

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

| | | | | | |
|--|------------------------------|---|--|-------------------------|----------|
| Customer : | | | | | |
| Product line | | : W21 Explosion Proof NEMA Premium Efficiency Three-Phase | | Product code : 11808167 | |
| Frame | : 504/5T | Cooling method | : IC411 - TEFC | | |
| Insulation class | : F | Mounting | : F-1 | | |
| Duty cycle | : Cont.(S1) | Rotation ¹ | : Both (CW and CCW) | | |
| Ambient temperature | : -20°C to +40°C | Starting method | : Direct On Line | | |
| Altitude | : 1000 m.a.s.l. | Approx. weight ³ | : 1082 kg | | |
| Protection degree | : IP55 | Moment of inertia (J) | : 3.21 kgm ² | | |
| Design | : A | | | | |
| Output [HP] | 200 | 150 | 150 | 150 | |
| Poles | 4 | 4 | 4 | 4 | |
| Frequency [Hz] | 60 | 50 | 50 | 50 | |
| Rated voltage [V] | 230/460 | 380 | 400 | 415 | |
| Rated current [A] | 460/230 | 208 | 202 | 197 | |
| L. R. Amperes [A] | 3128/1564 | 1518 | 1535 | 1576 | |
| LRC [A] | 6.8x(Code G) | 7.3x(Code H) | 7.6x(Code H) | 8.0x(Code J) | |
| No load current [A] | 148/74.0 | 73.0 | 77.0 | 81.0 | |
| Rated speed [RPM] | 1782 | 1485 | 1487 | 1488 | |
| Slip [%] | 1.00 | 1.00 | 0.87 | 0.80 | |
| Rated torque [kgfm] | 81.5 | 73.3 | 73.2 | 73.2 | |
| Locked rotor torque [%] | 210 | 220 | 250 | 280 | |
| Breakdown torque [%] | 229 | 250 | 280 | 310 | |
| Service factor | 1.15 | 1.00 | 1.00 | 1.00 | |
| Temperature rise | 80 K | 80 K | 80 K | 80 K | |
| Locked rotor time | 52s (cold) 29s (hot) | 70s (cold) 39s (hot) | 66s (cold) 37s (hot) | 63s (cold) 35s (hot) | |
| Noise level ² | 82.0 dB(A) | 82.0 dB(A) | 82.0 dB(A) | 82.0 dB(A) | |
| Efficiency (%) | 25% | | | | |
| | 50% | 95.8 | 95.4 | 95.4 | |
| | 75% | 96.2 | 95.4 | 95.8 | |
| | 100% | 96.2 | 95.8 | 95.8 | |
| Power Factor | 25% | | | | |
| | 50% | 0.72 | 0.70 | 0.65 | |
| | 75% | 0.80 | 0.78 | 0.75 | |
| | 100% | 0.85 | 0.84 | 0.82 | |
| Bearing type | : <u>Drive end</u> NU-319 C3 | <u>Non drive end</u> 6316 C3 | Foundation loads | | |
| Sealing | : Viton | Viton Seal | Max. traction | : 1244 kgf | |
| | Oil Seal | | Max. compression | : 2326 kgf | |
| Lubrication interval | : 4706 h | 8569 h | | | |
| Lubricant amount | : 45 g | 34 g | | | |
| Lubricant type | : Mobil Polyrex EM | | | | |
| Notes USABLE @208V 509A SF 1.00 SFA 509A | | | | | |
| This revision replaces and cancel the previous one, which must be eliminated. (1) Looking the motor from the shaft end. (2) Measured at 1m and with tolerance of +3dB(A). (3) Approximate weight subject to changes after manufacturing process. (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 | Date |
| Performed by | | | | | |
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Customer : _____

Thermal protection

| ID | Application | Type | Quantity | Sensing Temperature |
|----|-------------|----------------------|-----------|---------------------|
| 1 | Winding | Thermostat - 2 wires | 1 x Phase | 155 °C |

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LOAD PERFORMANCE CURVE

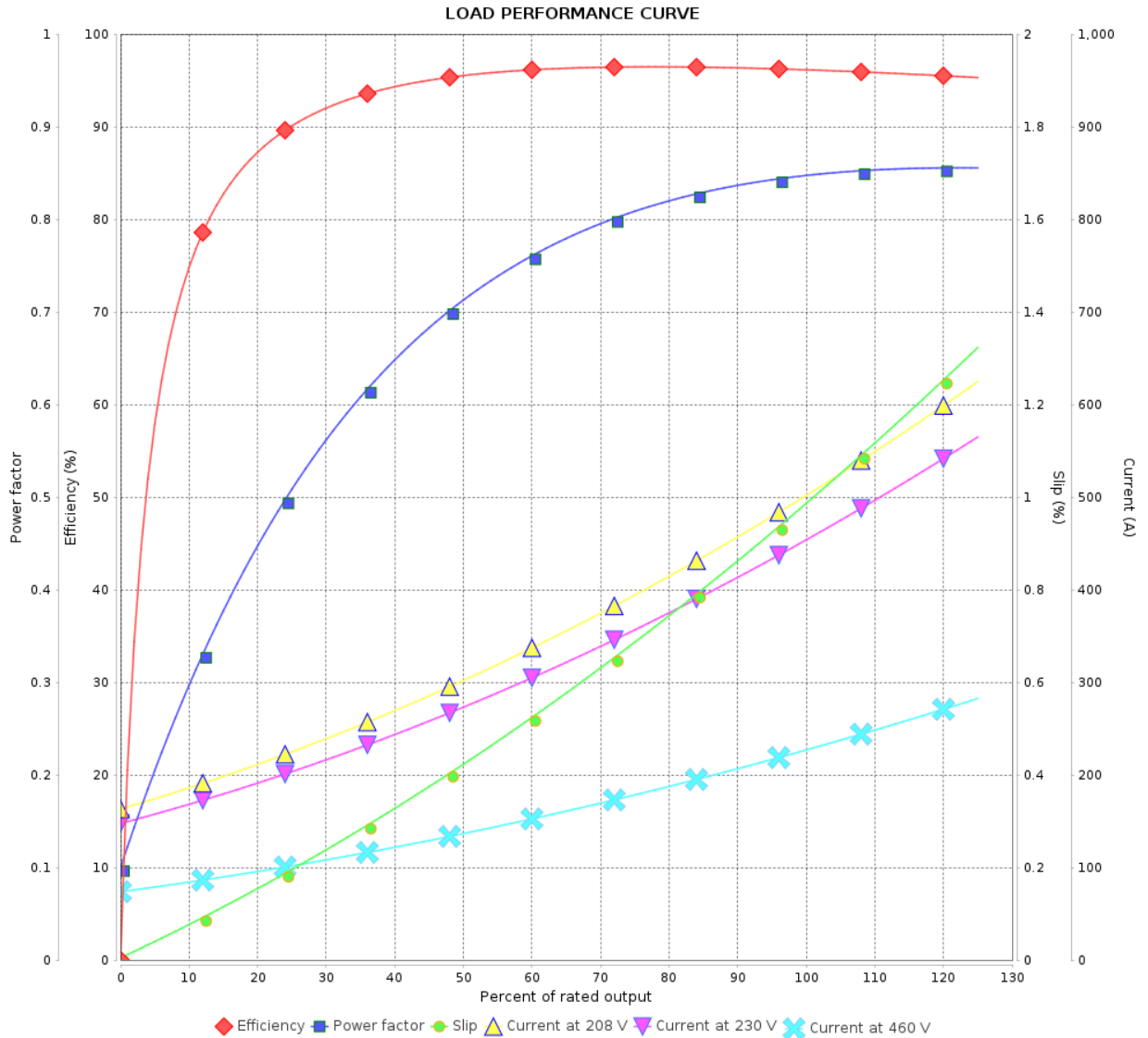
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W21 Explosion Proof NEMA Premium
Efficiency Three-Phase

Product code : 11808167



Performance : 230/460 V 60 Hz 4P

Rated current : 460/230 A
 LRC : 6.8
 Rated torque : 81.5 kgfm
 Locked rotor torque : 210 %
 Breakdown torque : 229 %
 Rated speed : 1782 rpm

Moment of inertia (J) : 3.21 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

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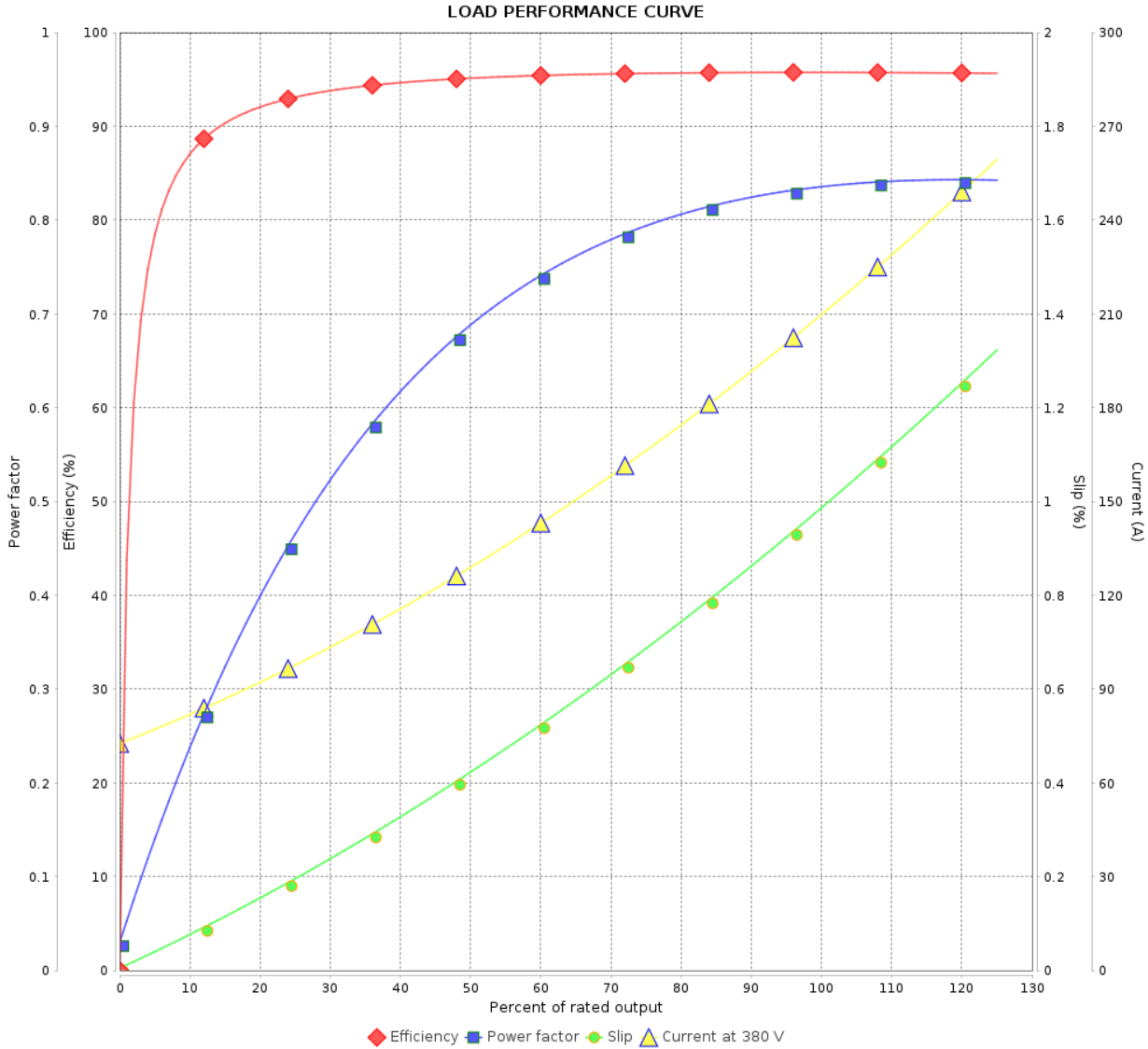
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium
Efficiency Three-Phase

Product code : 11808167



Performance : 380 V 50 Hz 4P IE3

Rated current : 208 A
LRC : 7.3
Rated torque : 73.3 kgfm
Locked rotor torque : 220 %
Breakdown torque : 250 %
Rated speed : 1485 rpm

Moment of inertia (J) : 3.21 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : A

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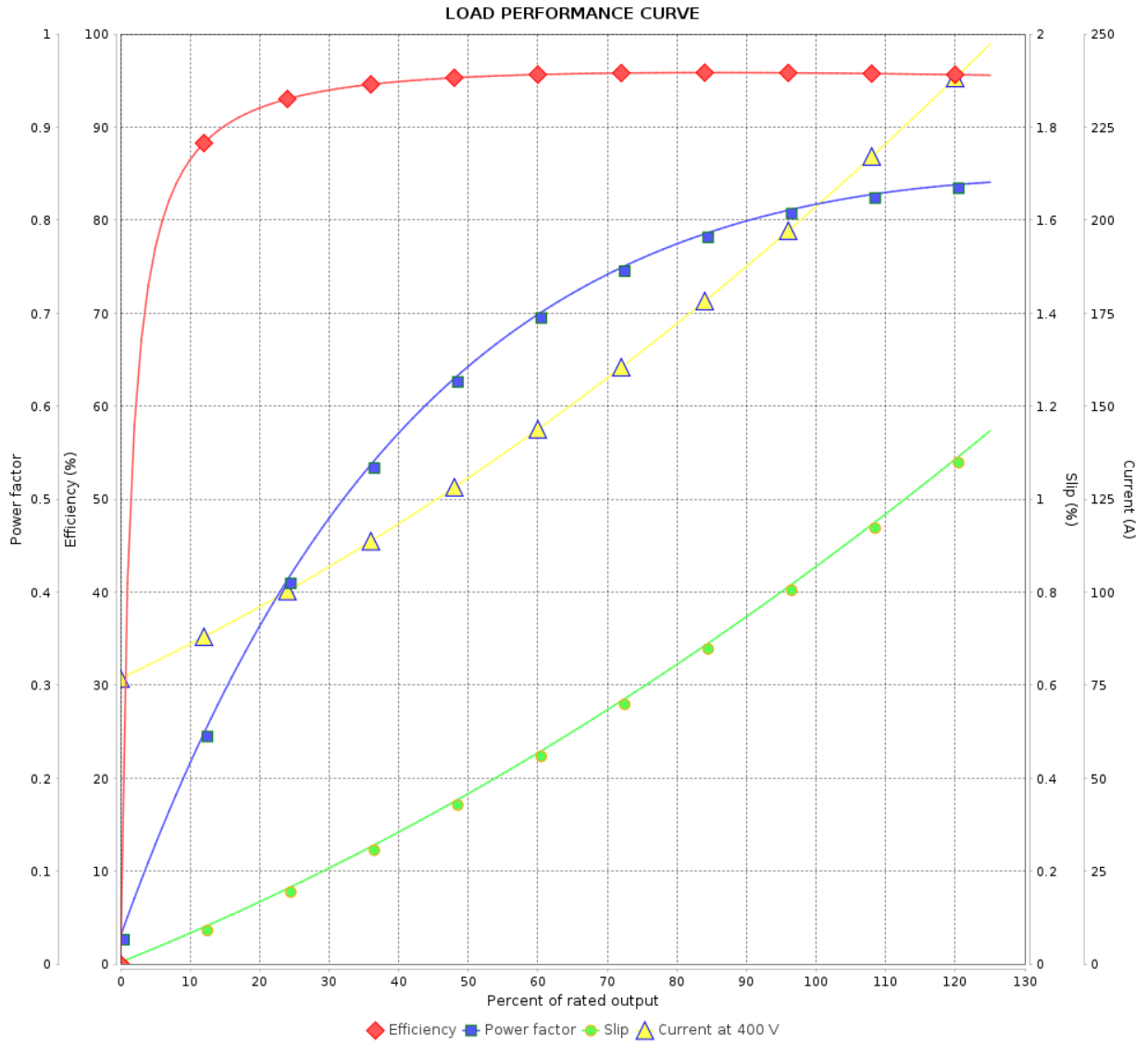
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase

Product code : 11808167



Performance : 400 V 50 Hz 4P IE3

Rated current : 202 A
 LRC : 7.6
 Rated torque : 73.2 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 280 %
 Rated speed : 1487 rpm

Moment of inertia (J) : 3.21 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

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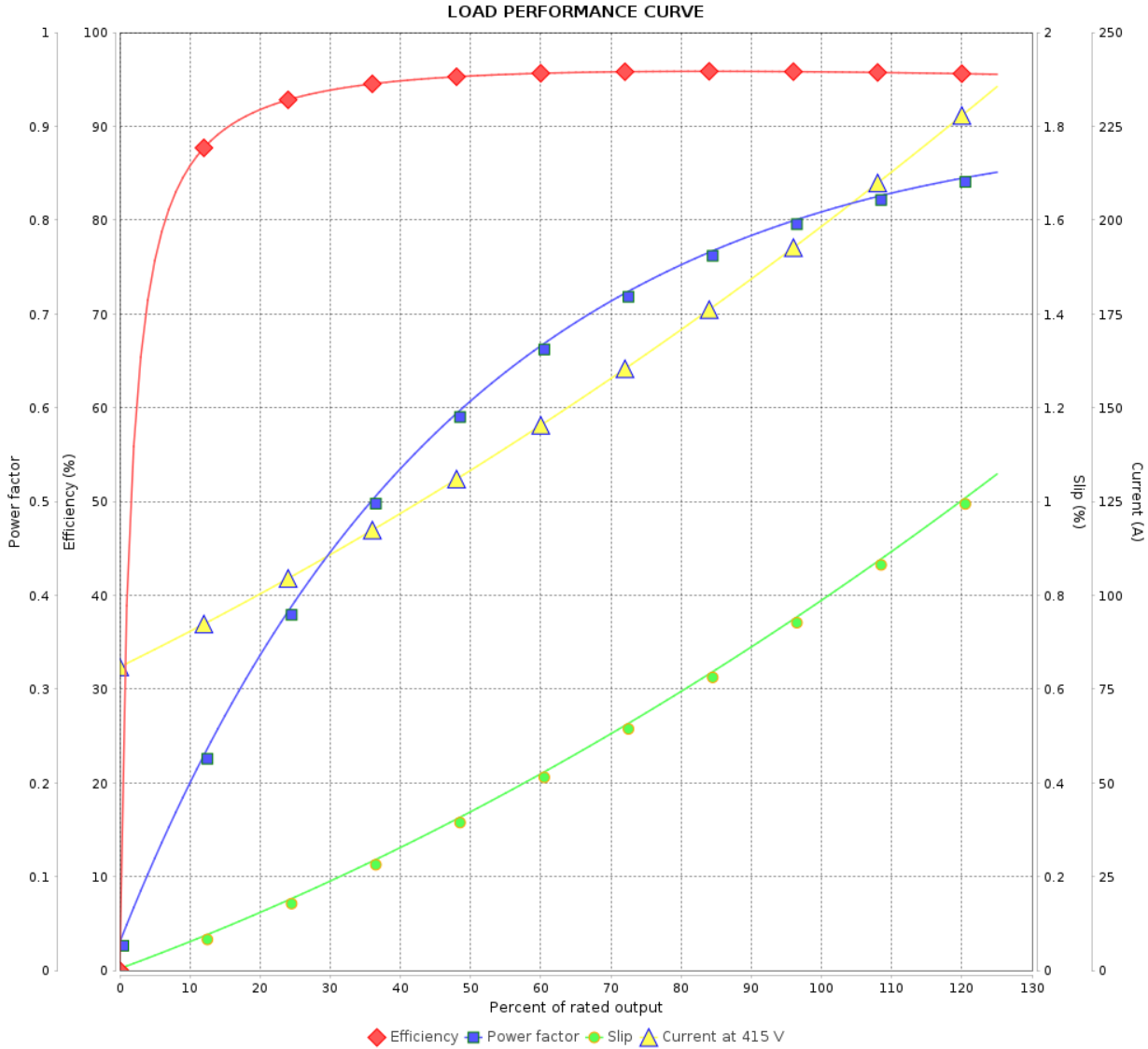
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W21 Explosion Proof NEMA Premium
Efficiency Three-Phase

Product code : 11808167



Performance : 415 V 50 Hz 4P IE3

| | | | |
|---------------------|-------------|-----------------------|-------------------------|
| Rated current | : 197 A | Moment of inertia (J) | : 3.21 kgm ² |
| LRC | : 8.0 | Duty cycle | : Cont.(S1) |
| Rated torque | : 73.2 kgfm | Insulation class | : F |
| Locked rotor torque | : 280 % | Service factor | : 1.00 |
| Breakdown torque | : 310 % | Temperature rise | : 80 K |
| Rated speed | : 1488 rpm | Design | : A |

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| Checked by | | | | |
| Date | 13/01/2024 | | | |