7.5			7.5			7.5		
Nominal Efficiency %	91.00%			91.00%			91.00%			91.00%			91.00%		
Full Load Amps [FLA]	10.3			10.3			10.3			10.3			10.3		
Fan Motor (W/C)															
Insulation Class	F			F			F			F			F		
Fan Motor [hp]	0.75			0.75			0.75			0.75			0.75		
Nominal Efficiency %	77.00%			77.00%			77.00%			77.00%			77.00%		
Full Load Amps [FLA]	1.47			1.47			1.47			1.47			1.47		



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Rev. Date: 02/04/2022

Model	DSG 140-2			DSG 180-2			DSG 220-2			DSG 260-2			DSG 290-2			
	Rated Pressure [psig]	100	125	145	100	125	145	100	125	145	100	125	145	100	125	145
Total Package Data (A/C)																
Control Cabinet Class (NEMA)		12			12			12			12			12		
Short Circuit Current Rating [kA rms sym]	Field installed fuse required, see below*	50			50			50			50			50		
Package Full Load Amps [FLA]		180			202		191	225			262			296		
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	250			300	250		300			350			400		
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 1/0 AWG per phase			2 x 1/0 AWG per phase			2 x 2/0 AWG per phase			2 x 3/0 AWG per phase			2 x 4/0 AWG 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 1/0 AWG per phase			2 x 1/0 AWG per phase			2 x 2/0 AWG per phase			2 x 3/0 AWG per phase			2 x 4/0 AWG per phase		
Total Package Data (W/C)																
Package Full Load Amps [FLA]		167			189		178	213			249			282		
Recommended Disconnect Fuse Size [Amps]	Dual-element time-delay fuse; based on 2011 NEC 240-6, 430-52, and Tables 430-148, 150 & 152.	250			250			300			350			400		
Recommended Disconnect Wire Size [AWG/kcmil]	Based on 2011 NEC 110-14(c), 220-3, 310-15, Table 310-16, 430-6, 430-22, 430-24 and Tables 430-148 and 150. Multi-strand copper core wire at 40°C ambient temperature, with 75° temperature rating, and an insulation rating of 90°C.	2 x 1/0 AWG per phase			2 x 1/0 AWG per phase			2 x 2/0 AWG per phase			2 x 3/0 AWG per phase			2 x 4/0 AWG 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 2011 NEC Table 250.122.	2 x 1/0 AWG per phase			2 x 1/0 AWG per phase			2 x 2/0 AWG per phase			2 x 3/0 AWG per phase			2 x 4/0 AWG per phase		
III. Basic Specifications																
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).	80 / 69			81 / 70			81 / 71			82 / 74			84 / 75		
Super Soundproofing [dB(A)] with ducting (A/C) (W/C)		78 / 69			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			3 ASME B16.5 class 150		
Total Oil Charge (A/C) [gal]		12.4			12.4			12.4			12.4			12.4		
Total Oil Charge (W/C) [gal]		11.7			11.7			11.7			11.7			11.7		
Maximum Altitude [ft.]	Higher altitudes are permissible only after consultation with the manufacturer.	1,640			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"			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			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 1/8 x 81 1/8			135 1/4 x 68 1/8 x 81 1/8			135 1/4 x 68 1/8 x 81 1/8			135 1/4 x 68 1/8 x 81 1/8			135 1/4 x 68 1/8 x 81 1/8		
Weight [lb] (A/C)		7,496			7,826			8,157			8,488			8,819		
Weight [lb] (W/C)		6,835			7,165			7,495			7,825			8,160		