

# Technical Data Sheet

Compressor model **MS26TB\_V**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

|                    |                           |              |                       |                          |               |
|--------------------|---------------------------|--------------|-----------------------|--------------------------|---------------|
| Application        | High-Medium Back Pressure | Displacement | 25,93 cm <sup>3</sup> | Nominal Power            | 1 3/8 hp      |
| Refrigerant        | R404A                     | Diameter     | 39,98 mm              | Voltage/Frequency        | 220-240V 50Hz |
| Evaporating Temp.  | -25,0 °C to 10,0 °C       | Stroke       | 20,65 mm              | Voltage range            | 187-255 V     |
| Expansion          | Capillar/Valve            | Net Weight   | 22,12 Kg              | Type                     | CSR           |
| Comp. Cooling      | Fan cooled                | Oil type     | ISO VG 46 ESTER       | Phase number             | 1 PH          |
| Max. ambient temp. | 43,0 °C                   | Oil charge   | 887 cm <sup>3</sup>   | Locked Rotor Amps (LRA)  | 38,00 A       |
|                    |                           |              |                       | Max. Cont. Current (MCC) | 11,50 A       |
|                    |                           |              |                       | Main W. resist. at 25°C  | 1,65 Ω        |
|                    |                           |              |                       | Start W. resist. at 25°C | 4,90 Ω        |

## NOMINAL PERFORMANCE

|                  | ASHRAE       | CECOMAF      |
|------------------|--------------|--------------|
| Cooling Capacity | 3.448 kCal/h | 3.164 W      |
| COP              | 2,46 W/W     | 2,00 W/W     |
| EER              | 2,12 kCal/Wh | 1,72 kCal/Wh |
| Input Power      | 1.629 W      | 1.586 W      |
| Current          | 8,10 A       | 7,91 A       |

## APPROVALS



## TEST CYCLE CONDITIONS

|                                       | ASHRAE<br>HMBP (D) | CECOMAF<br>HMBP (C) |
|---------------------------------------|--------------------|---------------------|
| Evaporating temp. (T <sub>e</sub> )   | 7,2 °C             | 5,0 °C              |
| Condensing temp. (T <sub>c</sub> )    | 55,0 °C            | 55,0 °C             |
| Liquid temp. (T <sub>liq.</sub> )     | 46,0 °C            | 55,0 °C             |
| Ambient temp. (T <sub>amb.</sub> )    | 35,0 °C            | 32,0 °C             |
| Suction temp. (T <sub>suction</sub> ) | 35,0 °C            | 32,0 °C             |
| Voltage/Frequency                     | 220 V 50 Hz        | 220 V 50 Hz         |

## ELECTRICAL COMPONENTS

|                         |                   |                   |  |  |
|-------------------------|-------------------|-------------------|--|--|
| Starting capacitor      | 88-108 µF 330 V   |                   |  |  |
| Run capacitor           | 20 µF 420 V       |                   |  |  |
| Relay                   | Option 1          | Option 2          |  |  |
| Reference               | 3ARR3 10AS3       | RVA 3G..          |  |  |
| Pick-Up                 | 180-195 V         | 180-195 V         |  |  |
| Drop-Out                | 40-105 V          | 40-105 V          |  |  |
| Protector               | Option 1          | Option 2          |  |  |
| Reference               | MRA38123          | T0534             |  |  |
| Current                 | 22,00 A           | 20,00 A           |  |  |
| Time check              | 7,5-14 seg        | 7,5-14 seg        |  |  |
| Disc temp. (Open/Close) | 105,00 / 52,00 °C | 105,00 / 52,00 °C |  |  |

## ASHRAE

| Tc<br>°C | Te<br>°C | Cooling<br>Capacity<br>kCal/h | Consumption<br>W | Current<br>A | COP<br>W/W | EER<br>kCal/Wh |
|----------|----------|-------------------------------|------------------|--------------|------------|----------------|
| 40       | -25      | 1.105                         | 810              | 4,47         | 1,59       | 1,36           |
| 40       | -20      | 1.481                         | 910              | 4,91         | 1,89       | 1,63           |
| 40       | -15      | 1.913                         | 1.007            | 5,34         | 2,21       | 1,90           |
| 40       | -10      | 2.400                         | 1.099            | 5,75         | 2,54       | 2,18           |
| 40       | -5       | 2.942                         | 1.188            | 6,14         | 2,88       | 2,48           |
| 40       | 0        | 3.539                         | 1.273            | 6,52         | 3,23       | 2,78           |
| 40       | 5        | 4.192                         | 1.354            | 6,88         | 3,60       | 3,09           |
| 40       | 7,2      | 4.497                         | 1.389            | 7,03         | 3,77       | 3,24           |
| 40       | 10       | 4.900                         | 1.432            | 7,22         | 3,98       | 3,42           |

|    |     |       |       |      |      |      |
|----|-----|-------|-------|------|------|------|
| 45 | -25 | 960   | 790   | 4,38 | 1,41 | 1,22 |
| 45 | -20 | 1.305 | 906   | 4,89 | 1,68 | 1,44 |
| 45 | -15 | 1.704 | 1.018 | 5,38 | 1,95 | 1,67 |
| 45 | -10 | 2.160 | 1.126 | 5,86 | 2,23 | 1,92 |
| 45 | -5  | 2.670 | 1.230 | 6,33 | 2,52 | 2,17 |
| 45 | 0   | 3.235 | 1.331 | 6,77 | 2,83 | 2,43 |
| 45 | 5   | 3.856 | 1.428 | 7,20 | 3,14 | 2,70 |
| 45 | 7,2 | 4.147 | 1.469 | 7,39 | 3,28 | 2,82 |
| 45 | 10  | 4.532 | 1.521 | 7,62 | 3,47 | 2,98 |

|    |     |       |       |      |      |      |
|----|-----|-------|-------|------|------|------|
| 50 | -25 | 815   | 770   | 4,29 | 1,23 | 1,06 |
| 50 | -20 | 1.128 | 901   | 4,87 | 1,46 | 1,25 |
| 50 | -15 | 1.496 | 1.029 | 5,43 | 1,69 | 1,45 |
| 50 | -10 | 1.919 | 1.152 | 5,98 | 1,94 | 1,67 |
| 50 | -5  | 2.398 | 1.272 | 6,51 | 2,19 | 1,88 |
| 50 | 0   | 2.932 | 1.388 | 7,03 | 2,46 | 2,11 |
| 50 | 5   | 3.521 | 1.501 | 7,53 | 2,73 | 2,35 |
| 50 | 7,2 | 3.798 | 1.549 | 7,74 | 2,85 | 2,45 |
| 50 | 10  | 4.165 | 1.609 | 8,01 | 3,01 | 2,59 |

|    |     |       |       |      |      |      |
|----|-----|-------|-------|------|------|------|
| 55 | -25 | 670   | 750   | 4,20 | 1,04 | 0,89 |
| 55 | -20 | 951   | 897   | 4,85 | 1,23 | 1,06 |
| 55 | -15 | 1.287 | 1.040 | 5,48 | 1,44 | 1,24 |
| 55 | -10 | 1.679 | 1.179 | 6,10 | 1,66 | 1,42 |
| 55 | -5  | 2.126 | 1.314 | 6,70 | 1,88 | 1,62 |
| 55 | 0   | 2.628 | 1.446 | 7,29 | 2,11 | 1,82 |
| 55 | 5   | 3.185 | 1.574 | 7,85 | 2,35 | 2,02 |
| 55 | 7,2 | 3.448 | 1.629 | 8,10 | 2,46 | 2,12 |
| 55 | 10  | 3.798 | 1.698 | 8,41 | 2,60 | 2,24 |

|    |     |       |       |      |      |      |
|----|-----|-------|-------|------|------|------|
| 60 | -25 | 525   | 730   | 4,11 | 0,84 | 0,72 |
| 60 | -20 | 774   | 892   | 4,83 | 1,01 | 0,87 |
| 60 | -15 | 1.079 | 1.051 | 5,53 | 1,19 | 1,03 |
| 60 | -10 | 1.439 | 1.206 | 6,22 | 1,39 | 1,19 |
| 60 | -5  | 1.854 | 1.357 | 6,89 | 1,59 | 1,37 |
| 60 | 0   | 2.324 | 1.504 | 7,54 | 1,80 | 1,55 |
| 60 | 5   | 2.850 | 1.647 | 8,18 | 2,01 | 1,73 |
| 60 | 7,2 | 3.099 | 1.709 | 8,46 | 2,11 | 1,81 |
| 60 | 10  | 3.431 | 1.787 | 8,80 | 2,23 | 1,92 |

## CECOMAF

| Tc<br>°C | Te<br>°C | Cooling<br>Capacity<br>W | Consumption<br>W | Current<br>A | COP<br>W/W | EER<br>kCal/Wh |
|----------|----------|--------------------------|------------------|--------------|------------|----------------|
| 40       | -25      | 1.155                    | 815              | 4,49         | 1,42       | 1,23           |
| 40       | -20      | 1.559                    | 915              | 4,93         | 1,70       | 1,47           |
| 40       | -15      | 2.017                    | 1.012            | 5,36         | 1,99       | 1,72           |
| 40       | -10      | 2.528                    | 1.106            | 5,78         | 2,29       | 1,98           |
| 40       | -5       | 3.093                    | 1.196            | 6,17         | 2,59       | 2,23           |
| 40       | 0        | 3.711                    | 1.282            | 6,56         | 2,89       | 2,50           |
| 40       | 5        | 4.383                    | 1.364            | 6,92         | 3,21       | 2,78           |
| 40       | 7,2      | 4.695                    | 1.400            | 7,08         | 3,35       | 2,90           |
| 40       | 10       | 5.108                    | 1.443            | 7,27         | 3,54       | 3,06           |

|    |     |       |       |      |      |      |
|----|-----|-------|-------|------|------|------|
| 45 | -25 | 994   | 794   | 4,40 | 1,25 | 1,08 |
| 45 | -20 | 1.357 | 911   | 4,91 | 1,49 | 1,29 |
| 45 | -15 | 1.774 | 1.024 | 5,41 | 1,73 | 1,50 |
| 45 | -10 | 2.244 | 1.133 | 5,89 | 1,98 | 1,71 |
| 45 | -5  | 2.768 | 1.238 | 6,36 | 2,24 | 1,93 |
| 45 | 0   | 3.346 | 1.340 | 6,81 | 2,50 | 2,16 |
| 45 | 5   | 3.977 | 1.438 | 7,25 | 2,76 | 2,39 |
| 45 | 7,2 | 4.271 | 1.480 | 7,44 | 2,89 | 2,49 |
| 45 | 10  | 4.661 | 1.533 | 7,67 | 3,04 | 2,63 |

|    |     |       |       |      |      |      |
|----|-----|-------|-------|------|------|------|
| 50 | -25 | 833   | 774   | 4,31 | 1,08 | 0,93 |
| 50 | -20 | 1.155 | 906   | 4,89 | 1,27 | 1,10 |
| 50 | -15 | 1.531 | 1.035 | 5,46 | 1,48 | 1,28 |
| 50 | -10 | 1.961 | 1.160 | 6,01 | 1,69 | 1,46 |
| 50 | -5  | 2.444 | 1.281 | 6,55 | 1,91 | 1,65 |
| 50 | 0   | 2.980 | 1.398 | 7,07 | 2,13 | 1,84 |
| 50 | 5   | 3.570 | 1.512 | 7,58 | 2,36 | 2,04 |
| 50 | 7,2 | 3.847 | 1.561 | 7,80 | 2,46 | 2,13 |
| 50 | 10  | 4.214 | 1.622 | 8,07 | 2,60 | 2,24 |

|    |     |       |       |      |      |      |
|----|-----|-------|-------|------|------|------|
| 55 | -25 | 671   | 754   | 4,22 | 0,89 | 0,77 |
| 55 | -20 | 953   | 902   | 4,87 | 1,06 | 0,91 |
| 55 | -15 | 1.288 | 1.046 | 5,51 | 1,23 | 1,06 |
| 55 | -10 | 1.677 | 1.186 | 6,13 | 1,41 | 1,22 |
| 55 | -5  | 2.119 | 1.323 | 6,74 | 1,60 | 1,38 |
| 55 | 0   | 2.615 | 1.456 | 7,33 | 1,80 | 1,55 |
| 55 | 5   | 3.164 | 1.586 | 7,91 | 2,00 | 1,72 |
| 55 | 7,2 | 3.423 | 1.641 | 8,16 | 2,09 | 1,80 |
| 55 | 10  | 3.767 | 1.712 | 8,47 | 2,20 | 1,90 |

|    |     |       |       |      |      |      |
|----|-----|-------|-------|------|------|------|
| 60 | -25 | 510   | 734   | 4,13 | 0,69 | 0,60 |
| 60 | -20 | 751   | 897   | 4,85 | 0,84 | 0,72 |
| 60 | -15 | 1.045 | 1.057 | 5,56 | 0,99 | 0,85 |
| 60 | -10 | 1.393 | 1.213 | 6,25 | 1,15 | 0,99 |
| 60 | -5  | 1.795 | 1.366 | 6,93 | 1,31 | 1,14 |
| 60 | 0   | 2.250 | 1.514 | 7,59 | 1,49 | 1,28 |
| 60 | 5   | 2.758 | 1.659 | 8,24 | 1,66 | 1,44 |
| 60 | 7,2 | 2.999 | 1.722 | 8,51 | 1,74 | 1,50 |
| 60 | 10  | 3.320 | 1.801 | 8,87 | 1,84 | 1,59 |

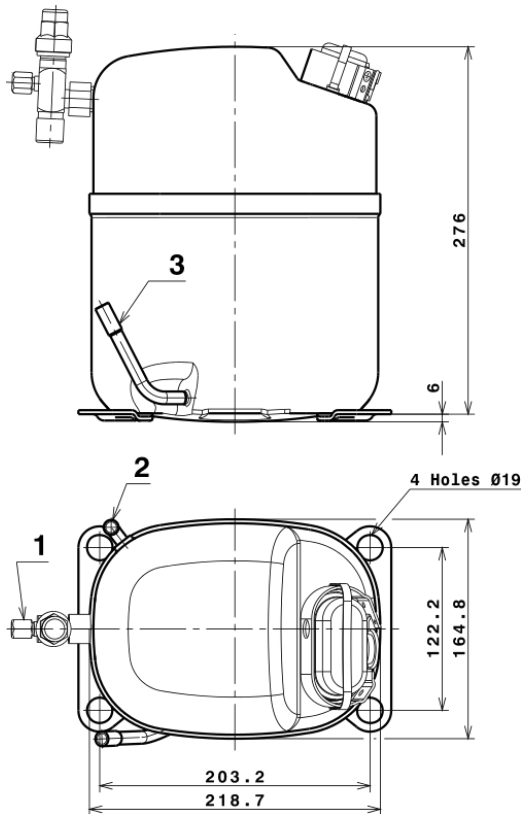
## EN12900

| X | Cooling Capacity (W) | Consumption (W) | Current (A)   | Mass Flow (kg/h)    |
|---|----------------------|-----------------|---------------|---------------------|
| 1 | 6.626,4288474050     | 839,8836887440  | 4,5855895344  | 133,47312935514     |
| 2 | 194,5149962537       | -7,8079139396   | -0,0346664307 | 4,3140542610751     |
| 3 | -75,3749434503       | 12,0264425796   | 0,0535671105  | -0,76599232008228   |
| 4 | 1,0132065474         | -0,0580428073   | -0,0002429642 | 0,047753076065262   |
| 5 | -1,7353418606        | 0,6458090075    | 0,0028713524  | -0,0062323783512773 |

|          |                                           |
|----------|-------------------------------------------|
| Equation | $x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$ |
|----------|-------------------------------------------|

# Technical Data Sheet

## COMPRESSOR DIMENSIONS

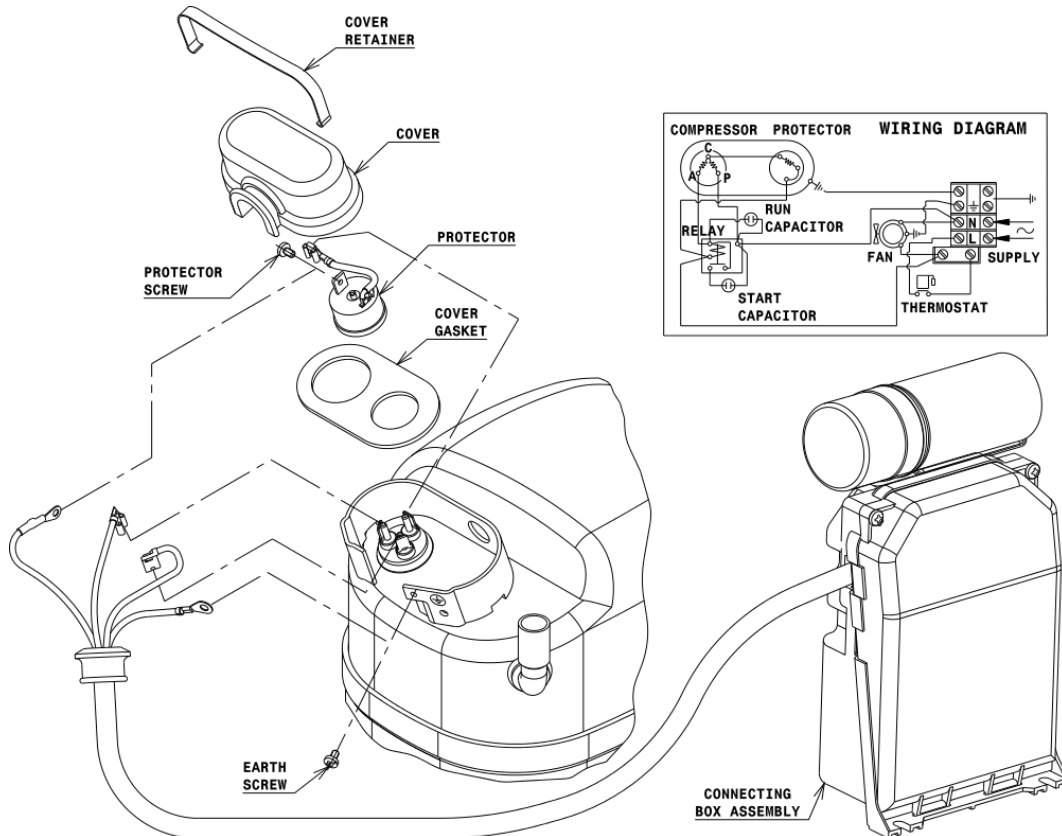


## DESIGNATION INTERNAL DIAM.

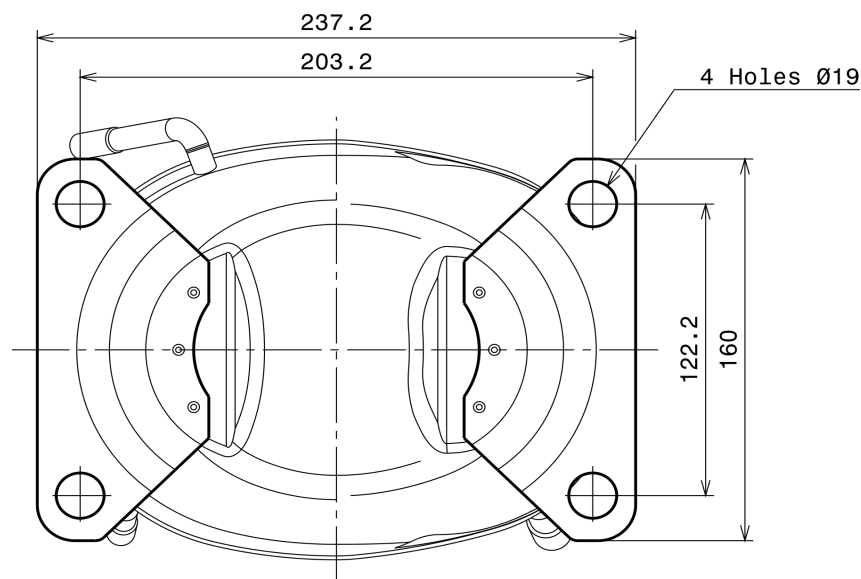
|   |               |          |
|---|---------------|----------|
| 1 | Service Valve | 5/8" SAE |
| 2 | Service       | 9,7 mm   |
| 3 | Discharge     | 8,0 mm   |

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (EXTERNAL CONNECTING BOX) (S range)



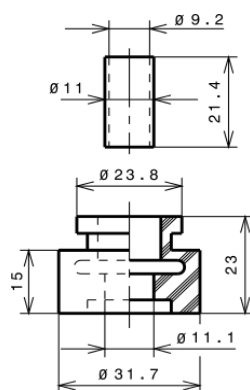
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

Ø19 holes (203.2x122.2 net)



## SOA

SOA R404A HMBP

