

Refrigerated dryers R513A

Cool 12-272

AD 15-4200

AC 200-2120 VSD

AC 15-100 ES



Cool Refrigerated Dryers



The drying process

Refrigeration dryers use a refrigerant gas in order to cool the compressed air. As a result the water from the air condenses and can be removed. With this technique we can reach in the COOL range a pressure dew point of 7 °C. As a result, the refrigeration technology is by far the most used dryer technology, complying for more than 95 % of industrial applications. Refrigerant dryers are commonly used with pneumatic applications and in the general industry (e.g. engineering, steel, paper, tannery, garage).

Main benefits

- Remove the water pollution from your network
- Refrigeration dryer is a simple, low maintenance technology
- Extremely easy to install
- Very compact equipment fits in a minimum space
- Low maintenance requirement
- Compatible with any compressor technology
- Very low energy consumption
- Check your air quality with the dew point indicator
- Higher final product quality
- Increase your overall productivity

Risks to avoid

- Corrosion, pollution, leakage and rust of the air net (pipes) and the downstream equipment/tools
- Costly interruptions of the production
- A decreased efficiency of the equipment/tools used
- Reduction of the life span of all equipment involved
- Risk of water contamination in the air network, with potential freezing in winter time
- Increased maintenance costs
- Lower quality of the final product and potential risk of product recalls

Technical specifications

COOL 12-272

Model	Air Treatment			R513A - 50Hz			R513A - 60Hz			Inlet/Outlet Connections Gas/ DN	Dimensions LxWxH (mm)	List Price €	Weight up to kg
	capacity ¹			Part Number	Voltage		Part Number	Power W	Voltage V/Ph/Hz				
	l/min	m ³ /h	cfm		W	V/Ph/Hz							
COOL 12	350	21	12,4	4102003572	130	230/1/50	4102003578	140	230/1/60	1/2 F	493x350x450	1.136,66	22
COOL 21	600	36	21,2	4102003573	135	230/1/50	4102003579	144	230/1/60	1/2 F	493x350x450	1.414,67	22
COOL 30	850	51	30	4102003574	167	230/1/50	4102003580	147	230/1/60	1/2 F	493x350x450	1.561,20	25
COOL 42	1200	72	42,4	4102003575	286	230/1/50	4102003581	202	230/1/60	1/2 F	493x350x450	1.672,13	25
COOL 64	1800	108	63,6	4102003576	372	230/1/50	4102003582	297	230/1/60	1/2 F	493x350x450	1.854,27	27
COOL 76	2150	129	76	4102003577	337	230/1/50	4102003583	393	230/1/60	3/4 F	497x370x764	1.962,46	32
COOL 106	3000	180	106	4102001858	419	230/1/50	4102001867	459	230/1/60	1" F	497x370x764	2.473,29	31
COOL 127	3600	216	127	4102005090	675	230/1/50	4102005095	730	230/1/60	1" F	557x460x789	2.811,54	47
COOL 145	4100	246	145	4102005091	735	230/1/50	4102005096	756	230/1/60	1" 1/2 F	557x460x789	3.212,80	54
COOL 184	5200	312	184	4102006417	623	230/1/50	4102006381	751	230/1/60	1" 1/2 F	557x460x789	3.648,32	66
COOL 230	6500	390	230	4102006418	645	230/1/50	4102006382	778	230/1/60	1" 1/2 F	587x580x899	4.160,00	65
COOL 272	7700	462	272	4102006419	794	230/1/50	4102006383	957	230/1/60	1" 1/2 F	587x580x899	4.672,72	69

REFERENCE CONDITIONS ¹

- Operating pressure: 7 bar (100 psi)
- Inlet temperature: 35 °C
- Room temperature: 25 °C
- **Pressure dewpoint: 7 °C**

LIMIT CONDITIONS:

- Working pressure:
16 bar COOL 12-127 / 14 bar COOL 145-272
- Inlet temperature: 50 °C
- Min/Max room temperature: +5 °C; +40 °C



Correction factor for conditions differing from the project $K = A \times B \times C$

Room temperature	°C	25	30	35	40
	A	1,00	0,92	0,84	0,80

Inlet temperature	°C	30	35	40	45	50
	B	1,24	1,00	0,82	0,69	0,54

Operating Pressure	bar	5	6	7	8	9	10	11	12	13	14	15	16
	C	0,90	0,96	1,00	1,03	1,06	1,08	1,10	1,12	1,13	1,15	1,16	1,17

AD Refrigerated Dryers

Strong performance in quality air

With the AD dryers we guarantee dry air with PDP monitoring, while also reducing power consumption and compressed air losses.

■ Low Pressure Drop

Pneumatech utilizes high-quality heat exchangers with integrated water separators to avoid pressure losses in the

■ Energy Savings

All Pneumatech refrigerated dryers come with standard zero-loss drains that save you money by preventing the loss of valuable compressed air associated with

■ Superior Reliability

AD refrigerated dryers utilize hot gas bypass valves to prevent freezing during low load periods.

■ Digital PDP Display

Alarms alert you of service intervals and potential problems, while the remote start/stop function opens up new ways of controlling the refrigerated dryer.

■ Stable Performance

The AD series of refrigerated dryers have a stable dew point as low as 3°C, and provide a highly efficient and reliable

■ Easy Plug-and-Play Installation



Technical specifications

AD 15-4200

Models 380/3/60Hz available upon request

Model	Air Treatment capacity			R513A - 50Hz			R513A - 60Hz			Inlet/Outlet Connections Gas/ DN	Dimensions LxWxH (mm)	List Price €	Weight up to kg
	l/min	m³/h	cfm	Part Number	Power W	Voltage V/Ph/Hz	Part Number	Power W	Voltage V/Ph/Hz				
AD 15	350	21	12,4	4102005816	130	230/1/50	4102005821	170	230/1/60	3/4" M	493x350x450	1.321,62	19
AD 20	600	36	21,2	4102005817	164	230/1/50	4102005822	172	230/1/60	3/4" M	493x350x450	1.566,26	19
AD 30	850	51	30	4102005818	190	230/1/50	4102005823	222	230/1/60	3/4" M	493x350x450	1.767,03	20
AD 40	1,200	72	42,4	4102005819	266	230/1/50	4102005824	306	230/1/60	3/4" M	493x350x450	1.892,01	25
AD 65	1,800	108	63,6	4102005820	284	230/1/50	4102005825	364	230/1/60	3/4" M	493x350x450	2.098,10	27
AD 85	2,350	141	83	4102005841	674	230/1/50	4102005843	726	230/1/60	1" F	497x370x764	2.221,73	44
AD 105	3,000	180	106	4102005842	716	230/1/50	4102005844	763	230/1/60	1" F	497x370x764	2.797,45	44
AD 125	3,600	216	127	4102008128	933	230/1/50	4102007605	590	230/1/60	1" 1/2 F	557x460x789	3.170,96	62
AD 145	4,100	246	145	4102008129	933	230/1/50	4102007606	727	230/1/60	1" 1/2 F	557x460x789	3.372,72	60
AD 185	5,200	312	184	4102008281	933	230/1/50	4102007607	745	230/1/60	1" 1/2 F	557x460x789	4.112,16	64
AD 230	6,500	390	230	4102008130	1276	230/1/50	4102007608	1315	230/1/60	1" 1/2 F	587x580x899	4.690,40	82
AD 270	7,700	462	272	4102008282	1276	230/1/50	4102007609	1325	230/1/60	1" 1/2 F	587x580x899	5.265,52	92
AD 355	10,000	600	353	4102008213	1912	400/3/50	4102007622	2021	460/3/60	2" F	1070x805x962	7.271,68	157
AD 425	12,000	720	424	4102008214	1912	400/3/50	4102007623	2341	460/3/60	2" F	1070x805x962	8.725,60	170
AD 530	15,000	900	530	4102008215	2629	400/3/50	4102007624	2511	460/3/60	2 1/2" F	1070x805x962	9.970,48	176
AD 635	18,000	1080	636	4102008301	2629	400/3/50	4102007625	3334	460/3/60	2 1/2" F	1070x805x962	12.253,28	188
AD 750	24,000	1440	848	4102008060	3108	400/3/50	4102007929	4490	460/3/60	3" M	1005x1132x1399	16.233,36	285
AD 1000	30,000	1800	1059	4102008061	3485	400/3/50	4102007930	5020	460/3/60	3" M	1005x1121x1596	18.975,84	350
AD 1250	35,000	2100	1236	4102008062	4179	400/3/50	4102007931	6820	460/3/60	3" M	1005x1121x1596	21.442,72	361
AD 1600	45,000	2700	1589	4102008063	4970	400/3/50	4102007932	7880	460/3/60	DN 100	1005x1121x1826	26.063,44	447
AD 1800	50,000	3000	1766	4102008064	6358	400/3/50	4102007933	9640	460/3/60	DN 100	1005x1531x1826	28.141,36	573
AD 2200	62,400	3744	2204	4102008065	6150	400/3/50	4102007934	9750	460/3/60	DN 100	1005x1531x1826	34.295,04	630
AD 2500	70,000	4200	2472	4102008066	6256	400/3/50	4102007935	9870	460/3/60	DN 100	1005x1531x1826	37.313,12	630
AD 3000	84,000	5040	2966	4102008067	7344	400/3/50	4102007936	11700	460/3/60	DN 150	1455x1979x1826	42.411,20	1004
AD 3500	99,000	5940	3496	4102008068	8463	400/3/50	4102007937	13580	460/3/60	DN 150	1455x1979x1826	47.924,24	1010
AD 4200	120,000	7200	4238	4102008069	12113	400/3/50	4102007938	16970	460/3/60	DN 150	1455x1979x1833	54.822,56	1116

Note: AD 15-AD 105 including FC

1. low is measured at reference conditions: ambient pressure 0 1 bar(a) and 25°C at operating pressure 0

REFERENCE CONDITIONS:

- Operating pressure: 7 bar (100 psi)
- Inlet temperature: 35°C
- Room temperature: 25°C
- Pressure dew point: +4°C +/- 1
- Available in different voltages and frequency values.

OPERATING LIMIT CONDITIONS:

- Max. operating pressure:
16 bar (232 psi) (AD 15 up to 65)
14 bar (203 psi) (AD 85 up to 4200)
- Max. inlet temperature:
55°C (60°C for AD 355-4200)
- Min./Max. ambient temperature:
+5°C; 43°C (+5°C; 46°C for AD 355-4200)

OPTIONAL FOR AD (15-65):

- bypass + filter support
- filter support

Correction factors to be used for site conditions outside of normal reference conditions (1) stated above = A x B x C

Room temperature	°C	25	30	35	40	43	46
	A	1	0,91	0,81	0,72	0,67	0,62

Inlet temperature	°C	25	30	35	40	46	50	55	60
	B	1,1	1,05	1	0,82	0,69	0,58	0,49	0,42

Operating Pressure	bar	6	7	8	10	13	14	15	16
	C	0,97	1	1,03	1,07	1,12	1,15	1,16	1,17



AC Refrigerated Dryers VSD



Revolutionary cycling refrigeration VSD dryers

The AC VSD from Pneumatech raises the bar in refrigerant dryer performance. Using variable speed drive technology, it significantly reduces energy consumption while consistently supplying top-quality air. And, thanks to a carbon footprint that is smaller than that of its competitors, it even benefits the environment.

A leap forward in dryer technology

The new AC VSD refrigerant dryer from Pneumatech is engineered to make a difference, delivering energy savings of up to 60%. At the same time, the AC VSD supports production quality and reliability and offers a small carbon footprint.

The use of variable speed drive (VSD) technology ensures that the AC VSD only uses the energy it needs at any point. The result is a much lower electric bill that greatly reduces the total cost of dryer ownership.

Top air quality

At the same time, Pneumatech's new dryer produces a stable supply of Class 4 purity air, which helps protect production reliability and quality. The AC VSD maintains its low dew point even in ambient temperatures of up to 46°C.

A step toward a greener future

But the AC VSD's benefits extend beyond its outstanding performance. Due to its low energy consumption, it features a smaller carbon footprint than its competitors. Combined with an excellent TEWI-score, it helps companies meet their climate goals.

Lastly, the new AC VSD from Pneumatech is more compact than conventional dryers and can fit even in tight spaces.

Technical specifications

AC 200-2120 VSD

Model	Part Number	Max conditions at full flow Ambient (inlet) Temp °C	Inlet flow for pressure dew point (PDP) OF 3°C/37,4°F			Pressure drop at full flow		Power consumption		Max working pressure		Voltage	Inlet/Outlet Connections	Dimensions	List Price	Weight up to
			l/s	m³/h	cfm	bar	psi	kW	hp	bar	psi					
AC 200	4102007099	46(60)	100	360	212	0.16	2.3	0.66	0.90	14.5	210	400/3/50	G 1 1/2" F	805x962x1040	9.117,68	130
AC 300	4102007100	46(60)	140	500	297	0.11	1.6	1.04	1.41	14.5	210	400/3/50	G 2" F	805x962x1040	10.671,44	134
AC 400	4102007101	46(60)	180	650	381	0.18	2.6	1.54	2.09	14.5	210	400/3/50	G 2" F	805x962x1040	12.105,60	134
AC 450	4102006903	46(60)	220	790	466	0.14	2	1.77	2.41	14.5	210	400/3/50	G2 1/2" F	805x962x1040	14.447,68	174
AC 550	4102006904	46(60)	260	940	551	0.1	1.5	1.9	2.58	14.5	210	400/3/50	G2 1/2" F	805x962x1040	16.879,20	180
AC 630	4102006905	46(60)	300	1080	636	0.18	2.6	2.64	3.59	14.5	210	400/3/50	G2 1/2" F	805x962x1040	18.743,92	180
AC 765	4102007000	46(50)	360	1296	763	0.20	2.9	2.52	3.38	14	203	400/3/50	3" M	1132x1012x1399	21.151,27	235
AC 975	4102007001	46(50)	460	1656	975	0.20	2.9	2.61	3.50	14	203	400/3/50	3" M	1121x1012x1596	23.137,89	330
AC 1125	4102007002	46(50)	530	1908	1123	0.20	2.9	3.00	4.02	14	203	400/3/50	3" M	1121x1012x1596	25.755,95	345
AC 1400	4102007003	46(50)	660	2376	1398	0.20	2.9	4.55	6.10	14	203	400/3/50	DN 100	1121x1012x1826	31.814,68	405
AC 1865	4102007004	46(50)	880	3168	1865	0.20	2.9	5.43	7.28	14	203	400/3/50	DN 150	1531x1012x1826	35.415,98	505
AC 2120	4102007005	46(50)	1000	3600	2119	0.20	2.9	5.76	7.72	14	203	400/3/50	DN 150	1531x1012x1826	38.783,48	505

Data refers to 50Hz air-cooled version - 60Hz models available upon request



REFERENCE CONDITIONS:

Ambient temperature: 25°C

Compressed air inlet

temperature: 35°C

Working pressure: 7 bar (g)

LIMITATIONS:

(Operating limit conditions for AC VSD 200 - 630)

Max. ambient temp: 46°C

Min. ambient temp: 5°C

Max. air inlet temp: 60°C

Max. compressed air inlet pressure: 14.5 bar (g)

(Operating limit conditions for AC VSD 765 - 2120)

Max. ambient temp: 40°C

Min. ambient temp: 1°C

Max. air inlet temp: 50°C

Max. compressed air inlet pressure: 14 bar (g)

AC ES Refrigerated Dryers

Cycling refrigeration dryers

What are the two most important criteria when selecting a compressed air dryer? It's air quality and operational costs. Pneumatech's AC ES cycling dryer delivers on both. With a stable pressure dew point as low as 3°C, it gives you a reliable supply of premium, dry air. At the same time, the AC ES keeps your energy use and costs in check with its advanced efficiency features. With 8 sizes to choose from, you can be sure there is an AC ES to meet your requirements.

Air quality you can count on...

- Stable dew point as low as +3°C
- Constant purity class 4 - according ISO 8573-1:2010
- Hot gas bypass valve stabilizes pressure dew point and prevents freezing at lower loads
- Fan switch optimizes the pressure dew point at very low temperatures.

...at a low operational cost.

- Low pressure drop, typically below 0.2 bar
- Cycling technology cuts energy consumption during intermittent use
- Heat exchanger designed for optimal pre-cooling and minimal pressure drop
- Electronics condensate drain prevents compressed air waste by opening only when needed.

Zero depletion

Meeting emission and sustainability standards has become a mandatory requirement. The AC ES was designed to minimize your environmental impact. Aside from its energy efficiency, refrigerant R513 A used is CFC-free and have an ozone depletion potential (ODP) of zero.



Technical specifications

AC 15-100 ES

Model	Part Number	Max working pressure		Air Treatment capacity			Power consumption	Voltage	Inlet/Outlet Connections	Dimensions	List Price	Weight up to
		bar	psi	l/min	m³/h	cfm						
AC 15 ES	8102924738	16	232	360	21.6	12.7	200	230/1/50	3/4"M	393x525x521	2.530,67	27
AC 20 ES	8102924779	16	232	600	36	21.2	200	230/1/50	3/4"M	393x525x521	2.818,57	27
AC 30 ES	8102924811	16	232	900	54	31.8	330	230/1/50	3/4"M	393x525x521	2.699,37	32
AC 40 ES	8102924852	16	232	1200	72	42.4	410	230/1/50	3/4"M	393x525x521	2.826,01	34
AC 50 ES	8102924894	16	232	1500	90	53	410	230/1/50	3/4"M	393x525x521	3.027,88	34
AC 65 ES	8102924936	16	232	1800	108	64	410	230/1/50	3/4"M	393x525x521	3.238,85	34
AC 85 ES	8102924951	16	232	2400	144	85	570	230/1/50	1"M	393x716x675	3.895,98	56
AC 100 ES	8102924993	16	232	3000	180	106	540	230/1/50	1"M	393x716x675	4.719,59	57

Model	Part Number	Max working pressure		Air Treatment capacity			Power consumption	Voltage	Inlet/Outlet Connections	Dimensions	List Price	Weight up to
		bar	psi	l/min	m³/h	cfm						
AC 15 ES	4102004542	20	290	438	26.3	15.4	200	230/1/50	3/4"M	393x525x521	2.886,07	27
AC 20 ES	4102004545	20	290	870	52.2	30.7	200	230/1/50	3/4"M	393x525x521	2.972,62	27
AC 30 ES	4102004548	20	290	1308	78.5	46	330	230/1/50	3/4"M	393x525x521	3.061,79	32
AC 40 ES	4102004551	20	290	1656	99.36	58.5	410	230/1/50	3/4"M	393x525x521	3.153,71	34
AC 50 ES	4102004554	20	290	2088	125.2	73.7	410	230/1/50	3/4"M	393x525x521	3.203,78	34
AC 65 ES	4102004557	20	290	2610	156.6	92.17	410	230/1/50	3/4"M	393x525x521	3.432,62	34
AC 85 ES	4102004559	20	290	3480	208.8	122.9	570	230/1/50	1"M	393x716x675	3.808,07	56
AC 100 ES	4102004562	20	290	4350	261	153.6	540	230/1/50	1"M	393x716x675	4.449,41	57

Data refers to 50Hz air-cooled version - 60Hz models available upon request



REFERENCE CONDITIONS FOR AC 15-100 ES

Operating pressure: 7-20 bar.

Operating temperature: 35°C.

Ambient temperature: 25°C.

Pressure dew point: 3°C +/1°C.

OPERATING LIMIT CONDITIONS FOR AC 15-100 ES

Max. operating pressure: 16 - 20 bar (AC 15-100 ES);

Max. inlet temperature: 60°C.

Min./max. ambient temperature: 1°C/50°C.

CORRECTION FACTORS FOR CONDITIONS DIFFERING FROM THE REFERENCE

Correction factors for different ambient temperatures											
Ambient temperature °C	25	30	35	40	45	50					
Multiplication factor	1	0.95	0.88	0.81	0.74	0.67					
Correction factors for different inlet temperatures											
Inlet temperature °C	25	30	35	40	45	50	55	60			
Multiplication factor	1.2	1.1	1	0.85	0.72	0.6	0.49	0.37			
Correction factors for different inlet pressures											
Inlet pressure (bar)	2	3	4	5	6	7	8	10	12	14	16
Multiplication factor	0.5	0.63	0.74	0.84	0.92	1	1.05	1.15	1.25	1.31	1.4

Export Packaging

COOL 12-272

Description	Part Number Wooden crate	Part Number Wooden box
COOL 12-106	0000050720	0000050700
COOL 127-272	0000050759	0000050757

AD 15-4200

Description	Part Number Wooden crate	Part Number Wooden box
AD 15-65	0000050720	0000050700
AD 85-105	0000050730	0000050710
AD 125-185	0000050741	0000050740
AD 230-270	0000050746	0000050744
AD 355-635	0000050748	0000050747
AD 750	0000050081	0000050101
AD 1000-1250	0000050083	0000050103
AD 1600	0000050085	0000050105
AD 1800-2500	0000050087	0000050107
AD 3000-4200	0000050089	0000050109

AC 200-2120 VSD

Description	Part Number Wooden crate	Part Number Wooden box
AC 200-630 VSD	0000050748	0000050747
AC 765 VSD	0000050081	0000050101
AC 975-1125 VSD	0000050083	0000050103
AC 1400 VSD	0000050085	0000050105
AC 1865-2120 VSD	0000050087	0000050107

AC ES 15-100

Description	Part Number Wooden crate	Part Number Wooden box
AC ES 15-100	0000050130	0000050132

