

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

Motor type: FS: 449TS - p - 250 hp -

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

Electrical data

| U<br>[V]          | Δ / Y | f<br>[Hz] | P<br>[HP]                                     | P<br>[kW] | n<br>[rpm] | I Load [Amps] |     |     |   |                   |  | Nom. Eff Load [%] |                                    |     | Pwr. Factor Load [%] |     |     | Torque     | T <sub>A</sub> /T <sub>N</sub> | T <sub>k</sub> /T <sub>N</sub> |  |
|-------------------|-------|-----------|---|-----------|------------|---------------|-----|-----|---|-------------------|--|-------------------|------------------------------------|-----|----------------------|-----|-----|------------|--------------------------------|--------------------------------|--|
|                   |       |           |   |           |            | 4/4           | 3/4 | 1/2 | 0 | LRC               |  | 4/4               | 3/4                                | 2/4 | 4/4                  | 3/4 | 2/4 | [lb-ft]    | LRT [%]                        | BDT [%]                        |  |
|                   |       |           |   |           |            |               |     |     |   |                   |  |                   |                                    |     |                      |     |     |            |                                |                                |  |
| Frame Type: 449TS |       |           | Type of constr.:                              |           |            |               |     |     |   |                   |  |                   | Motor Prot.:                       |     |                      |     |     | NEMA Des.: |                                | S.F.: 1.15                     |  |
| Mtr. WT: lbs      |       |           | Insulation Class.:Standard Class F Insulation |           |            |               |     |     |   | Temp. Rise Cl.: B |  |                   | Amb. Temp.: + 40 to -20 °C @1000 m |     |                      |     |     | kVA:       |                                | IP 55                          |  |


Mechanical data

| Sound level (SPL / SWL) at 60 Hz                     |  |  |  |  |  |  | dB(A) / dB(A) |  | Thickener              |  |                              |
|--|--|--|--|--|--|--|---------------|--|------------------------|--|------------------------------|
| Octave Band Center Frequencies Hertz                 |  |  |  |  |  |  |               |  | Safe Stall Time Hot    |  | s                            |
| 250      500      1000      2000      4000      8000 |  |  |  |  |  |  | Hz            |  | Safe Stall Time Cold   |  | s                            |
| SPL@3  |  |  |  |  |  |  | dB(A)         |  | Frame material         |  |                              |
| Moment of inertia                                    |  |  |  |  |  |  | Lb-ft²        |  | Color, paint shade     |  | Standard Paint - RAL7030     |
| Ext Load Inertia Capability:                         |  |  |  |  |  |  | Lb ft²        |  | Coating (paint finish) |  | Standard Alkyed + Epoxy (C2) |
| Bearings   |  |  |  |  |  |  |               |  | Ventilation Type       |  |                              |
| Bearing DE   NDE                                     |  |  |  |  |  |  |               |  | Method of cooling      |  |                              |
| Bearing_Type   |  |  |  |  |  |  | Ball Bearing  |  | Direction of rotation  |  |                              |
| AFBMA:   |  |  |  |  |  |  |               |  | Fan Material           |  |                              |
| Grease   |  |  |  |  |  |  |               |  | VFD                    |  | CT:    VT:                   |
| Capacity   |  |  |  |  |  |  | oz            |  | Space heaters          |  | -/-                          |
| Grease Type:   |  |  |  |  |  |  |               |  | Brake:                 |  | -/-                          |

Terminal box


|                      |    |    |    |                    |                          |  |  |  |  |
|----------------------|----|----|----|--------------------|--------------------------|--|--|--|--|
| Lead Wire Connection |    |    |    |                    | Terminal box position    |  |  |  |  |
| Voltage              | L1 | L2 | L3 | Connected together | Material of terminal box |  |  |  |  |
|                      |    |    |    |                    | Cable entry              |  |  |  |  |

|   |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|
| Notes:  |  |  |  |  |  |  |  |  |  |
| I <sub>L</sub> /I <sub>N</sub> = locked rotor current / current nominal |  |  |  |  | 3) Value is valid only for DOL operation with motor design IC411 |  |  |  |  |
| M <sub>L</sub> /M <sub>N</sub> = locked rotor torque / torque nominal   |  |  |  |  | 2) at rated power / at full load                                 |  |  |  |  |
| M <sub>b</sub> /M <sub>N</sub> = break down torque / nominal torque     |  |  |  |  |  |  |  |  |  |

|   |                                      |                   |             |  |                |                                   |                |             |
|---|--------------------------------------|-------------------|-------------|--|----------------|-----------------------------------|----------------|-------------|
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|  | Document type<br>Datasheet           |                   |             | Document status<br>Released                                      |                | customer                          |                |             |
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Main terminal diagram

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