



U110 - 10 W

TIS U110/11/13/CE

Technical Information Sheet

[KEB/GTW_GMN] V2

Regulated Speed, Water Cooled

[Eng_Vers.4] 03.02.2021

| Performance Data | | U110 - 10 W | | | | | | | | | | | |
|---|---|---------------------|---|--------------------|---------------------|----------------------|----------------------|----------------------|------|---------|------|------------|--|
| Maximum working pressure | bar g | 10,0 | | | | | | | | | | | |
| Minimum working pressure | bar g | 4,0 | | | | | | | | | | | |
| Ambient temperature - min/max | °C | 1 to 45 | | | | | | | | | | | |
| | | min. speed | | speed 1 | | speed 2 | | speed 3 | | speed 4 | | max. speed | |
| 4 bar | FAD* (Male rotor speed 1st Stage - rpm) | m ³ /min | 6,70 (5126) | 9,98 (7028) | 13,25 (8990) | 16,53 (11019) | 19,80 (13121) | 23,08 (15305) | | | | | |
| | Total input power* (P spec. - kW min/m ³) | kW | 37,60 (5,61) | 50,76 (5,09) | 65,46 (4,94) | 81,84 (4,95) | 100,08 (5,05) | 120,37 (5,22) | | | | | |
| 5 bar | FAD* | m ³ /min | 6,70 (5225) | 9,76 (6987) | 12,83 (8800) | 15,89 (10671) | 18,95 (12606) | 22,01 (14611) | | | | | |
| | Total input power* | kW | 41,98 (6,27) | 55,01 (5,64) | 69,31 (5,40) | 84,98 (5,35) | 102,16 (5,39) | 121,00 (5,50) | | | | | |
| 6 bar | FAD* | m ³ /min | 6,70 (5306) | 9,54 (6937) | 12,38 (8609) | 15,22 (10327) | 18,06 (12095) | 20,90 (13916) | | | | | |
| | Total input power* | kW | 46,37 (6,92) | 59,15 (6,20) | 72,96 (5,89) | 87,88 (5,77) | 103,97 (5,76) | 121,36 (5,81) | | | | | |
| 7 bar | FAD* | m ³ /min | 6,70 (5363) | 9,31 (6876) | 11,91 (8418) | 14,52 (9991) | 17,13 (11596) | 19,74 (13237) | | | | | |
| | Total input power* | kW | 50,73 (7,57) | 63,16 (6,79) | 76,41 (6,41) | 90,53 (6,23) | 105,54 (6,16) | 121,52 (6,16) | | | | | |
| 7,5 bar | FAD* | m ³ /min | 6,70 (5394) | 9,19 (6845) | 11,67 (8320) | 14,16 (9819) | 16,65 (11344) | 19,13 (12897) | | | | | |
| | Total input power* | kW | 52,96 (7,90) | 65,13 (7,09) | 78,04 (6,69) | 91,72 (6,48) | 106,17 (6,38) | 121,46 (6,35) | | | | | |
| 8 bar | FAD* | m ³ /min | 6,70 (5433) | 9,06 (6818) | 11,43 (8222) | 13,79 (9645) | 16,15 (11090) | 18,52 (12557) | | | | | |
| | Total input power* | kW | 55,28 (8,25) | 67,13 (7,41) | 79,63 (6,97) | 92,83 (6,73) | 106,71 (6,61) | 121,33 (6,55) | | | | | |
| 8,5 bar | FAD* | m ³ /min | 6,95 (5631) | 9,15 (6921) | 11,35 (8228) | 13,56 (9551) | 15,76 (10893) | 17,96 (12253) | | | | | |
| | Total input power* | kW | 58,99 (8,49) | 70,28 (7,68) | 82,16 (7,24) | 94,65 (6,98) | 107,75 (6,84) | 121,48 (6,76) | | | | | |
| 9 bar | FAD* | m ³ /min | 7,20 (5838) | 9,24 (7029) | 11,28 (8235) | 13,32 (9457) | 15,36 (10694) | 17,40 (11949) | | | | | |
| | Total input power* | kW | 62,84 (8,73) | 73,50 (7,95) | 84,70 (7,51) | 96,44 (7,24) | 108,72 (7,08) | 121,55 (6,99) | | | | | |
| 10 bar | FAD* | m ³ /min | 7,70 (6260) | 9,41 (7250) | 11,13 (8252) | 12,84 (9267) | 14,56 (10296) | 16,27 (11340) | | | | | |
| | Total input power* | kW | 70,84 (9,20) | 80,11 (8,51) | 89,81 (8,07) | 99,93 (7,78) | 110,46 (7,59) | 121,42 (7,46) | | | | | |
| Total input power at no load with fan (@rpm) | | kW | 8 (2050 1st Stage, 5600 2nd Stage) | | | | | | | | | | |
| Male rotor speed 1st stage (min/max) | | rpm | 5126 to 15305 | | | | | | | | | | |
| Male rotor speed 2nd stage (min/max) | | rpm | 8500 to 22000 | | | | | | | | | | |
| Free field noise level ** at 70% load / at 100% load | | dB(A) | 64 / 64 | | | | | | | | | | |
| Electrical Data | | | | | | | | | | | | | |
| Nominal motor rating (1st Stage / 2nd Stage) | | kW | 110 (55/55) | | | | | | | | | | |
| Nominal voltage / Frequency [tolerance] | | / | 400V/50Hz [±10%] | | | | | | | | | | |
| Full load current max. at 400V | | A | 195 | | | | | | | | | | |
| Starting current (max. % of full load current) | | % | 100 | | | | | | | | | | |
| Standard drive motor detail 1st Stage / 2nd Stage | | / | IP55 (>IE-4) | | | | | | | | | | |
| Drive motor speed min./max. 1st stage | | rpm | 5478 to 15305 | | | | | | | | | | |
| Drive motor speed min./max. 2nd stage | | rpm | 8896 to 22000 | | | | | | | | | | |
| Fan motor rating (Package cooling) | | kW | 0,37 (IP-54) | | | | | | | | | | |
| Oil pump motor rating | | kW | 0,55 (IP-55) | | | | | | | | | | |
| Water pump motor rating | | kW | 1,50 (IP-55 / IE3) | | | | | | | | | | |
| Suggested cable size at 400V (max.30°C / max. 50m / Copper) | | mm ² | 3x 95 / PE 50 | | | | | | | | | | |
| Suggested fuse rating at 400V (type gG) | | AgG | 3x 224 | | | | | | | | | | |
| Cooling Data | | | | | | | | | | | | | |
| Ventilating fan capacity | | m ³ /min | NA | | | | | | | | | | |
| Heat rejected by ventilating fan (max % of actual input power) | | % | NA | | | | | | | | | | |
| Size of cooling air inlet aperture | | mm | NA | | | | | | | | | | |
| Size of cooling air inlet aperture | | mm | NA | | | | | | | | | | |
| Approx. cooling air temperature above ambient (at max. power) | | °C | NA | | | | | | | | | | |
| Temperature increase Cooling Water (ΔT) | | K | 12 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | | |
| Cooling water capacity | | l/min | 145 | 122 | 85 | 65 | 58 | 48 | 43 | 33 | 30 | | |
| pressure drop cooling water (Δp) | | bar | 2,70 | 1,90 | 1,00 | 0,60 | 0,50 | 0,35 | 0,30 | 0,20 | 0,15 | | |
| Approx. discharge temp. of air above inlet cooling water (at max Power) | | K | 1,5 | 2,0 | 2,9 | 3,2 | 5,0 | 5,5 | 7,8 | 8,5 | 9,5 | | |
| Cooling water inlet temperature min./max. | | °C | 5/45 | | | | | | | | | | |
| Cooling water outlet temperature max. (Standard / HRC) | | °C | 60/90 | | | | | | | | | | |
| Cooling water pressure max. | | bar g | 8 | | | | | | | | | | |
| Cooling water connection inlet / outlet (female thread) | | / | QuickVic (Victaulic) NW25 ; EN 10226-1 Rp 1 1/4" (R 1 1/4") | | | | | | | | | | |
| Weights, Dimensions and Capacities Data | | | | | | | | | | | | | |
| Compressor water capacity | | l | 15 | | | | | | | | | | |
| Compressor oil capacity | | l | 24 | | | | | | | | | | |
| Compressed air delivery connection | | / | Outside thread DIN EN 10226-1 R3" | | | | | | | | | | |
| Condensate Drains | | / | 4 x G1/2" | | | | | | | | | | |
| Weight | | kg | 2750 | | | | | | | | | | |
| Package dimensions L x W x H | | mm | 2168 x 1394 x 1992 | | | | | | | | | | |

* Data measured and stated in accordance with ISO1217 4rd Edition Annex C & E and at the following conditions:
 Air Intake Pressure: 1 bar a / 14.5 psia
 Air Intake Temperature: 20°C / 68°F
 Humidity: 0% (dry)

** Measured in free field conditions in accordance with the ISO 2151, tolerance ± 3dB(A).
 CompAir policy is one of continuous improvement and we therefore reserve the right to alter specifications without prior notice.