

Information Sheet Manual Motor Starters Ex9SN Series



NOARK Electric's Manual Motor Starters

A perfect blend of quality, performance and exceptional value

Global Acceptance

- Certified to UL 508, CSA 22.2 and IEC 60947-1 and 60947-4-1

Disconnect Function

- Overload protection
- Loss-phase protection

Benefits

- Available with enclosed coils for protection against particle contamination
- Short-circuit protection
- Suitable for three and single-phase application
- Trip-free mechanism
- Clear switch position indication ON/OFF/TRIP
- Lockable handle



| Setting Current Range (A) | 0.1~0.16 | 0.16~0.25 | 0.25~0.4 | 0.4~0.63 | 0.63~1 | 1~1.6 | 1.6~2.5 | 2.5~4 | 4~6.3 | 6~10 | 9~14 | 13~18 | 17~23 | 20~25 | |
|--|--|-------------------------------|----------|----------|--------|-------|---------|-------|-------|------|------|-------|-------|-------|---|
| Rated Current of Release | 0.16 | 0.25 | 0.4 | 0.63 | 1 | 1.6 | 2.5 | 4 | 6.3 | 10 | 14 | 18 | 23 | 25 | |
| Operating Conditions | | | | | | | | | | | | | | | |
| Tripping Class | Class 10 A | | | | | | | | | | | | | | |
| Environmental Temperature | Transportation or Storage | -76 to 176 °F (-60 to +80 °C) | | | | | | | | | | | | | |
| | Working at | -4 to 131 °F (-20 to +55 °C) | | | | | | | | | | | | | |
| | Testing at | 23 to 104 °F (-5 to +40 °C) | | | | | | | | | | | | | |
| Altitude ft (m) | Not to exceed 6,562 (2,000) | | | | | | | | | | | | | | |
| Air Conditions | At mounting site, relative humidity not exceed 50% at the max temperature of 104 °F (+40 °C), higher relative humidity is allowable under lower temperature | | | | | | | | | | | | | | |
| Pollution Grade | Class III | | | | | | | | | | | | | | |
| Release Grade | 10 A (SN25) | | | | | | | | | | | | | | |
| Rated Operational Frequency (Hz) | 50/60 | | | | | | | | | | | | | | |
| Mounting Conditions | The inclination between the mounting plane and the vertical plane shall not exceed 5°. The product shall be installed and operated at a place without obvious shake, impact and vibration. | | | | | | | | | | | | | | |
| Rated Insulation Voltage Ui (V) | IEC 690, UL/CSA 600 | | | | | | | | | | | | | | |
| Rated Operational Voltage Ue (V) | 230/340, 400/415, 460/480, 575/600 | | | | | | | | | | | | | | |
| Rated Impulse Withstand Voltage Uimp (V) | 6,000 | | | | | | | | | | | | | | |
| Interrupting Rating Icu | 5 kA | | | | | | | | | | | | | | |
| Service Life | Electrical | 2,000 | | | | | | | | | | | | | |
| | Mechanical | 10,000 | | | | | | | | | | | | | |
| Degree of Protection | IP20 | | | | | | | | | | | | | | |
| UL Ratings | | | | | | | | | | | | | | | |
| Single-Phase (HP) | 120 Vac | | | | | | - | - | 1/8 | 1/4 | 1/2 | 3/4 | 1 | 1.5 | 2 |
| | 240 Vac | | | | | | 1/10 | 1/6 | 1/3 | 1/2 | 1.5 | 2 | | 3 | |
| Three-Phase (HP) | 240 Vac | - | - | - | - | | - | 1/2 | 1 | 1.5 | 3 | | 10 | 7.5 | |
| | 480 Vac | | | | | 1/2 | 3/4 | 1 | 2 | 3 | 5 | | 15 | 15 | |
| | 600 Vac | | | | | | | 1.5 | 3 | 5 | 7.5 | 10 | 15 | 20 | |
| IEC Ratings | | | | | | | | | | | | | | | |
| 400/415 Vac | Icu (kA) | 100 | | | | | | | | | | | | | |
| | Ics % Icu | 50 | | | | | | | | | | | | | |
| 690 Vac | Icu (kA) | 3 | | | | | | | | | | | | | |
| | Ics % Icu | 75 | | | | | | | | | | | | | |
| Rated Ultimate Short-Circuit Breaking Capacity Icu (kA) | 230/240 V | 100 | | | | | | | | | | | | | |
| | 400/415 V | 100 | | | | | | | | | | | | | |
| | 440 V | 50 | | | | | | | | | | | | | |
| | 480/500 V | 15 | | | | | | | | | | | | | |
| | 660/690 V | 8 | | | | | | | | | | | | | |
| Rated Service Short-Circuit Breaking Capacity Ics (kA) | 230/240 V | 100 | | | | | | | | | | | | | |
| | 400/415 V | 100 | | | | | | | | | | | | | |
| | 440 V | 50 | | | | | | | | | | | | | |
| | 480/500 V | 15 | | | | | | | | | | | | | |
| | 660/690 V | 8 | | | | | | | | | | | | | |
| Arcing Distance in (mm) | 1.57 (40) | | | | | | | | | | | | | | |
| Standard Rated Power of Three-Phase Motor (kW) | 230/240 V | - | | | | | | | | | | | | | |
| | 400 V | 0.37 | | | | | | | | | | | | | |
| | 415 V | - | | | | | | | | | | | | | |
| | 440 V | 0.37 | | | | | | | | | | | | | |
| | 500 V | 0.75 | | | | | | | | | | | | | |
| 660/690 V | 0.37 | 0.55 | 1.1 | 1.5 | 3 | 4 | 7.5 | 9 | 11 | 15 | 18.5 | | | | |
| Current Setting Value of Instantaneous Electromagnetic Release Ir (A) | 1.5 | 2.4 | 5 | 8 | 13 | 22.5 | 33.5 | 51 | 78 | 138 | 170 | 223 | 327 | | |
| Current Rating of Fuse-Link of Back-Up Fuse, Which is Only Needed in Case of Icc>Icu (Icc: Prospective Short-Circuit Breaking Current) | 230/240 V | aM A | | | | | | | | | | | | | |
| | 400/415 V | gl/gG A | | | | | | | | | | | | | |
| | 440 V | aM A | | | | | | | | | | | | | |
| | 500 V | gl/gG A | | | | | | | | | | | | | |
| | 690 V | aM A | | | | | | | | | | | | | |
| | †: Fuse is not Required | gl/gG A | | | | | | | | | | | | | |
| | | † | | | | | | | | | | | | | |

