

# DATA SHEET

## Single Phase Induction Motor - Squirrel Cage



|                                                                                                                                                                                                                                                                                        |                                             |                                                                                                                          |                           |          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------|----------|
| Customer :                                                                                                                                                                                                                                                                             |                                             |                                                                                                                          |                           |          |
| Product line                                                                                                                                                                                                                                                                           |                                             | : Jet Pump - J type Single-Phase                                                                                         | Product code : 14690437   |          |
| Frame                                                                                                                                                                                                                                                                                  | : W56J                                      | Cooling method                                                                                                           | : IC01 - ODP              |          |
| Insulation class                                                                                                                                                                                                                                                                       | : F                                         | Mounting                                                                                                                 | : F-1                     |          |
| Duty cycle                                                                                                                                                                                                                                                                             | : Cont.(S1)                                 | Rotation <sup>1</sup>                                                                                                    | : CCW                     |          |
| Ambient temperature                                                                                                                                                                                                                                                                    | : -20°C to +40°C                            | Starting method                                                                                                          | : Direct On Line          |          |
| Altitude                                                                                                                                                                                                                                                                               | : 1000 m.a.s.l.                             | Approx. weight <sup>3</sup>                                                                                              | : 9.5 kg                  |          |
| Design                                                                                                                                                                                                                                                                                 | : N                                         | Moment of inertia (J)                                                                                                    | : 0.0011 kgm <sup>2</sup> |          |
| Output [HP]                                                                                                                                                                                                                                                                            | 0.5                                         |                                                                                                                          |                           |          |
| Poles                                                                                                                                                                                                                                                                                  | 2                                           |                                                                                                                          |                           |          |
| Frequency [Hz]                                                                                                                                                                                                                                                                         | 60                                          |                                                                                                                          |                           |          |
| Rated voltage [V]                                                                                                                                                                                                                                                                      | 115/208-230                                 |                                                                                                                          |                           |          |
| Rated current [A]                                                                                                                                                                                                                                                                      | 4.80/2.65-2.40                              |                                                                                                                          |                           |          |
| L. R. Amperes [A]                                                                                                                                                                                                                                                                      | 3.84/2.12-1.92                              |                                                                                                                          |                           |          |
| LRC [A]                                                                                                                                                                                                                                                                                | 0.8x(Code A)                                |                                                                                                                          |                           |          |
| No load current [A]                                                                                                                                                                                                                                                                    | 1.60/0.690-0.800                            |                                                                                                                          |                           |          |
| Rated speed [RPM]                                                                                                                                                                                                                                                                      | 3510                                        |                                                                                                                          |                           |          |
| Slip [%]                                                                                                                                                                                                                                                                               | 2.50                                        |                                                                                                                          |                           |          |
| Rated torque [kgfm]                                                                                                                                                                                                                                                                    | 0.103                                       |                                                                                                                          |                           |          |
| Locked rotor torque [%]                                                                                                                                                                                                                                                                | 270                                         |                                                                                                                          |                           |          |
| Breakdown torque [%]                                                                                                                                                                                                                                                                   | 300                                         |                                                                                                                          |                           |          |
| Service factor                                                                                                                                                                                                                                                                         |                                             |                                                                                                                          |                           |          |
| Temperature rise                                                                                                                                                                                                                                                                       | 80 K                                        |                                                                                                                          |                           |          |
| Locked rotor time                                                                                                                                                                                                                                                                      | 16s (cold) 9s (hot)                         |                                                                                                                          |                           |          |
| Noise level <sup>2</sup>                                                                                                                                                                                                                                                               | 56.0 dB(A)                                  |                                                                                                                          |                           |          |
| Efficiency (%)                                                                                                                                                                                                                                                                         | 25%                                         |                                                                                                                          |                           |          |
|                                                                                                                                                                                                                                                                                        | 50%                                         | 60.0                                                                                                                     |                           |          |
|                                                                                                                                                                                                                                                                                        | 75%                                         | 68.0                                                                                                                     |                           |          |
|                                                                                                                                                                                                                                                                                        | 100%                                        | 72.4                                                                                                                     |                           |          |
| Power Factor                                                                                                                                                                                                                                                                           | 25%                                         |                                                                                                                          |                           |          |
|                                                                                                                                                                                                                                                                                        | 50%                                         | 0.90                                                                                                                     |                           |          |
|                                                                                                                                                                                                                                                                                        | 75%                                         | 0.93                                                                                                                     |                           |          |
|                                                                                                                                                                                                                                                                                        | 100%                                        | 0.94                                                                                                                     |                           |          |
| Bearing type                                                                                                                                                                                                                                                                           | : Drive end 6203 2RS Non drive end 6202 2RS | Foundation loads                                                                                                         |                           |          |
| Sealing                                                                                                                                                                                                                                                                                | : Without Bearing Seal Without Bearing Seal | Max. traction : 5 kgf<br>Max. compression : 14 kgf                                                                       |                           |          |
| Lubrication interval                                                                                                                                                                                                                                                                   | : -                                         |                                                                                                                          |                           |          |
| Lubricant amount                                                                                                                                                                                                                                                                       | : -                                         |                                                                                                                          |                           |          |
| Lubricant type                                                                                                                                                                                                                                                                         | : Mobil Polyrex EM                          |                                                                                                                          |                           |          |
| Notes                                                                                                                                                                                                                                                                                  |                                             |                                                                                                                          |                           |          |
| This revision replaces and cancel the previous one, which must be eliminated.<br>(1) Looking the motor from the shaft end.<br>(2) Measured at 1m and with tolerance of +3dB(A).<br>(3) Approximate weight subject to changes after manufacturing process.<br>(4) At 100% of full load. |                                             | These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1. |                           |          |
| Rev.                                                                                                                                                                                                                                                                                   | Changes Summary                             |                                                                                                                          | Performed                 | Checked  |
|                                                                                                                                                                                                                                                                                        |                                             |                                                                                                                          |                           |          |
| Performed by                                                                                                                                                                                                                                                                           |                                             |                                                                                                                          |                           |          |
| Checked by                                                                                                                                                                                                                                                                             |                                             |                                                                                                                          | Page                      | Revision |
| Date                                                                                                                                                                                                                                                                                   | 17/05/2022                                  |                                                                                                                          | 1 / 2                     |          |

# LOAD PERFORMANCE CURVE

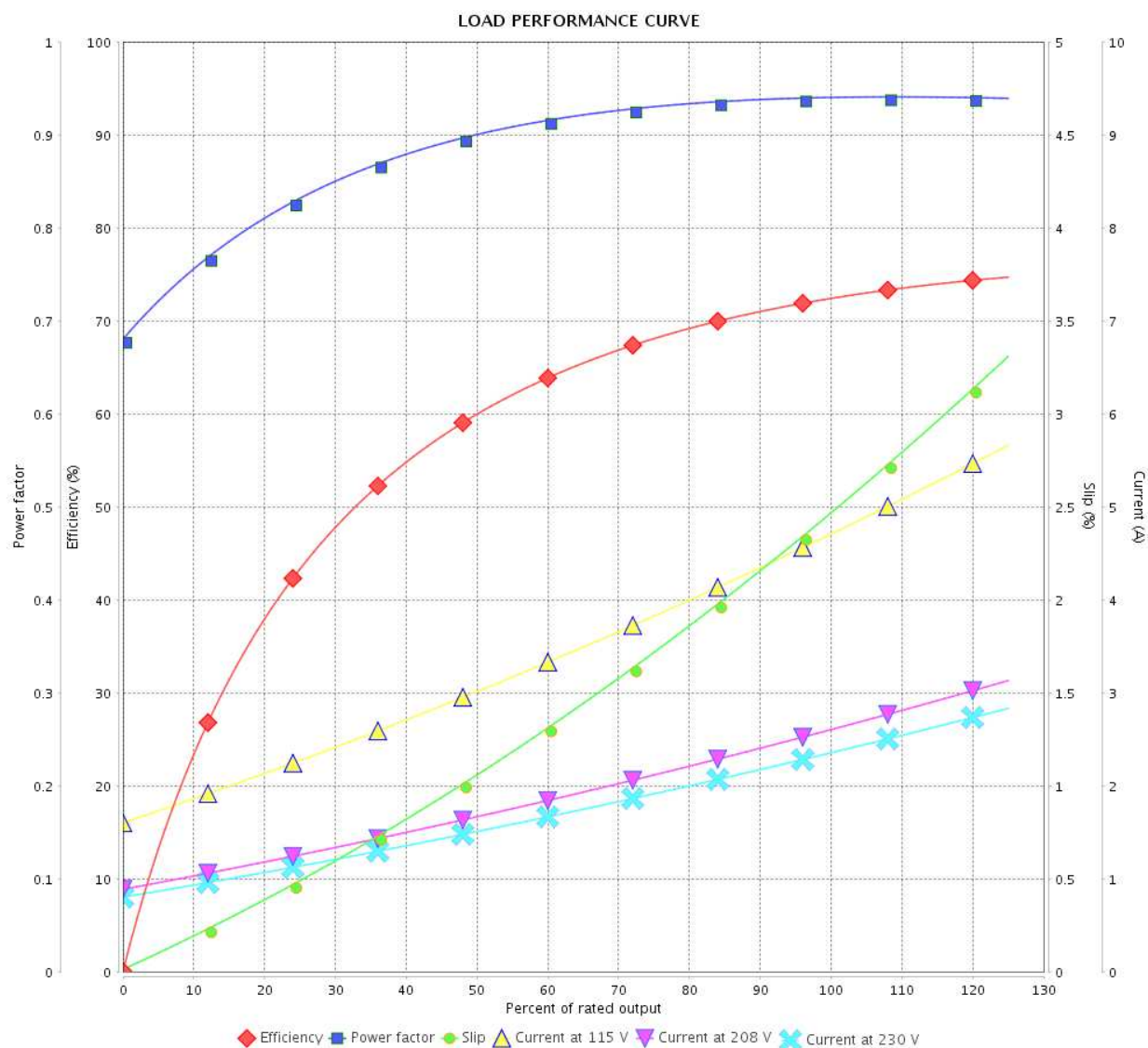
Single Phase Induction Motor - Squirrel Cage



Customer :

Product line : Jet Pump - J type Single-Phase

Product code : 14690437

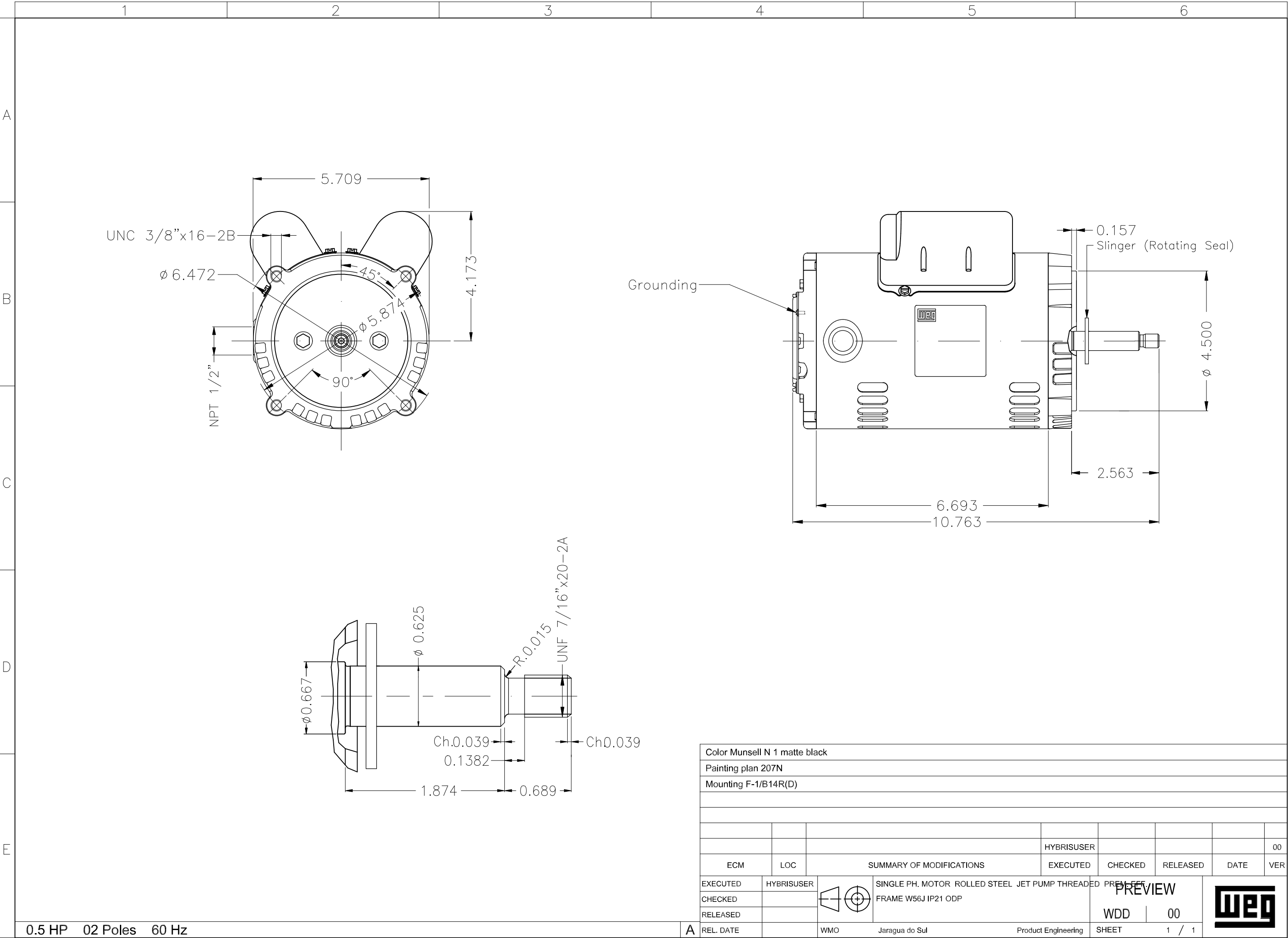


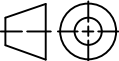
Performance : 115/208-230 V 60 Hz 2P

Rated current : 4.80/2.65-2.40 A  
 LRC : 0.8  
 Rated torque : 0.103 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 300 %  
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.0011 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : N

| Rev.         | Changes Summary |  | Performed | Checked | Date     |
|--------------|-----------------|--|-----------|---------|----------|
| Performed by |                 |  |           |         |          |
| Checked by   |                 |  |           | Page    | Revision |
| Date         | 17/05/2022      |  |           | 2 / 2   |          |



|                               |            |                                                                                       |                                                             |            |          |         |          |                                                                                       |     |
|-------------------------------|------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------|------------|----------|---------|----------|---------------------------------------------------------------------------------------|-----|
| Color Munsell N 1 matte black |            |                                                                                       |                                                             |            |          |         |          |                                                                                       |     |
| Painting plan 207N            |            |                                                                                       |                                                             |            |          |         |          |                                                                                       |     |
| Mounting F-1/B14R(D)          |            |                                                                                       |                                                             |            |          |         |          |                                                                                       |     |
|                               |            |                                                                                       |                                                             |            |          |         |          |                                                                                       |     |
|                               |            |                                                                                       |                                                             |            |          |         |          |                                                                                       |     |
|                               |            |                                                                                       |                                                             |            |          |         |          |                                                                                       |     |
|                               |            |                                                                                       |                                                             | HYBRISUSER |          |         |          |                                                                                       | 00  |
| ECM                           | LOC        | SUMMARY OF MODIFICATIONS                                                              |                                                             |            | EXECUTED | CHECKED | RELEASED | DATE                                                                                  | VER |
| EXECUTED                      | HYBRISUSER |  | SINGLE PH. MOTOR ROLLED STEEL JET PUMP THREADED PRELIMINARY |            |          | PREVIEW |          |  |     |
| CHECKED                       |            |                                                                                       | FRAME W56J IP21 ODP                                         |            |          |         |          |                                                                                       |     |
| RELEASED                      |            |                                                                                       |                                                             |            |          |         |          |                                                                                       |     |
| REL. DATE                     |            |                                                                                       | WMO Jaragua do Sul Product Engineering                      |            |          | SHEET   | 1 / 1    |                                                                                       |     |