

TVA

AIR CONDENSED CHILLERS WITH INVERTER DRIVEN SCREW COMPRESSORS

285.9-1367.1 kW



 MULTI-PROTOCOL COMMUNICATION INTERFACE	 SCREW COMPRESSORS	 SHELL AND TUBE HEAT EXCHANGER	 FAST RESTART
 AXIAL FANS	 CORROSION RESISTANT MATERIAL	 CLASS A	 INVERTER DRIVEN COMPRESSORS
 LOW GWP REFRIGERANT			



TVA is the new range of air cooled chillers for energy-efficient and environment-friendly processes. Low environmental impact has been achieved by using **new HFO refrigerants** with low Global Warming Potential (GWP), while **higher efficiency/footprint ratios** are reached thanks to the special V-configuration of the heat exchange coils and their sizing, **the largest among the chillers currently available on the market**. The Free-Cooling version - where heat exchange surface areas are double the market average - **ensure outstanding performance**. The high thermodynamic efficiency with low Total Equivalent Warming Impact (TEWI) is combined with a special focus on maintainability and **easy accessibility of the compressors contained in the removable HiRail module** which reduces noise emissions.

- Refrigerant R1234ze and R515B
- Also available with R134a refrigerant and on request with R513A
- Capacity modulation: with slide valve or with inverters on both compressors or on one compressor only
- EC Fans
- Electronically controlled expansion valve
- HiNode Supervision
- Monitoring and limitation of the maximum absorbed power



Inverter screw compressors

Inverter equipped with screw compressors combine the possibility of moving large volumes of refrigerant with **the guarantee of constant power modulation and high energy efficiency even at partial loads**.

New refrigerant R1234ze

TVA air condensed chillers use **the new HFO refrigerant with low GWP** (GWPR1234ze=6) as part of a wider Green Technology approach. (Also available in version with R134a refrigerant and on request with R513A.)



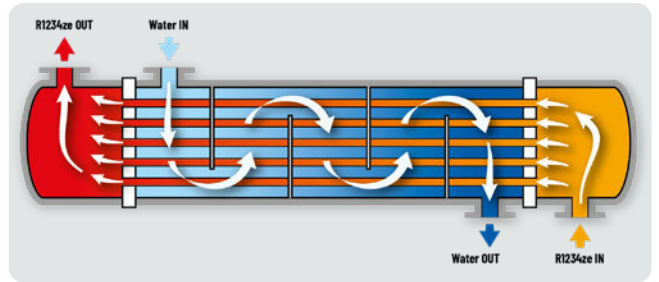
Low noise and accessibility: HI-RAIL

The compressor hoods **dramatically reduce noise** thanks to the use of special soundabsorbing materials. On request, sliding rails allow them to **be removed effortlessly, making all maintenance tasks much easier**. The compressors can also be removed by hooking from above and lifting with a crane.



Modular and efficient

The configuration with very deep 'V' modular coils provides **an extensive heat exchange surface area and therefore excellent thermal efficiency in relation to the unit footprint**. The Free-Cooling version features heat exchangers sized in such a way as to allow a Total Free-Cooling Temperature (TFT) of 10°C.



New concept of heat exchange

Single pass shell and tube evaporators provide **excellent levels of thermodynamic efficiency** thanks to full heat exchange counter-flow.

TVA		0311F	0331F	0361F	0381F	0421F	0451F	0481F	0531F	0581F	0621F	0661F	0721F	0801F	0831F	0901F	0971F	1041F	1101F	1161F	
Raffreddamento/Free-Cooling: Temperatura acqua utenza 12/7°C 20% glicole etilenico, aria esterna 35°C, 40% U.R.																					
Cooling capacity	kW	285.9	296.7	329.9	362.4	394.2	420.3	438.8	478.4	513	579	596.9	660.7	719.1	749.1	790.8	847.2	929.2	979.7	1059.1	
Total absorbed power	kW	90.2	92.9	98.2	105.9	113.1	121.5	126.7	131.3	146.3	165.4	171.6	193.4	200.7	216.8	233.9	248.7	273.6	298.7	315.5	
EER		3.17	3.19	3.36	3.42	3.49	3.46	3.46	3.64	3.51	3.5	3.48	3.42	3.58	3.46	3.38	3.41	3.4	3.28	3.36	
Sound power	dB(A)	92	92	93	93	94	94	94	95	96	97	97	98	99	99	99	99	99	100	100	
Dimensions [LxHxD]	mm	5404 x2650 x2255		6655 x2650 x2255		7906x2650x2255			9722 x2650 x2255			11100x2650x2255			12854x2650x2255			13355x2650x2255			

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Raffreddamento/Free-Cooling: Temperatura acqua utenza 12/7°C, glicole etilenico 20%																					
Full Free-Cooling temperature	°C	1.1	1	1.8	1.4	2	1.8	1.5	1.9	1.7	1.8	1.7	1.2	1.4	1.2	0.9	1.2	0.7	0.3	-1.3	
Sound power	dB(A)	92	92	93	93	94	94	94	95	96	97	97	98	99	99	99	99	99	100	100	
Dimensions [LxHxD]	mm	5404 x2650 x2255		6655 x2650 x2255		7906x2650x2255			9722 x2650 x2255			11100x2650x2255			12854x2650x2255			13355x2650x2255			

TVA		0381C	0401C	0451C	0481C	0531C	0581C	0621C	0661C	0721C	0801C	0831C	0901C	0971C	1041C	1101C	1161C	1231C	1291C	1351C	1421C
Cooling: User water values 12/7°C, 35°C outside air, 40% U.R.																					
Cooling capacity	kW	354.5	386	423.1	464.1	500.3	520	568.3	609.4	699.7	751.7	802.4	865.5	877	958.3	1007	1065.1	1121.2	1178.4	1247.6	1367.1
Total absorbed power	kW	112.3	123.4	132.9	146.9	156.1	165.7	180.4	190.8	224.1	238.1	251.1	277.9	280.7	306.3	319.5	333.9	351	375.4	388.2	417.5
EER		3.16	3.13	3.18	3.16	3.21	3.14	3.15	3.19	3.12	3.16	3.2	3.11	3.12	3.13	3.15	3.19	3.19	3.14	3.21	3.27
SEER		4.43	4.43	4.53	4.57	4.53	4.52	4.5	4.62	4.51	4.5	4.65	4.57	4.44	4.52	4.59	4.64	4.66	4.65	4.54	4.92
SEPR		5.4	5.45	5.52	5.91	5.9	5.83	5.52	5.99	5.54	5.59	6.05	6.04	5.67	5.64	5.81	6.02	5.75	5.75	5.96	6.46
ESEER		4.11	4.14	4.22	4.28	4.26	4.24	4.19	4.35	4.18	4.18	4.36	4.27	4.14	4.23	4.31	4.34	4.33	4.31	4.26	4.5
Sound power	dB(A)	92	92	95	96	97	96	96	100	99	99	102	101	99	99	102	104	100	100	103	105
Dimensions [LxHxD]	mm	5404x2650x2255			6655x2650x2255				7906x2650x2255				9722x2650x2255				11100 x2650 x2255		12854 x2650 x2255		

Dati dichiarati con utilizzo di refrigerante R134a | Disponibile anche in alimentazione 60 Hz