

PRODUCT INFORMATION PACKET



Model No: 6RN250M04E42U46B1041-Uni

Catalog No: 6RN250M04E42U46B@1041-Uni

55.00 kW General Purpose Low Voltage IEC Motor IE4, 3 phase, 1500 rpm, D400/Y690V 50Hz,
250M Frame B3, IC411

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Nameplate Specifications

| | | | |
|------------------------|---------------|----------------------------|-----------------------------|
| Output HP | 75.00 Hp | Output KW | 55.0 kW |
| Frequency | 50 Hz | Voltage | D400/Y690 V |
| Current | 96.60 A | Speed | 1486 rpm |
| Service Factor | 1 | Phase | 3 |
| Efficiency | 95.7 % | Power Factor | 0.86 |
| Duty | S1 | Insulation Class | F |
| Frame | 250M | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | No Protection | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 6315/C3 | Opp Drive End Bearing Size | 6315/C3 |
| UL | No | CSA | Optional |
| CE | Yes | IP Code | IP55 |
| Number of Speeds | 1 | Efficiency Class | IE4 |

Technical Specifications

| | | | |
|-----------------|-------------------|-------------------|---------------------|
| Electrical Type | Squirrel Cage | Starting Method | Direct On Line |
| Poles | 4 | Rotation | Clockwise Shaft End |
| Mounting | B3 | Motor Orientation | Any |
| Frame Material | Cast iron | Shaft Type | Keyed |
| Outline Drawing | 6RN250M04E42_1041 | | |

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Datasheet



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Model No. 4-Pole cage motor 6RN 250M 55kW D400V 50Hz IM1041

| U (V) | Δ/Y Conn | f [Hz] | P | | I [A] | n [RPM] | T [Nm] | IE Class | % EFF at __ load | | | PF at __load | | | I _A /I _N [pu] | T _A /T _N [pu] | T _K /T _N [pu] |
|----------|-------------|-----------|------|-------|----------|------------|-----------|-------------|------------------|-------|-------|--------------|-------|-------|----------------------------------------|----------------------------------------|----------------------------------------|
| | | | [kW] | [hp] | | | | | FL | 3/4FL | 1/2FL | FL | 3/4FL | 1/2FL | | | |
| 400 | D | 50 | 55 | 72,5 | 96 | 1486 | 353 | IE4 | 95,8 | 95,9 | 95,5 | 0,86 | 0,82 | 0,73 | 8,37 | 2,95 | 3,35 |
| 690 | Y | | 55,4 | | | | | | | | | | | | | | |
| 460 | D | 60 | 63 | 84,45 | 96 | 1786 | 336 | IE4 | 95,9 | 96,0 | 95,6 | 0,86 | 0,83 | 0,74 | 8,34 | 2,88 | 3,17 |

| | |
|-------------------------------|-------------------------------------|
| Motor type | 6RN250M04E42 |
| Enclosure | Totally Enclosed Fan Cooling |
| Frame Material | Cast iron |
| Frame size | 250M |
| Duty | S1 |
| Voltage | 400 V |
| Frequency | 50 Hz |
| Power output | 55 kW |
| Insulation class | F |
| Ambient temperature | -20 till 40 °C |
| Temperature rise | temp.rise acc. B (80K) |
| Temperature rise winding | 51 K |
| Temperature rise surface | 37 K |
| Altitude above sea level | 1000 mtr |
| Hazardous area classification | Safe area |

| | |
|------------------------------------|-------------------------------|
| Degree of protection | IP55 |
| Mounting type | IM1041 |
| Cooling method | IC411 |
| Motor weight - approx. | 510 kg |
| Gross weight - approx. | 530 kg |
| Motor inertia | 1,1000 kgm² |
| Vibration level | according IEC60034-14 |
| Noise level (pressure) acc 60034-9 | 67 dB(A) |

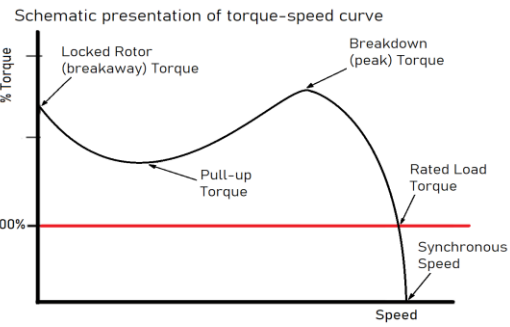
| | |
|--------------------|--------------------------|
| Rotor type | Cage motor |
| Bearing type | 6315/C3 - 6315/C3 |
| Lubrication method | 25gr/8000hrs |
| Type of grease | Unirex N3 |

| | |
|--------------------------|-------------------|
| Phase resistance at 20°C | 0,0712 Ohm |
| Country of origin | CZ |

| | Locked rotor Torque [nom] | Starting current [% nom] | Pull-up Torque [% nom] | Breakdown Torque [% nom] | No-load Current [A] |
|---------------|---------------------------------|--------------------------------|------------------------------|--------------------------------|---------------------------|
| @ D 400V 50Hz | 295% | 842% | 247% | 335% | 31 A |
| @ D 460V 60Hz | 288% | 830% | 231% | 317% | 30,4 A |

NOTE
 All performance values at rated voltage and frequency.
 All performance parameters are subjected to standard tolerance as per IEC 60034-1
 Voltage, Frequency are as per IEC60034-1
 Technical data are subject to change. There may be discrepancies between calculated and name plate values.

| | | |
|------------|------------------|---------------|
| Efficiency | Europe | Global IEC |
| Standards | EN-IEC: 60034-30 | IEC: 60034-30 |



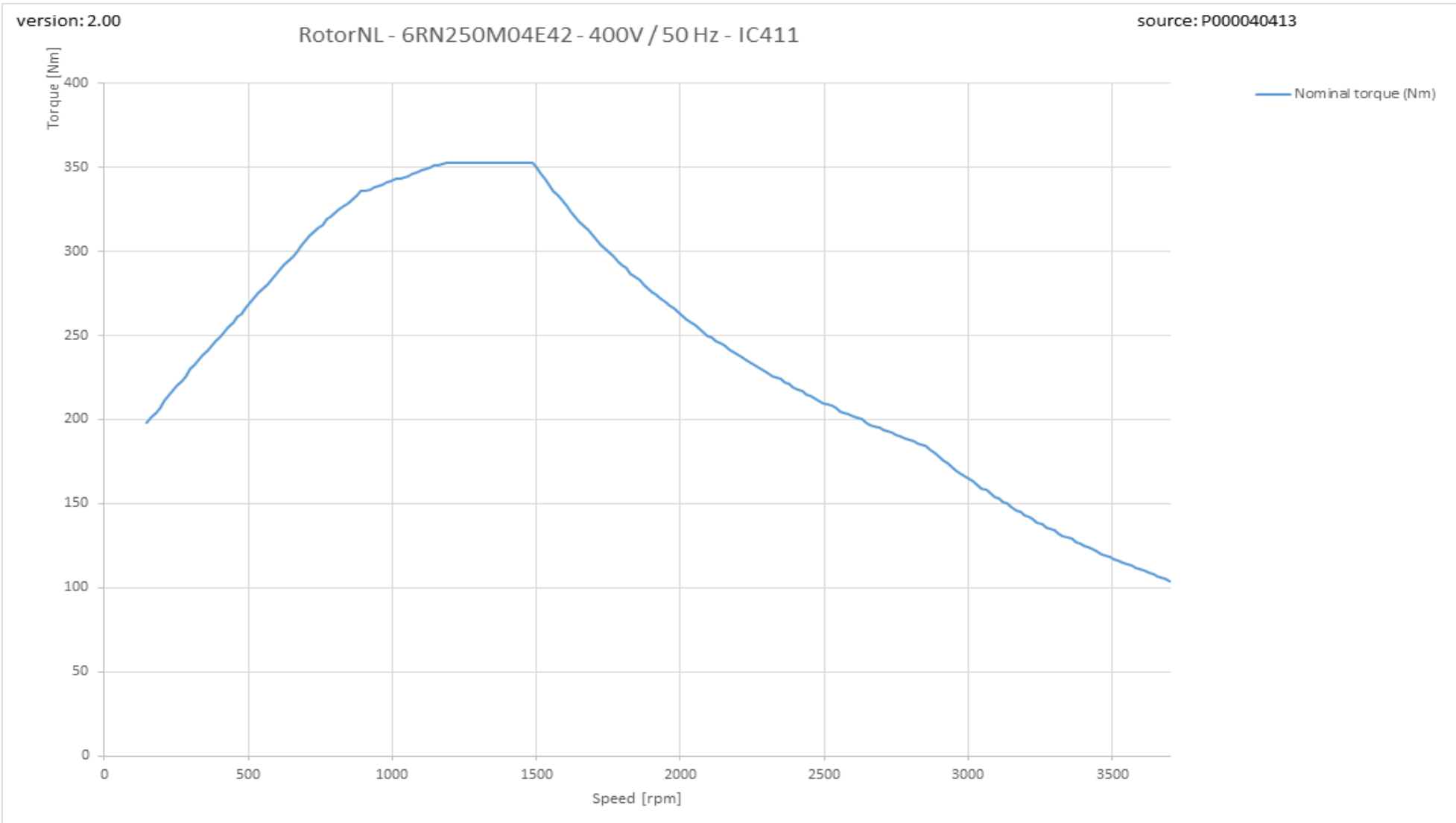
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6RN250M04E42 4-pole 55,00kW D/Y 400/690V 50Hz S1 IC411 IE4



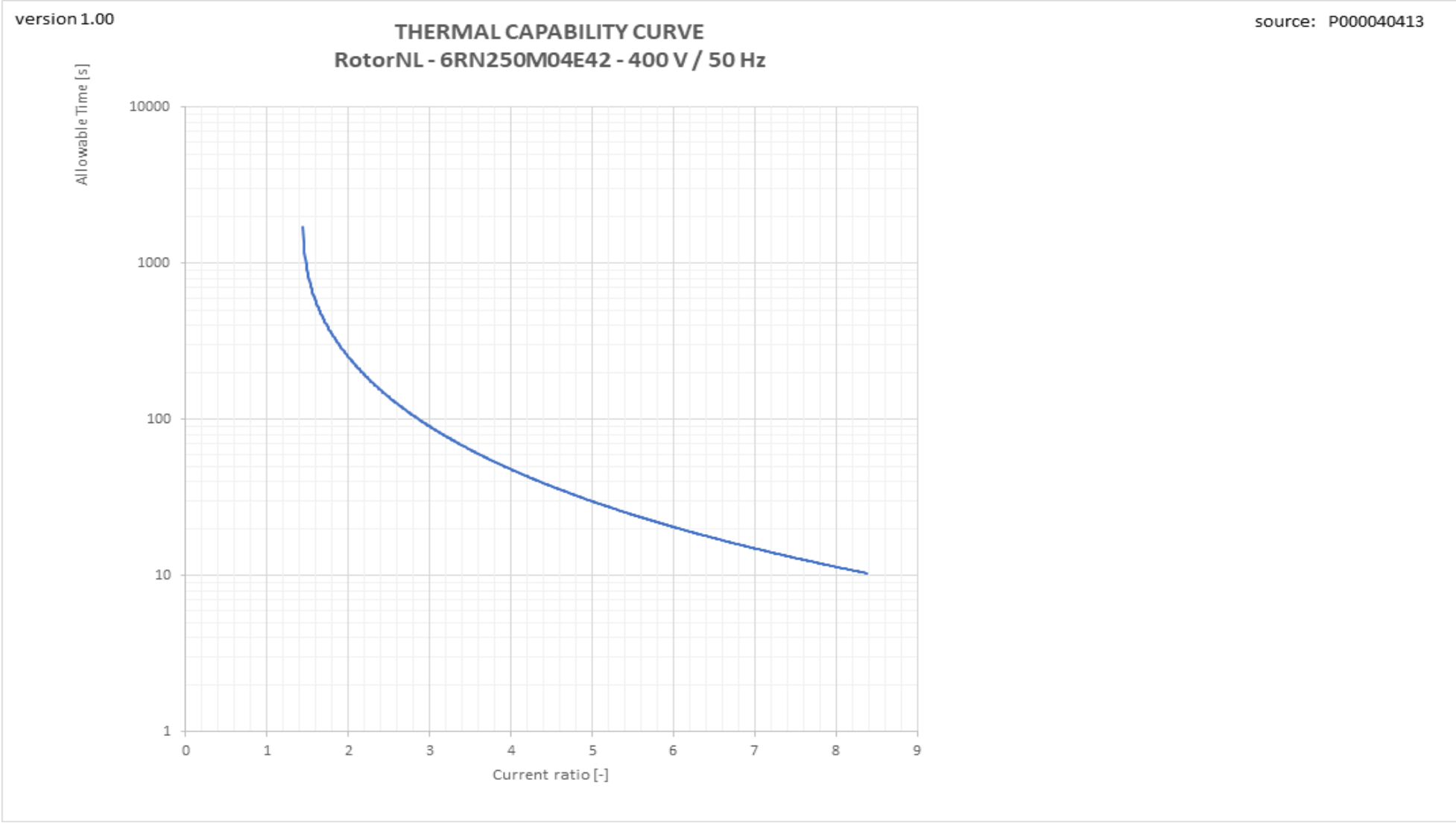
Torque versus Speed curve with variable frequency drive



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Therm_VSD graph

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Tn graph

