Sofix Corporation
Attn: Gerald Eichman
2800 Riverport Rd
Chattanooga TN 37406

#114461

Date: 05/22/2007

KAESER COMPRESSORS
Built for a lifetime.™

KAESER Rotary Screw Compressor
Model: CSD100 /CSD100T

Direct 1.1 Ratio Drive
Air Cooled Series

Compressor specification and advantages

Discharge pressure		125 psi
Capacity		361 cfm
Electrical requirement		460V/3Ph/60Hz
Drive motor		100 hp
Drive motor speed		3600 rpm
Drive motor efficiency		93.6 %
Noise level		73 dB(A)
Compressed air discharge connection		2" NPT
Dimensions in inches (L x W x H)	76.375 x 51.275 x 79.375 inches	
Estimated weight	CSD100 CSD100T	3070 lbs. 3649 lbs.

Kaeser Compressors, Inc. P.O.Box 946 Fredericksburg, Virginia 22404 Phone (540) 898-5500
Fax (540) 898-5520 www.kaeser.com

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Product features and advantages

Compressor

- Single-stage, oil-injected rotary screw compressor with the power saving Sigma Profile airend.

Electric Motor/Drive

- TEFC,EPAct-compliant efficiency, drive motor with thermal overload protection, minimum 1.15 service factory, 150% minimum pull-up torque and Class F insulation.
- One-to-one direct drive provides maintenance free coupling and maximum transmission efficiency.

Starter

- Magnetic Wye-delta motor starter mounted in a NEMA 12 control panel.

Air/Coolant System

- Two-stage 4-mircron air intake filter with cleanable and replaceable element.
- ASME fluid separator tank with 3-stage separation ensures minimal fluid carryover of 2ppm or less (by weight).
- Filter mat on fluid and air coolers simplifies cooler maintenance.

Dryer (with CSD100T model)

- Fan motor enclosure	TEAO
- Input kW	2.4
- Refrigerant	R 134a
- Dew point pressure	0.38 °F

Protective Devices

- Built-in protective devices include safety pressure relief valve(s), emergency stop button, fluid level sight glasses and safety interlock switches on maintenance doors.

Enclosure

- Soundproofed enclosure features lined panels and a durable powder coated finish. Compressor is mounted on solid base frame with a solid steel floor and anti-vibration mounts.
- Additional vibration isolation of airend, motor and separtor tank is standard. Panels are removeable for easy maintenance access.

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Sigma Control

- Sigma Control Basic PC-based control system with Intel processor and real-time operating system. It monitors all critical and control functions and maintains a non-volatile memory of the last 100 messages for ease of trouble-shooting and record keeping.
- Remote start/stop, programmable timers and two-unit sequencing are standard features.
- The Sigma Control offers the choice of three communication ports, R 232 modem printer, R 485 lead-lag control and Profibus D-P. Idle-period timer shuts the compressor down if air is not required for a preset period dependent on selected control mode.

Recommendations for Installation

- Review Technical Specifications for temperature limits

- Adequate compressor room ventilation to include both inlet and outlet openings

- Main disconnect must be provided by the user as determined by local regulations (recommend fused-type)

- Follow applicable NEC or local electrical code for wire and fuse sizing and installation

Options and accessories available

- ASME receiver tank

- Stand alone refrigerant dryer

- Heat exchanger

- Eco-condensate drain

- KOR coalescing oil removal filter

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KAESER COMPRESSORS

INSTALLATION DATA SHEET

Doc. No.: TI.IDS-022 Version 1.5	*CSD 100 - 125*	Date: 03-09-07

MODEL	CSD 100	CSD 125
COOLING DATA:		
Cooling System Available	A / C, W / C	A / C, W / C
Type of heat exchangers for water-cooled units	stainless steel, plate type	stainless steel, plate type
Standard Ambient Temp. Range [F]	40 - 115	40 - 115
Air inlet opening [sq. ft.] (A/C)	20	17.2
Air inlet opening [sq. ft.] (W/C)	3.2	3.2
Cooling Fan Capacity [cfm] (forced ventilation with exhaust fan) (A/C)	14714	17657
Cooling Fan Capacity [cfm] (forced ventilation with exhaust fan) (W/C)	2354	2766
Internal Cooling Fan Capacity [cfm] (exhaust air used for space heating) (A/C)	7652	7652
oil & air coolers | motor	6122 | 1530	6122 | 1530
Internal Cooling Fan Capacity [cfm] (exhaust air used for space heating) (W/C)	1001	1001
Max. Additional Pressure Drop for Ducts [inch Water Column]	1/4	1/4
Recommended Heating Duct (W x H) [in]	40 X 40	40 X 40
Approach Temp. (A/C) [°F]	10.8	12.6
Approach Temp. (W/C) [°F]	5.4	5.4
Typical Heat Rejected (A/C) [BTU / HR]	319,801	360,177
oil & air coolers | motor	289,182 | 30,619	325,692 | 34,485
Typical Heat Rejected (W/C) [BTU/HR] (into Cooling Water)	283,387	319,897
Typical Heat Rejected (W/C) [BTU/HR] (into Cooling Air)	36,674	41,398
CONNECTIONS [in.]:		
A/C Air Discharge with NPT Adapter	2	2
W/C Air Discharge with NPT Adapter	2	2
Cooling Water Connection(s) [NPT]	1	1
Power Input Conduit Opening(s)	2 X 2 ¼	2 X 2 ¼
NOISE LEVEL DATA (Measured in dB(A) at 1 m (approx. 40 in.) According to CAGI):		
A/C With Super Soundproofing	73	74
W/C With Super Soundproofing	73	74
ENVELOPE DIMENSIONS & WEIGHT		
Length [in.]	79 1/8	79 1/8
Width [in.]	51 1/8	51 1/8
Height [in.]	79 ¾	79 ¾
Floor Space [sq. ft.]	28.09	28.09
Weight [lb] #	4200	4400
Estimated Shipping Weight [lb]	4354	4554

KAESER COMPRESSORS

INSTALLATION DATA SHEET

Doc. No.: TI.IDS-022 Version 1.5	*CSD 100 - 125*	Date: 03-09-07

MODEL	CSD 100	CSD 125
ELECTRICAL DATA[1]:		
DRIVE MOTOR		
NEMA Nominal Efficiency [%]	93.6%	95.0%
Full Load Amps @ 208V/3ph/60 Hz/YD [FLA]	308	343
Full Load Amps @ 230V/3ph/60 Hz/YD [FLA]	278	310
Full Load Amps @ 460V/3ph/60 Hz/YD [FLA]	141	155
Full Load Amps @ 575V/3ph/60 Hz/YD [FLA]	111	124
Drive Motor Nominal Power [HP]	100	125
Drive Motor Insulation Class	F	F
Drive Motor Enclosure Type	TEFC	TEFC
Drive Motor Overload Set Point [A] @ 230V/3ph/60Hz/YD	117	198
Drive Motor Overload Set Point [A] @ 460V/3ph/60Hz/YD	90	100
Drive Motor Overload Set Point [A] @ 575V/3ph/60Hz/YD	71	80
FAN MOTOR (A/C)		
Enclosure Type	TEFC	TEFC
Insulation Class	F	F
Fan Motor [HP], Single Speed	3	3
Nominal Efficiency [%]	84%	84%
Full Load Amps [FLA] @ 208V/3ph/60 Hz/YD	12	12
Full Load Amps [FLA] @ 230V/3ph/60 Hz/YD	11	11
Full Load Amps [FLA] @ 460V/3ph/60 Hz/YD	5.4	5.4
Full Load Amps [FLA] @ 575V/3ph/60 Hz/YD	4.3	4.3
Fan Motor Overload Set Point @208V/3 ph/60 Hz/YD	13	13
Fan Motor Overload Set Point @230V/3 ph/60 Hz/YD	12	12
Fan Motor Overload Set Point @460V/3 ph/60 Hz/YD	6	6
Fan Motor Overload Set Point @575V/3 ph/60 Hz/YD	5	5
FAN MOTOR (W/C)		
Enclosure Type	Totally Enclosed (IP 44)	Totally Enclosed (IP 44)
Insulation Class	F	F
Fan Motor [HP], Single Speed	0.13	0.13
Nominal Efficiency [%]	60%	60%
Full Load Amps [FLA] @ 115V/1ph/60 Hz	1.45	1.45

KAESER COMPRESSORS

INSTALLATION DATA SHEET

Doc. No.: TI.IDS-022 Version 1.5	*CSD 100 - 125*	Date: 03-09-07

MODEL	CSD 100		CSD 125	
PACKAGE DATA				
Control Cabinet Class (NEMA)	12		12	
Continuous Duty [Hours / Day]	24		24	
Package Full Load Amps @ 208V/3ph/60 Hz/YD (A/C) [FLA]	320		354	
Package Full Load Amps @ 230V/3ph/60 Hz/YD (A/C) [FLA]	289		321	
Package Full Load Amps @ 460V/3ph/60 Hz/YD (A/C) [FLA]	146		160	
Package Full Load Amps @ 575V/3ph/60 Hz/YD (A/C) [FLA]	115		128	
Package Full Load Amps @ 208V/3ph/60 Hz/YD (W/C) [FLA]	309		344	
Package Full Load Amps @ 230V/3ph/60 Hz/YD (W/C) [FLA]	279		311	
Package Full Load Amps @ 460V/3ph/60 Hz/YD (W/C) [FLA]	142		156	
Package Full Load Amps @ 575V/3ph/60 Hz/YD (W/C) [FLA]	112		125	
	A/C	**W/C**	**A/C**	**W/C**
Recommended Disconnect Fuse Size [Amps] @ 208V/3ph/60Hz/YD *	450	450	500	500
Recommended Disconnect Fuse Size [Amps] @ 230V/3ph/60Hz/YD *	400	400	450	450
Recommended Disconnect Fuse Size [Amps] @ 460V/3ph/60Hz/YD *	200	200	225	225
Recommended Disconnect Fuse Size [Amps] @ 575V/3ph/60Hz/YD *	150	150	175	175
Recommended Disconnect Wire Size [AWG/kcmil] @ 208V/3ph/60Hz/YD **	4/0 x 2	4/0 x 2	250 x 2	250 x 2
Recommended Disconnect Wire Size [AWG/kcmil] @ 230V/3ph/60Hz/YD **	4/0 x 2	3/0 x 2	4/0 x 2	4/0 x 2
Recommended Disconnect Wire Size [AWG/kcmil] @ 460V/3ph/60Hz/YD **	4/0	4/0	4/0	4/0
Recommended Disconnect Wire Size [AWG/kcmil] @ 575V/3ph/60Hz/YD **	2/0	2/0	3/0	3/0
OIL SYSTEM DATA:				
Oil System Capacity (A/C) [gal.]	14		14	
Oil System Capacity (W/C) [gal.]	11		11	
Typical Oil Consumption [fl. oz./100 h]	27.4		31.8	
MAINTENANCE PARTS:				
Air Inlet Filter	6.4148.0		6.4148.0	
Filter Mat (optional)	6.1945.0		6.1945.0	
Filter Mat for Control Cabinet	6.3572.0		6.3572.0	
Fluid Filter	6.3465.0		6.3465.0	
Fluid Separator Kit	6.3623.0		6.3623.0	
Maintenance Kit for Optional 5-year Warranty	AN5YRKT-CSD2		AN5YRKT-CSD2	
Maintenance Kit for Optional 5-year Warranty, with food-grade lubricant	AN5YRKITCSD2F		AN5YRKITCSD2F	

1. Electrical data may vary in accordance with motor manufacturer's specifications. Motors are EPACT compliant.
   Main power supply and overcurrent protection must be installed by a qualified electrician in accordance with NEC, OSHA, and any applicable local codes.

* Dual-element time-delay fuse; based on 2005 NEC 240.6, 430.52, and Tables 430.52, 430.148,and 430.150.

** Based on 2005 NEC 110.14(C), 220.3, 310.15, Table 310.16, 430.6, 430.22, 430.24 and Tables 430.148 and 430.150.
Multi-strand copper core wire at 40° C ambient temperature, with 75° temperature rating, and an insulation rating of 90° C.

Weights will vary depending on airend used.