



### Dry-running Screw Compressor Installation Data Sheet

Doc: TI-IDS-2019-FSG RD  
Version: 1.2  
Rev. Date: 07/07/2020

Model	FSG 300-2 i.HOC			FSG 350-2 i.HOC			FSG 420-2 i.HOC			FSG 500-2 i.HOC			FSG 501-2 i.HOC
Rated Pressure [psig]	100	125	145	100	125	145	100	125	145	100	125	145	145
<b>I. Cooling Data</b>													
Cooling System Available [Std., Opt.]	A/C, W/C			A/C, W/C			A/C, W/C			A/C, W/C			W/C
Standard Ambient Temp. Range [°F]	40 - 115			40 - 115			40 - 115			40 - 115			40 - 105
Air Inlet Opening [sq. ft. <b>free area</b> ] (A/C) <b>Z</b>	43.0			53.8			64.6			75.3			N/A
Air Inlet Opening [sq. ft. <b>free area</b> ] (W/C) <b>Z</b>	10.8			10.8			10.8			10.8			10.8
Max. Additional Pressure Drop for Ducts [inch Water Column] (A/C)   (W/C)	0.32 / 0.32			0.32 / 0.32			0.64 / 0.32			0.48 / 0.32			- / 0.32
Exhaust Air Opening Reference Dimensions (L x W) [in.]	See dimensional drawing												
<b>Model shown for reference only</b> Actual Duct size may vary with installation	<b>Recommended machine placement and dimensions</b>										<b>inches</b>		
<b>A Exhaust</b>	<b>L</b>										<b>Left side clearance =</b>		<b>CF</b>
<b>V Exhaust Air Duct</b>	<b>R</b>										<b>Right side clearance =</b>		<b>CF</b>
<b>Z Inlet Air Opening</b>	<b>F</b>										<b>Front clearance =</b>		<b>CF</b>
	<b>BK</b>										<b>Back clearance =</b>		<b>CF</b>
	<b>H</b>										<b>Height clearance =</b>		<b>CF</b>
*minimum clearance, if no crane is available													
<b>Air-cooled Data</b>													
Internal Cooling Fan Capacity [CFM]	14,126			14,126			23,543			23,543			N/A
<b>Water-cooled Data</b>													
Internal Cooling Fan Capacity [CFM]	4,826			4,826			4,826			4,826			4,826
Cooling Water Connection [inches NPT]	2			2			2			2			2
Cooling Water Flow f. Heating Up $\Delta T=27^{\circ}F$ [gal/min]	44.0	39.6	52.8	57.2	66.0	61.6	70.4	83.7	74.8	88.1			
Cooling Water Pressure Loss at $\Delta T=27^{\circ}F$ [psi]	1.45			2.9			2.9			4.4			4.4
<b>II. Electrical Data</b>													
<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>												
	250			300			350			450			450
NEMA Nominal Efficiency %	96.2%			96.2%			96.8%			96.8%			96.8%
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]	252			320			380			485			485
<b>Fan Motor (A/C)</b>													
Insulation Class	F			F			F			F			F
Fan Motor [hp]	7.5			7.5			15			15			N/A
Nominal Efficiency %	91.0%			91.0%			91.7%			91.7%			N/A
Full Load Amps [FLA]	10.3			10.3			20.0			20.0			N/A







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Rated Pressure [psig]	100	125	145	100	125	145	100	125	145	100	125	145	145
<b>Fan Motor (W/C)</b>													
Insulation Class	F			F			F			F			F
Fan Motor [hp]	1.0			1.0			1.0			1.0			1.0
Nominal Efficiency %	82.5%			82.5%			82.5%			82.5%			82.5%
Full Load Amps [FLA]	1.76			1.76			1.76			1.76			1.76
<b>Total Package Data (A/C)</b>													
Control Cabinet Class (NEMA)	12			12			12			12			12
Short Circuit Current Rating [kA rms sym]	50			50			50			50			50
Package Full Load Amps [FLA]	326			404			469			572			N/A
Recommended Disconnect Fuse Size [Amps]	450			600			700			800			N/A
Recommended Disconnect Wire Size [AWG/kcmil]	2 x 250 kcmil per phase			2 x 350 kcmil per phase or 3 x 3/0 AWG per phase			2 x 400 kcmil per phase or 3 x 4/0 AWG per phase			3 x 300 kcmil per phase			N/A
Minimum Recommended Ground Wire Size	2 x 250 kcmil per phase			2 x 350 kcmil per phase or 3 x 3/0 AWG per phase			2 x 400 kcmil per phase or 3 x 4/0 AWG per phase			3 x 300 kcmil per phase			N/A
<b>Total Package Data (W/C)</b>													
Package Full Load Amps [FLA]	310			384			436			530			569
Recommended Disconnect Fuse Size [Amps]	450			500			600			700			800
Recommended Disconnect Wire Size [AWG/kcmil]	2 x 4/0 AWG per phase			2 x 300 kcmil per phase or 3 x 3/0 AWG per phase			2 x 350 kcmil per phase or 3 x 4/0 AWG per phase			2 x 500 kcmil per phase or 3 x 250 kcmil per phase			3 x 300 kcmil per phase
Minimum Recommended Ground Wire Size	2 x 4/0 AWG per phase			2 x 300 kcmil per phase or 3 x 3/0 AWG per phase			2 x 350 kcmil per phase or 3 x 4/0 AWG per phase			2 x 500 kcmil per phase or 3 x 250 kcmil per phase			3 x 300 kcmil per phase
<b>III. Basic Specifications</b>													
Super Soundproofing [dB(A)] w/o ducting (A/C)   (W/C)	82 / 74			82 / 75			83 / 76			83 / 76			- / 77
Super Soundproofing [dB(A)] with ducting (A/C)   (W/C)	80 / 74			80 / 75			81 / 76			81 / 76			- / 77
A/C Air Discharge [inches NPT]	6 ASME B16.5 class 150			6 ASME B16.5 class 150			6 ASME B16.5 class 150			6 ASME B16.5 class 150			6 ASME B16.5 class 150
Total Oil Charge (A/C) [gal]	23			23			23			23			N/A
Total Oil Charge (W/C) [gal]	22.5			22.5			22.5			22.5			22.5
Maximum Altitude [ft.]	1,640			1,640			1,640			1,640			1,640
Power Input Conduit Opening(s) [in.]	3 x Ø 3"			3 x Ø 3"			3 x Ø 3"			3 x Ø 3"			3 x Ø 3"
Dimensions (W x D x H) [in.] (A/C)	182 1/4 x 81 3/4 x 107 1/2			182 1/4 x 81 3/4 x 107 1/2			182 1/4 x 81 3/4 x 107 1/2			182 1/4 x 81 3/4 x 107 1/2			N/A
Dimensions (W x D x H) [in.] (W/C)	176 1/4 x 81 3/4 x 87 1/2			176 1/4 x 81 3/4 x 87 1/2			176 1/4 x 81 3/4 x 87 1/2			176 1/4 x 81 3/4 x 87 1/2			176 1/4 x 81 3/4 x 87 1/2
Weight [lb] (A/C)	14,881			15,322			15,763			16,424			N/A
Weight [lb] (W/C)	14,110			14,551			14,991			15,653			15,653
<b>IV. i.HOC System Data</b>													
Blower Motor Nominal Power [hp]	19.4			19.4			19.4			19.4			19.4
Blower Motor Speed [rpm]	6,010			6,010			6,010			6,010			6,010
Blower Motor Efficiency [%]	90.1%			90.1%			90.1%			90.1%			90.1%
Drum Motor Nominal Power [hp]	0.16			0.16			0.16			0.16			0.16
Drum Motor Speed [rpm]	1,400			1,400			1,400			1,400			1,400
Drum Motor Efficiency [%]	66%			66%			66%			66%			66%