

**DATA SHEET**PRELIMINARY  
DOCUMENT**Three Phase Induction Motor - Squirrel Cage**

Customer :

 Product line : W22 Tru Metric - IE3 Nema Premium Efficiency (Derating)  
 Product code : 12596563

|                     |                    |                       |                           |
|---------------------|--------------------|-----------------------|---------------------------|
| Frame               | : 160M             | Cooling method        | : IC411 - TEFC            |
| Insulation class    | : F                | Mounting              | : B3L(E)                  |
| Duty cycle          | : Cont.(S1)        | Rotation              | : Both                    |
| Ambient temperature | : -20 °C to +40 °C | Starting method       | : Direct On Line          |
| Altitude            | : 1000 m           | Approx. weight        | : 124 kg                  |
| Protection degree   | : IP55             | Moment of inertia (J) | : 0.0419 kgm <sup>2</sup> |
| Design              | : N                |                       |                           |

|                     |                        |      |                       |                       |
|---------------------|------------------------|------|-----------------------|-----------------------|
| Output              | 15 HP (11 kW)          |      | 15 HP (11 kW)         | 15 HP (11 kW)         |
| Poles               | 2                      |      | 2                     | 2                     |
| Frequency           | 60 Hz                  |      | 50 Hz                 | 50 Hz                 |
| Rated voltage       | 230/460 V              |      | 380 V                 | 415 V                 |
| Rated current       | 36.6/18.3 A            |      | 21.1 A                | 20.2 A                |
| L. R. Amperes       | 347/174 A              |      | 168 A                 | 192 A                 |
| LRC                 | 9.5 Code L             |      | 8.0 Code J            | 9.5 Code L            |
| No load current     | 16.0/8.00 A            |      | 7.80 A                | 9.10 A                |
| Rated speed         | 3560 rpm               |      | 2945 rpm              | 2956 rpm              |
| Slip                | 1.11 %                 |      | 1.83 %                | 1.47 %                |
| Rated torque        | 3.06 kgfm              |      | 3.70 kgfm             | 3.68 kgfm             |
| Locked rotor torque | 330 %                  |      | 240 %                 | 300 %                 |
| Breakdown torque    | 420 %                  |      | 320 %                 | 380 %                 |
| Service factor      | 1.25                   |      | 1.00                  | 1.00                  |
| Temperature rise    | 80 K                   |      | 80 K                  | 80 K                  |
| Noise level         | 72 dB(A)               |      | 67 dB(A)              | 67 dB(A)              |
| Locked rotor time   | 10 s (hot) 18 s (cold) |      | 9 s (hot) 16 s (cold) | 7 s (hot) 13 s (cold) |
| Efficiency (%)      | 50%                    | 89.5 | 90.5                  | 89.5                  |
|                     | 75%                    | 91.0 | 91.0                  | 91.0                  |
|                     | 100%                   | 91.0 | 91.2                  | 91.2                  |
| Power Factor        | Start                  | 0.49 | 0.48                  | 0.48                  |
|                     | 50%                    | 0.67 | 0.74                  | 0.65                  |
|                     | 75%                    | 0.77 | 0.83                  | 0.77                  |
|                     | 100%                   | 0.83 | 0.87                  | 0.83                  |

Losses at normative operating points (speed;torque), in percentage of rated output power

|                |       |      |      |
|----------------|-------|------|------|
| P1 (0,9;1,0)   | 10.21 | 8.70 | 9.07 |
| P2 (0,5;1,0)   | 8.27  | 7.04 | 7.34 |
| P3 (0,25;1,0)  | 8.22  | 7.00 | 7.30 |
| P4 (0,9;0,5)   | 5.92  | 5.04 | 5.26 |
| P5 (0,5;0,5)   | 3.86  | 3.29 | 3.43 |
| P6 (0,5;0,25)  | 2.90  | 2.47 | 2.57 |
| P7 (0,25;0,25) | 2.02  | 1.72 | 1.79 |

|                      |                  |               |                            |
|----------------------|------------------|---------------|----------------------------|
|                      | Drive end        | Non drive end | Foundation loads           |
| Bearing type         | 6309-C3          | 6209-C3       | Max. traction : 156 kgf    |
| Lubrication interval | 19000 h          | 20000 h       | Max. compression : 279 kgf |
| Lubricant amount     | 13 g             | 9 g           |                            |
| Lubricant type       | MOBIL POLYREX EM |               |                            |

Notes:

|              |                 |  |           |             |               |
|--------------|-----------------|--|-----------|-------------|---------------|
| Rev.         | Changes Summary |  | Performed | Checked     | Date          |
|              |                 |  |           |             |               |
| Performed by |                 |  |           |             |               |
| Checked by   |                 |  |           |             |               |
| Date         | 2026/10/19      |  |           |             |               |
|              |                 |  |           | Page<br>1/4 | Revision<br>0 |

# LOAD PERFORMANCE CURVE

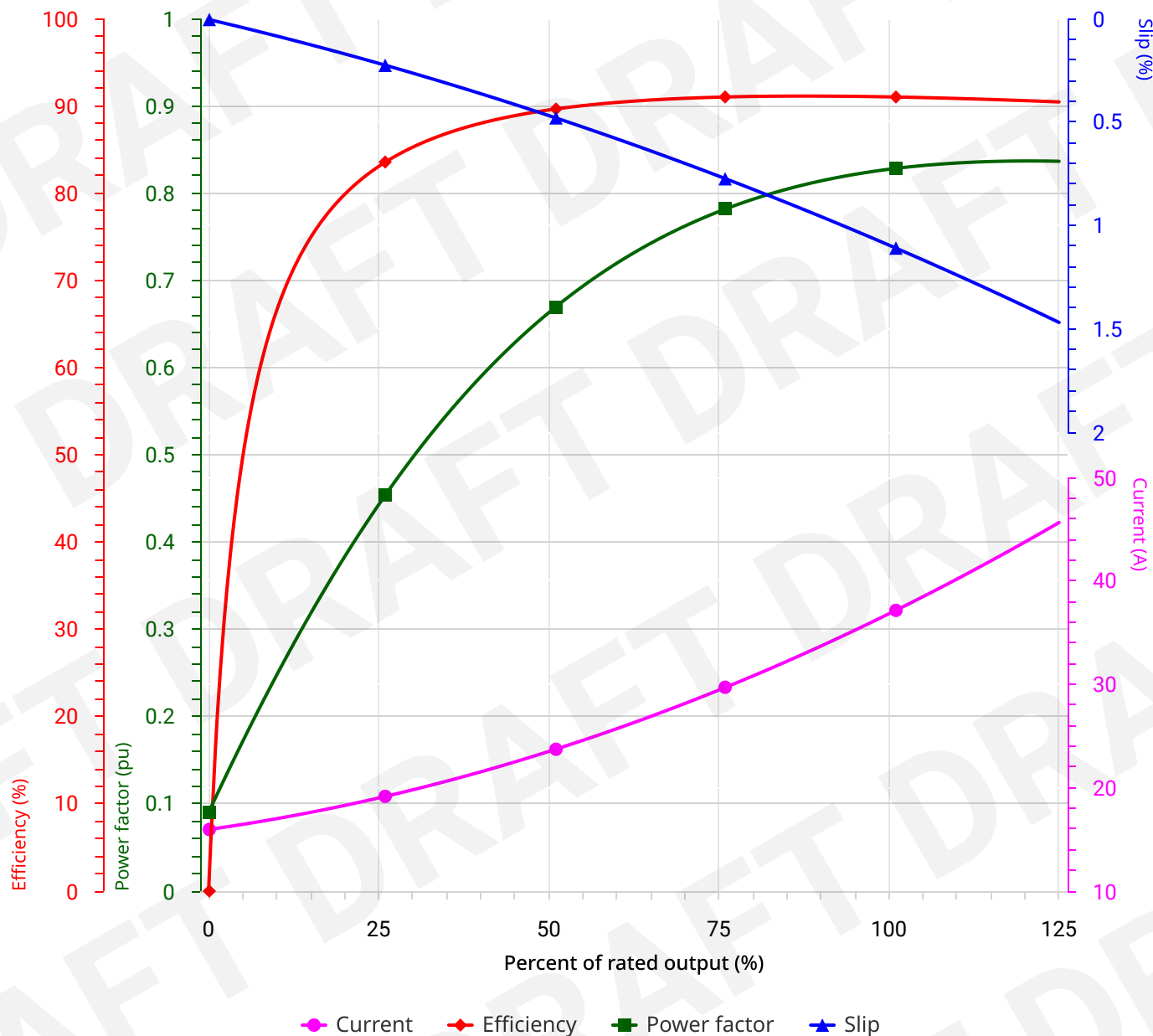
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## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Tru Metric - IE3 Nema Premium Efficiency (Derating)  
Product code : 12596563



Performance : 15 HP (11 kW) 208/230/460V 60Hz 2P 160M

Rated current : 40.4/36.6/18.3 A  
LRC : 9.5 Code L  
Rated torque : 3.06 kgfm  
Locked rotor torque : 330 %  
Breakdown torque : 420 %  
Rated speed : 3560 rpm

Moment of inertia (J) : 0.0419 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : N

| Rev.         | Changes Summary |                     | Performed | Checked | Date |
|--------------|-----------------|---------------------|-----------|---------|------|
|              |                 |                     |           |         |      |
| Performed by |                 | Page 2/4 Revision 0 |           |         |      |
| Checked by   |                 |                     |           |         |      |
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# LOAD PERFORMANCE CURVE

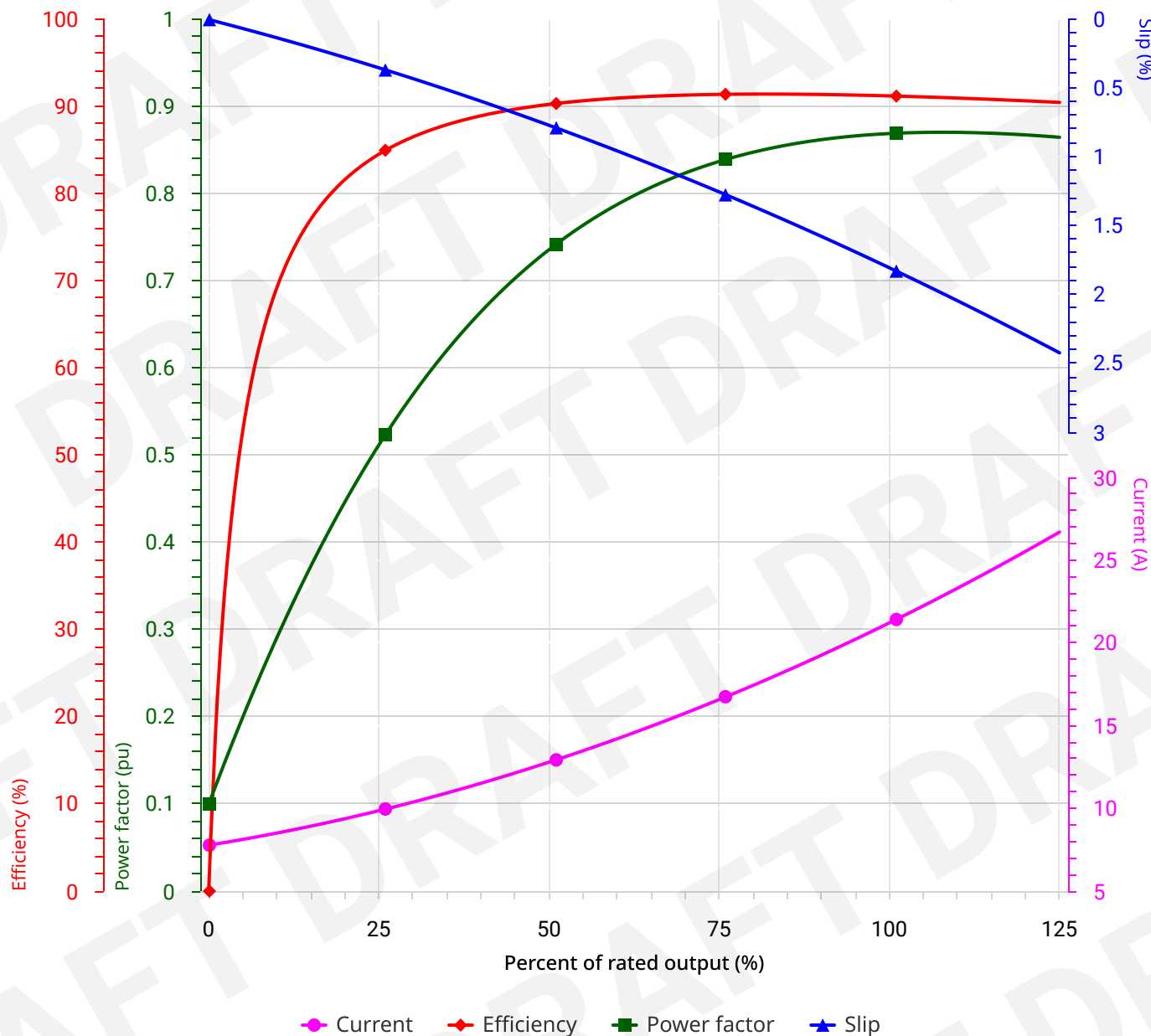
PRELIMINARY  
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## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Tru Metric - IE3 Nema Premium Efficiency (Derating)  
Product code : 12596563



Performance : 15 HP (11 kW) 380V 50Hz 2P 160M

|                             |                                                 |
|-----------------------------|-------------------------------------------------|
| Rated current : 21.1 A      | Moment of inertia (J) : 0.0419 kgm <sup>2</sup> |
| LRC : 8.0 Code J            | Duty cycle : Cont.(S1)                          |
| Rated torque : 3.70 kgfm    | Insulation class : F                            |
| Locked rotor torque : 240 % | Service factor : 1.00                           |
| Breakdown torque : 320 %    | Temperature rise : 80 K                         |
| Rated speed : 2945 rpm      | Design : N                                      |

| Rev.         | Changes Summary | Performed           | Checked | Date |
|--------------|-----------------|---------------------|---------|------|
|              |                 |                     |         |      |
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| Date         | 2026/10/19      |                     |         |      |

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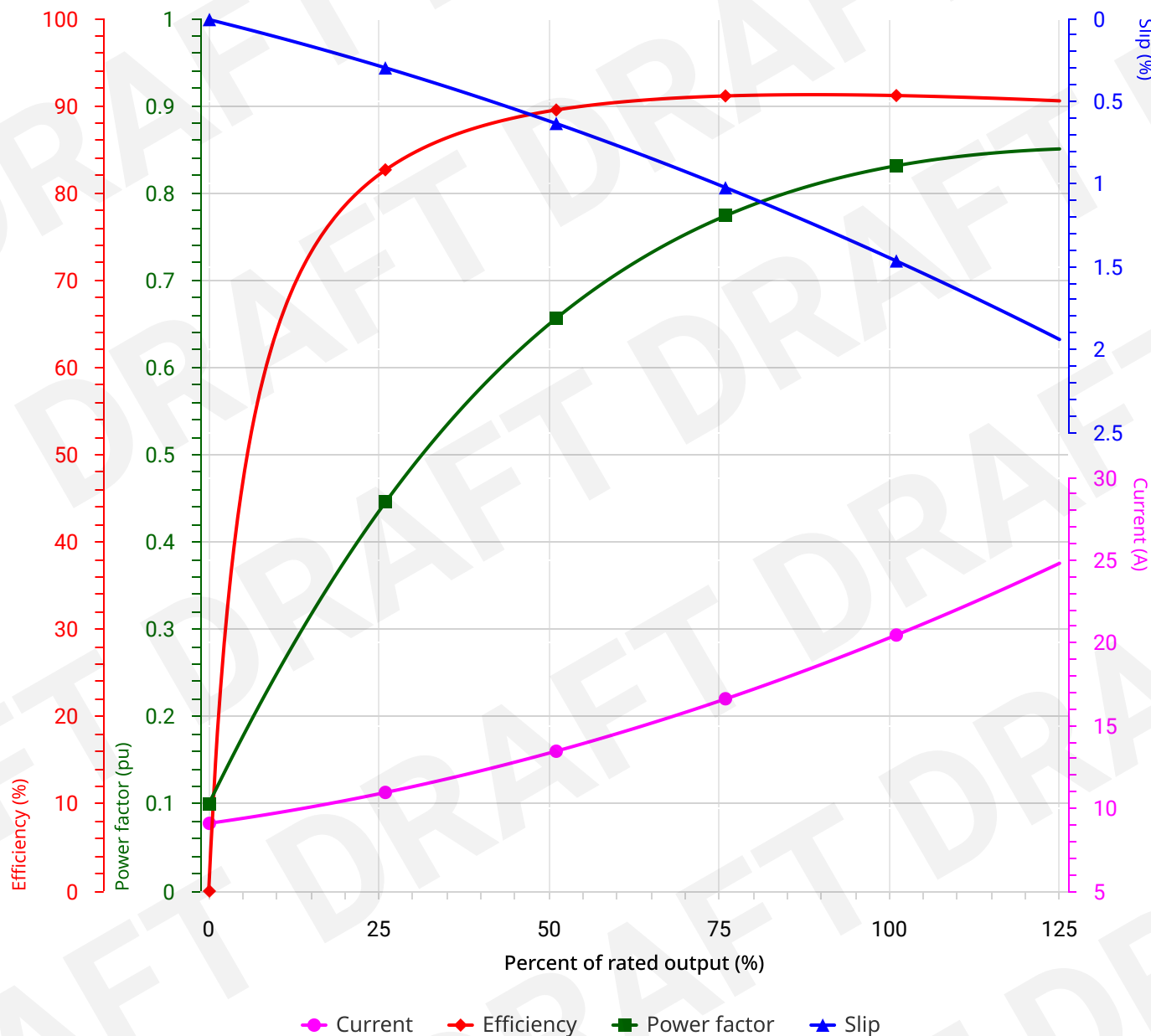
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DOCUMENT



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Tru Metric - IE3 Nema Premium Efficiency (Derating)  
Product code : 12596563



Performance : 15 HP (11 kW) 415V 50Hz 2P 160M

|                     |              |                       |                           |
|---------------------|--------------|-----------------------|---------------------------|
| Rated current       | : 20.2 A     | Moment of inertia (J) | : 0.0419 kgm <sup>2</sup> |
| LRC                 | : 9.5 Code L | Duty cycle            | : Cont.(S1)               |
| Rated torque        | : 3.68 kgfm  | Insulation class      | : F                       |
| Locked rotor torque | : 300 %      | Service factor        | : 1.00                    |
| Breakdown torque    | : 380 %      | Temperature rise      | : 80 K                    |
| Rated speed         | : 2956 rpm   | Design                | : N                       |

| Rev.         | Changes Summary |                        | Performed | Checked | Date |
|--------------|-----------------|------------------------|-----------|---------|------|
|              |                 |                        |           |         |      |
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