

15 Technical data

15 Technische Daten

ENR SERIES

Process Cooling Application		Industriellen Kühlung										
Aircooled liquid chillers ENR series, scroll compressors, plate / coaxial evaporator, condenser with copper tubes, aluminium finned core and axial fans		Luftgekühlte Kältemaschinen ENR Serie, Scroll Kompressoren R410A, Plattenverdampfer / Koaxialverdampfer, Kondensatoren mit Kupfer Leitungen, Lamellenrippen aus Aluminium und Axial-Ventilatoren										
	Model	001	002	003	004	005	008	010	012	016	018	022
NOMINAL COOLING CAPACITY (1)	kW	1.6	2.1	3.6	4.2	5.5	7.9	9.3	12.2	13.5	18	22.0
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (1)	kW	0.5	0.7	1.2	1.4	1.8	2.6	3.0	3.9	5.2	5.8	6.7
EER		2.97	2.69	2.79	2.82	2.89	2.77	2.55	2.78	2.37	2.78	2.93
SEPR (HT) (5)		4.7	4.6	4.7	4.9	4.8	4.6	4.6	4.7	4.8	4.7	4.9
COMPRESSORS	nr.	1	1	1	1	1	1	1	1	1	1	1
REFRIGERATING CIRCUITS	nr.	1	1	1	1	1	1	1	1	1	1	1
PARTITION STEP	nr.	1	1	1	1	1	1	1	1	1	1	1
REFRIGERANT	R	R410A										
HYDRAULIC SECTION												
NOMINAL WATER FLOW	m ³ /h	0.3	0.4	0.6	0.7	0.9	1.4	1.6	2.1	2.3	3.1	3.8
WATER FLOW RANGE	m ³ /h	0.3 ± 2, 0.3 ± 2, 0.6 ± 2.2, 0.6 ± 2.2, 0.8 ± 2.2, 1.2 ± 2.4, 1.4 ± 3, 1.2 ± 2.9, 1.2 ± 2.9, 1.2 ± 2.9, 2.5 ± 5, 3 ± 6										
TYPE OF EVAPORATOR		Plate evaporator Plattenverdampfer										
EVAPORATOR PRESSURE DROP	kPa	20	22	22	23	23	26	25	27	28	28	31
AVAILABLE PRESSURE	kPa	301	294	279	269	252	262	270	263	264	249	241
MAXIMUM PUMP ABSORBED POWER	kW	0.56	0.56	0.56	0.56	0.56	0.98	0.98	0.98	0.98	0.98	1.28
MAXIMUM PUMP ABSORBED CURRENT	A	3.46	3.46	3.46	3.46	3.46	4.78	4.78	4.78	4.78	4.78	5.18
AVAILABLE PRESSURE	kPa	-	-	4.31	4.21	4.01	6.11	5.93	5.62	4.92	5.70	5.18
MAXIMUM PUMP ABSORBED POWER	kW	-	-	0.74	0.74	0.74	1.10	1.10	1.10	1.10	1.10	1.47
MAXIMUM PUMP ABSORBED CURRENT	A	-	-	3.22	3.22	3.22	4.17	4.17	4.17	4.17	4.17	5.18
HYDRAULIC CONNECTIONS	BSP/DN	1/2"	1/2"	3/4"	3/4"	3/4"	1"	1"	1"	1"	1"	1"
TANK VOLUME	dm ³	10	10	40	40	40	50	50	50	50	110	110
EXPANSION VESSEL VOLUME (3)	liters	N.A.										
FAN SECTION (AXIAL)												
TOTAL AIR FLOW	m ³ /h	700	650	1300	1200	1500	4100	4100	4750	4750	6500	7400
FANS	nr.	1	1	1	1	1	1	1	1	1	1	1
FANS ABSORBED POWER	kW	0.07	0.11	0.09	0.09	0.10	0.25	0.25	0.49	0.49	0.68	0.81
FANS ABSORBED CURRENT	A	0.4	0.8	0.4	0.4	0.5	1.1	1.1	2.4	2.4	3.0	3.5
TOTAL ELECTRIC DATA		IP54 protection rating, chillers suitable for outdoor installation Schutzart IP54										
NOMINAL ABSORBED POWER (4)	kW	1.1	1.4	1.9	2.1	2.5	3.8	4.6	5.4	6.7	7.5	8.8
MAXIMUM ABSORBED CURRENT (F.L.A.) (4)	A	6.1	7.5	9.6	10.5	12.5	10.1	10.5	13	13.9	18.8	19.8
MAXIMUM PEAK CURRENT (L.R.A.) (4)	A	16	21	27	40	46	50	50	71	71	75	104
ELECTRIC FEED	V/Ph/Hz	230/1/50 400/3/50/IN										
NOISE DATA												
SOUND PRESSURE (2) (4)	dB(A)	51	51	51	51	51	51	51	52	52	53	56.8
DIMENSIONS AND WEIGHT												
LENGTH	mm	445	445	600	600	600	820	820	820	820	1010	1010
WIDTH	mm	440	440	655	655	655	615	615	615	615	720	720
HEIGHT	mm	740	740	1035	1035	1035	1360	1360	1360	1360	1580	1580
WEIGHT EMPTY	kg	55	55	85	90	95	160	165	170	175	210	260
WEIGHT OPERATING	kg	65	65	125	130	135	210	215	220	225	340	390

The manufacturer reserves the right to modify specifications without notice. Der Hersteller behält sich das Recht vor, Spezifikationen ohne vorherige Ankündigung zu ändern.

Data referred to :
 (1) Inlet/Outlet water temperature = +12/+7 °C - Condenser air temperature = +35°C - Cooling factor = 0.00043 m²/kW
 (2) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
 (3) With option XV (expansion vessel kit)
 (4) Data referred to standard configuration WP (with pump P3)
 (5) Data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers

Die Daten beziehen sich auf:
 (1) Wassereintrittstemperatur/Wasseraustrittstemperatur = +12/+7 °C - Umgebungstemperatur = +35°C; Verschmutzungsfaktor = 0.00043 m²/KW
 (2) Schalldruckpegel Maßnahmen nach normative ISO3744, Druckniveau bei einem Abstand von 10 m, bezogen auf freiem Feld auf reflektierender Oberfläche bezeichnet
 (3) Mit der option XV (ausdehnungsgefäß-set)
 (4) Die Daten beziehen sich auf Standardkonfiguration WP (mit Pumpe P3)
 (5) Die Daten entsprechen der Europäischen Verordnung (EU) 2016/2281 und beziehen sich auf Hochtemperaturprozesskühler

ENR SERIES

Aircooled liquid chillers ENR series, scroll compressors, coaxial evaporator, condenser with copper tubes, aluminium finned core and axial fans										
Luftgekühlte Kältemaschinen ENR Serie, Scroll Kompressoren R410A, Koaxialverdampfer, Kondensatoren mit Kupfer Leitungen, Lamellenrippen aus Aluminium und Axial-Ventilatoren										
Process Cooling Application		Industriellen Kühlung								
NOMINAL COOLING CAPACITY (1)	Model	030	038	045	055	061	070	075	090	100
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (1)	kW	31	37	45	55	61	67	72	88	100
EER	kW	8,4	11,5	12,4	17,3	16,4	19,3	22,4	25,2	29,1
SEPR (HT) (5)		3,15	2,82	3,25	2,91	3,23	2,89	2,74	3,03	3,03
COMPRESSORS		5,11	4,59	5,28	4,80	5,01	4,78	4,75	4,91	5,01
REFRIGERATING CIRCUITS	nr.	1	1	1	1	2	2	2	2	2
PARTITION STEP	nr.	1	1	1	1	1	1	1	1	1
REFRIGERANT	nr.	1	1	1	1	1	1/1	1/1	1/1	1/1
HYDRAULIC SECTION	R	R410A								
NOMINAL WATER FLOW	m ³ /h	5,3	6,4	7,7	9,5	10,5	11,5	12,4	15,1	17,2
WATER FLOW RANGE	m ³ /h	4 + 6	6 + 12	6 + 12	6 + 12	8 + 18	10 + 20	10 + 20	10 + 20	10 + 20
TYPE OF EVAPORATOR	Self-cleaning coaxial evaporator, Selbstreinigungs Koaxial Verdampfer									
EVAPORATOR PRESSURE DROP	kPa	34	34	39	51	23	20	20	28	39
AVAILABLE PRESSURE	kPa	218	245	236	220	220	222	205	212	197
MAXIMUM PUMP ABSORBED POWER	P3 kW	1,28	2,20	2,20	2,20	2,53	2,53	2,53	2,53	2,53
MAXIMUM PUMP ABSORBED CURRENT	A	2,37	4,24	4,24	4,24	4,56	4,56	4,56	4,56	4,56
AVAILABLE PRESSURE	kPa	422	618	577	518	469	471	471	460	445
MAXIMUM PUMP ABSORBED POWER	P5 kW	1,47	2,94	2,94	2,94	6,12	6,12	6,12	6,12	6,12
MAXIMUM PUMP ABSORBED CURRENT	A	2,86	5,83	5,83	5,83	10,40	10,40	10,40	10,40	10,40
HYDRAULIC CONNECTIONS	BSP/DN	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"	2"
TANK VOLUME	dm ³	270	270	270	270	410	410	410	410	410
EXPANSION VESSEL VOLUME (3)	liters	12								
FAN SECTION (AXIAL)	EXPANSION VESSEL VOLUME (3)									
TOTAL AIR FLOW	m ³ /h	16000	16400	15000	15600	25000	36000	36000	34000	32000
FANS	nr.	2	2	2	2	2	2	2	2	2
FANS ABSORBED POWER	kW	1,44	1,62	1,44	1,62	2,50	3,88	3,88	3,88	3,88
FANS ABSORBED CURRENT	A	2,82	3,08	2,82	3,08	4,96	7,80	7,80	7,80	7,80
TOTAL ELECTRIC DATA	IP54 protection rating, chillers suitable for outdoor installation, Schutzart IP54									
NOMINAL ABSORBED POWER (4)	kW	11,1	15,3	16,0	21,1	21,4	25,7	28,8	31,6	35,5
MAXIMUM ABSORBED CURRENT (F.L.A.) (4)	A	24,4	31,8	37,1	43,8	48,0	56,1	61,3	72,4	78,8
MAXIMUM PEAK CURRENT (L.R.A.) (4)	A	120	144	178	229	147	172	177	216	267
ELECTRIC FEED	V/Ph/Hz	400/3/50								
NOISE DATA	GERAUSCHE									
SOUND PRESSURE (2) (4)	dB(A)	55,3	57,5	55,8	58,8	59,1	59,2	59,3	59,5	60,3
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (2) (4)	dB(A)	54,9	55,1	55,1	55,8	58,8	58,8	58,9	58,9	59,2
DIMENSIONS AND WEIGHT	ABMESSUNGEN UND GEWICHT									
LENGTH	mm	1610	1610	1610	1610	2220	2220	2220	2220	2220
WIDTH	mm	860	860	860	860	1100	1100	1100	1100	1100
HEIGHT	mm	1540	1540	1540	1540	2100	2100	2100	2100	2100
WEIGHT EMPTY	kg	375	390	410	500	740	765	770	785	890
WEIGHT OPERATING	kg	675	690	710	800	1160	1185	1190	1205	1310

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Die Daten beziehen sich auf:
 (1) Inlet/Outlet water temperature = +12/+7 °C - Condenser air temperature = +35°C; fouling factor = 0.000043 m²/kW
 (2) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
 (3) With option XV (expansion vessel kit)
 (4) Data referred to standard configuration WP (with pump P3)
 (5) Data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers

Updated on 09/01/2018

ENR SERIES

Aircooled liquid chillers ENR series, scroll compressors, shell and tube evaporator, condenser with copper tubes, aluminium finned core and axial fans											
Luftgekühlte Kältemaschinen ENR Serie, scroll Kompressoren R410A, Schale und Rohrverdampfer, Kondensatoren mit Kupfer Leitungen, Lamellenrippen aus Aluminium und Axial-Ventilatoren											
Process Cooling Application Industriellen Kühlung											
NOMINAL COOLING CAPACITY (1)	Model	130	160	185	200	230	280	340	370	430	430
NENNKÄLTELEISTUNG (1)	kW	115	150	170	204	227	277	319	365	410	410
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (1)	kW	35,6	45,6	52,4	55,2	66,8	85,2	97,8	108,0	125,0	125,0
EEER		2,92	2,92	2,92	3,24	2,97	2,92	2,97	3,05	3,00	3,00
SEPR (HT) (5)		5,02	4,59	4,94	5,45	4,87	4,84	4,94	5,14	5,07	5,07
COMPRESSORS	nr.	4	4	4	4	4	4	4	4	4	4
REFRIGERATING CIRCUITS	nr.	2	2	2	2	2	2	2	2	2	2
PARTITION STEP	nr.	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
REFRIGERANT	R	R410A									
HYDRAULIC SECTION											
NOMINAL WATER FLOW	m ³ /h	19,8	25,8	29,2	35,1	39,0	47,6	54,9	62,8	70,5	70,5
WATER FLOW RANGE	m ³ /h	14 + 27 15,4 + 31 17,5 + 35 25 + 46 25 + 46 31 + 58 38 + 70 45 + 80 52 + 100									
TYPE OF EVAPORATOR		Shell and tube evaporator. Schale und Rohrverdampfer									
EVAPORATOR PRESSURE DROP	kPa	54	54	55	48	56	56	48	55	61	61
AVAILABLE PRESSURE	kPa	211	207	201	265	249	249	245	234	220	220
MAXIMUM PUMP ABSORBED POWER	kW	4,56	4,56	4,56	8,30	8,30	8,30	8,30	10,20	10,20	10,20
MAXIMUM PUMP ABSORBED CURRENT	A	8	8	8	14	14	14	14	17	17	17
AVAILABLE PRESSURE	kPa	449	443	438	482	475	469	469	450	414	414
MAXIMUM PUMP ABSORBED POWER	kW	10,20	10,20	10,20	16,22	16,22	16,22	16,22	16,22	19,94	19,94
MAXIMUM PUMP ABSORBED CURRENT	A	17	17	17	27	27	27	27	27	33	33
HYDRAULIC CONNECTIONS	BSP/DN	DN65	DN65	DN65	DN125	DN125	DN125	DN125	DN150	DN150	DN150
TANK VOLUME	dm ³	390	390	390	390	500	500	500	500	500	500
EXPANSION VESSEL VOLUME (3)	liters	19									
FAN SECTION (AXIAL)											
TOTAL AIR FLOW	m ³ /h	40000	57000	54000	68800	91000	90000	85000	102000	96000	96000
FANS	nr.	2	3	3	4	5	5	5	6	6	6
FANS ABSORBED POWER	kW	3,88	5,82	5,82	7,76	9,70	9,70	9,70	11,64	11,64	11,64
FANS ABSORBED CURRENT	A	7,80	11,70	11,70	15,60	19,50	19,50	19,50	23,40	23,40	23,40
TOTAL ELECTRIC DATA		IP54 protection rating, chillers suitable for outdoor installation. Schutzart IP54									
NOMINAL ABSORBED POWER (4)	kW	44,0	56,0	62,8	71,3	84,8	103,2	115,8	129,8	146,8	146,8
MAXIMUM ABSORBED CURRENT (F.L.A.) (4)	A	92,5	117,3	139,5	162,6	179,4	212,0	241,4	278,0	307,0	307,0
MAXIMUM PEAK CURRENT (L.R.A.) (4)	A	191,2	232,9	283,5	351,1	367,9	439,4	492,1	528,7	641,2	641,2
ELECTRIC FEED	V/Ph/Hz	400/3/50									
NOISE DATA											
SOUND PRESSURE (2) (4)	dB(A)	59,5	61,1	61,4	63,1	64,3	65,7	65,7	66,1	67,5	67,5
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (2) (4)	dB(A)	58,9	60,5	60,6	62,0	63,0	63,7	63,7	64,2	65,1	65,1
DIMENSIONS AND WEIGHT											
LENGTH	mm	3355	3355	3355	3355	5350	5350	5350	6350	6350	6350
WIDTH	mm	1105*	1105*	1105*	1105**	1105	1105	1105	1105	1105	1105
HEIGHT	mm	2180	2180	2180	2180	2180	2180	2180	2180	2180	2180
WEIGHT EMPTY	kg	1190	1260	1320	1815	2105	2240	2415	2745	2810	2810
WEIGHT OPERATING	kg	1610	1695	1760	2275	2660	2800	2995	3345	3421	3421

Data referred to:

- (1) Inlet/Outlet water temperature = +12/+7 °C - Condenser air temperature = +35°C; fouling factor = 0.000043 m²/KW
- (2) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
- (3) With option XV / (expansion vessel kit)
- (4) Data referred to standard configuration WP (with pump P3)
- (5) Data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
- * Note: with double pump P5 (DPH option) the chiller width is 1305mm
- ** Note: with double pump (DP and DPH option) the chiller width is 1305mm

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Die Daten beziehen sich auf:

- (1) Wassereintrittstemperatur/Wasseraustrittstemperatur = +12/+7 °C-Umgebungstemperatur = +35°C; Verschmutzungsfaktor = 0.000043 m²/KW
- (2) Schalldruckpegel Maßnahmen nach normative ISO3744, Druckniveau bei einem Abstand von 10 m, bezogen auf freiem Feld auf reflektierender Oberfläche bezeichnet
- (3) Mit der option XV / (ausdehnungsgefäß-set)
- (4) Die Daten beziehen sich auf Standardkonfiguration WP (mit Pumpe P3)
- (5) Die Daten entsprechen der Europäischen Verordnung (EU) 2016/2281 und beziehen sich auf Hochtemperaturprozesskühler
- * Hinweis: mit Doppel-Pumpe P5 (DPH Option) beträgt die Breite des Gerätes 1305 mm
- ** Hinweis: mit Doppel-Pumpe (DP und DPH Option) beträgt die Breite des Gerätes 1305 mm

Updated on 09/07/2018

ENRF SERIES

Free cooling chillers ENRF series, scroll compressors R410A / R32, coaxial evaporator, condenser with copper tubes and aluminium finned core and axial fans
Luftgekühlte Kältemaschinen ENRF Serie, Scroll Kompressoren R410A / R32, Koaxialverdampfer, Kondensatoren mit Kupfer Leitungen, Lamellenrippen aus Aluminium und Axial-Ventilatoren

Process Cooling Application		Industriellen Kühlung									
NOMINAL COOLING CAPACITY (1)		Model	022	030	038	045	055	061	070	075	090
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (1)			kW	23,4	29,8	39	45	58	60	70	87
EER			kW	6,8	8,4	10,4	12,3	16,1	16,1	18,2	21,1
SEPR (HT) (8)		(1)		2,77	2,97	2,72	2,78	2,90	3,01	3,17	3,00
AIR TEMPERATURE 100% FREE COOLING (1)			°C	5,5	5,4	5,7	5,6	5,6	6,1	6,1	5,8
NOMINAL COOLING CAPACITY (2)			kW	24,6	30,6	40	46	60	61	71	89
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (2)		(2)	kW	6,7	8,5	10,6	12,3	16,3	16,7	18,7	21,2
EER			°C	3,0	3,02	2,73	2,86	2,96	2,97	3,16	3,12
AIR TEMPERATURE 100% FREE COOLING (2)			°C	3,2	2,4	4	3	2	4	4	4
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP			nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	2/1/2	2/1/2	2/1/2
HYDRAULIC SECTION		Self - cleaning coaxial evaporator, Selbstreinigungs Koaxial Verdampfer									
NOMINAL WATER FLOW			m³/h	4,0	5,1	6,7	7,7	10,0	10,3	12,0	12,9
WATER FLOW RANGE			m³/h	4-8	4-8	6-12	6-12	6-12	8,6-19	10-22	10-22
EVAPORATOR PRESSURE DROP (4)			kPa	49	47	56	58	60	33	33	26
FREE COOLING PRESSURE DROP (5)			kPa	75	76	74	82	107	58	63	60
AVAILABLE PRESSURE			kPa	196	179	204	193	162	235	230	208
MAXIMUM PUMP ABSORBED POWER		P3	kW	1,28	1,28	2,20	2,20	2,20	3,46	3,46	3,46
MAXIMUM PUMP ABSORBED CURRENT			A	2,37	2,37	4,24	4,24	4,24	6,33	6,33	6,33
AVAILABLE PRESSURE			kPa	473	608	571	534	444	434	428	545
MAXIMUM PUMP ABSORBED POWER		P5	kW	1,47	2,94	2,94	2,94	2,94	6,12	6,12	8,30
MAXIMUM PUMP ABSORBED CURRENT			A	2,86	5,83	5,83	5,83	5,83	10,40	10,40	14,10
HYDRAULIC CONNECTIONS			BSP/DN	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"
TANK VOLUME			dm³	270	270	270	270	270	410	410	410
EXPANSION VESSEL VOLUME (6)			liters	12							
AXIAL VENTILATOREN		RV "fan speed cut-phase regulator" included, RV inklusive									
TOTAL AIR FLOW			m³/h	13800	13000	30000	30000	28000	36000	36000	49500
FANS			nr.	2	2	2	2	2	2	2	3
FANS ABSORBED POWER			kW	1,62	1,62	3,88	3,88	3,88	3,88	3,88	5,82
FANS ABSORBED CURRENT			A	3,08	3,08	7,80	7,80	7,80	7,80	7,80	11,70
TOTAL ELECTRIC DATA		IP54 protection rating, chillers suitable for outdoor installation, Schutzart IP54									
NOMINAL ABSORBED POWER (7)			kW	9,7	11,3	16,5	18,4	22,2	23,4	25,6	34,3
MAXIMUM ABSORBED CURRENT (F.L.A.) (7)			A	21,4	24,7	36,5	42,0	48,5	52,6	57,8	78,0
MAXIMUM PEAK CURRENT (L.R.A.) (7)			A	102,4	120,4	144,2	178,2	229,2	151,4	173,4	222,0
ELECTRIC FEED			V/Ph/Hz	400/3/50							
NOISE DATA											
SOUND PRESSURE (3) (7)			dB(A)	57,3	57,3	59,0	59,1	59,9	59,1	59,2	60,8
SOUND PRESSURE FOR LOW NOISE CONFIGURATION(3) (7)			dB(A)	57,1	57,1	58,8	58,8	59,1	58,8	58,9	60,4
DIMENSIONS AND WEIGHT											
LENGTH			mm	1610	1610	2220	2220	2220	3355	3355	3355
WIDTH			mm	860	860	1100	1100	1100	1105	1105	1105
HEIGHT			mm	1540	1540	2100	2100	2100	2180	2180	2180
WEIGHT EMPTY			kg	460	470	635	650	740	1120	1125	1180
WEIGHT OPERATIVE			kg	745	755	930	950	1035	1590	1595	1650

The manufacturer reserves the right to modify specifications without notice. Der Hersteller behält sich das Recht vor, Spezifikationen ohne vorherige Ankündigung zu ändern.

Notes:
 (1) Inlet/Outlet water temperature = +12/+7 °C - Condenser air temperature = +35°C; fouling factor = 0.000043 m²K/W
 (2) Inlet/Outlet water temperature = +15/+10 °C - Condenser air temperature = +30°C; 30% Ethylene Glycol referred to free field on reflecting surface
 (3) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m.
 (4) Evaporator + valve + piping pressure drop (no free cooling)
 (5) Free cooling coil + evaporator + valve + piping pressure drop
 (6) With option XY (expansion vessel kit)
 (7) Data referred to standard configuration WP (with pump P3)
 (8) The manufacturer reserves the right to modify specifications without notice. Der Hersteller behält sich das Recht vor, Spezifikationen ohne vorherige Ankündigung zu ändern.
 (1) Wassereintrittstemperatur/Wasserausrittstemperatur = +12/+7 °C - Umgebungstemperatur = +35°C; Verschmutzungsfaktor = 0.000043 m²K/W
 (2) Wassereintrittstemperatur/Wasserausrittstemperatur = +15/+10 °C - Umgebungstemperatur = +30°C; 30% ethylenglykol bezogen auf freies Feld auf reflektierender Oberfläche bezeichnet
 (4) Verdampfer + Ventile + Druckverlust über Verrohrung, ohne Freekühlung
 (5) Freekühlung Register + Verdampfer + Ventile + Druckverlust über Verrohrung
 (6) Mit der option XY (ausdehnungsgefäß-set)
 (7) Die Daten beziehen sich auf Standard-Konfiguration WP (mit Pumpe P3)
 Updated on 28/09/2018

ENRF SERIES

Free cooling chillers ENRF series, scroll compressors R410A / R32, coaxial (CX) / shell and tube evaporator, condenser with copper tubes and aluminium finned core and axial fans
Luftgekühlte Kältemaschinen ENRF Serie, Scroll Kompressoren R410A, Koaxialverdampfer (CX) / Schale und Rohrverdampfer, Kondensatoren mit Kupfer / Leitungen Lamellenrippen aus Aluminium und Axial-Ventilatoren

Process Cooling Application		Industriellen Kühlung												
		Model												
		100	130	160	185	200	230	280	340	370				
NOMINAL COOLING CAPACITY (1)		kW												
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (1)		kW												
EER		(1)												
SEPR (HT) (8)		SEPR (HT) (8)												
AIR TEMPERATURE 100% FREE COOLING (1)		°C												
NOMINAL COOLING CAPACITY (2)		kW												
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (2)		kW												
EER		(2)												
AIR TEMPERATURE 100% FREE COOLING (2)		°C												
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.												
HYDRAULIC SECTION		CX												
NOMINAL WATER FLOW		m ³ /h												
WATER FLOW RANGE		m ³ /h												
EVAPORATOR PRESSURE DROP (4)		kPa												
FREE COOLING PRESSURE DROP (5)		kPa												
AVAILABLE PRESSURE		kPa												
MAXIMUM PUMP ABSORBED POWER		kW												
MAXIMUM PUMP ABSORBED CURRENT		A												
AVAILABLE PRESSURE		kPa												
MAXIMUM PUMP ABSORBED POWER		kW												
MAXIMUM PUMP ABSORBED CURRENT		A												
HYDRAULIC CONNECTIONS		BSP/DIN 2"												
TANK VOLUME		dm ³												
EXPANSION VESSEL VOLUME (6)		liters												
FAN SECTION (AXIAL)		RV "fan speed cut-phase regulator" included, RV inklusive												
TOTAL AIR FLOW		m ³ /h												
FANS		nr.												
FANS ABSORBED POWER		kW												
FANS ABSORBED CURRENT		A												
TOTAL ELECTRIC DATA		IP54 protection rating, chillers suitable for outdoor installation, Schutzart IP54												
NOMINAL ABSORBED POWER (6)		kW												
MAXIMUM ABSORBED CURRENT (F.L.A.) (6)		A												
MAXIMUM PEAK CURRENT (L.R.A.) (6)		A												
ELECTRIC FEED		V/Ph/Hz												
NOISE DATA		400/3/50												
SOUND PRESSURE (3) (7)		dB(A)												
SOUND PRESSURE FOR LOW NOISE CONFIGURATION(3) (7)		dB(A)												
DIMENSIONS AND WEIGHT		mm												
LENGTH		mm												
WIDTH		mm												
HEIGHT		mm												
WEIGHT EMPTY		kg												
WEIGHT OPERATIVE		kg												

Die Daten beziehen sich auf:
 (1) Wassereintrittstemperatur/Wasseraustrittstemperatur = +12/+7 °C -Umgebungstemperatur = +35°C;
 Verschmutzungsfaktor = 0,000043 m²/K
 (2) Inlet/Outlet water temperature = +15/+10 °C - Condenser air temperature = -30°C; 30% Ethylene Glycol
 (3) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m,
 referred to free field on reflecting surface
 (4) Evaporator + valve + piping pressure drop (no free cooling)
 (5) Free cooling coil + evaporator + valve + piping pressure drop
 (6) With option XV (expansion vessel kit)
 (7) Data referred to standard configuration WP (with pump P3)
 (8) Die Daten entsprechen der Europäischen Verordnung (EU) 2016/2281, und beziehen sich auf Hochtemperaturprozesskühler
 * In den Ausführungen NT, NP, NT, WP und NT, PH beträgt die Breite des Gerätes 1105 mm
 Updated on 26/09/2018

CSE SERIES

Aircooled liquid chillers CSE series, scroll compressors R410A, coaxial / shell and tube evaporator, condenser with copper tubes and aluminium finned core and centrifugal fans.

Luftgekühlte Kältemaschinen CSE Serie, Scroll Kompressoren R410A, Koaxialverdampfer / Schale und Rohrverdampfer, Kondensatoren mit Kupfer Leitungen, Lamellenrippen aus Aluminium und Radialventilatoren

Process Cooling Application		Industriellen Kühlung												
Model		030	038	045	061	075	100	130	160	185	230	280	340	370
NOMINAL COOLING CAPACITY (1)		kW												
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (1)		kW												
EER														
SEPR (HT) (6)														
COMPRESSORS														
REFRIGERATING CIRCUITS														
PARTION STEP														
REFRIGERANT		R410A												
HYDRAULIC SECTION														
NOMINAL WATER FLOW		m ³ /h												
WATER FLOW RANGE		m ³ /h												
TYPE OF EVAPORATOR (4)		Self-cleaning coaxial evaporator, selbstreinigender Koaxial Verdampfer												
EVAPORATOR PRESSURE DROP		kPa												
AVAILABLE PRESSURE														
MAXIMUM PUMP ABSORBED POWER		kW												
MAXIMUM PUMP ABSORBED CURRENT		A												
AVAILABLE PRESSURE														
MAXIMUM PUMP ABSORBED POWER		kW												
MAXIMUM PUMP ABSORBED CURRENT		A												
HYDRAULIC CONNECTIONS		BSP/DN												
TANK VOLUME		dm ³												
EXPANSION VESSEL VOLUME (6)		liters												
FAN SECTION (CENTRIFUGAL)														
TOTAL AIR FLOW		m ³ /h												
FANS		nr.												
FANS ABSORBED POWER		kW												
FANS ABSORBED CURRENT		A												
TOTAL ELECTRIC DATA														
NOMINAL ABSORBED POWER (3)		kW												
MAXIMUM ABSORBED CURRENT (F.L.A.) (3)		A												
MAXIMUM PEAK CURRENT (L.R.A.) (3)		A												
ELECTRIC FEED		V/Ph/Hz												
NOISE DATA														
SOUND PRESSURE (2) (3)		dB(A)												
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (2) (3)		dB(A)												
DIMENSIONS AND WEIGHT														
LENGTH		mm												
WIDTH		mm												
HEIGHT		mm												
WEIGHT EMPTY		kg												
WEIGHT OPERATIVE		kg												

Data referred to:
 (1) Inlet/Outlet: water temperature = +12/+7 °C - Condenser air temperature = +32°C; cooling factor = 0.000043 m³/kW
 (2) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
 (3) Data referred to model that mounts the pump P3
 (4) Stainless steel coaxial evaporator available on request
 (5) With option XV (expansion vessel kit)
 (6) Data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers

Die Daten beziehen sich auf:
 (1) Wassereintrittstemperatur/Wasseraustrittstemperatur = +12/+7 °C - Umgebungstemperatur = +32°C; Verschmutzungsfaktor = 0.000043 m³/kW
 (2) Schalldruckpegel Maßnahmen nach normative ISO3744, Druckniveau bei einem Abstand von 10 m, bezogen auf freiem Feld auf reflektierender Oberfläche bezeichnet
 (3) Die Daten beziehen sich auf Modell, das die Pumpe P3 montiert
 (4) Koaxial Verdampfer in Edelstahlauführung auf Anfrage
 (5) Mit der option XV (ausdehnungsgefäß-set)
 (6) Die Daten entsprechen der Europäischen Verordnung (EU) 2016/2281 und beziehen sich auf Hochtemperaturprozesskühler

HINWEIS:
 - Verfügbarer Druck für die Modelle 200Pa
 - Kaltwassersätze zur Innenaufstellung

NOTE:
 - Each model has a available pressure at air side about 200Pa
 - Chillers for indoor installation