

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                            |                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| Customer                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                               | : IDS                                                                                                                      |                                                            |
| Product line                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                               | : W22 IE3 Three-Phase                                                                                                      | Product code : 12975280                                    |
| Frame : 132S<br>Output : 5.5 kW<br>Poles : 2<br>Frequency : 50 Hz<br>Rated voltage : 400/690 V<br>Rated current : 10.6/6.14 A<br>L. R. Amperes : 83.7/48.5 A<br>LRC : 7.9<br>No load current : 4.30/2.49 A<br>Rated speed : 2940 rpm<br>Slip : 2.00 %<br>Rated torque : 1.82 kgfm<br>Locked rotor torque : 240 %<br>Breakdown torque : 350 %<br>Insulation class : F<br>Service factor : 1.00<br>Moment of inertia (J) : 0.0180 kgm <sup>2</sup><br>Design : N | Locked rotor time : 21s (cold) 12s (hot)<br>Temperature rise : 80 K<br>Duty cycle : S1<br>Ambient temperature : -20°C to +40°C<br>Altitude : 1000 m.a.s.l.<br>Protection degree : IP55<br>Cooling method : IC411 - TEFC<br>Mounting : B35T<br>Rotation <sup>1</sup> : Both (CW and CCW)<br>Noise level <sup>2</sup> : 63.0 dB(A)<br>Starting method : Direct On Line<br>Approx. weight <sup>3</sup> : 70.6 kg |                                                                                                                            |                                                            |
| Output                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 50%                                                                                                                                                                                                                                                                                                                                                                                                           | 75%                                                                                                                        | 100%                                                       |
| Efficiency (%)                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 86.9                                                                                                                                                                                                                                                                                                                                                                                                          | 88.7                                                                                                                       | 89.4                                                       |
| Power Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.66                                                                                                                                                                                                                                                                                                                                                                                                          | 0.78                                                                                                                       | 0.84                                                       |
| Foundation loads                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                               | Max. traction : 76 kgf<br>Max. compression : 147 kgf                                                                       |                                                            |
| Bearing type :<br>Sealing :<br>Lubrication interval :<br>Lubricant amount :<br>Lubricant type :                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                               | <u>Drive end</u><br>6308 ZZ<br>Oil Seal<br>-<br>-<br>Mobil Polyrex EM                                                      | <u>Non drive end</u><br>6207 ZZ<br>Lip Seal<br>-<br>-<br>- |
| 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 IEC 60034-1. |                                                            |
| Rev.                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Changes Summary                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                            | Performed                                                  |
| Performed by                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                            | Checked                                                    |
| Checked by                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                            | Date                                                       |
| Date                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 10/07/2019                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                            | Page 1 / 2                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                               | Revision                                                                                                                   |                                                            |

# VFD OPERATION CURVE

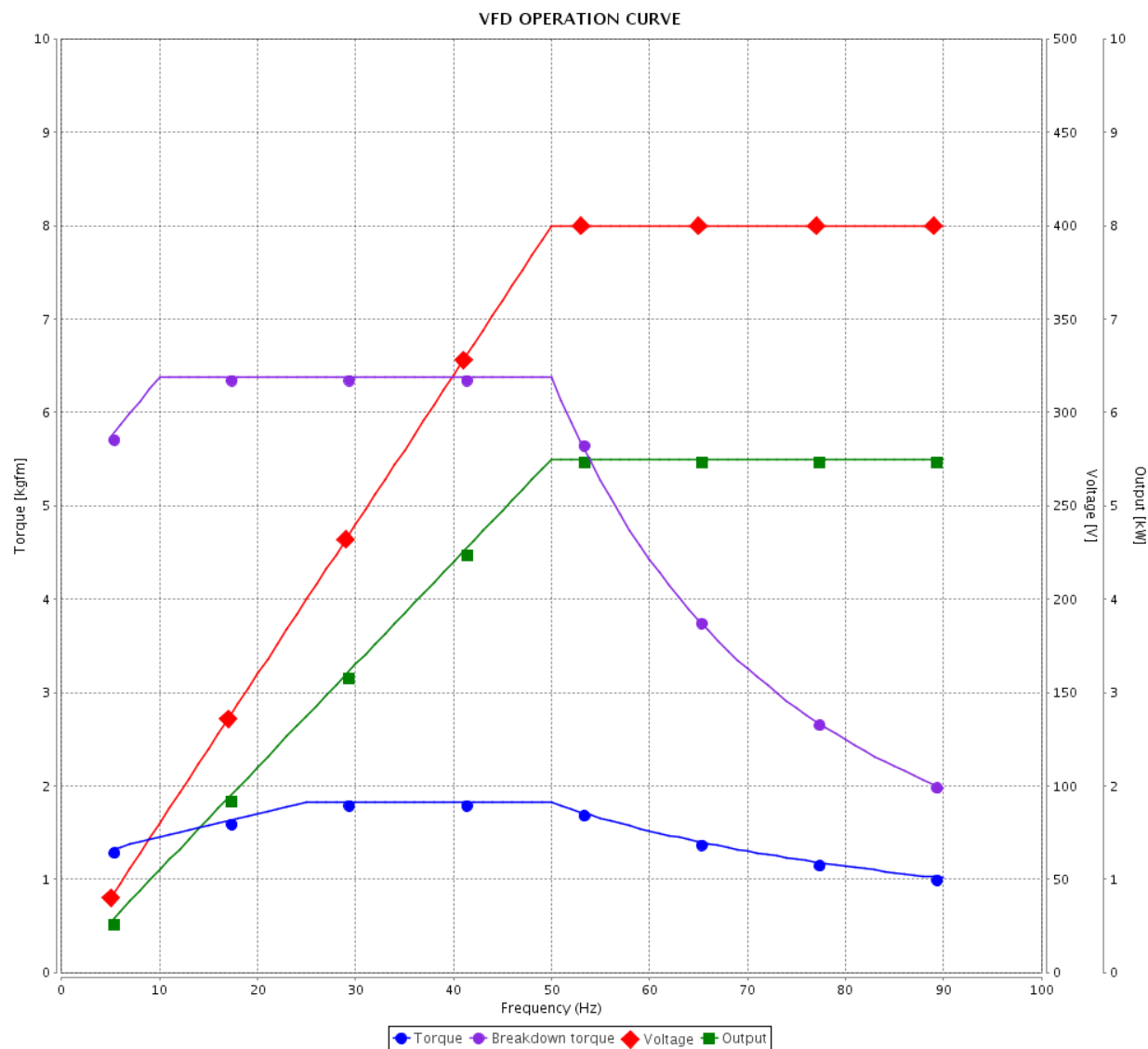
Three Phase Induction Motor - Squirrel Cage



Customer : IDS

Product line : W22 IE3 Three-Phase

Product code : 12975280



Performance : 400/690 V 50 Hz 2P

Rated current : 10.6/6.14 A  
 LRC : 7.9  
 Rated torque : 1.82 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 350 %  
 Rated speed : 2940 rpm

Moment of inertia (J) : 0.0180 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

| Rev.         | Changes Summary |  | Performed | Checked | Date     |
|--------------|-----------------|--|-----------|---------|----------|
|              |                 |  |           |         |          |
| Performed by |                 |  |           | Page    | Revision |
| Checked by   |                 |  |           | 2 / 2   |          |
| Date         |                 |  |           |         |          |
|              | 10/07/2019      |  |           |         |          |