ENGINEERING DATA SHEET

HH400A - Aircooled

60Hz

CCN: 49117104
Rev.: B
ECN: 1022593
Sheet: 1 of 2
Date: 1-Dec-16

Model Name		HH400A - Aircooled
GENERAL PERFORMANCE DATA		
Rated Discharge Pressure	barg (psig)	10.3 (150)
Maximum Off Line Pressure	barg (psig)	10.6 (153)
Minimum Operating Pressure	barg (psig)	4.5 (65)
Maximum Operating Ambient Temperature	°C (°F)	46 (115)
Minimum Operating Ambient Temperature	°C (°F)	2 (36)
Nominal Power - Main Motor	kW (HP)	298 (400)
Main Motor Efficiency (2)	Percent	96.2%
Capacity FAD(1)	m³/min (cfm)	43.8 (1545)
Package Input Power(3)		
@ 10.3 barg (150 psig)	kW	355.2
@ 9.8 barg (142 psig)	kW	343.0
@ 9.3 barg (135 psig)	kW	334.1
@ 8.8 barg (128 psig)	kW	325.2
@ 4.5 barg (65 psig)	kW	252.8
Unloaded Package Input Power	kW	80.1
Specific Power(3)(4)		
@ 10.3 barg (150 psig)	kW/m3/min (kW/100cfm)	8.1 (23.0)
@ 9.8 barg (142 psig)	kW/m3/min (kW/100cfm)	7.8 (22.2)
@ 9.3 barg (135 psig)	kW/m3/min (kW/100cfm)	7.6 (21.6)
@ 8.8 barg (128 psig)	kW/m3/min (kW/100cfm)	7.4 (21.0)
@ 4.5 barg (65 psig)	kW/m3/min (kW/100cfm)	5.8 (16.4)
SOUND LEVEL (5)		
Standard Package	dB(A)	79
COOLING DATA WITH AFTERCOOLER		
Total Heat Rejection (7)		
@ 10.3 barg (150 psig)	kW (1000 Btu/hr)	321 (1097)
@ 9.8 barg (142 psig)	kW (1000 Btu/hr)	313 (1067)
@ 9.3 barg (135 psig)	kW (1000 Btu/hr)	304 (1038)
@ 8.8 barg (128 psig)	kW (1000 Btu/hr)	295 (1008)
@ 4.5 barg (65 psig)	kW (1000 Btu/hr)	218 (744)
Aftercooler CTD (7)(9)	°C (°F)	13.9 (25)
Additional Static Pressure (6)	Pa (in H_2O)	62.5 (.25)
Fan Air Flow (8)	m³/min (cfm)	566 (20,000)
Fan Motor Nameplate Rating	kW (HP)	14.9 (20)
Fan Motor Power (Typical) (15)	kW (HP)	14.9 (20)
Cooling Air Temperature Rise	°C (°F)	26 (47)
NO AFTERCOOLER OPTION		
Total Heat Rejection (7)		
@ 10.3 barg (150 psig)	kW (1000 Btu/hr)	135 (462)
@ 9.8 barg (142 psig)	kW (1000 Btu/hr)	135 (461)
@ 9.3 barg (135 psig)	kW (1000 Btu/hr)	134 (459)
@ 8.8 barg (128 psig)	kW (1000 Btu/hr)	134 (457)
@ 4.5 barg (65 psig)	kW (1000 Btu/hr)	129 (442)
Discharge Air Temperature (7)		
@ 10.3 barg (150 psig)	°C (°F)	252 (486)
@ 9.8 barg (142 psig)	°C (°F)	242 (468)
@ 9.3 barg (135 psig)	°C (°F)	235 (455)
@ 8.8 barg (128 psig)	°C (°F)	225 (437)
@ 4.5 barg (65 psig)	°C (°F)	152 (306)

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CONSTRUCTION, FOUNDATION, AND MOUNTING DATA		
PIPING CONNECTIONS		
Air Discharge		3" Male BOSS Type
Discharge Pressure Control		2" Kimray Valve, Back Pressure Type. 10 - 300 PSIG Range
Package Automatic Condensate Drain	Inches BSPT/NPT (10)	0.5" (FEMALE)
Diameter of Power Inlet	mm / inch	4/0 Male CamLok Receptacle. (2) Per Power Phase + (1) Ground
COOLANT LUBRICATION DATA		
Total Coolant Capacity (11)	litres (US gal)	91 (24)
COMPRESSION MODULE		
Number of Compressor Stage		2
1st Stage		
Rotor Diameter	mm	193.6
Male Rotor Speed	RPM	9,034
Tip Speed	m/s	92
2nd Stage		
Rotor Diameter	mm	114.8
Male Rotor Speed	RPM	15,710
Tip Speed	m/s	94
DIMENSIONS & WEIGHT		
Length, Width, Height	mm (inches)	4,621-L / 2,410-W / 2,509-H (182 / 95 / 99)
Net Weight (TEFC)	kg (lb.)	5,987 (13,200)
GA Drawing Number		49068836 (Rental Configured)
ELECTRICAL DATA (12)(13)(14)		
Motor, Number of Poles		4
Motor Enclosure Protection		TEFC, IP55
Motor Insulation Class / Temperature Rise		Class F, 155°C
Full Load Package Current		
	Amps @ 460V	523
Package Power Factor		0.85

Notes :

(1) FAD (Free Air Delivery) is full package performance including all losses. Tested per ISO 1217 : 2009 Annex C
(2) EISA 2007 efficiency motor per NEMA MG 1 - table 12 - 12
(3) Measured at rated capacity and rated discharge pressure
(4) Specific power guaranteed in accordance with ISO 1217 : 2009 Annex C
(5) Sound levels are "free field conditions" per CAGI-Pneurop, ±3 dB(A).
(6) Maximum added static pressure when the unit is ducted
(7) Based on 38°C, 40 % relative humidity inlet air (For alternate conditions contact Ingersoll-Rand)
(8) Fan airflow provided is a reference value to be used when sizing the airflow through the room. Actual cooling airflow from the compressor package may vary.
(9) Ambient temperature equivalent to cooling water inlet temperature
(10) BSPT or NPT, depending on regional standard
(11) Coolant volumes listed are approximate. See operator manual for coolant fill procedure.
(12) Voltage Tolerance: ± 10%
(13) Time delay fuse recommended. Always apply local electrical codes for sizing cables and fusing.
(14) Contact Ingersoll-Rand for applications >1000 meters above sea level.
(15) Actual Fan motor kW usage at inlet conditions
(16) Cooling water to include no more than 10% ethylene glycol
(17) The cooler and water tubing should be wrapped with foam to avoid condensation on the outside of the coolers and piping when chilled water is used.

Product Improvement is a continuing goal at Ingersoll Rand. Design and specifications are subject to change without notice or obligation.