

R45ie

50Hz

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Rev.: A
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Sheet: 1 of 1
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Model		R45ie-7.5	R45ie-8.5	R45ie-10
GENERAL PERFORMANCE DATA				
Maximum Target Operating Pressure	⁽²⁾ barg (psig)	7.5 (109)	8.5 (123)	10.0 (145)
Rated Discharge Pressure	barg (psig)	7.0 (102)	8.0 (116)	9.5 (138)
Minimum Operating Pressure	barg (psig)	4.5 (65)	4.5 (65)	4.5 (65)
Maximum Operating Ambient Temperature	°C (°F)	46 (115)	46 (115)	46 (115)
Minimum Operating Ambient Temperature	°C (°F)	2 (36)	2 (36)	2 (36)
Maximum System Temperature Setting	°C (°F)	109 (228)	109 (228)	109 (228)
Nominal Power - Main Motor	kW (HP)	45 (60)	45 (60)	45 (60)
Main Motor Efficiency	⁽³⁾ %	94.2%	94.2%	94.2%
Capacity FAD	⁽¹⁾ m ³ /min (CFM)	8.0 (281)	7.6 (267)	6.8 (241)
Package Input Power with Fan - Air Cooled	⁽⁴⁾ kW	53.2	54.9	56.1
Specific Power - Air Cooled	⁽⁴⁾⁽⁵⁾ kW/m ³ /min (kW/100CFM)	6.7 (18.9)	7.3 (20.6)	8.2 (23.3)
SOUND LEVEL ⁽⁶⁾				
Noise Level Standard Package - Air Cooled	Sound Pressure - dB(A)	69	69	69
Noise Level Standard Package - Air Cooled	Sound Power - dB(A)	86	86	86
COOLING DATA (@ Maximum Ambient Temperature & Maximum Discharge Pressure)				
Heat Removal (Oil Cooler)	kW (1000 Btu/hr)	41.8 (143)	43.8 (149)	45.4 (155)
Heat Removal (Oil and Aftercooler)	kW (1000 Btu/hr)	54.3 (185)	55.3 (189)	56.0 (191)
Permitted Additional Static Pressure	Pa (in H ₂ O)	63 (.25)	63 (.25)	63 (.25)
Fan Air Flow	m ³ /min (CFM)	176 (6215)	176 (6215)	176 (6215)
Fan Motor Nominal Power	kW	2.2	2.2	2.2
Cooling Air Temperature Rise	°C (°F)	17 (30)	17 (31)	17 (31)
Aftercooler CTD	⁽⁷⁾ °C (°F)	5 (9)	5 (9)	5 (9)
AIR END DATA				
Male Rotor Speed	RPM	1993	1917	1776
Tip Speed Rotor	m/sec	18.63	17.92	16.60
Full Load Shaft Power	kW	47.7	49.3	50.4
COOLANT LUBRICATION DATA				
Total Coolant Capacity - Air Cooled	litres (US gal)	49 (12.9)	49 (12.9)	49 (12.9)
PIPING CONNECTIONS				
Air Discharge	Inches BSPT	2.0 INCH (FEMALE)	2.0 INCH (FEMALE)	2.0 INCH (FEMALE)
Package Automatic Condensate Drain	Inches BSPT	.375 INCH (FEMALE)	.375 INCH (FEMALE)	.375 INCH (FEMALE)
Coolant Drain - Hose Size	Inches	0.75	0.75	0.75
Diameter of Power Inlet	Inches	Up to 4" (removable plate)	Up to 4" (removable plate)	Up to 4" (removable plate)
DIMENSIONS AND WEIGHT				
Length, Width, Height	mm (inches)	2432, 1265, 2032 (95.8, 49.8, 80)	2432, 1265, 2032 (95.8, 49.8, 80)	2432, 1265, 2032 (95.8, 49.8, 80)
Net Weight - Air Cooled	kg (lb.)	1603 (3534)	1603 (3534)	1603 (3534)
GA Drawing Number - Air Cooled		23701352	23701352	23701352
ELECTRICAL DATA ⁽¹³⁾				
Motor Protection		TEFC, IP55	TEFC, IP55	TEFC, IP55
Full Load Package Current - Air Cooled	⁽⁹⁾			
	Amps @ 380V	109	113	115
	Amps @ 400V	104	107	109
	Amps @ 415V	100	103	105
Package Locked Rotor Current				
	Amps @ 380V	886	886	886
	Amps @ 400V	841	841	841
	Amps @ 415V	811	811	811
Package Power Factor		0.87	0.87	0.87
Electrical Installation				
Recommended Supply Cable Size	⁽¹⁰⁾			
	mm ² /Cu (AWG) @ 380V	35 (2)	35 (2)	35 (2)
	mm ² /Cu (AWG) @ 400V	35 (2)	35 (2)	35 (2)
	mm ² /Cu (AWG) @ 415V	35 (2)	35 (2)	35 (2)
Maximum Recommended Fuse Rating	⁽¹⁰⁾⁽¹¹⁾			
	Amps @ 380V	175	175	175
	Amps @ 400V	175	175	175
	Amps @ 415V	175	175	175

Notes:

- (1) FAD (Free Air Delivery) is full package performance including all losses. Tested per ISO 1217 : 2009 Annex C
- (2) Maximum pressure at package discharge, value at which compressor will stop when unit operating at maximum target pressure
- (3) IE3 efficiency motor
- (4) Measured at rated capacity and rated pressure
- (5) Specific power guaranteed in accordance with ISO 1217 : 2009 Annex C
- (6) Measured in free field conditions per ISO 2151 using Hemispherical Method; ducted inlet and outlet, with + 3 dB(A) tolerance
- (7) CTD based on 100°F/38°C inlet air at 40% Relative Humidity (For alternate conditions contact Ingersoll Rand)
- (8) BSPT or NPT, depending on regional standard
- (9) Maximum current includes 10% additional current due to fouled filters and elements
- (10) 90°C copper cables. Always apply local electrical codes for sizing cables and fusing
- (11) Time delay fuse recommended. Apply local electrical codes for fuse sizing
- (12) Coolant volumes listed are approximate. See operator manual for coolant fill procedure
- (13) 50Hz (±2%) motor voltage tolerance: (230)±10%; (380)-6/+10%; (400) ±10%; (415)-10/+6%