

Motor Specifications TECHNAI MK-CI 560 WA/WB

| Motor Specifications | Symbol | Unit | MK-CI 560-030 | | MK-CI 560-050 | | MK-CI 560-070 | | MK-CI 560-100 | | MK-CI 560-150 | |
|---|-------------------|------------|---------------|-------|---------------|-------|---------------|-------|---------------|-------|---------------|-------|
| | | | WA | WB | WA | WB | WA | WB | WA | WB | WA | WB |
| Number of pole | P | | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Peak Torque | T _{pk} | Nm | 1143 | 1143 | 1925 | 1925 | 2664 | 2664 | 3800 | 3800 | 5690 | 5690 |
| Continuos Torque (Water Cooling Dt100) | T _{wc} | Nm | 609 | 610 | 1022 | 1022 | 1459 | 1454 | 2084 | 2084 | 2980 | 2980 |
| Continuos Torque (Air Cooling Dt100) | T _{ac} | Nm | 280 | 278 | 465 | 468 | 670 | 673 | 897 | 897 | 1360 | 1360 |
| Stall Torque (Water Cooling) | T _{swc} | Nm | 465 | 465 | 781 | 781 | 1113 | 1110 | 1591 | 1591 | 2275 | 2275 |
| Stall Torque (Air Cooling) | T _{sac} | Nm | 214 | 211 | 355 | 357 | 512 | 514 | 685 | 685 | 1036 | 1036 |
| Ripple Torque (Cogging Torque) | T _r | Nm | 8 | 8 | 12 | 12 | 17 | 17 | 24 | 24 | 35 | 35 |
| Power Loss at T _{wc} | P _{wc} | KW | 4 | 4 | 5 | 5 | 6,4 | 6,4 | 8,3 | 8,3 | 10,5 | 10,5 |
| Power Loss at T _{ac} | P _{ac} | KW | 0,8 | 0,8 | 1 | 1 | 1,3 | 1,3 | 1,7 | 1,7 | 2,2 | 2,2 |
| Termal Resistance Water Cooling | R _{thWc} | K/W | 0,024 | 0,024 | 0,019 | 0,019 | 0,015 | 0,015 | 0,012 | 0,012 | 0,010 | 0,010 |
| Termal Resistance Air Cooling | R _{thAc} | K/W | 0,100 | 0,100 | 0,080 | 0,080 | 0,073 | 0,073 | 0,064 | 0,064 | 0,046 | 0,046 |
| Torque Constant | K _t | Nm/A | 23,7 | 11,4 | 39,5 | 19,2 | 45,8 | 22,8 | 55,8 | 26,6 | 71,6 | 34,2 |
| Back EMF Constant | K _e | V/1000 Rpm | 1429 | 694 | 2382 | 1157 | 2765 | 1377 | 3370 | 1608 | 4327 | 2067 |
| Maximum Speed at I _{pk} at 600 Vdc | N _{pk} | RPM | 75 | 110 | 34 | 80 | 29 | 60 | 32 | 60 | 8 | 16 |
| Maximum Speed at I _{wc} at 600 Vdc | N _{wc} | RPM | 175 | 300 | 100 | 210 | 87 | 175 | 65 | 140 | 52 | 120 |
| Maximum Speed at I _{ac} at 600 Vdc | N _{ac} | RPM | 240 | 340 | 140 | 290 | 120 | 240 | 100 | 200 | 75 | 160 |
| Winding Resistance (Phase to Phase) | R ₂₀ | Ω | 2,6 | 0,65 | 3,4 | 0,85 | 2,85 | 0,75 | 2,6 | 0,65 | 2,7 | 0,65 |
| Winding Inductance (Phase to Phase) | L | mH | 12 | 2,8 | 18,7 | 4,5 | 17,5 | 4,4 | 17,9 | 4,21 | 19,6 | 4,5 |
| Peak Current | I _{pk} | Arms | 70 | 144 | 70 | 148 | 83,5 | 167 | 99 | 205 | 114 | 230 |
| Continuos Current (Water Cooling Dt100) | I _{wc} | Arms | 26,9 | 55 | 26,9 | 56,5 | 33 | 66,5 | 39 | 81 | 43 | 90,5 |
| Continuos Current (Air Cooling Dt100) | I _{ac} | Arms | 12 | 26 | 12 | 25,5 | 14,9 | 30,4 | 16,7 | 34,6 | 20 | 40 |
| Stall Current at 0 Speed (Water Cooling) | I _{swc} | Arms | 20,5 | 42 | 20,5 | 43,2 | 25,1 | 51 | 29,7 | 61 | 33 | 69 |
| Stall Current at 0 Speed (Air Cooling) | I _{sac} | Arms | 9,2 | 20 | 9,2 | 19,5 | 11,4 | 23,21 | 12,7 | 26,4 | 14,9 | 30 |
| Maximum Winding Temperature | | °C | 130 | 130 | 130 | 130 | 130 | 130 | 130 | 130 | 130 | 130 |
| Height of Rotor | | mm | 30 | 30 | 50 | 50 | 70 | 70 | 100 | 100 | 150 | 150 |
| Height of Stator | | mm | 90 | 90 | 110 | 110 | 130 | 130 | 160 | 160 | 210 | 210 |
| Outer Diameter of Stator | | mm | 595 | 595 | 595 | 595 | 595 | 595 | 595 | 595 | 595 | 595 |



