Air Cooled Air Chiller

ACA - Series



Advantages

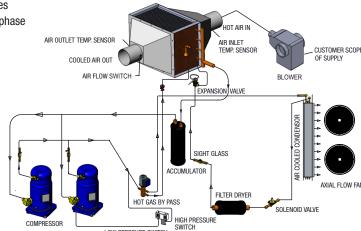
- Air Cooled Air Chiller is used to supply cooled air to air ring of blown film extrusion line. Cooling of air with the help of direct expansion of refrigerant saves energy compared to conventional water chiller plus heat exchanger system
- Air Cooled Air Chillers provide consistent air temperature irrespective of ambient condition which is very essential for processing of plastics on blown film lines
- ACA series chillers have cooling capacity of 9 TR to 30 TR with operating temperature of 5°C to 20°C in ambient air temperature of up to 40°C
- Compact in size which reduces foot print up to 25% compared to conventional water chiller plus heat exchanger system

Unique Features

- Energy efficient & reliable scroll compressor with hermetically sealed suction gas cooled motor
- Each model is equipped with PLC based control platform. Control features include 2 line 16 character LCD display, onboard fault indication with audio alarm
- Accurate temperature control with the help of modulating hot gas bypass valve
- Intelligent program to save energy for dual compressor chiller circuit (ACA 40, ACA 55 & ACA 70) specifically for part load application
- Display of set value and actual value on the screen
- Display of return air temperature on screen
- Scroll and function buttons allow you to navigate the chiller's control platform
- Tool free access panel with neatly organized internal component layout. Simply remove the panel to get the access of entire cabinet of the chiller
- Proven component supplier i.e. Copeland, Danfoss, Siemens, Emerson, EBM, IFM have been chosen for ultimate reliability and availability
- All chillers are factory tested under load prior to shipment
- Condenser fan blade, motor, nozzle, and guard are a single piece assembly for improved reliability with the fan motors having rugged external rotor design
- Finned & Tube Condenser high surface area due to internally grooved copper tubes, generously sized for industrial environment and tested to 500 PSIG
- Finned & Tube Evaporator high surface area due to internally grooved copper tube, generously sized for industrial environment and tested to 300 PSIG with lower pressure drop
- RTD temperature sensors yield higher precision and repeatability than thermocouples
- Three phase monitor protects against unit damage due to phase reversal or loss of phase

Options

- Refrigerant pressure gauges
- Eco friendly refrigerant R407c
- Air filter at the inlet of evaporatorAir filter at the inlet of condenser
- Condenser fan cycling regulates chiller capacity when the ambient air temperature is below the normal design temperature
- SCADA communication



Technical Specifications

Model	ACA 20	ACA 30	ACA 40	ACA 45	ACA 55	ACA 70
Nominal Cooling Capacity KW (TR)*	33.2 (9.4)	43 (12.2)	66.4 (18.8)	78.78 (22.4)	86 (24.4)	100.3 (28.5)
At Air Outlet Temperature °C	15					
Design Air Flow Rate m³/hr	2000	3000	4000	5000	5500	7000
And Ambient Temperature °C	40					
Control Range °C	Plus (+) 5 up to Plus (+) 20					
Cooling Circuit						
Cooling Agent	R22					
No. of Compressor	2					
No. of Gas Circuit	1					
No. of Fan / Fan Power	1 / 2.63		2 / 2.63			2 / 2.33
Compressor Power	5.45 x 2	6.32 x 2	8.9 x 2	10.82 x 2	11.6 x 2	13.65 x 2
Process Air Data						
Maximum Air Flow Rate m³/hr	2000	3000	4000	5000	5500	7000
Minimum Air Flow Rate m³/hr	800	1200	1600	2200	2400	2800
Pressure Drop of Air Through Evaporator Pa	15	0	165	2	250	350
Air Connection IN / OUT mm	200 250					
Air Temperature IN / OUT °C	40 / 15		40 / 10		40 / 15	
Relative Humidity %	40					
Electrical Power Supply	415V, 50 Hz, 3 phase					
Control Voltage	24V DC					
Total Connected Load KW	13.53	15.27	23.06	26.9	28.46	31.96
	Air Cooled Air Chiller require fresh air suction on condenser side and hot air exhaust on top of the chiller					
Main Dimensions (mm)						
WxDxH	1150 x 1640 x 2210		1610 x 1960 x 231		0	2350 x 2550 x 2350
Weight Kg.	800		950		1300	1550
Color	Black RAL 9005 / Siemens Grey RAL 7032					

All specifications are subject to change without prior notice.

- ●*Nominal cooling capacity based at 15°C leaving air temperature and 40°C ambient air temperature @ 40% R.H.
- Air cooled air chiller require fresh air suction on condenser side and hot air exhaust from the top of the chiller.



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