



**OIL-FREE ROTARY SCREW
AIR COMPRESSORS
L – SERIES AIR-COOLED
PERFORMANCE DATA**

PD-L-KNWA0
EFFECTIVE
01-02-2012
SUPERSEDES
04-05-2006

MODEL KNW A0 -						
PRODUCT DATA	A/L	B/L	C/L	D/L	E/L	UNITS
MOTOR HORSEPOWER						
NAMEPLATE	40	50	60	75	100	HP
SERVICE FACTOR	50	63	75	94	125	HP
FL SPEED	1780	3550	3525	3550	3570	RPM
EFFICIENCY	94.5	93.0	93.6	94.5	95.0	%
COMPRESSOR SPEED						
1ST STAGE	13209	16123	20047	22015	27132	RPM
2ND STAGE	13209	15619	19306	21134	25840	RPM
ROTOR DIAMETER						
1ST STAGE	88	88	88	88	88	MM
2ND STAGE	71	71	71	71	71	MM
DISPLACEMENT						
1ST STAGE	233	283	352	387	477	CFM
WORKING PRESSURE						
MINIMUM	40	40	40	40	40	PSIG
MAXIMUM	100	110	100	115	135	PSIG
COMPRESSION RATIO						
MAXIMUM	11:1	11:1	11:1	11:1	11:1	RATIO
GYRATIC MASS OF COMPRESSORS AND COUPLING	12.5	8.3	9.5	10.7	13.1	Lbs-Ft ²
COMPRESSOR CAPACITY AT PRESSURE						
150 PSIG	—	—	—	—	---	ACFM
135 PSIG	—	—	—	—	400	ACFM
125 PSIG	—	—	—	—	401	ACFM
115 PSIG	—	—	—	332	402	ACFM
110 PSIG	—	224	—	332	402	ACFM
100 PSIG	175	225	294	333	403	ACFM
75 PSIG	178	228	298	338	405	ACFM
SHAFT INPUT POWER AT PRESSURE						
150 PSIG	—	—	—	—	---	BHP
135 PSIG	—	—	—	—	110	BHP
125 PSIG	—	—	—	—	105	BHP
115 PSIG	—	—	—	85	100	BHP
110 PSIG	—	59	—	83	97	BHP
100 PSIG	47	57	70	80	92	BHP
75 PSIG	41	51	62	70	79	BHP
UNLOADED	9	12	15	17	19	BHP
SPECIFIC POWER CONSUMPTION AT PRESSURE						
150 PSIG	—	—	—	—	---	BHP/ 100 CFM
135 PSIG	—	—	—	—	27.5	BHP/ 100 CFM
125 PSIG	—	—	—	—	26.2	BHP/ 100 CFM
115 PSIG	—	—	—	25.6	24.9	BHP/ 100 CFM
110 PSIG	—	26.3	—	25.0	24.1	BHP/ 100 CFM
100 PSIG	26.8	25.3	23.8	24.0	22.8	BHP/ 100 CFM
75 PSIG	23.0	22.4	20.8	20.7	19.5	BHP/ 100 CFM
STANDARD OPERATING CONDITIONS	AMBIENT PRESSURE 14.5 PSIA			CAPACITY ± 4%		
	AMBIENT TEMPERATURE 80 °F			SPECIFIC POWER ± 5%		
	RELATIVE HUMIDITY 60%					



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	A/L	B/L	C/L	D/L	E/L	
SOUND PRESSURE LEVEL AVERAGE @ 1 METER	76	76	77	78	79	dbA
HEAT REJECTION (@ 100 PSI) TO AIR	2620	3210	3940	4160	5280	BTU/MIN
COOLING FAN DIAMETER	26	26	26	26	26	IN.
AIR FLOW	6500	6500	6500	6500	6500	CFM
COOLING FAN MOTOR	3	3	3	3	3	HP
	1750	1750	1750	1750	1750	RPM
LUBE OIL PUMP MOTOR	2	2	2	2	2	HP
	1740	1740	1740	1740	1740	RPM
LUBE OIL PUMP CAPACITY	11.1	11.1	11.1	11.1	11.1	GPM
LUBE OIL SUMP CAPACITY	5.5	5.5	5.5	5.5	5.5	GAL.
DISCHARGE SAFETY VALVE SETTING	165	165	165	165	165	PSIG
MAXIMUM COOLING DUCT ΔP SUCTION	0.12	0.12	0.12	0.12	0.12	IN. W.C.
OUTLET	0.12	0.12	0.12	0.12	0.12	IN. W.C.
DIMENSIONS LENGTH	69.5	69.5	69.5	69.5	69.5	IN.
WIDTH	49	49	49	49	49	IN.
HEIGHT	66.5	66.5	66.5	66.5	66.5	IN.
APPROXIMATE SHIPPING WEIGHT	3620	3670	3740	3880	3880	LBS
DISCHARGE AIR CONNECTION	1 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂	IN. NPT
CONDENSATE DRAIN CONNECTION (2)	1 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂	IN. NPT
MINIMUM RECOMMENDED AIR RECEIVER SIZE	32	32	32	53	53	FT ³
	240	240	240	400	400	GAL.
AFTERCOOLER TERMINAL APPROACH TEMPERATURE	14	15	16	17	19	°F
MAXIMUM AMBIENT TEMP.	104	104	104	104	104	°F