

OWNER:



**BUSHEHR PETROCHEMICAL COMPANY  
MEG PLANT**

EPC CONTRACTOR:



MC :



شرکت سفت و سوی  
توسعه ایرانیان





## Compressor motor data sheet for reciprocating compressor



| Owner Document Number:<br>17811-10 | Project | Area | Phase | Unit | Dis. | Doc. | Seq. | Contract No : 52-98/445 |        |
|------------------------------------|---------|------|-------|------|------|------|------|-------------------------|--------|
|                                    | Rev.:   | Page |       |      |      |      |      |                         |        |
|                                    | BU      | 20   | VD    | 303  | EL   | DSH  | 0051 | 00                      | 1 of 4 |

## Compressor Motor Data Sheet for reciprocating compressor

|      |            |                  |  |  |          |         |          |          |          |
|------|------------|------------------|--|--|----------|---------|----------|----------|----------|
|      |            |                  |  |  |          |         |          |          |          |
|      |            |                  |  |  |          |         |          |          |          |
|      |            |                  |  |  |          |         |          |          |          |
|      |            |                  |  |  |          |         |          |          |          |
| 00   | 08/12/2020 | For approval     |  |  | KP       | KP      | PW       |          |          |
| Rev. | Date       | Purpose of Issue |  |  | Prepared | Checked | Approved | AC Code  |          |
|      |            |                  |  |  |          |         |          | Class: 1 | Phase: 1 |

|   |   |      |       |      |      |      |  |                         |        |
|---|---|------|-------|------|------|------|--|-------------------------|--------|
| OWNER<br><br>شرکت پتروشیمی بوتهر  | <b>BUSHEHR PETROCHEMICAL COMPANY<br/>MEG PLANT</b>                  |      |       |      |      |      | EPC CONTRACTOR:<br> |                         |        |
|   | <b>Compressor motor data sheet<br/>for reciprocating compressor</b> |      |       |      |      |      |  |                         |        |
| MC :<br> <br>شرکت سفت و سوی<br>توسعه ایرانیان | Project   | Area | Phase | Unit | Dis. | Doc. | Seq.   | Contract No : 52-98/445 |        |
| Owner Document Number:<br>17811-10  | BU  | 20   | VD    | 303  | EL   | DSH  | 0051   | Rev.:                   | Page   |
|   |   |      |       |      |      |      |  | 00                      | 2 of 4 |

### TABULATION OF REVISED PAGES

| Page | D00 | D01 | D02 | D03 | D04 |
|------|-----|-----|-----|-----|-----|
| 1.   | X   |     |     |     |     |
| 2.   | X   |     |     |     |     |
| 3.   | X   |     |     |     |     |
| 4.   | X   |     |     |     |     |
| 5.   |     |     |     |     |     |
| 6.   |     |     |     |     |     |
| 7.   |     |     |     |     |     |
| 8.   |     |     |     |     |     |
| 9.   |     |     |     |     |     |
| 10.  |     |     |     |     |     |
| 11.  |     |     |     |     |     |
| 12.  |     |     |     |     |     |
| 13.  |     |     |     |     |     |
| 14.  |     |     |     |     |     |
| 15.  |     |     |     |     |     |
| 16.  |     |     |     |     |     |
| 17.  |     |     |     |     |     |
| 18.  |     |     |     |     |     |
| 19.  |     |     |     |     |     |
| 20.  |     |     |     |     |     |
| 21.  |     |     |     |     |     |
| 22.  |     |     |     |     |     |
| 23.  |     |     |     |     |     |
| 24.  |     |     |     |     |     |
| 25.  |     |     |     |     |     |
| 26.  |     |     |     |     |     |
| 27.  |     |     |     |     |     |
| 28.  |     |     |     |     |     |
| 29.  |     |     |     |     |     |
| 30.  |     |     |     |     |     |
| 31.  |     |     |     |     |     |
| 32.  |     |     |     |     |     |
| 33.  |     |     |     |     |     |
| 34.  |     |     |     |     |     |

| Page | D00 | D01 | D02 | D03 | D04 |
|------|-----|-----|-----|-----|-----|
| 35.  |     |     |     |     |     |
| 36.  |     |     |     |     |     |
| 37.  |     |     |     |     |     |
| 38.  |     |     |     |     |     |
| 39.  |     |     |     |     |     |
| 40.  |     |     |     |     |     |
| 41.  |     |     |     |     |     |
| 42.  |     |     |     |     |     |
| 43.  |     |     |     |     |     |
| 44.  |     |     |     |     |     |
| 45.  |     |     |     |     |     |
| 46.  |     |     |     |     |     |
| 47.  |     |     |     |     |     |
| 48.  |     |     |     |     |     |
| 49.  |     |     |     |     |     |
| 50.  |     |     |     |     |     |
| 51.  |     |     |     |     |     |
| 52.  |     |     |     |     |     |
| 53.  |     |     |     |     |     |
| 54.  |     |     |     |     |     |
| 55.  |     |     |     |     |     |
| 56.  |     |     |     |     |     |
| 57.  |     |     |     |     |     |
| 58.  |     |     |     |     |     |
| 59.  |     |     |     |     |     |
| 60.  |     |     |     |     |     |
| 61.  |     |     |     |     |     |
| 62.  |     |     |     |     |     |
| 63.  |     |     |     |     |     |
| 64.  |     |     |     |     |     |
| 65.  |     |     |     |     |     |
| 66.  |     |     |     |     |     |
| 67.  |     |     |     |     |     |
| 68.  |     |     |     |     |     |



MAIN MOTOR DATA SHEET

|           |   |             |      |             |        |     |
|-----------|---|-------------|------|-------------|--------|-----|
| PROJECT : | BUSHEHR PETROCHEMICAL COMPANY MEG PLANT | PROJECT N°: | UNIT | DOCUMENT N° | SHEET  | REV |
| CLIENT :  | BUPC                                    | 17811       |      | 17811-10    | 1 of 2 | 0   |

|    |   |                               |                                  |          |
|----|---|-------------------------------|----------------------------------|----------|
| 1  | Item:   | Main motor                    | Quantity:                        | 2        |
| 2  | General specification:  | BU-20-D-000-EL-<br>SPC-521-03 | Standards, codes:                | IEC60034 |
| 3  | Supplier:   | Airpack                       | Manufacturer:                    | WEG      |
| 4  |   | <b>Unit</b>                   |                                  |          |
| 5  | <b>ENVIRONMENTAL CONDITIONS</b>                               |                               |                                  |          |
| 6  | Installation (indoor/outdoor) / Ambient Type                  |                               | outdoor                          |          |
| 7  | Ambient Design Temperature (Min./Max.)                        | °C                            | 0-55                             |          |
| 8  | Altitude (if > 1000m)   | m                             | 1000                             |          |
| 9  | Relative Humidity   | %                             | 65 - 100                         |          |
| 10 | Area Classification   |                               | Hazerdous area                   |          |
| 11 | Other conditions  |                               | Onshore, tropicalized            |          |
| 12 |   |                               |                                  |          |
| 13 | <b>DRIVEN MACHINE DATA</b>                                    |                               |                                  |          |
| 14 | Machine Type  |                               | Compressor                       |          |
| 15 | Shaft power at PSV set-point / Shaft power at operating point | kW                            | ~11,5 / 10                       |          |
| 16 | Coupling type (direct / V-belt)                               |                               | V-belt                           |          |
| 17 |   |                               |                                  |          |
| 18 | Driven Machine Inertia (WR2)                                  | kg.m2                         | TBC                              |          |
| 19 | Starting  |                               | unloaded                         |          |
| 20 |   |                               |                                  |          |
| 21 | <b>GENERAL MOTOR CHARACTERISTICS</b>                          |                               |                                  |          |
| 22 | Rated power   | kW                            | 15                               |          |
| 23 | Poles   | N°                            | 4                                |          |
| 24 | Voltage   | V                             | 400                              |          |
| 25 | Frequency   | Hz                            | 50                               |          |
| 26 | phase   | N°                            | 3                                |          |
| 27 | Motor type  |                               | Squirrel Cage                    |          |
| 28 | Fan execution   |                               | Anti-Static                      |          |
| 29 | Motor material  |                               | Aluminium die cast               |          |
| 30 | special execution   |                               | NA                               |          |
| 31 | Direction of Rotation (looking at motor coupling)             |                               | Bi-directional                   |          |
| 32 | Mounting  |                               | B3T                              |          |
| 33 | Protection degree enclosure                                   | IP                            | 56                               |          |
| 34 | Protection degree terminal box                                | IP                            | 56                               |          |
| 35 | Atex protection Motor   |                               | Exdb                             |          |
| 36 | Atex protection terminal box                                  |                               | Exdb                             |          |
| 37 | Area Classification according ATEX                            |                               | Ex I/II 2G Ex db/db eb IIB T4 Gb |          |
| 38 | Axial Bearing Type (NDE)                                      |                               | Roller                           |          |
| 39 | Bearing Code (NDE)  |                               | 6308-C3                          |          |
| 40 | Axial Bearing Type (DE)                                       |                               | Roller                           |          |
| 41 | Bearing code (DE)   |                               | NU309-C3                         |          |
| 42 | Lubrication type  |                               | grease                           |          |
| 43 | Lubrication interval  | hr                            | 20000                            |          |
| 44 | Cooling method  |                               | TEFC-XP                          |          |
| 45 | Winding treatment   |                               | tropicalized                     |          |
| 46 | Starting method   |                               | DOL                              |          |
| 47 | Winding Connection  |                               | DELTA                            |          |
| 48 | Number of terminals brought out                               | N°                            | 6                                |          |
| 49 | Min. Insulation Class   |                               | B                                |          |
| 50 | Max Temperature Rise  |                               | F                                |          |
| 51 | Painting standard   |                               | C3M high                         |          |
| 52 | Painting Colour   |                               | as per painting procedure        |          |
| 53 | Motor Nett Weight   | Kg                            | 211                              |          |
| 54 | Dimension (L x W x H)   | mm                            | 717x509x308                      |          |
| 55 | Frame Size  |                               | 160ML                            |          |
| 56 | Noise Level at 1 m (at full load)                             | dB(A)                         | 61                               |          |
| 57 | Full Load Speed   | rpm                           | 1475                             |          |
| 58 | starting / Locked Rotor current                               | A                             | 239                              |          |
| 59 | Max. voltage drop at starting                                 | %                             | 20                               |          |
| 60 | Rated current   | A                             | 28,5                             |          |
| 61 | No load current   | A                             | 13,9                             |          |
| 62 | Full load Torque  | Nm                            | 77,7                             |          |
| 63 | Efficiency 4/4  |                               | 93,9                             |          |
| 64 | Efficiency 3/4  |                               | 93,6                             |          |
| 65 | Efficiency 2/4  |                               | 92,7                             |          |
| 66 | Power Factor 4/4  |                               | 0,81                             |          |
| 67 | Power Factor 3/4  |                               | 0,75                             |          |
| 68 | Power Factor 2/4  |                               | 0,63                             |          |
| 69 | Total no. of start per hour : hot                             |                               | 2                                |          |
| 70 | Total no. of start per hour : Cold                            |                               | 3                                |          |
| 71 | Duty type   |                               | S1                               |          |
| 72 | Service Factor  |                               | 1.0                              |          |

TO BE COMPLETED BY PURCHASER & BY DRIVEN MACHINE SUPPLIER

