

June 2020

**RT-PRC061B-EN** © 2020 Trane

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## **Mechanical Specifications**

The IntelliPak™ II propeller exhaust system is optimized to provide low static exhaust throughout the airflow envelope of the product. It is available in ALL unit sizes from 90 - 162 tons. It is available on both units with air-cooled or evaporative condensers. It consists of four 36 in. "direct-drive" propeller fans. Each fan has a single, directly-coupled motor. This eliminates belt losses and further increases the efficiency of this feature. The fans are all modulated by a single common VFD assembly providing smooth modulation to building static requirements. Powered exhaust dampers are controlled with the IntelliPak<sup>™</sup> controller. When coupled with the Statitrac building pressurization control sequence, it tracks the fan speed to ensure optimal building pressurization control. The all-aluminum damper assembly contains airfoil blades with low leak seals that meet the International Energy Code by providing less than 4 cfm/sq. ft. of leakage at 1 in. of static pressure, and provide tight seals when the exhaust fan is de-energized.

### Figure 1.



Figure 2.



#### Notes:

1. Call Clarksville Product Support for any voltage besides 460V. Other voltages have been provided, however, they may impact lead time. 2. Lead time is current lead time of IntelliPak<sup>™</sup> II, with needed "other" options + 4 weeks.

Propeller Assembly Technical Data								
Nominal voltage/ frequency	460 Volt/ 60 Hz/ 3 phase							
Motor horsepower -	(4) 3 Hp							
Exhaust / Return fan motor FLA (A)	(4) 4.6							
Fan maximum speed	1150 rpm							
Fan assembly weight	1650 lbs							

# **Electrical Calculations**

The IntelliPak<sup>™</sup> II propeller exhaust fan is designed to integrate within the current IntelliPak<sup>™</sup> II offering. Because this is handled through our design specials team, the electrical performance is not yet integrated into our standard TOPSS submittal process. Please use the electrical data above as well as the catalog (RT-PRC027-EN) to calculate the MCA and MOP.

### Table 1. Propeller fan performance table

Total Static Pressure																		
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Std Airflow	0.10 0.20		20	0.30		0.40		0.50		0.60		0.70		0.80		0.90		
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20000	457	0.81	583	1.62	680	2.63	763	3.82	836	5.18	902	6.70	962	8.31	1020	10.09	1073	11.97
22000	473	0.91	598	1.74	695	2.76	777	3.96	850	5.32	916	6.81	977	8.46	1034	10.21		
24000	491	1.02	613	1.89	710	2.92	792	4.13	864	5.47	931	6.99	991	8.61	1047	10.34		
26000	510	1.15	628	2.07	726	3.11	807	4.31	879	5.67	945	7.17	1006	8.81	1061	10.53		
28000	531	1.29	644	2.25	741	3.33	823	4.54	895	5.90	960	7.41	1020	9.02	1077	10.78		
30000	554	1.46	660	2.45	755	3.55	838	4.78	909	6.14	974	7.64	1036	9.31	1091	11.05		
32000	578	1.66	678	2.66	771	3.82	853	5.06	926	6.45	991	7.97	1050	9.59	1106	11.34		
34000	604	1.88	696	2.90	786	4.09	868	5.38	941	6.77	1005	8.29	1065	9.92				
36000	632	2.14	714	3.14	802	4.38	882	5.71	954	7.11	1021	8.65	1081	10.30				
38000	661	2.43	734	3.41	819	4.69	898	6.07	970	7.52	1035	9.03	1095	10.69	-			
40000	690	2.75	756	3.72	837	5.03	914	6.46	985	7.93	1050	9.48	1111	11.14	•			
42000	719	3.10	779	4.06	855	5.38	930	6.85	1000	8.37	1065	9.97			-			
44000	749	3.48	802	4.42	873	5.75	947	7.25	1016	8.84	1080	10.46	-					
46000	778	3.89	828	4.85	894	6.16	964	7.69	1032	9.32	1095	10.99	-					
48000	807	4.33	854	5.30	915	6.59	982	8.16	1049	9.83	1111	11.57						
50000	832	4.72	881	5.81	937	7.08	1001	8.66	1066	10.36								
52000	856	5.12	909	6.36	960	7.60	1021	9.18	1084	10.92								

Intellipak II Prop Fan Exhaust 90-162 Ton



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