



## D7.5 ENGINEERING DATA SHEET

Engineering Data Sheet: D7.5  
 Configurator Number: D6-7.5A  
 Date: 02/13/2019  
 Supersedes:

Fixed Speed – 60 Hz

PRODUCT DATA		Units	D7.5
<b>Performance (1)</b>			
Working Pressure	PACKAGE PRESSURE (configurator pick)	psig bar g	145 10
	Air end Model at configurator pressure / Pulley Ratio		DSC-002053 / 1.7
100 psig 6.9 bar g	Capacity (2)	acfm (m <sup>3</sup> /min)	29.2 (0.83)
	Package Input Power - AC (3,4)	kW	5.9
	Specific Power - AC	kW/100 cfm	20.2
	Main Drive Motor Power	bhp	7.2
110 psig 7.6 bar g	Capacity (2)	acfm (m <sup>3</sup> /min)	28.9 (0.82)
	Package Input Power - AC (3,4)	kW	6.2
	Specific Power - AC	kW/100 cfm	21.4
	Main Drive Motor Power	bhp	7.5
125 psig 8.6 bar g	Capacity (2)	acfm (m <sup>3</sup> /min)	28.6 (0.81)
	Package Input Power - AC (3,4)	kW	6.6
	Specific Power - AC	kW/100 cfm	23.2
	Main Drive Motor Power	bhp	8.1
145 psig 10 bar g	Capacity (2)	acfm (m <sup>3</sup> /min)	28.0 (0.79)
	Package Input Power - AC (3,4)	kW	7.2
	Specific Power - AC	kW/100 cfm	25.6
	Main Drive Motor Power	bhp	8.7
Unloaded Package Input Power - AC		kW	1.4
Minimum Operating Pressure		psig (bar g)	100 (6.9)
<b>Airend Data</b>			
Drive Type		n/a	Belt
Airend Speed (male rotor)		rpm	3000
Male / Female Rotor Diameter		mm	79.0 / 63.0
Male / Female Rotor Tip Speed		m/s	12.4 / 7.9
<b>General Package Data</b>			
System Capacity - oil		gal (l)	0.8 (3.0)
Oil flow @ configured pressure		gpm (l/min)	5.3 (20)
Air/Oil Reservoir Capacity - oil		gal (l)	0.8 (3.0)
Air/Oil Reservoir Volume - air		ft <sup>3</sup> (l)	0.1 (3.0)
Oil Cooler Heat Rejection		btu/min	245
Aftercooler Heat Rejection		btu/min	51
Radiated Heat Rejection		btu/min	86
Nominal Temperature Rise @ Configured Pressure		°F (°C)	14.4 (8)
Min / Max Operating Temperature		°F (°C)	50 / 104 (10 / 40)
<b>Noise Level Data (5)</b>			
Quiet Enclosed - AC		dB(A)	66

**NOTES:**

- (1) Capacity and Power measured in accordance with ISO 1217 Annex C.
- (2) acfm is actual cubic feet per minute at inlet conditions
- (3) Package Input Power includes main motor and control input power
- (4) Power noted with ODP motor
- (5) Sound level measurement in accordance with ISO 2151.



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PRODUCT DATA	Units	D7.5	
<b>Main Drive Motor Data</b>			
Drive Motor Nominal Power	hp (kW)	7.5 (5.6)	
Drive Motor Speed - 1PH / 3PH	rpm	1735 / 1770	
Drive Motor Service Factor	n/a	1.15	
Drive Motor Minimum Nameplate Efficiency - ODP, 1PH / 3PH	%	84 / 91	
Drive Motor Min. Insulation Class	n/a	F	
Drive Motor Nominal Current (Per NEC Code) - 230V 1PH (6)	Amps	40	
Drive Motor Nominal Current (Per NEC Code) - 200V 3PH (6)	Amps	25.3	
Drive Motor Nominal Current (Per NEC Code) - 230V 3PH (6)	Amps	22	
Drive Motor Nominal Current (Per NEC Code) - 460V 3PH (6)	Amps	11	
<b>Air Cooled Package Data</b>			
Cooling Fan Motor Speed (7)	rpm	1770	
Fan Motor Nameplate Efficiency	%	N/A	
Total Ventilation Flow Rate	cfm (m <sup>3</sup> /min)	625 (17.7)	
Max Total Added Static Pressure	in H <sub>2</sub> O (Pa)	0.1 (25)	
Aftercooler Design Approach Temperature - above amb	°F (°C)	27 (15)	
<b>Connections</b>			
Package type	Units	Base Mounted	80 Gallon with Dryer
Discharge Connection Size	" npt	1/2 (Male)	3/4 (Female)
Moisture Drain Tube Size - Dryer, Filter	mm OD	N/A	6 , 6
Ref. Dryer Power Supply - 1PH	V	N/A	115V/60Hz
Oil Drain Tube Size	" OD	1/2	
<b>Dimensions and Weights</b>			
Package type	Units	Base Mounted	80 Gallon with Dryer
Length	in (mm)	34 (864)	66 (1676)
Width	in (mm)	21 (533)	21 (533)
Height	in (mm)	25 (635)	46 (1168)
Weight (8)	lbs (kg)	404 (183)	715 (324)
Outline Drawing - standard package	n/a	D6-7.5-SE	D6-7.5TD-SE

**NOTES:**

- (6) Main motor current per NEC table 430.250 to be used for wire sizing
- (7) Cooling fan is mounted on main motor
- (8) Weights based on DSC-002053 air end and 7.5hp/ODP Baldor motor



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