



SN4 Non Combination Starters



The SN4 Non Combination Starters by Spike Electric Controls is a reliable and efficient solution to power up your industrial machinery with precision and safety. Engineered with cutting-edge technology and precision craftsmanship, these starters offer a seamless and dependable way to initiate and control the operation of your equipment. With a focus on safety and performance, the SN4 Non Combination Starters provide peace of mind and operational excellence for a wide range of industrial applications. Trust Spike Electric Controls for your starting needs, and experience the difference in quality and reliability that sets us apart in the industry.



SN4

Non Combination Starters



plates with ± screws for reduced wiring time

- Accessible terminals for easy wiring; optional fingerproof shields available to prevent electrical shock
- Top located coil terminals convenient and readily accessible.
- 45 mm contactor magnet coils have three terminals, permitting either top or diagonal wiring – easy to replace European or U.S. style starters or contactors without changing wiring layout
- Encapsulated dual voltage/frequency magnet coils – permanently marked with voltage, frequency and part number
- Designed to meet or exceed UL, IEC, VDE, BS and other international standards and listings

Applications:

- Damp, wet, dirty, dusty areas where ultimate corrosion and ingress protection is required
- Harsh motor control environments, including: refineries, chemical and petrochemical plants, corrosive process facilities, food and beverage, marine and mining
- Across-the-line starting, stopping, speed changing and reversing of polyphased AC induction motors

Design Features:

- Available with solid-state electronic overload providing reliable, accurate and value-driven protection, including communication capabilities, while reducing inventory carrying costs with wide FLA adjustment (5:1) and selectable trip class. And Bi Metallic Thermal overloads.
- Adjustable bimetallic ambient compensated overload relays with interchangeable heater packs – available in three basic sizes, covering applications up to 600 HP
- Fixed heater overloads optional
- A full line of snap-on accessories – top and side mounted auxiliary contacts, solid-state and pneumatic timers
- Straight through wiring – line lugs at top, load lugs at bottom
- Horizontal or vertical mounting on upright panel for application freedom
- Screw type power terminals have captive, backed-out self-lifting pressure



Electrical Ratings:

- Motor starters
 - Single, three-phase
 - 3-pole, non-reversing, full voltage
 - NEMA sizes 0-8
 - Up to 600 HP

Certifications

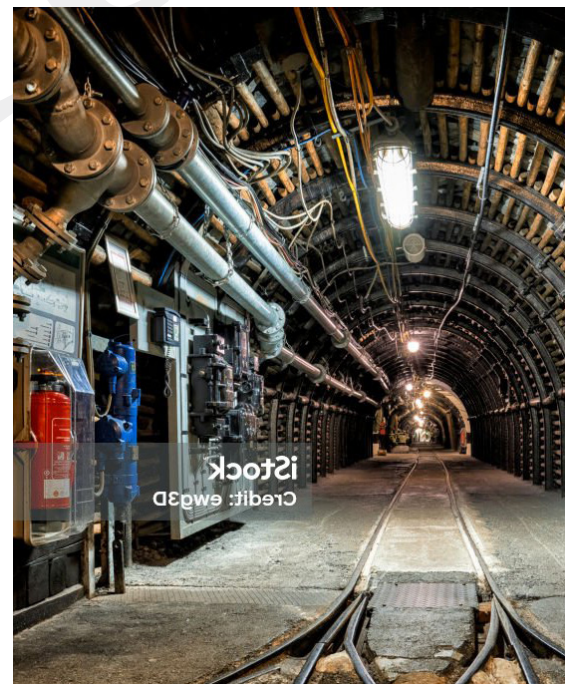
- Type Nema 1, 12, 3R, 4,
- 4X, 4X non-metallic
- ABS Type Approved
- OSHPD Certified (OSP-0015-10)
- Certified Type 2 ordination
- NEMA starters are UL Certified to achieve IEC 947 Type 2 coordination against 100,000A short circuit fault currents

Standard Materials:

- Enclosure, external hardware – 316 stainless steel & Painted Steel
- External latching hardware – chrome-plated steel
- Internal mounting plate – powder-coated steel
- Internal hardware – zinc-plated steel

Construction:

- Made in the USA
- Robotic-ally applied seamless foam-in-place gasket helps assure high performance in environmental conditions.
- Enclosure and door are fabricated from (14) gauge steel
- All continuous welded seams are finished smooth
- Ground provisions provided on all doors, bodies and back panels.
- Door secured to body with robust continuous hinge for performance in all environments
- High strength powder coated, zinc die cast handle provides corrosion resistance Standard pad lockable handle trigger provides secondary security.





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Example Part Number

SN4 3 FTSP200 WT 34 S780 A

NEMA SIZE

| | |
|---|---|
| 1 | 5 |
| 2 | 6 |
| 3 | 7 |
| 4 | 8 |

Motor Starter Accessories

| Motor Starter Accessories | SUFFIX |
|---|--------|
| Less overload relays (lighting contactor) | CL |
| Less overload relays (motor contactor) | CM |
| Starter w/ electronic ground fault overload relay | GF |
| Additional control contacts, N.O. or N.C | S780 |
| Auxiliary contacts on starter 1 N.O. & 1 N.C | S781 |
| Auxiliary contacts on starter 2 N.O. & 2 N.C | S782 |
| Auxiliary contacts on starter 3 N.O. & 3 N.C | S783 |
| Solid state overload relay | SSOL |
| BI Metallic overload relay | BI |
| Electronic thermal overload relay | ETOR |

Enclosure Modifications & Accessories

| Enclosure Modifications & Accessories | Cat # |
|---|---------|
| Control Circuit Transformer, 100VA for NEMA/EEMAC sizes 0-2, 600/480/240-120, 50 / 60 Hertz, with provision for fusing both primary leads and one secondary lead (fuses not provided) | FTPS100 |
| Control Circuit Transformer, 200VA for NEMA/EEMAC size 3, 600/480/240-120, 50 / 60 Hertz, with provision for fusing both primary leads and one secondary lead (fuses not provided). | FTPS200 |
| Control Circuit Transformer, 300VA for NEMA/EEMAC size 4, 5 600/480/240-120, 50 / 60 Hertz, with provision for fusing both primary leads and one secondary lead (fuses not provided) | FTPS300 |
| Control Circuit Transformer, 500VA for NEMA/EEMAC 600/480/240-120, 50 / 60 Hertz, with provision for fusing both primary leads and one secondary lead (fuses not provided) | FTPS500 |
| Pilot light, 120VAC, red jewel, w/blank indicating plate | J1 |
| Pilot light, 120VAC, green jewel, w/blank indicating plate | J3 |
| Pilot light, 120VAC, blue jewel, w/blank indicating plate | J11 |
| Pilot light, 120VAC, amber jewel, w/blank indicating plate | J6 |
| LED pilot lights (in place of standard incandescent lamps) | LED |
| Pilot light push to test, 120VAC, Red or Green *R or G | J3PT |
| Pilot light push to test, 120VAC, Amber Run Wired to coil | J4PT |
| Start-Stop pushbuttons | PB23 |
| On-Off selector switch | RR2 |
| Hand-Off-Auto selector switch | RR3 |
| E-Stop Mushroom head | RR4 |
| Space heater, 120 Volt, 25 Watts | R11 |
| Space heater, 240 Volt, 25 Watts | R22 |
| Space heater, 480 Volt, 25 Watts | R44 |
| Automatic reset overload relay | S1 |
| Insulated neutral w/2 connectors | S146 |
| Std. breather & drain, Class 1, B, C & D; Class 11, E, F & G; Class 111 | S756V |
| 12 Point term. block - 30 Amp, 300V | S786 |
| 12 Point term. block - 30 Amp, 300V Unwired | S786U |
| Interposing relay, 2 pole 2 NO 4 NC., coil 120VAC | IR |
| General purpose control relay, 4 pole N.O., contacts rated 10A/600V, coil 120VAC | GCR |
| General purpose control relay, 8 pole 4 NO 4 NC., coil 120VAC | GCR8 |
| Solid State- ON Delay Timer (1-30 secs) | ST4 |
| Solid State- ON Delay Timer (1-300 secs) | ST5 |
| Time delay Relay 2 min maximum ON Delay | TD1 |
| Time delay Relay 2 min maximum OFF Delay | TD2 |
| Time delay low voltage release relay | TDR |
| Viewing Window | VW |
| Transpearant clear door (Non Metallic only) | CD |
| Photo Cell | PC |
| Ground Fault Protection Relay | GF |

SN4 3 FTSP200 WT 34 S780 A

Combination & Non-Combination Starters

| DESCRIPTION | CAT # |
|--|-----------|
| Non-Combo Starter N4X 316 SS | SN4X6SSS |
| Non-Combo Starter N4X Non-Metallic | SN4XNMS |
| Non-Combo Starter N4 Carbon | SN4S |
| Reversing Non-Combo Starter N4X 316 SS | SN4RX6SSS |
| Reversing Non-Combo Starter N4X Non-Metallic | SN4RXNMS |
| Reversing Non-Combo Starter N4 Carbon | SN4RS |

Wiring System

| |
|------------------|
| 3 - 3 Phase |
| 1 - Single Phase |

Breaker voltage

| |
|----------|
| 2 - 240V |
| 4 - 480V |
| 6 - 600V |

Brand Suffix

| | |
|----------------------------------|----|
| Cutler-Hammer | WT |
| Square D | D |
| LG/LS Economical \ 2 yr warranty | LS |

AC Coil Suffix Symbol

* PLACE A DASH (-) BETWEEN EACH

| | |
|------------------|---|
| 120/60 or 110/50 | A |
| 240/60 or 220/50 | B |
| 480/60 or 440/50 | C |
| 600/60 or 550/50 | D |

DC Coil Suffix Symbol

| | |
|--------|---|
| 12VDC | F |
| 24VDC | G |
| 48VDC | M |
| 120VDC | P |

Legend Plates

* SEE PAGE 4



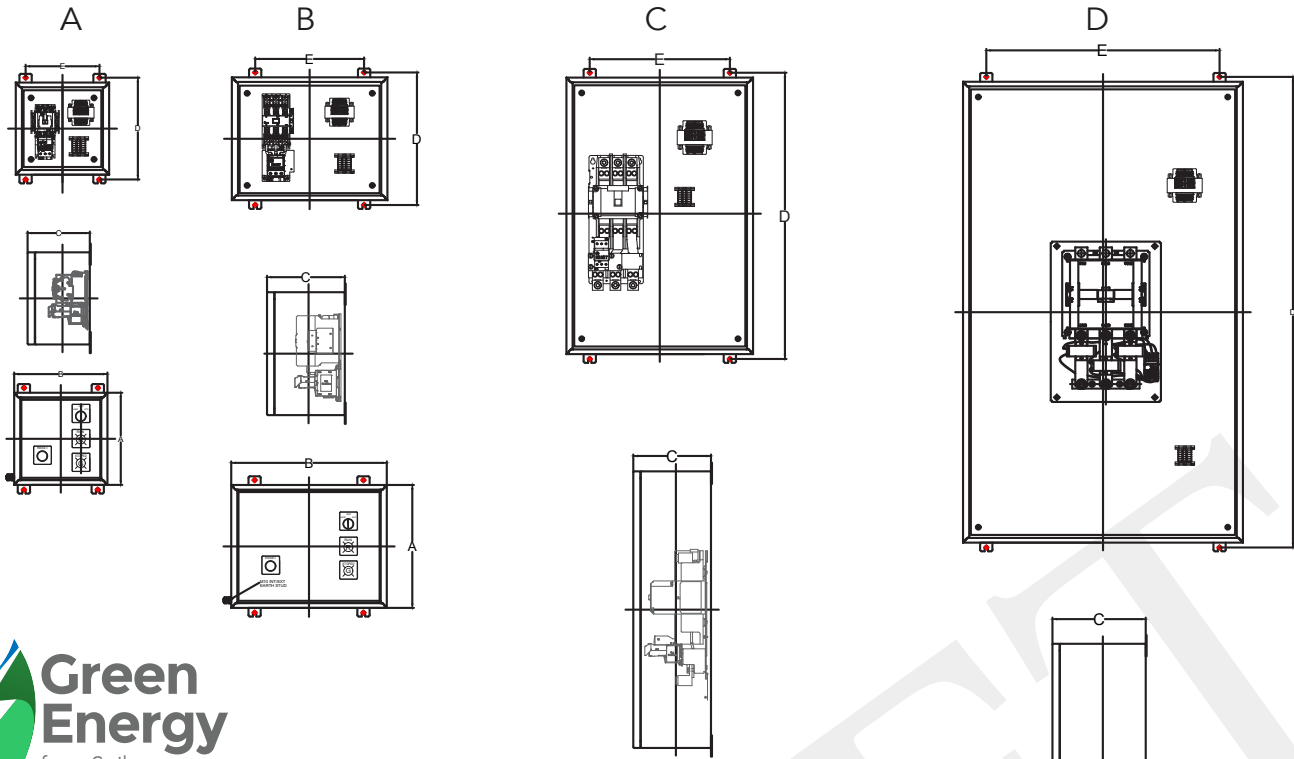


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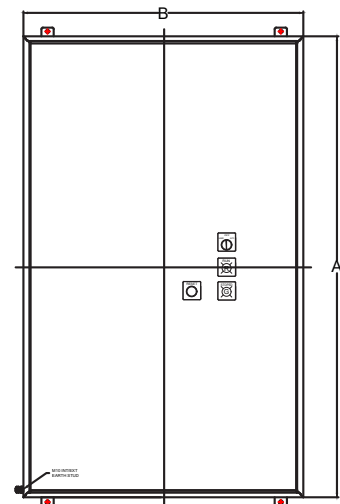
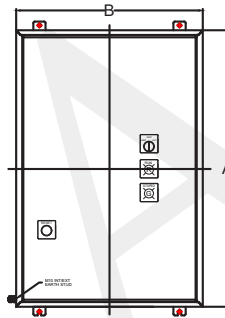
EAT•N

BY **SPKE**
ELECTRIC CONTROLS



Green Energy Efficient:

The SN4 Non Combination Starters by Spike Electric Controls are green energy-efficient due to their commitment to reducing energy consumption and minimizing environmental impact. These starters adhere to stringent energy efficiency standards, optimizing power usage by matching load requirements precisely. Employing advanced technologies to reduce heat generation, these starters not only save energy but also promote sustainability. Furthermore, their extended lifespan and compliance with environmental regulations ensure that they contribute positively to a greener, more eco-friendly industrial environment, making them an excellent choice for environmentally conscious industries.



| ENCLOSURE | | NOMINAL INSIDE DIMENSIONS | | | NOMINAL DIMENSIONS IN INCHES | | | | |
|-----------|-----|---------------------------|----|----|------------------------------|----|----|-------|--------|
| SIZE | FIG | W | H | D | A | B | C | D | E |
| 0 | a | 12 | 12 | 8 | 12 | 12 | 8 | 13.26 | 9.5 |
| 1 | a | 12 | 12 | 8 | 12 | 12 | 8 | 13.26 | 9.5 |
| 2 | a | 12 | 12 | 8 | 12 | 12 | 8 | 13.26 | 9.5 |
| 3 | b | 16 | 20 | 10 | 16 | 20 | 10 | 17.25 | 14 |
| 4 | c | 48 | 24 | 10 | 48 | 24 | 10 | 49.26 | 18.016 |
| 5 | c | 48 | 24 | 10 | 48 | 24 | 10 | 49.25 | 18.016 |
| 6 | d | 60 | 36 | 12 | 60 | 36 | 12 | 61.25 | 30 |



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Legend Plates:

If desired markings on indicating plates may be added to catalog number after the coil voltage designation. Put a – after the coil voltage & any legend plates that are selected. Select from the list of standard markings below.

Single Function Legend Plates

| MARKING | CAT. # |
|-------------------------|--------|
| Automatic | DSL16 |
| Blank | DSL01 |
| Blank with single field | DSL02 |
| Close | DSL21 |
| Down | DSL23 |
| Emerg. Stop | DSL17 |
| Fast | DSL46 |
| Forward | DSL18 |
| Hand | DSL15 |
| In | DSL24 |
| Jog | DSL10 |
| Lower | DSL27 |
| On | DSL07 |
| Off | DSL08 |
| Open | DSL20 |
| Out | DSL25 |
| Power On | DSL14 |
| Raise | DSL26 |
| Reset | DSL12 |
| Reverse | DSL19 |
| Run | DSL09 |
| Safe | DSL85 |
| Slow | DSL47 |
| Start | DSL05 |
| Stop | DSL06 |
| Test | DSL13 |
| Trip | DSL11 |
| Up | DSL22 |

Two Function Legend Plates

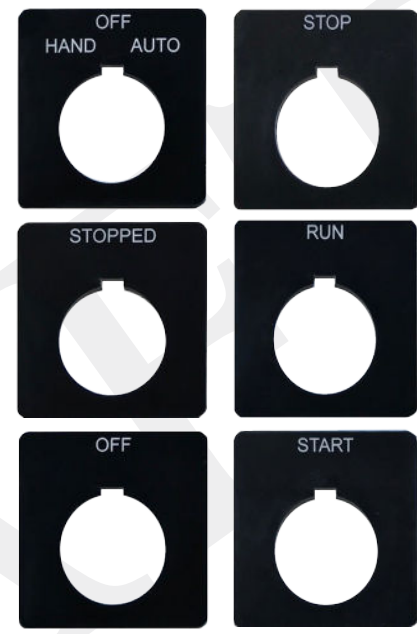
| MARKING | CAT. # |
|---------------------|--------|
| Blank with 2 fields | DSL03 |
| For –Rev | DSL30 |
| Hand-Auto | DSL29 |
| In-Out | DSL35 |
| Off-On | DSL48 |
| Open-Close | DSL32 |
| Raise Lower | DSL36 |
| Run-Jog | DSL28 |
| Safe-Run | DSL86 |
| Start-Stop | DSL37 |
| Slow-Fast | DSL65 |
| Up-Down | DSL33 |

Three Function Legend Plates

| MARKING | CAT. # |
|---------------------|--------|
| Auto-Off-Hand | DSL49 |
| Blank with 3 fields | DSL04 |
| Fast-Off-Slow | DSL41 |
| For-Off-Rev | DSL40 |
| Hand-Off-Auto | DSL39 |
| Run-Off-Jog | DSL38 |
| Open-Off-Close | DSL43 |
| Raise-Off-Lower | DSL87 |
| Slow-Off-Fast | DSL88 |
| Up-Off-Down | DSL44 |

Background color for all legend plates is black with the following exceptions:

| MARKING | CAT. # |
|---------------|--------|
| Start | Green |
| Stop | Red |
| Emerg. Stop | Red |
| For-Off-Rev | DSL40 |
| Hand-Off-Auto | DSL39 |
| Run-Off-Jog | DSL38 |





RFQ Questionnaire

Customer: _____ End User: _____

Project: _____ Location: _____

Prepared By: _____ Date: ____/____/____

Quotation For: ____ Estimate/Budget ____ Immediate Buy

Quotation Date Required: ____/____/____ Material Date Required: ____/____/____

Notes: _____

For Motor Starters:

- System Voltage
- 480 V
 - 240 V
 - Other: _____
- Motor HP _____
 - Three Phase
 - Single Phase

- Control Voltage
- 120
 - Other: _____

Starter(s):

Manufacturer: _____

- Type: NEMA IEC
- CPT for 120 volt Control Power _____ VA

Optional Controls:

- Start / Stop Push Button
- Hand - Off _ Auto Selector Switch
- Pilot Light
- FVNR Full Voltage Non Reversing Starter
- RVSS Reduced Voltage Solid State Starter
- FVR Full Voltage REVERSING Starter
- Two Speed Motor (2S2W/2S1W)
- Other: _____
- Soft Start: _____
- VFD: _____

Manufacturer: _____

Manufacturer: _____

Enclosure Types:

- NEMA 1 12 _____ Indoor
- NEMA 3/3R _____ Outdoor Rain Proof
- NEMA 4 _____ Outdoor Rain Proof
- NEMA 4x _____ Outdoor Rain Proof & Corrosion Rsistant
- Stainless Steel 304SS
- Stainless Steel 316SS
- FRP Fiberglass Reinforced Plastic
- NEMA 2 Standard Firepumps

- Optional:
- NEMA 3R NEMA 12 NEMA 4 NEMA 4X

Standard Products:

- Manual Motor Starters
- FVNR & FVR Motor Starters
- Motor Soft Starters
- Manual Disconnect Switches
- Circuit Breaker Disconnects
- Custom Distribution Panels
- Standard Distribution Panels

