

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

Motor type: (832) LP100 VSS In-Line Thrust FS: 254 LP - 4p - 15 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

| U<br>[V]           | Δ / Y | f<br>[Hz] | P<br>[HP]                             | P<br>[kW] | n<br>[rpm] | I Load [Amps] |       |       |       |                   | LRC  | Nom. Eff Load [%] |                                        |      | Pwr. Factor Load [%] |      |              | Torque<br>[lb-ft] | T <sub>A</sub> /T <sub>N</sub> | T <sub>k</sub> /T <sub>N</sub> |
|--------------------|-------|-----------|---------------------------------------|-----------|------------|---------------|-------|-------|-------|-------------------|------|-------------------|----------------------------------------|------|----------------------|------|--------------|-------------------|--------------------------------|--------------------------------|
|                    |       |           |                                       |           |            | 4/4           | 3/4   | 1/2   | 0     | 4/4               |      | 3/4               | 2/4                                    | 4/4  | 3/4                  | 2/4  | LRT [%]      |                   | BDT [%]                        |                                |
| 460                | Y     | 60        | 15.00                                 |           | 1,770      | 19.00         | 15.20 | 11.80 | 11.80 | 116.0             | 92.4 | 92.8              | 92.3                                   | 80.0 | 74.7                 | 64.5 | 44.0         | 185               | 235                            |                                |
| 230                | Y Y   | 60        | 15.00                                 |           | 1,770      | 38.00         | 30.39 | 23.59 | 23.60 | 232.0             | 92.4 | 92.8              | 92.3                                   | 80.0 | 74.7                 | 64.5 | 44.0         | 185               | 235                            |                                |
| 400                | Y     | 50        | 10.00                                 |           | 1,479      | 16.27         | 14.01 | 12.21 | 10.49 | 114.0             | 90.4 | 89.8              | 88.0                                   | 71.6 | 62.7                 | 49.0 | 35.5         | 260               | 370                            |                                |
| 200                | Y Y   | 50        | 10.00                                 |           | 1,479      | 32.54         | 28.02 | 24.42 | 20.98 | 228.0             | 90.4 | 89.8              | 88.0                                   | 71.6 | 62.7                 | 49.0 | 35.5         | 260               | 370                            |                                |
|                    |       |           |                                       |           |            |               |       |       |       |                   |      |                   |                                        |      |                      |      |              |                   |                                |                                |
| Frame Type: 254 LP |       |           | Type of constr.: (T) Vertical P-Base  |           |            |               |       |       |       |                   |      |                   | Motor Prot.: (A) No winding protection |      |                      |      | NEMA Des.: B |                   | S.F.: 1.15                     |                                |
| Mtr. WT: 315 lbs   |       |           | Insulation Class.: Class F Insulation |           |            |               |       |       |       | Temp. Rise Cl.: B |      |                   | Amb. Temp.: + 40 to -20 °C @1000 m     |      |                      |      | kVA: G       |                   | IP IP55                        |                                |

| Mechanical data                      |      |      |              |                         |                        |           |       |
|--------------------------------------|------|------|--------------|-------------------------|------------------------|-----------|-------|
| Sound level (SPL / SWL) at 60 Hz     |      |      |              | 61.0 dB(A) / 73.0 dB(A) |                        |           |       |
| Octave Band Center Frequencies Hertz |      |      |              |                         |                        |           |       |
|                                      | 250  | 500  | 1000         | 2000                    | 4000                   | 8000      | Hz    |
| SPL@3                                | 47.0 | 53.0 | 59.0         | 56.0                    | 47.0                   | 38.0      | dB(A) |
| Moment of inertia                    |      |      |              | 5.4 Lb-ft²              |                        |           |       |
| Ext Load Inertia Capability:         |      |      |              | 78.4 Lb ft²             |                        |           |       |
| Bearings                             |      |      |              |                         |                        |           |       |
| Bearing DE   NDE                     |      |      | 6309 C3 S0   |                         | 7309 BG DB             |           |       |
| Bearing_Type                         |      |      | Ball Bearing |                         | Thrust Ball Bearing(2) |           |       |
| AFBMA:                               |      |      | 45BC03J30    |                         | 45BT03MR3              |           |       |
| Rated Thrust                         |      |      |              |                         |                        |           |       |
| Max Radial force                     |      |      |              | 95 lbs                  |                        |           |       |
| Max Down thrust 3yr   1yr            |      |      |              | 1,533 lbs               |                        | 2,279 lbs |       |
| Max momentary up thrust 3yr   1yr    |      |      |              | 1,562 lbs               |                        | 2,309 lbs |       |
| Grease                               |      |      |              |                         |                        |           |       |

|                        |                              |        |
|------------------------|------------------------------|--------|
| Capacity               | 1.7 oz                       | 1.7 oz |
| Grease Type:           | Exxon Mobile EM              |        |
| Thickener              | Polyurea                     |        |
| Safe Stall Time Hot    | 21 s                         |        |
| Safe Stall Time Cold   | 33 s                         |        |
| Frame material         | Cast iron                    |        |
| Color, paint shade     | Standard Paint - RAL7030     |        |
| Coating (paint finish) | Standard Alkyed + Epoxy (C2) |        |
| Ventilation Type       |                              |        |
| Method of cooling      | TEFC                         |        |
| Direction of rotation  | Bi-Directional               |        |
| Fan Material           | Plastic                      |        |
| VFD                    | CT: n/a VT: n/a              |        |
| Space heaters          | -/-                          |        |
| Brake:                 | -/-                          |        |

| Terminal box         |       |       |       |                    |                                |  |  |  |  |
|----------------------|-------|-------|-------|--------------------|--------------------------------|--|--|--|--|
| Lead Wire Connection |       |       |       |                    | 9 LEAD - WYE                   |  |  |  |  |
| Voltage              | L1    | L2    | L3    | Connected together | (3) Mounting - F-1             |  |  |  |  |
| LOW                  | T1 T7 | T2 T8 | T3 T9 | T4 T5 T6           | Material of terminal box       |  |  |  |  |
| HIGH                 | T1    | T2    | T3    | T4 T7-T5 T8-T6 T9  | Cable entry                    |  |  |  |  |
|                      |       |       |       |                    | ?PMD_AAC368_001_000_1PC2VX CI? |  |  |  |  |
|                      |       |       |       |                    | 1.25" NPT                      |  |  |  |  |

Notes:

I<sub>L</sub>/I<sub>N</sub> = locked rotor current / current nominal  
M<sub>L</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
M<sub>b</sub>/M<sub>N</sub> = break down torque / nominal torque

3) Value is valid only for DOL operation with motor design IC411  
2) at rated power / at full load

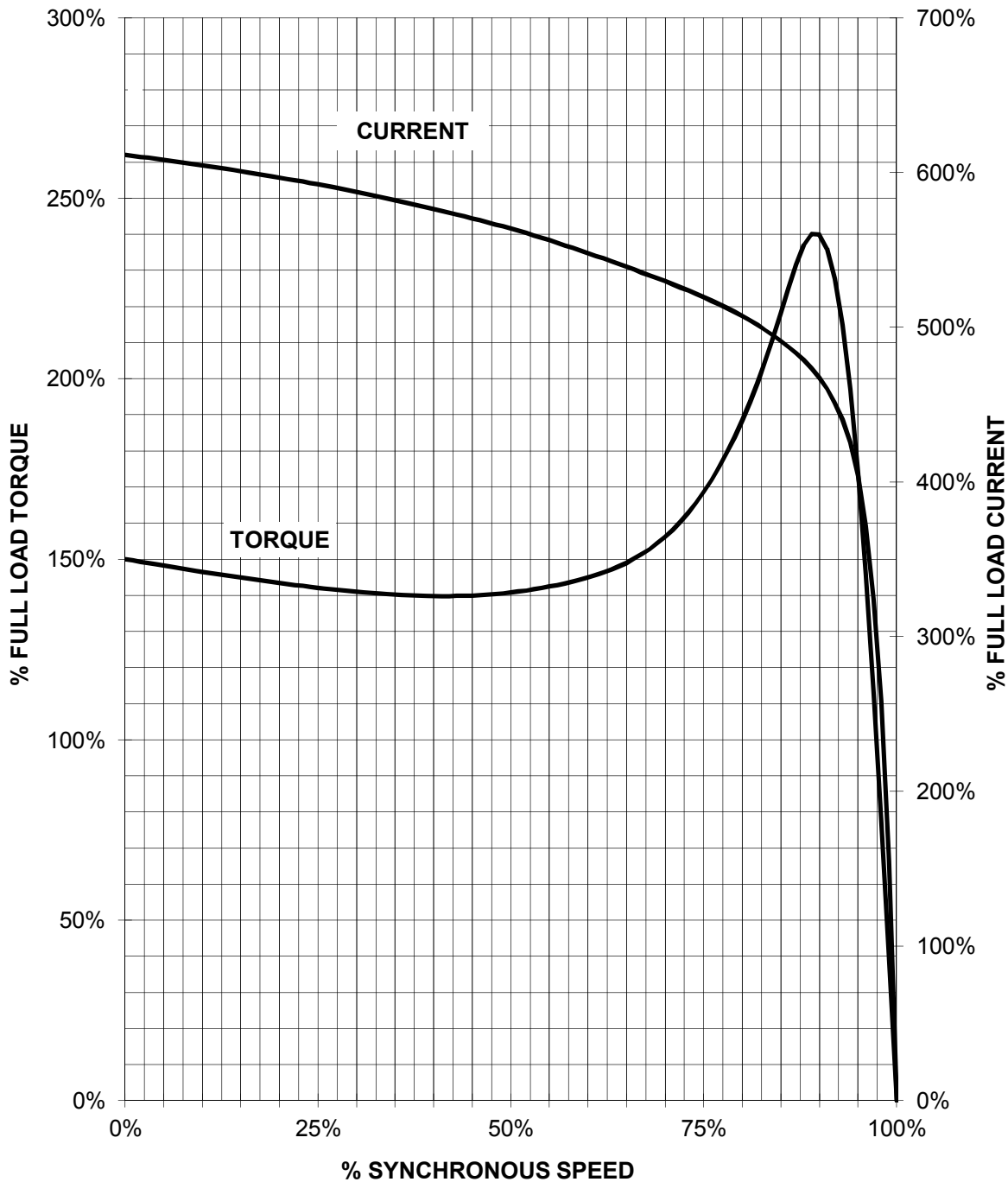
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|-------------------------------------------------------------------------------------|--|--------------------------------------|-------------------|-------------|------------------------------------------------------------------|-----------------------------------|----------|----------------|-------------|
| Responsible department<br>IN LVM                                                    |  | Technical reference                  | Created by<br>SPC | Approved by | Technical data are subject to change! There may be discrepancies |                                   |          |                |             |
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|                                                                                       |                                            |                                                                                                                                       |             |                                                         |
|---------------------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------------------|
| Tolerance<br>DIN 1686                                                                 | Surface                                    | Material                                                                                                                              | Weight<br>0 | Scale<br>1:1                                            |
| 1PC28322B____TA3<br>T-9042                                                            | Author<br>VAZQUEZ PERALES                  | <b>Outline LP100 FS250</b><br>VSS, LP100, FS250, 2-6 Poles.<br><b>Dimensional LP100, Arm. 250</b><br>VSS, LP100, Arm. 250, 2-6 polos. |             |                                                         |
|                                                                                       | Creator<br>2015-08-28 VAZQUEZ              |                                                                                                                                       |             |                                                         |
|                                                                                       | Approval                                   |                                                                                                                                       |             |                                                         |
|                                                                                       | Department<br>PD LD P MF-GDL PLM 3         |                                                                                                                                       |             |                                                         |
|                                                                                       | Change Order                               |                                                                                                                                       |             |                                                         |
|  | Doc State                                  | Item No                                                                                                                               |             | Doc Type<br>TB / Z                                      |
|                                                                                       | Revision<br>001      Index      RS      AA | Doc No<br>A5E36583128A                                                                                                                |             | Paper Size<br>IEC-A3                                    |
|                                                                                       | © SIEMENS AG      2015 -                   | Ref No<br>Similar to 2430255a                                                                                                         |             | 1st Language<br>en<br>2nd Language<br>de<br>Sheet<br>of |

SIEMENS INDUSTRY, INC.

HP 15 VOLTS <600 1800 TYPE LP100  
HZ 60 PHASE 3 FRAME 254LP NEMA B

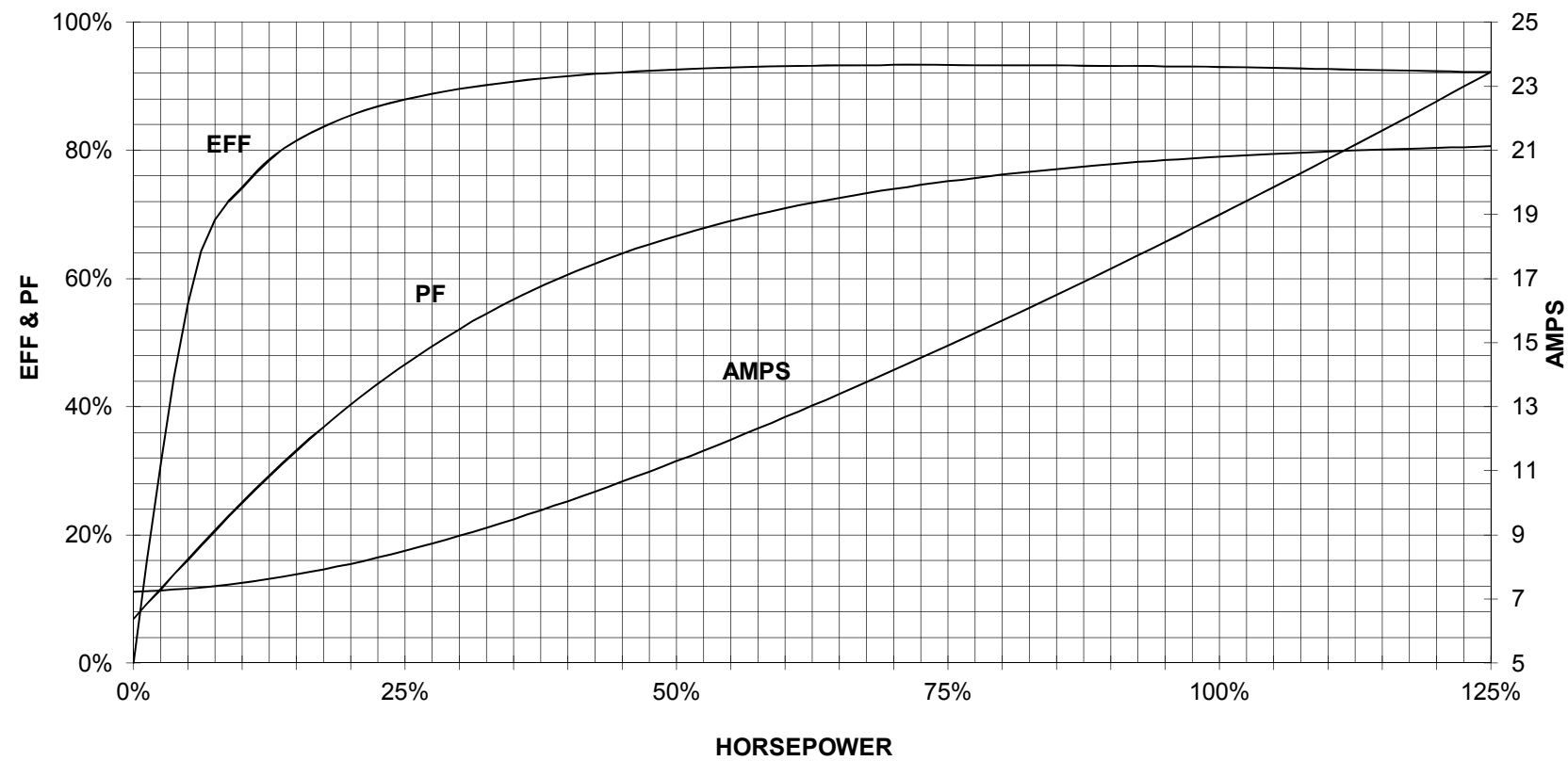
TORQUE & CURRENT VS. SPEED



CUSTOMER: ORDER#:

15 HP    1800 RPM    254LP FRAME    230/460 VOLTS    3 PHASE    NEMA DESIGN B

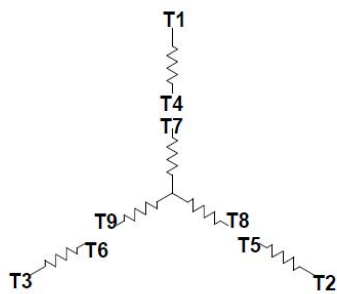
**SIEMENS INDUSTRY, INC.**  
**PERFORMANCE CURVE**  
**LP100**



CUSTOMER \_\_\_\_\_ ORDER # \_\_\_\_\_ PO # \_\_\_\_\_

PERFORMANCE BASED ON DESIGN CALCULATIONS. SUBJECT TO CHANGE WITHOUT NOTICE.

Main terminal diagram



| 9 LEAD WYE |          |          |          |                       |       |  |
|------------|----------|----------|----------|-----------------------|-------|--|
| Volts      | LINES    |          |          | CONNECTED<br>TOGETHER | CONN. |  |
|            | L1       | L2       | L3       |                       |       |  |
| LOW        | T1<br>T7 | T2<br>T6 | T3<br>T9 | T4 T5 T6              | YY    |  |
| HIGH       | T1       | T2       | T3       | T4 T7-T5 T8-T6 T9     | Y     |  |

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|----------------------------------|--------------------------------------|------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|--|
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|                                  | Document type<br>Wiring diagramm     |            |                                      | Document status<br>Released                                                                                  |                             |  |  |
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