## IM-2-G5-SD0 T-N curve Electrical specifications Field weakening & Winding code: SD0 Symbol Unit Water cooling Continuous torque Nm1080 IM-2-G5-SD0 $I_c$ $A_{rms}$ 60.6 Continuous current DC BUS=600 V<sub>DC</sub> Ts Stall torque Nm892 Torque(Nm) Power(kW) 48.5 Stall current $I_s$ $A_{\text{rms}}$ 2000 35 $T_p$ 1900 Peak torque(for 1sec.) Nm 1800 160 Peak current(for 1sec.) $I_p$ $A_{rms}$ 30 Nm/A<sub>rms</sub> Kt 19.23 Torque constant 1600 T<sub>e</sub> 10 Electrical time constant ms 25 1400 0.53 Resistance (line to line at 25°C) $R_{25}$ 0 1200 5.3 / 5.83 Inductance (line to line) Ld / Lq mΗ 20 1000 88 Number of poles 2p 15 Back emf constant (line to line) $K_v$ V<sub>rms</sub>/rad/s 11.1 800 $K_{m}$ 21.03 Motor constant (at 25°C) Nm/√W 600 10 $R_{\text{th}}$ K/W 0.036 Thermal resistance 400 PTC Thermal sensor 5 SNM100+SNM130+Pt1000 200 Max. DC BUS $V_{DC}$ 750 0 O 1.14 J Inertia of rotor kgm<sup>2</sup> 500 1000 1500 $T_{th}$ 170 Thermal time constant Speed(rpm) s Po W Tp 4131 Peak torque Max. continuous power dissipation Max. peak power dissipation $P_p$ W 28800 Max. speed(at 600VDC) 1200 rpm Continuous torque with Tc\_wc water cooling Based speed(at 600VDC) 220 rpm Rated speed(at 600VDC) 1200 rpm Continuous torque with water cooling and field weakening Tc fw Mechanical specifications Field weakening & Symbol Unit Water cooling M, Mass of rotor kg 27.1 - Power Power @ Tc\_fw Ms 50 Mass of stator kg 110 Height of stator $H_{\mathbb{S}}$ mm Height of rotor $H_R$ 81 mm 20 Н ength of rotor centring fit mm Κ Water temperture difference for Po Δθ 5 Minimum water flow I/min 11.9 q Max. pressure drop △p 1 bar Thermal sensor ø6 H8 x10DP PCD 548 (Both sides) Yellow White Brown Green Red Blue 18.8° 65 max PH W PH W PH U Pt1000 H<sub>R</sub>±0.2 PH U PH U SNM130 SNM100 Motor wire table Color or wire no. Signal ±0.1 ±0.2 ±0.3 ±0.4 ±0.5 ±0.8 12-M8x1.25Px16DP U/L1 PH U V/L2 PH V 12-M8x1.25Px16DP PCD 548 (Both sides W/L3 PH W ~ 2400 Section X-X Green/Yellow GND

Except dimensions, all the specifications in the table are in ±10% of tolerance

This drawing is only for reference, detail dimensions please refer to approval drawing.

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