



ENGINEERING DATA SHEET

L100
60HzCCN: 49075161
Rev.: C
ECN: 1022593
Sheet: 1 of 2
Date: 1-Dec-16

Model Name		L100A	L100W
GENERAL PERFORMANCE DATA			
Rated Discharge Pressure	barg (psig)	6.9 (100)	6.9 (100)
Maximum Off Line Pressure	barg (psig)	7.1 (103)	7.1 (103)
Minimum Operating Pressure	barg (psig)	4.5 (65)	4.5 (65)
Maximum Operating Ambient Temperature	°C (°F)	46 (115)	46 (115)
Minimum Operating Ambient Temperature	°C (°F)	2 (36)	2 (36)
Nominal Power - Main Motor	kW (HP)	75 (100)	75 (100)
Main Motor Efficiency ⁽²⁾	Percent	95.1%	95.1%
Capacity FAD ⁽¹⁾	m³/min (cfm)	12.0 (424)	12.0 (424)
Package Input Power⁽³⁾			
@ 6.9 barg (100 psig)	kW	85.6	79.7
@ 6.4 barg (93 psig)	kW	82.3	76.4
@ 5.9 barg (86 psig)	kW	80.0	74.1
@ 5.4 barg (78 psig)	kW	77.9	71.9
@ 4.5 barg (65 psig)	kW	74.0	68.0
Unloaded Package Input Power	kW	21.4	17.3
Specific Power⁽³⁾⁽⁴⁾			
@ 6.9 barg (100 psig)	kW/m³/min (kW/100cfm)	7.1 (20.2)	6.6 (18.8)
@ 6.4 barg (93 psig)	kW/m³/min (kW/100cfm)	6.9 (19.4)	6.4 (18.0)
@ 5.9 barg (86 psig)	kW/m³/min (kW/100cfm)	6.7 (18.9)	6.2 (17.5)
@ 5.4 barg (78 psig)	kW/m³/min (kW/100cfm)	6.5 (18.4)	6.0 (17.0)
@ 4.5 barg (65 psig)	kW/m³/min (kW/100cfm)	6.2 (17.5)	5.7 (16.1)
SOUND LEVEL ⁽⁵⁾			
Standard Package	dB(A)	76	76
COOLING DATA			
Total Heat Rejection ⁽⁷⁾			
@ 6.9 barg (100 psig)	kW (1000 Btu/hr)	76 (258)	82 (281)
@ 6.4 barg (93 psig)	kW (1000 Btu/hr)	74 (251)	80 (273)
@ 5.9 barg (86 psig)	kW (1000 Btu/hr)	71 (242)	78 (265)
@ 5.4 barg (78 psig)	kW (1000 Btu/hr)	69 (235)	75 (257)
@ 4.5 barg (65 psig)	kW (1000 Btu/hr)	64 (219)	71 (242)
Aftercooler CTD ⁽⁷⁾⁽⁹⁾	°C (°F)	13.9 (25)	8.3 (15)
Additional Static Pressure ⁽⁶⁾	Pa (in H ₂ O)	62.5 (.25)	62.5 (.25)
Fan Air Flow ⁽⁸⁾	m³/min (cfm)	227 (8000)	76 (2700)
Fan Motor Nameplate Rating	kW (HP)	3.7 (5)	0.37 (.5)
Fan Motor Power (Typical) ⁽¹⁵⁾	kW (HP)	4.0 (5)	0.37 (.5)
Cooling Air Temperature Rise	°C (°F)	19 (34)	4 (7)
Cooling Water Flow ⁽¹⁶⁾	l/min (US gal/min)	N/A N/A	91 (24)
Water Temp Rise (at stated water flow)	°C (°F)	N/A N/A	13 (23)
Water Pressure Drop (at stated water flow)	bar (psi)	N/A N/A	1.6 (23)
Minimum Water Temperature ⁽¹⁷⁾	°C (°F)	N/A N/A	2 (36)
Maximum Water Temperature	°C (°F)	N/A N/A	46 (115)
Cooling Water Max Pressure	bar (psi)	N/A N/A	10 (145)
Cooling Water Min Pressure	bar (psi)	N/A N/A	3 (44)
NO AFTERCOOLER OPTION			
Total Heat Rejection ⁽⁷⁾			
@ 6.9 barg (100 psig)	kW (1000 Btu/hr)	42 (144)	50 (170)
@ 6.4 barg (93 psig)	kW (1000 Btu/hr)	42 (144)	50 (170)
@ 5.9 barg (86 psig)	kW (1000 Btu/hr)	42 (143)	49 (169)
@ 5.4 barg (78 psig)	kW (1000 Btu/hr)	42 (143)	49 (169)
@ 4.5 barg (65 psig)	kW (1000 Btu/hr)	42 (142)	49 (168)
Cooling Water Flow ⁽¹⁶⁾	l/min (US gal/min)	N/A N/A	55 (14)
Water Temp Rise (at stated water flow)	°C (°F)	N/A N/A	13 (23)
Water Pressure Drop (at stated water flow)	bar (psi)	N/A N/A	0.9 (13)
Discharge Air Temperature ⁽⁷⁾			
@ 6.9 barg (100 psig)	°C (°F)	175 (347)	170 (338)
@ 6.4 barg (93 psig)	°C (°F)	165 (329)	160 (320)
@ 5.9 barg (86 psig)	°C (°F)	155 (311)	150 (302)
@ 5.4 barg (78 psig)	°C (°F)	150 (302)	145 (293)
@ 4.5 barg (65 psig)	°C (°F)	135 (275)	130 (266)



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Model Name	L100A		L100W
CONSTRUCTION, FOUNDATION, AND MOUNTING DATA			
PIPING CONNECTIONS			
Air Discharge	Inches BSPT/NPT ⁽¹⁰⁾	1.5" (FEMALE)	1.5" (FEMALE)
Air Discharge (NO AFTERCOOLER)	Inches BSPT/NPT ⁽¹⁰⁾	2" (FEMALE)	2" (FEMALE)
Package Automatic Condensate Drain	Inches BSPT/NPT ⁽¹⁰⁾	0.5" (FEMALE)	0.5" (FEMALE)
Diameter of Power Inlet	mm / inch	76 / 3"	76 / 3"
Water Inlet and Outlet Connections	Inches BSPT/NPT ⁽¹⁰⁾	N/A	1.5" (FEMALE)
COOLANT LUBRICATION DATA			
Total Coolant Capacity ⁽¹¹⁾	litres (US gal)	40 (11)	40 (11)
COMPRESSION MODULE			
Number of Compressor Stage		2	2
1 st Stage			
Rotor Diameter	mm	108.0	108.0
Male Rotor Speed	RPM	17519	17519
Tip Speed	m/s	99	99
2 nd Stage			
Rotor Diameter	mm	72.9	72.9
Male Rotor Speed	RPM	24527	24527
Tip Speed	m/s	94	94
DIMENSIONS & WEIGHT			
Length, Width, Height	mm (inches)	2248 / 1372 / 1914 (88.5 / 54 / 75.4)	2248 / 1372 / 1914 (88.5 / 54 / 75.4)
Net Weight	kg (lb.)	2495 (5500)	2495 (5500)
GA Drawing Number		39902275	39902325
ELECTRICAL DATA ⁽¹²⁾⁽¹³⁾⁽¹⁴⁾			
Motor, Number of Poles		2	2
Motor Enclosure Protection		TEFC, IP55	TEFC, IP55
Motor Insulation Class / Temperature Rise		Class F, 155°C	Class F, 155°C
Full Load Package Current	Amps @ 200V	N/A	N/A
	Amps @ 230V	252	235
	Amps @ 380V	153	142
	Amps @ 415V	N/A	N/A
	Amps @ 460V	126	118
	Amps @ 575V	101	94
Package Power Factor		0.85	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.