

Technical Data Sheet

Compressor model **MS34TG_T**
 Voltage **200-220/230V 50/60Hz ~1**
 Refrigerant **R404A**

APPLICATION

COMPRESSOR

MOTOR

| | | | | | |
|--------------------|---------------------|--------------|-----------------------|--------------------------|---------------|
| Application | High Back Pressure | Displacement | 34,42 cm ³ | Nominal Power | 1 5/8 hp |
| Refrigerant | R404A | Diameter | 42,86 mm | Voltage/Frequency | 200-220V 50Hz |
| Evaporating Temp. | -15,0 °C to 10,0 °C | Stroke | 23,85 mm | Voltage range | 170-242 V |
| Expansion | Capillar/Valve | Net Weight | 22,33 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 | 700 cm ³ | Locked Rotor Amps (LRA) | 53,00 A |
| | | | | Max. Cont. Current (MCC) | 16,30 A |
| | | | | Main W. resist. at 25°C | 0,99 Ω |
| | | | | Start W. resist. at 25°C | 4,35 Ω |

NOMINAL PERFORMANCE

APPROVALS

| | ASHRAE | CECOMAF |
|------------------|--------------|--------------|
| Cooling Capacity | 4.550 kCal/h | 4.205 W |
| COP | 2,30 W/W | 1,89 W/W |
| EER | 1,98 kCal/Wh | 1,64 kCal/Wh |
| Input Power | 2.300 W | 2.221 W |
| Current | 11,50 A | 11,10 A |

TEST CYCLE CONDITIONS

| | ASHRAE HBP (D) | CECOMAF HBP (C) |
|---------------------------------------|-------------------|--------------------|
| Evaporating temp. (T _e) | 7,2 °C | 5,0 °C |
| Condensing temp. (T _c) | 55,0 °C | 55,0 °C |
| Liquid temp. (T _{liq.}) | 46,0 °C | 55,0 °C |
| Ambient temp. (T _{amb.}) | 35,0 °C | 32,0 °C |
| Suction temp. (T _{suction}) | 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 | 30 μF 420 V | | | |
| Relay | Option 1 | Option 2 | | |
| Reference | 3ARR3 10S3 | RVA 3AG.. | | |
| Pick-Up | 180-195 V | 180-195 V | | |
| Drop-Out | 40-105 V | 40-105 V | | |
| Protector | Option 1 | | | |
| Reference | GA3LMV81 | | | |
| Current | 49,00 A | | | |
| Time check | 6,0-16 seg | | | |
| Disc temp. (Open/Close) | 120,00 / 57,00 °C | | | |

ASHRAE

| Tc | Te | Cooling Capacity | Consumption | Current | COP | EER |
|----|-----|------------------|-------------|---------|------|---------|
| °C | °C | kCal/h | W | A | W/W | kCal/Wh |
| 40 | -15 | 2.525 | 1.360 | 7,08 | 2,16 | 1,86 |
| 40 | -10 | 3.169 | 1.477 | 7,59 | 2,50 | 2,15 |
| 40 | -5 | 3.871 | 1.610 | 8,18 | 2,80 | 2,40 |
| 40 | 0 | 4.630 | 1.758 | 8,85 | 3,06 | 2,63 |
| 40 | 5 | 5.447 | 1.923 | 9,63 | 3,30 | 2,83 |
| 40 | 7,2 | 5.825 | 2.000 | 10,00 | 3,39 | 2,91 |
| 40 | 10 | 6.322 | 2.103 | 10,50 | 3,50 | 3,01 |

| | | | | | | |
|----|-----|-------|-------|-------|------|------|
| 45 | -15 | 2.300 | 1.400 | 7,25 | 1,91 | 1,64 |
| 45 | -10 | 2.899 | 1.531 | 7,82 | 2,20 | 1,89 |
| 45 | -5 | 3.556 | 1.677 | 8,48 | 2,47 | 2,12 |
| 45 | 0 | 4.270 | 1.839 | 9,23 | 2,70 | 2,32 |
| 45 | 5 | 5.042 | 2.017 | 10,08 | 2,91 | 2,50 |
| 45 | 7,2 | 5.400 | 2.100 | 10,49 | 2,99 | 2,57 |
| 45 | 10 | 5.872 | 2.210 | 11,04 | 3,09 | 2,66 |

| | | | | | | |
|----|-----|-------|-------|-------|------|------|
| 50 | -15 | 2.075 | 1.440 | 7,43 | 1,68 | 1,44 |
| 50 | -10 | 2.629 | 1.584 | 8,06 | 1,93 | 1,66 |
| 50 | -5 | 3.241 | 1.744 | 8,79 | 2,16 | 1,86 |
| 50 | 0 | 3.910 | 1.919 | 9,61 | 2,37 | 2,04 |
| 50 | 5 | 4.637 | 2.111 | 10,54 | 2,55 | 2,20 |
| 50 | 7,2 | 4.975 | 2.200 | 10,99 | 2,63 | 2,26 |
| 50 | 10 | 5.421 | 2.318 | 11,59 | 2,72 | 2,34 |

| | | | | | | |
|----|-----|-------|-------|-------|------|------|
| 55 | -15 | 1.850 | 1.480 | 7,60 | 1,45 | 1,25 |
| 55 | -10 | 2.359 | 1.638 | 8,30 | 1,68 | 1,44 |
| 55 | -5 | 2.926 | 1.811 | 9,10 | 1,88 | 1,62 |
| 55 | 0 | 3.550 | 2.000 | 10,00 | 2,06 | 1,78 |
| 55 | 5 | 4.232 | 2.205 | 11,02 | 2,23 | 1,92 |
| 55 | 7,2 | 4.550 | 2.300 | 11,50 | 2,30 | 1,98 |
| 55 | 10 | 4.971 | 2.425 | 12,15 | 2,38 | 2,05 |

| | | | | | | |
|----|-----|-------|-------|-------|------|------|
| 60 | -15 | 1.625 | 1.520 | 7,78 | 1,24 | 1,07 |
| 60 | -10 | 2.089 | 1.691 | 8,54 | 1,44 | 1,24 |
| 60 | -5 | 2.611 | 1.878 | 9,41 | 1,62 | 1,39 |
| 60 | 0 | 3.190 | 2.081 | 10,39 | 1,78 | 1,53 |
| 60 | 5 | 3.827 | 2.299 | 11,49 | 1,94 | 1,66 |
| 60 | 7,2 | 4.125 | 2.400 | 12,02 | 2,00 | 1,72 |
| 60 | 10 | 4.521 | 2.533 | 12,72 | 2,08 | 1,78 |

CECOMAF

| Tc | Te | Cooling Capacity | Consumption | Current | COP | EER |
|----|-----|------------------|-------------|---------|------|---------|
| °C | °C | W | W | A | W/W | kCal/Wh |
| 40 | -15 | 2.643 | 1.368 | 7,12 | 1,93 | 1,67 |
| 40 | -10 | 3.325 | 1.486 | 7,63 | 2,24 | 1,93 |
| 40 | -5 | 4.061 | 1.620 | 8,22 | 2,51 | 2,17 |
| 40 | 0 | 4.851 | 1.770 | 8,91 | 2,74 | 2,37 |
| 40 | 5 | 5.695 | 1.937 | 9,70 | 2,94 | 2,54 |
| 40 | 7,2 | 6.084 | 2.015 | 10,07 | 3,02 | 2,61 |
| 40 | 10 | 6.594 | 2.120 | 10,59 | 3,11 | 2,69 |

| | | | | | | |
|----|-----|-------|-------|-------|------|------|
| 45 | -15 | 2.379 | 1.408 | 7,29 | 1,69 | 1,46 |
| 45 | -10 | 3.002 | 1.540 | 7,86 | 1,95 | 1,68 |
| 45 | -5 | 3.680 | 1.688 | 8,53 | 2,18 | 1,88 |
| 45 | 0 | 4.412 | 1.852 | 9,29 | 2,38 | 2,06 |
| 45 | 5 | 5.198 | 2.032 | 10,15 | 2,56 | 2,21 |
| 45 | 7,2 | 5.562 | 2.116 | 10,57 | 2,63 | 2,27 |
| 45 | 10 | 6.039 | 2.228 | 11,13 | 2,71 | 2,34 |

| | | | | | | |
|----|-----|-------|-------|-------|------|------|
| 50 | -15 | 2.114 | 1.449 | 7,46 | 1,46 | 1,26 |
| 50 | -10 | 2.680 | 1.594 | 8,10 | 1,68 | 1,45 |
| 50 | -5 | 3.299 | 1.755 | 8,84 | 1,88 | 1,62 |
| 50 | 0 | 3.973 | 1.933 | 9,68 | 2,06 | 1,78 |
| 50 | 5 | 4.702 | 2.127 | 10,62 | 2,21 | 1,91 |
| 50 | 7,2 | 5.039 | 2.217 | 11,08 | 2,27 | 1,96 |
| 50 | 10 | 5.484 | 2.336 | 11,69 | 2,35 | 2,03 |

| | | | | | | |
|----|-----|-------|-------|-------|------|------|
| 55 | -15 | 1.850 | 1.489 | 7,64 | 1,24 | 1,07 |
| 55 | -10 | 2.357 | 1.648 | 8,35 | 1,43 | 1,24 |
| 55 | -5 | 2.919 | 1.823 | 9,15 | 1,60 | 1,38 |
| 55 | 0 | 3.535 | 2.014 | 10,07 | 1,76 | 1,52 |
| 55 | 5 | 4.205 | 2.221 | 11,10 | 1,89 | 1,64 |
| 55 | 7,2 | 4.517 | 2.318 | 11,59 | 1,95 | 1,68 |
| 55 | 10 | 4.930 | 2.445 | 12,25 | 2,02 | 1,74 |

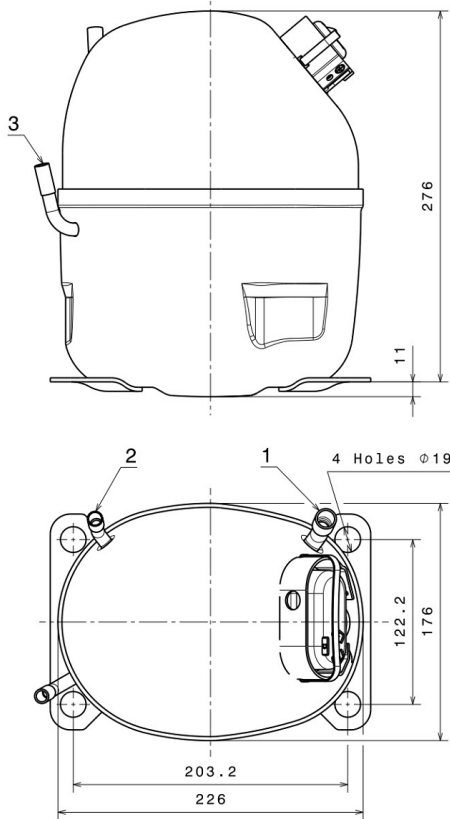
| | | | | | | |
|----|-----|-------|-------|-------|------|------|
| 60 | -15 | 1.585 | 1.529 | 7,82 | 1,04 | 0,90 |
| 60 | -10 | 2.034 | 1.702 | 8,59 | 1,20 | 1,03 |
| 60 | -5 | 2.538 | 1.890 | 9,47 | 1,34 | 1,16 |
| 60 | 0 | 3.096 | 2.095 | 10,47 | 1,48 | 1,28 |
| 60 | 5 | 3.708 | 2.316 | 11,58 | 1,60 | 1,38 |
| 60 | 7,2 | 3.995 | 2.418 | 12,12 | 1,65 | 1,43 |
| 60 | 10 | 4.375 | 2.553 | 12,83 | 1,71 | 1,48 |

EN12900

| X | Cooling Capacity (W) | Consumption (W) | Current (A) | Mass Flow (kg/h) |
|---|----------------------|------------------|--------------|---------------------|
| 1 | 8.350,5442882897 | 1.153,3941011542 | 5,7468553249 | 165,75127442002 |
| 2 | 258,5798337510 | 10,8673224837 | 0,0332372368 | 5,4163285527166 |
| 3 | -90,8581337303 | 16,7621126640 | 0,0840319868 | -0,78417535205047 |
| 4 | 1,0270009715 | 0,3680793693 | 0,0025417641 | 0,059891119131809 |
| 5 | -2,4850296113 | 0,5671141150 | 0,0031931599 | -0,0080507010479633 |

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

COMPRESSOR DIMENSIONS

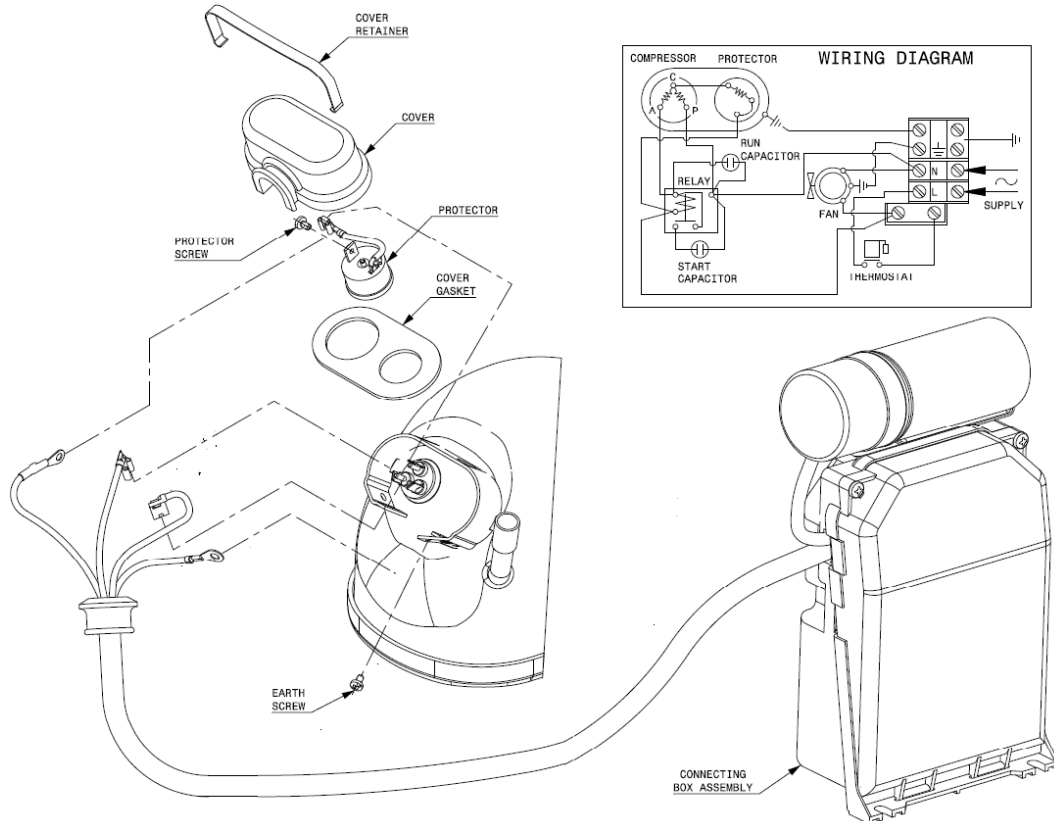


DESIGNATION INTERNAL DIAM.

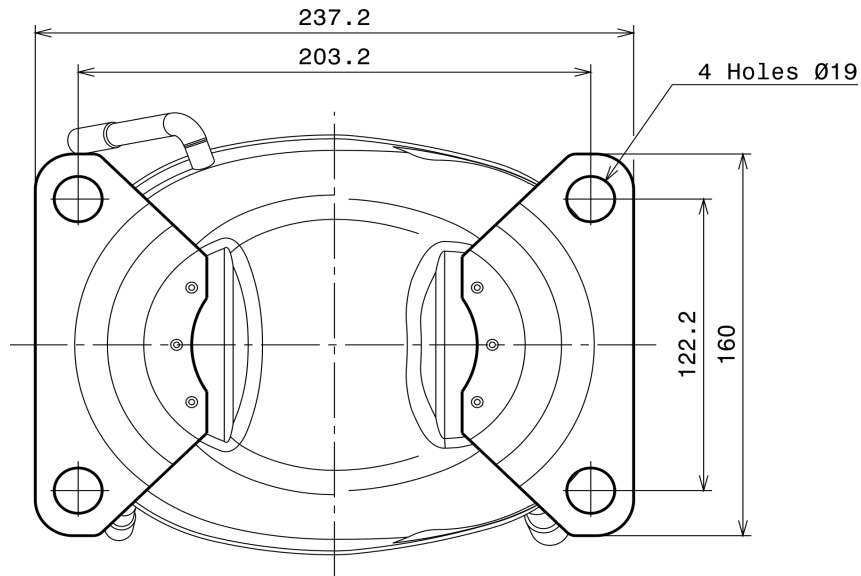
| | | |
|---|-----------|---------|
| 1 | Suction | 12,7 mm |
| 2 | Service | 9,7 mm |
| 3 | Discharge | 8,0 mm |

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (EXTERNAL CONNECTING BOX) (NS Range)



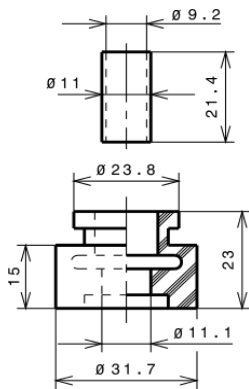
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

$\varnothing 19$ holes (203.2x122.2 net)



SOA

SOA R404A HBP

