

TECHNICAL FEATURES

Data refer to the following nominal conditions: ambient temperature of 25°C, with inlet air at 7 barg and 35°C and 3°C pressure Dew Point (-22°C atmospheric pressure Dew Point). Max. working conditions: ambient temperature 50°C for ES models, 45°C for VS models, inlet air temperature 70°C and inlet air pressure 14 barg (16 barg ACT 3...12 ES).

ACT ES - ACT VS

Energy Saving Dryer Series

Model	Refrig. [Type]	Flow-Rate			Connections [Ø]	Pressure Drop [bar]	Power Supply [Ph/V/Fr]	Dimensions [mm]			Weight [kg]
		[l/min]	[m³/h]	[scfm]				A	B	C	
ACT 3 ES	R 134.a	350	21	12	G 1/2" BSP-F	0.02	1/230/50-60	345	420	740	28
ACT 5 ES	R 134.a	550	33	19	G 1/2" BSP-F	0.03	1/230/50-60	345	420	740	29
ACT 8 ES	R 134.a	850	51	30	G 1/2" BSP-F	0.08	1/230/50-60	345	420	740	31
ACT 12 ES	R 134.a	1.200	72	42	G 1/2" BSP-F	0.11	1/230/50-60	345	420	740	34
ACT 18 ES	R 134.a	1.800	108	64	G 1" BSP-F	0.13	1/230/50-60	345	420	740	36
ACT 23 ES	R 134.a	2.300	138	81	G 1" BSP-F	0.17	1/230/50	345	420	740	36
ACT 30 ES	R 407C	3.100	186	109	G 1.1/4" BSP-F	0.15	1/230/50	485	455	825	49
ACT 40 ES	R 407C	4.000	240	141	G 1.1/4" BSP-F	0.20	1/230/50	485	455	825	50
ACT 55 ES	R 407C	5.500	330	194	G 1.1/2" BSP-F	0.15	1/230/50	555	580	885	60
ACT 60 ES	R 407C	6.200	372	219	G 1.1/2" BSP-F	0.18	1/230/50	555	580	885	63
ACT 80 ES	R 407C	8.100	486	286	G 2" BSP-F	0.09	1/230/50	555	625	975	92
ACT 100 ES	R 407C	10.500	630	371	G 2" BSP-F	0.13	1/230/50	555	625	975	94
ACT 120 ES	R 407C	12.500	750	441	G 2.1/2" BSP-F	0.07	1/230/50	665	725	1.105	141
ACT 140 ES	R 407C	14.500	870	512	G 2.1/2" BSP-F	0.13	1/230/50	665	725	1.105	150
ACT 160 ES	R 407C	16.000	960	565	G 2.1/2" BSP-F	0.15	1/230/50	665	725	1.105	161
ACT 55 ES 3~	R 134.a	5.500	330	194	G 1.1/2" BSP-F	0.15	3/400/50	555	580	885	72
ACT 60 ES 3~	R 134.a	6.200	372	219	G 1.1/2" BSP-F	0.18	3/400/50	555	580	885	75
ACT 80 ES 3~	R 134.a	8.100	486	286	G 2" BSP-F	0.09	3/400/50	555	625	975	100
ACT 100 ES 3~	R 134.a	10.500	630	371	G 2" BSP-F	0.13	3/400/50	555	625	975	102
ACT 120 ES 3~	R 407C	12.500	750	441	G 2.1/2" BSP-F	0.07	3/400/50	665	725	1.105	158
ACT 140 ES 3~	R 407C	14.500	870	512	G 2.1/2" BSP-F	0.13	3/400/50	665	725	1.105	160
ACT 160 ES 3~	R 407C	16.000	960	565	G 2.1/2" BSP-F	0.15	3/400/50	665	725	1.105	170
ACT 210 VS	R 134.a	21.000	1.260	742	DN80 PN16	0.21	3/400/50	790	1.000	1.465	248
ACT 300 VS	R 407C	30.000	1.800	1.060	DN80 PN16	0.19	3/400/50	790	1.000	1.465	282
ACT 360 VS	R 407C	36.800	2.208	1.300	DN80 PN16	0.26	3/400/50	790	1.000	1.465	317
ACT 400 VS	R 407C	40.000	2.400	1.413	DN100 PN16	0.21	3/400/50	1.135	1.205	1.745	470
ACT 500 VS	R 407C	50.000	3.000	1.766	DN100 PN16	0.14	3/400/50	1.135	1.205	1.745	545
ACT 600 VS	R 407C	60.000	3.600	2.119	DN100 PN16	0.20	3/400/50	1.135	1.205	1.745	549
ACT 720 VS	R 407C	73.600	4.416	2.600	DN100 PN16	0.26	3/400/50	1.135	1.205	1.745	621
ACT 900 VS	R 407C	90.000	5.400	3.178	DN150 PN16	0.20	3/400/50	1.300	1.750	1.810	843
ACT 1100 VS	R 407C	110.400	6.624	3.900	DN150 PN16	0.26	3/400/50	1.300	1.750	1.810	954
ACT 1200 VS	R 407C	120.000	7.200	4.238	DN200 PN16	0.20	3/400/50	1.400	2.200	1.870	1.071
ACT 1500 VS	R 407C	147.200	8.832	5.200	DN200 PN16	0.26	3/400/50	1.400	2.200	1.870	1.218
ACT 1800 VS	R 407C	180.000	10.800	6.360	DN200 PN16	0.22	3/400/50	1.547	2.270	2.440	1.450

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On request models ACT23...1800 with 60Hz power supply.

CORRECTION FACTOR FOR OPERATING PRESSURE CHANGES:

Pressione aria entrata / Inlet air pressure	barg	4	5	6	7	8	10	12	14
Fattore / Factor		0.77	0.86	0.93	1.00	1.05	1.14	1.21	1.27

CORRECTION FACTOR FOR AMBIENT TEMPERATURE CHANGES:

Ambient temperature	°C	≤25	30	35	40	45	50
Factor		1.00	0.96	0.90	0.82	0.72	0.60

CORRECTION FACTOR FOR INLET AIR TEMPERATURE CHANGES:

Air temperature	°C	≤ 25	30	35	40	45	50	55	60	65	70
Factor		1.20	1.12	1.00	0.83	0.69	0.59	0.50	0.44	0.39	0.37

CORRECTION FACTOR FOR DEW POINT CHANGES:

Dew Point	°C	3	5	7	10
Factor		1.00	1.09	1.19	1.37

"Friulair S.r.l reserves the right to make technical changes without prior notice, errors and omissions excepted"

MADE IN ITALY



FRIULAIR
Dryers



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THE ENERGY SAVING DRYER THE EVOLUTION OF THE ACT FRIULAIR SERIES

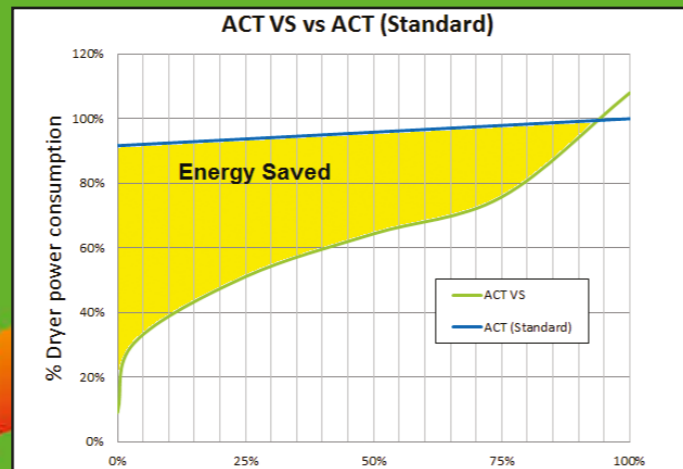
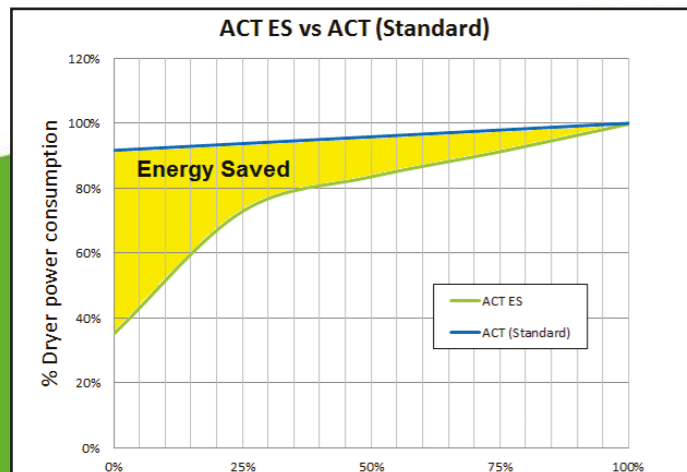
FRIULAIR has released the full range of ACT ES and ACT VS Energy Saving dryers. This new range comes from the need to match compressed air treatment quality with energy saving. The new range uses the design characteristics of the ACT series, which are already appreciated by the compressed air industry market, combined with innovative solutions focused to reduce the electric consumption.

WHY CHOOSE THE ENERGY ACT SAVING DRYER

As known the sizing of the dryer is made considering the worst case working conditions of that specific installation. That means the maximum flow rate capacity in plants with strong load variations and the maximum ambient and compressed air temperatures in countries subjected to seasonal temperature difference. For these applications the ACT (standard), while ensuring optimum performance in all operating conditions, has a nearly constant power consumption even in reduced load situations. **HOWEVER THE ACT ES AND ACT VS DRYERS ARE ABLE TO ADAPT THEIR ENERGY CONSUMPTION IN ACCORDING TO THE LOAD AND ALLOW SUBSTANTIAL ECONOMIC SAVINGS EVEN WHEN APPLIED TO TYPICAL CONDITIONS.**

HOW MUCH CAN BE SAVED WITH AN ACT ENERGY SAVING DRYER

The two graphs compare the average power consumption of the ACT Energy Saving models compared to the equivalent ACT (standard) model at different load conditions. The curves of the graphs show the ACT ES and ACT VS versions' energy efficiency and allow to calculate the energy savings, and so economic, at reduced loading conditions.



THE RANGE

From the ACT series bases (standard) has been developed the ACT Energy Saving range in the versions of ACT 3...160 ES and ACT 210...1800 VS depending on the applied technology.



ACT 3...160 ES



The ACT ES models are equipped with an innovative DMC51 electronic controller which measures the Dew Point temperature and controls the switching on and off of the refrigerant compressor. When the temperature approaches the minimum threshold the DMC51 switches off the compressor; then, when temperature increases, the compressor is turned on again. The characteristics of the ALU-DRY aluminium heat exchanger and the application of a series of valves combine the function of a thermal mass with the advantages of a direct expansion system.

DRAIN CONDENSATE SYSTEM

To maximize the Energy Savings the full ACT ES and ACT VS range is equipped with an electronic Zero Loss Drain.



ACT 210...1800 VS



The complete management of the ACT VS dryer is entrusted to the innovative DMC50 electronic control unit, which continuously monitors the pressure and operating temperature, calculates the heat load and adjusts the rotation speed of the compressor and fans. This ensures an extremely stable Dew Point in all operating conditions and a power consumption proportional to the applied heat load. The large touch screen display, rich in information, provides an intuitive operator interface. The current operating parameters are constantly displayed, while additional information such as data loggers, scheduled maintenance, hour meter, energy saving and memory of the alarms, are easily accessible. The RS485 interface is already included for remote management of the dryer.



PATENT PENDING