

## Model

Designation **CU SC12MLX MG\_Z 230/1/50 CAP**



Sales code: 314L4010  
Engineering code: CUSC12MLX00CE

## Application Data

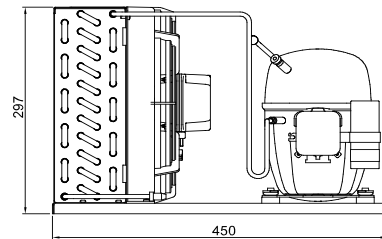
|                            |   |
|----------------------------|---|
| Power supply               | 220-240V / 50Hz 1~                      |
| Refrigerants               | R404A-R452A-R449A                       |
| Refr. charge - tech. limit | 1300g / 45,9oz                          |
| Starter                    | HST / capillary tube or expansion valve |
| Sound pressure (10m)       | 33,6dB(A)                               |

## Configuration data

|                     | Conf. 1   | Conf. 2                                   | Conf. 3                       |
|---------------------|---|---|-------------------------------|
| Voltage range       | 187 - 254V / 50Hz                                     | 187 - 254V / 50Hz                         | 187 - 254V / 50Hz             |
| Refrigerant         | R404A   | R452A                                     | R449A                         |
| Application         | MBP   | MBP                                       | MBP                           |
| Rated performance   | <u>pe=-10°C, Tsuc=20°C, Tamb=25°C, subcooling: 2K</u> |   |                               |
| Cooling capacity    | 1088W / 3715Btu/h                                     | 1037W / 3540Btu/h                         | 1005W / 3431Btu/h             |
| Power consumption   | 614,9W  | 584,8W                                    | 550,1W                        |
| Current consumption | 4,1A  | 4A  | 3,9A                          |
| COP/EER             | 1,77 / 6,04Btu/Wh                                     | 1,77 / 6,05Btu/Wh                         | 1,83 / 6,24Btu/Wh             |
| Approvals           | Eco design (EU) 2015/1095, CE, UK CA, VDE             | Eco design (EU) 2015/1095, CE, UK CA, VDE | Eco design (EU) 2015/1095, CE |

## Compressor

|                         |                                |
|-------------------------|--------------------------------|
| Designation             | <b>SC12MLX</b>                 |
| Motor configuration     | CSIR                           |
| Locked rotor amperage   | 23,4A                          |
| Rated load amperage     | 4,3A                           |
| Winding resistance main | 3,4Ω                           |
| Winding resistance aux  | 14,4Ω                          |
| Oil quantity            | 550cm <sup>3</sup> / 18,6fl.oz |
| Oil type                | POE                            |
| Horsepower rating       | 1/2 HP                         |



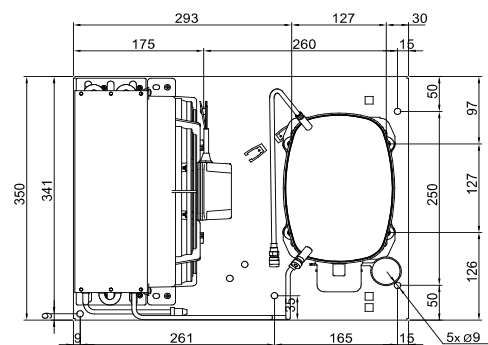
## Dimensions

### Condensing unit

|                        |  |
|------------------------|--|
| Height x Width x Depth | 297 x 350 x 450 [mm] / 11,7 x 13,8 x 17,7 [in] |
| Weight                 | 20kg / 44,2lbs                                 |
| Suction adapter        | OD ø8mm / 1/3in                                |
| Discharge adapter      | OD ø6mm / 1/4in                                |
| Process connector      | ø6,5mm / 0,26in                                |

### Package data

|                        |  |
|------------------------|--|
| Height x Width x Depth | 350 x 450 x 550 [mm] / 13,8 x 17,7 x 21,7 [in] |
| Weight                 | 23kg / 50,8lbs                                 |



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## Components Condensing-Unit / Spare Parts

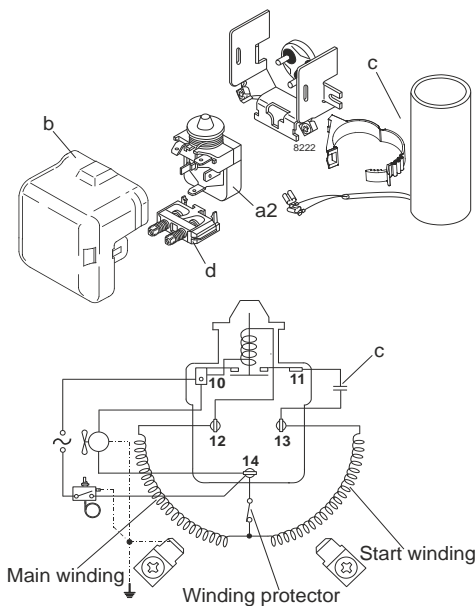
| Component          | Type                          | Spare part code number |
|--------------------|-------------------------------|------------------------|
| Compressor code    | SC12MLX                       | 104L2606               |
| Condenser          | Condenser (4 rows x 11 tubes) | 1140270F71             |
| Fan motor          |                               | 62010155               |
| Blade code         | ø254mm 28°                    | A254-28                |
| Air flow           | 576,9m³/h                     |                        |
| Receiver code      | not installed                 | -/-                    |
| Suction valve code | OD ø8mm / 1/3in               | -/-                    |
| Liquid valve code  | OD ø6mm / 1/4in               | -/-                    |

| Compressor starting equipment   | Spare part code number |
|---------------------------------|------------------------|
| pos. a2 - relay                 | 117U6011               |
| pos. c - start capacitor (80µF) | 117U5017               |
| pos. d - cord relief            | 103N1004               |
| pos. b - plastic cover          | 103N2008               |

## Wiring Sketch Compressor

## Wiring Sketch Condensing Unit

CSIR



## Model

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## Cooling performance - Conf. 1

|                            |   |               |                   |
|----------------------------|---|---------------|-------------------|
| Power supply               | 220-240V / 50Hz 1~                        | Voltage range | 187 - 254V / 50Hz |
| Refr. charge - tech. limit | 1300g / 45,9oz                            |               |                   |
| Starter                    | HST / capillary tube or expansion valve   |               |                   |
| Motor configuration        | CSIR                                      |               |                   |
| Refrigerant                | R404A                                     |               |                   |
| Application                | MBP                                       |               |                   |
| Approvals                  | Eco design (EU) 2015/1095, CE, UK CA, VDE |               |                   |

| ambient temperature     | [°C / °F] | 25 / 77 (suction gas temperature [°C / °F]: 20 / 68, subcooling: 2K) |          |         |          |        |        |         |
|-------------------------|-----------|--|----------|---------|----------|--------|--------|---------|
| evaporating temperature | [°C / °F] | -25 / -13  | -20 / -4 | -15 / 5 | -10 / 14 | 0 / 32 | 5 / 41 | 10 / 50 |
| cooling capacity        | [W]       | 628  | 762      | 917     | 1087     | 1465   | 1662   | 1859    |
| COP                     | [W/W]     | 1,34   | 1,48     | 1,63    | 1,77     | 2      | 2,08   | 2,13    |
| cooling capacity        | [Btu/h]   | 2146   | 2604     | 3131    | 3714     | 5002   | 5675   | 6350    |
| power consumption       | [W]       | 469  | 514      | 562     | 615      | 733    | 800    | 871     |
| current consumption     | [A]       | 3,7  | 3,8      | 3,9     | 4,1      | 4,6    | 4,9    | 5,2     |

| ambient temperature     | [°C / °F] | 32 / 90 (suction gas temperature [°C / °F]: 20 / 68, subcooling: 2K) |          |         |          |        |        |  |
|-------------------------|-----------|--|----------|---------|----------|--------|--------|--|
| evaporating temperature | [°C / °F] | -25 / -13  | -20 / -4 | -15 / 5 | -10 / 14 | 0 / 32 | 5 / 41 |  |
| cooling capacity        | [W]       | 550  | 670      | 807     | 957      | 1283   | 1453   |  |
| COP                     | [W/W]     | 1,13   | 1,25     | 1,37    | 1,48     | 1,66   | 1,72   |  |
| cooling capacity        | [Btu/h]   | 1879   | 2290     | 2756    | 3267     | 4383   | 4963   |  |
| power consumption       | [W]       | 485  | 535      | 589     | 646      | 773    | 844    |  |
| current consumption     | [A]       | 3,7  | 3,8      | 4       | 4,2      | 4,7    | 5      |  |

| ambient temperature     | [°C / °F] | 38 / 100 (suction gas temperature [°C / °F]: 20 / 68, subcooling: 2K) |          |         |          |
|-------------------------|-----------|---|----------|---------|----------|
| evaporating temperature | [°C / °F] | -25 / -13   | -20 / -4 | -15 / 5 | -10 / 14 |
| cooling capacity        | [W]       | 480   | 589      | 710     | 842      |
| COP                     | [W/W]     | 0,97  | 1,07     | 1,16    | 1,25     |
| cooling capacity        | [Btu/h]   | 1641  | 2012     | 2425    | 2877     |
| power consumption       | [W]       | 495   | 551      | 610     | 672      |
| current consumption     | [A]       | 3,7   | 3,9      | 4,1     | 4,3      |

| ambient temperature     | [°C / °F] | 43 / 109 (suction gas temperature [°C / °F]: 20 / 68, subcooling: 2K) |          |
|-------------------------|-----------|---|----------|
| evaporating temperature | [°C / °F] | -25 / -13   | -20 / -4 |
| cooling capacity        | [W]       | 420   | 519      |
| COP                     | [W/W]     | 0,84  | 0,93     |
| cooling capacity        | [Btu/h]   | 1435  | 1772     |
| power consumption       | [W]       | 499   | 561      |
| current consumption     | [A]       | 3,7   | 3,9      |

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## Cooling performance - Conf. 2

|                            |   |               |                   |
|----------------------------|---|---------------|-------------------|
| Power supply               | 220-240V / 50Hz 1~                        | Voltage range | 187 - 254V / 50Hz |
| Refr. charge - tech. limit | 1300g / 45,9oz                            |               |                   |
| Starter                    | HST / capillary tube or expansion valve   |               |                   |
| Motor configuration        | CSIR                                      |               |                   |
| Refrigerant                | R452A                                     |               |                   |
| Application                | MBP                                       |               |                   |
| Approvals                  | Eco design (EU) 2015/1095, CE, UK CA, VDE |               |                   |

| ambient temperature     | [°C / °F] | 25 / 77 (suction gas temperature [°C / °F]: 20 / 68, subcooling: 2K) |          |         |          |        |        |         |
|-------------------------|-----------|--|----------|---------|----------|--------|--------|---------|
| evaporating temperature | [°C / °F] | -25 / -13  | -20 / -4 | -15 / 5 | -10 / 14 | 0 / 32 | 5 / 41 | 10 / 50 |
| cooling capacity        | [W]       | 585  | 716      | 867     | 1037     | 1416   | 1616   | 1819    |
| COP                     | [W/W]     | 1,33   | 1,48     | 1,63    | 1,77     | 2,01   | 2,1    | 2,16    |
| cooling capacity        | [Btu/h]   | 1998   | 2444     | 2962    | 3540     | 4834   | 5520   | 6214    |
| power consumption       | [W]       | 441  | 485      | 533     | 585      | 704    | 771    | 844     |
| current consumption     | [A]       | 3,6  | 3,7      | 3,9     | 4        | 4,4    | 4,6    | 4,9     |

| ambient temperature     | [°C / °F] | 32 / 90 (suction gas temperature [°C / °F]: 20 / 68, subcooling: 2K) |          |         |          |        |        |  |
|-------------------------|-----------|--|----------|---------|----------|--------|--------|--|
| evaporating temperature | [°C / °F] | -25 / -13  | -20 / -4 | -15 / 5 | -10 / 14 | 0 / 32 | 5 / 41 |  |
| cooling capacity        | [W]       | 513  | 631      | 766     | 915      | 1246   | 1419   |  |
| COP                     | [W/W]     | 1,13   | 1,25     | 1,38    | 1,49     | 1,68   | 1,74   |  |
| cooling capacity        | [Btu/h]   | 1751   | 2154     | 2614    | 3126     | 4255   | 4846   |  |
| power consumption       | [W]       | 455  | 504      | 557     | 614      | 743    | 815    |  |
| current consumption     | [A]       | 3,6  | 3,8      | 4       | 4,1      | 4,5    | 4,8    |  |

| ambient temperature     | [°C / °F] | 38 / 100 (suction gas temperature [°C / °F]: 20 / 68, subcooling: 2K) |          |         |          |
|-------------------------|-----------|---|----------|---------|----------|
| evaporating temperature | [°C / °F] | -25 / -13   | -20 / -4 | -15 / 5 | -10 / 14 |
| cooling capacity        | [W]       | 449   | 556      | 676     | 808      |
| COP                     | [W/W]     | 0,97  | 1,07     | 1,17    | 1,26     |
| cooling capacity        | [Btu/h]   | 1533  | 1898     | 2309    | 2761     |
| power consumption       | [W]       | 464   | 519      | 577     | 640      |
| current consumption     | [A]       | 3,7   | 3,8      | 4       | 4,2      |

| ambient temperature     | [°C / °F] | 43 / 109 (suction gas temperature [°C / °F]: 20 / 68, subcooling: 2K) |          |         |
|-------------------------|-----------|---|----------|---------|
| evaporating temperature | [°C / °F] | -25 / -13   | -20 / -4 | -15 / 5 |
| cooling capacity        | [W]       | 394   | 491      | 599     |
| COP                     | [W/W]     | 0,84  | 0,93     | 1,01    |
| cooling capacity        | [Btu/h]   | 1344  | 1676     | 2047    |
| power consumption       | [W]       | 468   | 529      | 592     |
| current consumption     | [A]       | 3,7   | 3,9      | 4,1     |

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## Cooling performance - Conf. 3

|                            |   |               |                   |
|----------------------------|---|---------------|-------------------|
| Power supply               | 220-240V / 50Hz 1~                      | Voltage range | 187 - 254V / 50Hz |
| Refr. charge - tech. limit | 1300g / 45,9oz                          |               |                   |
| Starter                    | HST / capillary tube or expansion valve |               |                   |
| Motor configuration        | CSIR                                    |               |                   |
| Refrigerant                | R449A                                   |               |                   |
| Application                | MBP                                     |               |                   |
| Approvals                  | Eco design (EU) 2015/1095, CE           |               |                   |

| ambient temperature     | [°C / °F] | 25 / 77 (suction gas temperature [°C / °F]: 20 / 68, subcooling: 2K) |         |          |         |        |        |         |
|-------------------------|-----------|--|---------|----------|---------|--------|--------|---------|
| evaporating temperature | [°C / °F] | -20 / -4   | -15 / 5 | -10 / 14 | -5 / 23 | 0 / 32 | 5 / 41 | 10 / 50 |
| cooling capacity        | [W]       | 679  | 831     | 1004     | 1195    | 1401   | 1617   | 1840    |
| COP                     | [W/W]     | 1,5  | 1,67    | 1,83     | 1,97    | 2,1    | 2,2    | 2,27    |
| cooling capacity        | [Btu/h]   | 2317   | 2838    | 3430     | 4083    | 4785   | 5523   | 6283    |
| power consumption       | [W]       | 452  | 499     | 550      | 606     | 668    | 736    | 810     |
| current consumption     | [A]       | 3,6  | 3,7     | 3,9      | 4,1     | 4,3    | 4,6    | 4,8     |

| ambient temperature     | [°C / °F] | 32 / 90 (suction gas temperature [°C / °F]: 20 / 68, subcooling: 2K) |         |          |         |        |        |  |
|-------------------------|-----------|--|---------|----------|---------|--------|--------|--|
| evaporating temperature | [°C / °F] | -20 / -4   | -15 / 5 | -10 / 14 | -5 / 23 | 0 / 32 | 5 / 41 |  |
| cooling capacity        | [W]       | 605  | 743     | 898      | 1068    | 1250   | 1442   |  |
| COP                     | [W/W]     | 1,28   | 1,42    | 1,55     | 1,67    | 1,77   | 1,85   |  |
| cooling capacity        | [Btu/h]   | 2067   | 2537    | 3066     | 3647    | 4269   | 4924   |  |
| power consumption       | [W]       | 471  | 523     | 579      | 640     | 707    | 779    |  |
| current consumption     | [A]       | 3,6  | 3,8     | 4        | 4,2     | 4,5    | 4,7    |  |

| ambient temperature     | [°C / °F] | 38 / 100 (suction gas temperature [°C / °F]: 20 / 68, subcooling: 2K) |         |          |         |
|-------------------------|-----------|---|---------|----------|---------|
| evaporating temperature | [°C / °F] | -20 / -4  | -15 / 5 | -10 / 14 | -5 / 23 |
| cooling capacity        | [W]       | 540   | 665     | 804      | 956     |
| COP                     | [W/W]     | 1,11  | 1,22    | 1,33     | 1,43    |
| cooling capacity        | [Btu/h]   | 1844  | 2270    | 2746     | 3265    |
| power consumption       | [W]       | 486   | 543     | 604      | 670     |
| current consumption     | [A]       | 3,7   | 3,9     | 4,1      | 4,3     |

| ambient temperature     | [°C / °F] | 43 / 109 (suction gas temperature [°C / °F]: 20 / 68, subcooling: 2K) |         |
|-------------------------|-----------|---|---------|
| evaporating temperature | [°C / °F] | -20 / -4  | -15 / 5 |
| cooling capacity        | [W]       | 483   | 598     |
| COP                     | [W/W]     | 0,97  | 1,07    |
| cooling capacity        | [Btu/h]   | 1651  | 2041    |
| power consumption       | [W]       | 496   | 558     |
| current consumption     | [A]       | 3,7   | 3,9     |