

Data sheet for three-phase Squirrel-Cage-Motors SIMOTICS

Motor type: **DP200 HPS - Definite Purpose motor - NEMA Premium Efficiency**

FS: **5010S - 2p - 450 hp -**

| | | |
|------------------|-----------------|-----------|
| Client order no. | Item-No. | Offer no. |
| Order no. | Consignment no. | Project |
| Remarks | | |

Electrical data

Class I Division 2 Gr. A, B, C or D T3

| U [V] | Δ/Y | f [Hz] | P [HP] | P [kW] | n [rpm] | I Load [Amps] | | | | | Nom. Eff Load [%] | | | Pwr. Factor Load [%] | | | Torque [lb-ft] | T _A /T _N LRT [%] | T _k /T _N BDT [%] |
|-------|-----------------|--------|--------|--------|---------|---------------|--------|--------|--------|--------|-------------------|------|------|----------------------|------|------|----------------|--|--|
| | | | | | | 4/4 | 3/4 | 1/2 | 0 | LRC | 4/4 | 3/4 | 2/4 | 4/4 | 3/4 | 2/4 | | | |
| 460 | $\Delta \Delta$ | 60 | 450.00 | 335.70 | 3,585 | 480 | 365.90 | 257.90 | 100.00 | 3250.0 | 96.5 | 96.4 | 96.0 | 90.8 | 89.6 | 85.1 | 659.3 | 190 | 230 |

| | | | | | |
|-------------------|---|---------------------------------------|---|--------------|------------|
| Frame Type: 5010S | Type of constr.: (A) Foot Mounted Horizontal (IMB3) | Ins. Cl.: Standard Class H Insulation | Motor Prot.: K: Stator RTD's, 2 Per Phase | NEMA Des.: B | S.F.: 1.15 |
| Mtr. WT: 4,357 | | Temp. Rise Cl.: B | Amb. Temp.: + 40 to °C @1000 m | kVA: G | IP 55 |

Mechanical data

| | | | | | | | | | |
|--------------------------------------|--------------------------|------|------|------------------------|------|------|-----------------------|-------------------------|------------------------------|
| Sound level (SPL / SWL) at 60 Hz | 82.0 dB(A) / 95.0 dB(A) | | | | | | | Thickener | Polyurea |
| Octave Band Center Frequencies Hertz | | | | | | | | Safe Stall Time Hot | 23 s |
| | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Hz | Safe Stall Time Cold | 28 s |
| SPL@3 | 79.0 | 74.0 | 73.0 | 72.0 | 72.0 | 67.0 | dB(A) | Frame material | Cast iron |
| Moment of inertia | 106.0 Lb-ft ² | | | | | | | Color, paint shade | RAL 7030 |
| Ext Load Inertia Capability: | 349.0 Lb ft ² | | | | | | | Coating (paint finish) | Standard Alkyed + Epoxy (C2) |
| Bearings | | | | | | | | Ventilation Type | |
| Bearing DE NDE | 6316 Z C3 S0 | | | 6316 Z C3 S0 insulated | | | Method of cooling | TEFC | |
| Bearing_Type | Ball Bearing | | | Ball Bearing | | | Direction of rotation | Bi-Directional | |
| AFBMA: | 80BC03JP3 | | | 80BC03JP3 | | | Fan Material | Polypropylene ESD | |
| Grease | | | | | | | | VFD | CT: 4:1 VT: 20:1 |
| Capacity | 9 oz | | | 9 oz | | | Space heaters | without | |
| Grease Type: | Exxon Mobil EM | | | | | | | Brake: | -/- |

Terminal box

| | | | | | | | |
|----------------------|--------------------------------|--------------|---------------|--------------------|-----------------|--------------------------|--|
| Lead Wire Connection | 12 TERMINAL - Connection DELTA | | | | | Terminal box position | (1) LHS Mount - View From DE (F-1) - DE or Center of Motor |
| Voltage | L1 | L1 | L1 | Connected together | | Material of terminal box | Cast Iron |
| ---- | ---- | ---- | ---- | --- | - | Cable entry | (1) 5" NPT |
| RUN | T12-T7-T6-T1 | T10-T8-T4-T2 | T11-T9-T5-T13 | ---- | $\Delta \Delta$ | | |



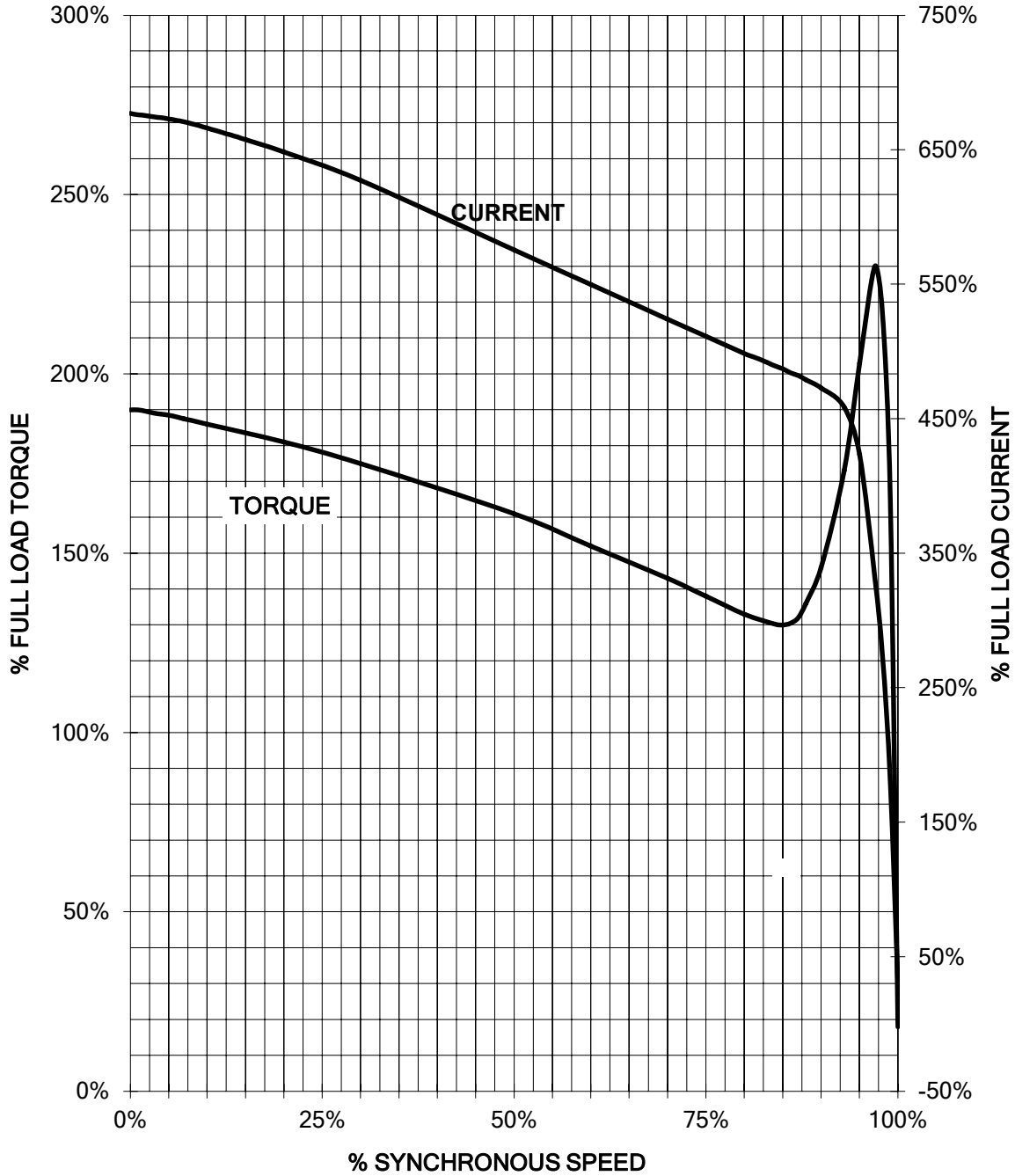
Notes:
 I_L/I_N = locked rotor current / current nominal
 M_L/M_N = locked rotor torque / torque nominal
 M_L/M_N = break down torque / nominal torque
 3) Value is valid only for DOL operation with motor design IC411
 2) at rated power / at full load

| | | | | | | | |
|-------------------------------|-----------------------------|-----------------------------------|----------------|--|--|--|--|
| responsible dep. DI MC LVM | technical reference | created by DT Configurator | approved by | <i>Technical data are subject to change! There may be discrepancies between software and hardware versions</i> | | | |
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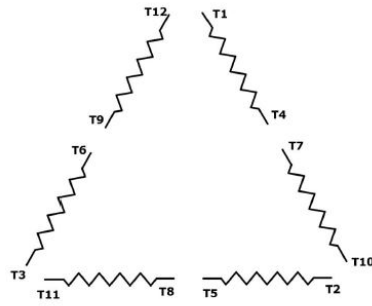
HP 450 VOLTS 460 RPM 3585 TYPE SD200
HZ 60 PHASE 3 FRAME 5010S NEMA B

TORQUE & CURRENT VS. SPEED



Unrestricted CUSTOMER: _____ ORDER#: _____

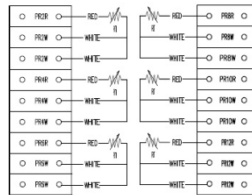
Main terminal diagram



| 12 LEAD DELTA | | |
|---------------|--------------------|-------|
| LINES | CONNECT TOGETHER | CONN. |
| L1 | T12 - T7 - T6 - T1 | ΔΔ |
| L2 | T10 - T8 - T4 - T2 | |
| L2 | T11 - T9 - T5 - T3 | |

Motor protection

3 WIRE STATOR RTDs



| | | | | |
|-------------------------------|---------------------------------|-------------------------|-----------------------------|-------------------------------|
| responsible dep. DI MC LVM | technical reference | created by | approved by | Project |
| SIEMENS | document type Wiring Diagram | document status free | | customer |
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