

6 GENERAL TECHNICAL DATA

Data Book
DB_ME_MECH-iF-G04 0351 - 0802_012024_EN
R1234ze

[SI System]

MECH-iF-G04		0351	0702	0802
Power supply		V/ph/Hz	400/3/50	400/3/50
PERFORMANCE				
COOLING ONLY (GROSS VALUE)				
Cooling capacity	(1)	kW	346,0	701,9
Total power input	(1)	kW	105,8	213,0
EER	(1)	kW/kW	3,270	3,295
COOLING ONLY (EN14511 VALUE)				
Cooling capacity	(1)(4)	kW	345,5	701,3
EER	(1)(4)	kW/kW	3,220	3,250
COOLING WITH PARTIAL RECOVERY				
Cooling capacity	(5)	kW	358,9	728,3
Total power input	(5)	kW	102,5	206,3
Desuperheater heating capacity	(5)	kW	85,35	172,0
EXCHANGERS				
HEAT EXCHANGER USER SIDE IN COOLING				
Water flow	(1)	l/s	16,54	33,57
Pressure drop at the heat exchanger	(1)(4)	kPa	48,0	54,1
PARTIAL RECOVERY USER SIDE IN REFRIGERATION				
Water flow	(1)	l/s	4,120	8,300
Pressure drop at the heat exchanger	(1)	kPa	18,5	18,8
PERFORMANCE				
COOLING ONLY (GROSS VALUE)				
16°C/10°C				
Cooling capacity	(2)	kW	377,9	767,3
Total power input	(2)	kW	109,9	221,4
EER	(2)	kW/kW	3,439	3,466
23°C/15°C				
Cooling capacity	(3)	kW	434,5	883,3
Total power input	(3)	kW	117,0	235,8
EER	(3)	kW/kW	3,714	3,746
EXCHANGERS				
16°C/10°C				
Water flow	(2)	l/s	15,07	30,60
Pressure drop at the heat exchanger	(2)	kPa	41,0	46,3
23°C/15°C				
Water flow	(3)	l/s	13,02	26,46
Pressure drop at the heat exchanger	(3)	kPa	31,9	36,1
REFRIGERANT CIRCUIT				
Compressors nr.		N°	1	2
Number of capacity steps		N°	0	0
No. Circuits		N°	1	2
Regulation			STEPLESS STEPLESS STEPLESS	
Min. capacity step		%	25	12
Refrigerant			R1234ze R1234ze R1234ze	
Theoretical refrigerant charge		kg	74,0	150
Oil charge		kg	11,0	22,0
Rc (ASHRAE)	(6)	kg/kW	0,22	0,22
FANS				
Quantity		N°	6	12
Air flow		m³/s	32,40	64,80
Total fans power input		kW	10,20	20,40
NOISE LEVEL				
Total sound Pressure	(7)	dB(A)	68	70
Total sound power level in cooling	(8)(9)	dB(A)	100	103
SIZE AND WEIGHT				
A	(10)	mm	4150	7900
B	(10)	mm	2260	2260
H	(10)	mm	2500	2500
Operating weight	(10)	kg	4050	7650

Notes:

1 Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger air (in) 35,0°C.
 2 Plant (side) cooling exchanger water (in/out) 16,00°C/10,00°C; Source (side) heat exchanger air (in) 35,0°C.
 3 Plant (side) cooling exchanger water (in/out) 23,00°C/15,00°C; Source (side) heat exchanger air (in) 35,0°C.
 4 Values in compliance with EN14511
 5 Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger air (in) 35,0°C; Plant (side) heat exchanger recovery water (in/out) 40,00°C/45,00°C.

6 Rated in accordance with AHRI Standard 550/590
 7 Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
 8 Sound power on the basis of measurements taken in compliance with ISO 9614.
 9 Sound power level in cooling, outdoors.
 10 Unit in standard configuration, without optional accessories.
 - Not available
 Data certified in EUROVENT

GENERAL TECHNICAL DATA

ELCA_Engine ver.4.8.2.0

Data Book
DB_ME_MECH-iF-G04 0351 - 0802_012024_EN
R1234ze

[SI System]

MECH-IF-G04-NR		0351		0702		0802	
Power supply		V/ph/Hz 400/3/50 400/3/50 400/3/50					
PERFORMANCE							
COOLING ONLY (GROSS VALUE)							
Cooling capacity	(1)	kW	342,6	696,2	819,5		
Total power input	(1)	kW	106,0	213,5	270,5		
EER	(1)	kW/kW	3,232	3,261	3,030		
COOLING ONLY (EN14511 VALUE)							
Cooling capacity	(1)(4)	kW	342,2	695,6	818,8		
EER	(1)(4)	kW/kW	3,190	3,220	3,000		
COOLING WITH PARTIAL RECOVERY							
Cooling capacity	(5)	kW	355,5	722,3	850,2		
Total power input	(5)	kW	102,6	206,6	261,7		
Desuperheater heating capacity	(5)	kW	87,12	175,6	224,0		
EXCHANGERS							
HEAT EXCHANGER USER SIDE IN COOLING							
Water flow	(1)	l/s	16,39	33,29	39,19		
Pressure drop at the heat exchanger	(1)(4)	kPa	47,2	53,4	47,6		
PARTIAL RECOVERY USER SIDE IN REFRIGERATION							
Water flow	(1)	l/s	4,206	8,477	10,81		
Pressure drop at the heat exchanger	(1)	kPa	19,3	19,6	31,8		
PERFORMANCE							
COOLING ONLY (GROSS VALUE)							
16°C/10°C							
Cooling capacity	(2)	kW	374,2	760,8	897,5		
Total power input	(2)	kW	110,3	222,3	282,3		
EER	(2)	kW/kW	3,393	3,422	3,179		
23°C/15°C							
Cooling capacity	(3)	kW	430,1	875,6	927,0		
Total power input	(3)	kW	117,7	237,5	231,6		
EER	(3)	kW/kW	3,654	3,687	4,003		
EXCHANGERS							
16°C/10°C							
Water flow	(2)	l/s	14,92	30,34	35,80		
Pressure drop at the heat exchanger	(2)	kPa	40,3	45,6	40,8		
23°C/15°C							
Water flow	(3)	l/s	12,88	26,23	27,77		
Pressure drop at the heat exchanger	(3)	kPa	31,4	35,6	26,5		
REFRIGERANT CIRCUIT							
Compressors nr.		N°	1	2	2		
Number of capacity steps		N°	0	0	0		
No. Circuits		N°	1	2	2		
Regulation		STEPLESS STEPLESS STEPLESS					
Min. capacity step		%	25	12	11		
Refrigerant		R1234ze R1234ze R1234ze					
Theoretical refrigerant charge		kg	74,0	150	177		
Oil charge		kg	11,0	22,0	22,0		
Rc (ASHRAE)	(6)	kg/kW	0,22	0,22	0,22		
FANS							
Quantity		N°	6	12	14		
Air flow		m³/s	29,40	58,80	68,60		
Total fans power input		kW	8,40	16,80	19,60		
NOISE LEVEL							
Total sound Pressure	(7)	dB(A)	66	68	70		
Total sound power level in cooling	(8)(9)	dB(A)	98	101	103		
SIZE AND WEIGHT							
A	(10)	mm	4150	7900	9150		
B	(10)	mm	2260	2260	2260		
H	(10)	mm	2500	2500	2500		
Operating weight	(10)	kg	4050	7650	8580		

Notes:

1 Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger air (in) 35,0°C.
2 Plant (side) cooling exchanger water (in/out) 16,00°C/10,00°C; Source (side) heat exchanger air (in) 35,0°C.
3 Plant (side) cooling exchanger water (in/out) 23,00°C/15,00°C; Source (side) heat exchanger air (in) 35,0°C.
4 Values in compliance with EN14511
5 Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger air (in) 35,0°C; Plant (side) heat exchanger recovery water (in/out) 40,00°C/45,00°C.

6 Rated in accordance with AHRI Standard 550/590
7 Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
8 Sound power on the basis of measurements taken in compliance with ISO 9614.
9 Sound power level in cooling, outdoors.
10 Unit in standard configuration, without optional accessories.
- Not available
Data certified in EUROVENT

GENERAL TECHNICAL DATA

ELCA_Engine ver.4.8.2.0

Data Book
DB_ME_MECH-iF-G04 0351 - 0802_012024_EN
R1234ze

[SI System]

MECH-IF-G04-SL		0351 0702 0802		
Power supply		V/ph/Hz 400/3/50 400/3/50 400/3/50		
PERFORMANCE				
COOLING ONLY (GROSS VALUE)				
Cooling capacity	(1)	kW	339,2	690,0 811,0
Total power input	(1)	kW	106,6	214,3 271,6
EER	(1)	kW/kW	3,182	3,220 2,986
COOLING ONLY (EN14511 VALUE)				
Cooling capacity	(1)(4)	kW	338,8	689,3 810,4
EER	(1)(4)	kW/kW	3,140	3,180 2,950
COOLING WITH PARTIAL RECOVERY				
Cooling capacity	(5)	kW	352,0	715,8 841,5
Total power input	(5)	kW	103,1	207,3 262,7
Desuperheater heating capacity	(5)	kW	89,26	179,5 228,7
EXCHANGERS				
HEAT EXCHANGER USER SIDE IN COOLING				
Water flow	(1)	l/s	16,22	33,00 38,79
Pressure drop at the heat exchanger	(1)(4)	kPa	46,5	52,6 46,7
PARTIAL RECOVERY USER SIDE IN REFRIGERATION				
Water flow	(1)	l/s	4,309	8,666 11,04
Pressure drop at the heat exchanger	(1)	kPa	20,2	20,4 33,2
PERFORMANCE				
COOLING ONLY (GROSS VALUE)				
16°C/10°C				
Cooling capacity	(2)	kW	370,4	753,8 888,6
Total power input	(2)	kW	111,1	223,6 284,0
EER	(2)	kW/kW	3,334	3,371 3,129
23°C/15°C				
Cooling capacity	(3)	kW	425,5	867,1 927,0
Total power input	(3)	kW	119,0	239,6 231,6
EER	(3)	kW/kW	3,576	3,619 4,003
EXCHANGERS				
16°C/10°C				
Water flow	(2)	l/s	14,77	30,06 35,44
Pressure drop at the heat exchanger	(2)	kPa	39,6	44,9 40,1
23°C/15°C				
Water flow	(3)	l/s	12,75	25,98 27,77
Pressure drop at the heat exchanger	(3)	kPa	30,8	35,0 26,5
REFRIGERANT CIRCUIT				
Compressors nr.		N°	1	2 2
Number of capacity steps		N°	0	0 0
No. Circuits		N°	1	2 2
Regulation		STEPLESS STEPLESS STEPLESS		
Min. capacity step		%	25	12 11
Refrigerant		R1234ze R1234ze R1234ze		
Theoretical refrigerant charge		kg	74,0	150 177
Oil charge		kg	11,0	22,0 22,0
Rc (ASHRAE)	(6)	kg/kW	0,22	0,22 0,22
FANS				
Quantity		N°	6	12 14
Air flow		m³/s	27,78	55,56 64,82
Total fans power input		kW	6,60	13,20 15,40
NOISE LEVEL				
Total sound Pressure	(7)	dB(A)	59	61 63
Total sound power level in cooling	(8)(9)	dB(A)	91	94 96
SIZE AND WEIGHT				
A	(10)	mm	4150	7900 9150
B	(10)	mm	2260	2260 2260
H	(10)	mm	2500	2500 2500
Operating weight	(10)	kg	4110	7730 8670

Notes:

1 Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger air (in) 35,0°C.
2 Plant (side) cooling exchanger water (in/out) 16,00°C/10,00°C; Source (side) heat exchanger air (in) 35,0°C.
3 Plant (side) cooling exchanger water (in/out) 23,00°C/15,00°C; Source (side) heat exchanger air (in) 35,0°C.
4 Values in compliance with EN14511
5 Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger air (in) 35,0°C; Plant (side) heat exchanger recovery water (in/out) 40,00°C/45,00°C.

6 Rated in accordance with AHRI Standard 550/590
7 Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
8 Sound power on the basis of measurements taken in compliance with ISO 9614.
9 Sound power level in cooling, outdoors.
10 Unit in standard configuration, without optional accessories.
- Not available
Data certified in EUROVENT

7 TECHNICAL DATA SEASONAL EFFICIENCY IN COOLING (EN14825 VALUE)

ELCA_Engine ver.4.8.2.0

Data Book
DB_ME_MECH-iF-G04 0351 - 0802_012024_EN
R1234ze

[SI System]

ENERGY EFFICIENCY

SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281) Ambient refrigeration

MECH-iF-G04			0351	0702	0802							
Prated,c	(1)	kW	345,5	701,3	827,4							
SEER	(1) (2)	-	5,68	5,83	5,85							
Performance η_s	(1) (3)	%	224,0	230,0	231,0							

MECH-iF-G04-NR			0351	0702	0802							
Prated,c	(1)	kW	342,2	695,6	818,8							
SEER	(1) (2)	-	5,68	5,83	5,85							
Performance η_s	(1) (3)	%	224,0	230,0	231,0							

MECH-iF-G04-SL			0351	0702	0802							
Prated,c	(1)	kW	338,8	689,3	810,4							
SEER	(1) (2)	-	5,67	5,83	5,84							
Performance η_s	(1) (3)	%	224,0	230,0	231,0							

Notes:

(1) Parameter calculated according to [REGULATION (EU) N. 2016/2281]

(2) Seasonal energy efficiency ratio

(3) Seasonal space cooling energy efficiency

The units highlighted in this publication contain R1234ze [GWP₁₀₀ 1] fluorinated greenhouse gases.

Data certified in EUROVENT

[SI System]

ENERGY EFFICIENCY

SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281) High temperature process cooling

MECH-iF-G04			0351	0702	0802							
Prated,c	(1)	kW	345,50	701,30	827,40							
SEPR HT	(1) (3)	-	6,77	6,88	6,66							

MECH-iF-G04-NR			0351	0702	0802							
Prated,c	(1)	kW	342,20	695,58	818,80							
SEPR HT	(1) (3)	-	6,75	6,87	6,64							

MECH-iF-G04-SL			0351	0702	0802							
Prated,c	(1)	kW	338,80	689,30	810,40							
SEPR HT	(1) (3)	-	6,75	6,87	6,64							

SEASONAL EFFICIENCY IN COOLING (Reg. EU 2015/1095) Process refrigeration at medium temperature

Notes:

(1) Seasonal energy efficiency of high temperature process cooling [REGULATION (EU) N. 2016/2281]

(2) Seasonal Energy Efficiency of Process Cooling at Medium Temperature [REGULATION (EU) N. 2015/1095]

(3) Seasonal energy efficiency ratio

The units highlighted in this publication contain R1234ze [GWP₁₀₀ 1] fluorinated greenhouse gases.

Data certified in EUROVENT