

Explosion-proof Starters

Safe and reliable starting in hazardous applications

Sprecher + Schuh offers explosion-proof starters for environments covered by the following classifications:

- NEMA:** 7BCD, 9EFG
- NEC:** Class I, Groups B, C, D
Class II, Groups E, F, G
Class III
- UL:** Standard 1203
Hazardous (Classified) Locations
- CSA:** Standard 22.2 No. 25 & 30

Explosion-proof combination starters also comply with NEMA 3, 3R, 4 & 12.

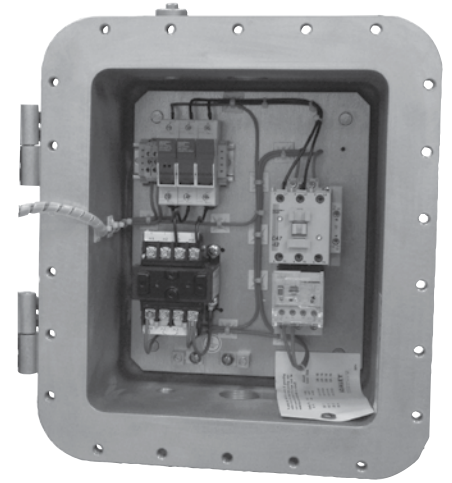
Type 7 and Type 9 protection

Type 7 enclosures are designed to provide protection against an internal explosion when operated in a hazardous gas environment. Type 9 enclosures protect from internal explosion in a hazardous dust environment.

Both types must also prevent enclosed heat generating mechanisms from causing external surfaces to reach temperatures capable of igniting explosive gas-air mixtures in the surrounding atmosphere. Sprecher + Schuh explosion-proof starters meet all requirements of both classifications.

Starting with the best

At the heart of all explosion-proof starters is Sprecher + Schuh's CAT7 and CAT6 line of motor starters. These starters are compact and offer intermediate sizes to better match specific motor requirements. This equates to generous wiring space and less wasted horsepower capacity.



Top line protection...

Explosion Proof starters are equipped with Sprecher + Schuh's CEP7 solid state overload relay. Unlike traditional overload relays that indirectly sense motor current through heater elements, CEP7 solid state overload relays measure motor current directly through integrated current transformers and on board electronics. The electronics provide numerous advantages over electromechanical relays.

Combination starters for protection and convenience

Explosion-proof combination starters can include either a UL489 approved Thermal Magnetic Circuit Breaker (MCCB) or non-fusible disconnect. The MCCB utilizes the instantaneous trip ability of a magnetic breaker for short circuit currents combined with the overload tolerance of thermal circuit breakers for normal starting demands. An MCCB can also be quickly reset after the fault has been cleared.

A molded case switch (MCS) is used in applications requiring only a non-fused disconnect.



Explosion Proof motor control panel mounted directly to motor and pump frame.

Series CAT7 & CAT6 ②

Maximum Horsepower Three Phase				Without Short Circuit Protection	Price	DIM	MCCB Amps	With Thermal Magnetic Circuit Breaker (MCCB)	Price	DIM	With Non Fusible Disconnect	Price	DIM
200V	230V	460V	575V										
2	3	5	7.5	CAT7-30-*◆-E0	2823	A7	15	CAT7-30-*◆-TB15E0	4816	E7			
3	~	7.5	10	CAT7-30-*◆-E0	2823	A7	20	CAT7-30-*◆-TB20E0	4816	E7			
~	5	10	~	CAT7-30-*◆-E0	2823	A7	25	CAT7-30-*◆-TB25E0	4816	E7			
5	~	~	15	CAT7-30-*◆-E0	2823	A7	30	CAT7-30-*◆-TB30E0	4816	E7			
~	7.5	15	20	CAT7-30-*◆-E0	2823	A7	35	CAT7-30-*◆-TB35E0	4816	E7			
7.5	~	~	~	CAT7-30-*◆-E0	2823	A7	40	CAT7-30-*◆-TB40E0	4816	E7			
~	10	20	25	CAT7-30-*◆-E0	2823	A7	50	CAT7-30-*◆-TB50E0	4816	E7			
10	~	~	30	CAT7-37-*◆-E0	2931	A7	50	CAT7-37-*◆-TB50E0	5025	E7			
~	~	25	~	CAT7-37-*◆-E0	2931	A7	60	CAT7-37-*◆-TB60E0	5025	E7			
~	~	~	30	CAT7-43-*◆-E0	3036	A7	50	CAT7-43-*◆-TB50E0	5130	E7			
~	~	30	~	CAT7-43-*◆-E0	3036	A7	60	CAT7-43-*◆-TB60E0	5130	E7			
~	15	~	~	CAT7-43-*◆-E0	3036	A7	70	CAT7-43-*◆-TB70E0	5130	E7			
15	~	40	50	CAT7-60-*◆-E0	3141	A7	80	CAT7-60-*◆-TB80E0	5235	F7			
~	20	~	~	CAT7-60-*◆-E0	3141	A7	90	CAT7-60-*◆-TB90E0	5235	F7			
20	~	50	60	CAT7-72-*◆-E0	3193	A7	100	CAT7-72-*◆-TB100E0	5339	F7			
~	25	~	~	CAT7-72-*◆-E0	3193	A7	125	CAT7-72-*◆-TB125E0	5339	F7			
~	~	~	60	CAT7-85-*◆-E0	3298	A7	100	CAT7-85-*◆-TB100E0	5444	F7			
25	30	60	~	CAT7-85-*◆-E0	3298	A7	125	CAT7-85-*◆-TB125E0	5444	F7			
~	30	~	75	CAT7-97-*◆-E0	3418	A7	125	CAT7-97-*◆-TB125E0	5564	F7			
30	~	75	~	CAT7-97-*◆-E0	3418	A7	150	CAT7-97-*◆-TB150E0	5764	F7			
30	~	75	100	CAT6-115-*◆-E0	5235	B7	150	CAT6-115-*◆-TB150E0	11516	G7			
~	40	~	~	CAT6-115-*◆-E0	5235	B7	175	CAT6-115-*◆-TB175E0	11516	G7			
40	~	~	~	CAT6-115-*◆-E0	5235	B7	200	CAT6-115-*◆-TB200E0	11516	G7			
~	50	100	125	CAT6-140-*◆-E0	5758	B7	200	CAT6-140-*◆-TB200E0	12039	G7			
50	~	~	150	CAT6-180-*◆-E0	9213	C7	225	CAT6-180-*◆-TB225E0	20100	H7			
~	60	125	~	CAT6-180-*◆-E0	9213	C7	250	CAT6-180-*◆-TB250E0	20100	H7			
~	~	150	~	CAT6-180-*◆-E0	9213	C7	300	CAT6-180-*◆-TB300E0	20100	H7			
60	75	~	200	CAT6-210-EI-*◆-E0	18006	D7	300	CAT6-210-EI-*◆-TB300E0	23450	H7			
75	~	175	~	CAT6-250-EI-*◆-E0	20435	D7	350	CAT6-250-EI-*◆-TB350E0	25125	H7			
~	100	200	250	CAT6-250-EI-*◆-E0	20435	D7	400	CAT6-250-EI-*◆-TB400E0	25125	H7			
100	~	~	300	CAT6-300-EI-*◆-E0	20770	D7	450	CAT6-300-EI-*◆-TB450E0	25544	H7			
~	125	250	~	CAT6-300-EI-*◆-E0	20770	D7	500	CAT6-300-EI-*◆-TB500E0	25544	H7			
125	150	300	400	CAT6-420-EI-*◆-E0	21775	D7	600	CAT6-420-EI-*◆-TB600E0	28475	H7			
150	175	350	~	CAT6-420-EI-*◆-E0	21775	D7	700	CAT6-420-EI-*◆-TB700E0	28475	H7			

To order, select equivalent Thermal-Magnetic Circuit Breaker catalog number from this chart. Specify on order, "With molded case switch."

Larger sizes and reversing starters available. Contact your Sprecher + Schuh representative.

NOTE: Catalog numbers, list Prices and enclosure dimensions reflect contactors with AC coils. For DC coils, select Coil Code from the DC Coil Code table on page C86 and follow the instructions for modifying catalog numbers and list Prices.

Ordering Instructions

Specify Catalog Number	
Replace (*) with Coil Code	See page C86
Replace (◆) with O/L Relay	See pages C87-C88
Factory Modifications available	See pages C89-C92

- ① Dimensional information starts on page C108.
- ② Enclosures have gaskets for outdoor use (Type 4).

Pilot Device Kits – Type 7/9 Applications (For use with Type 7/9 Explosion Proof Enclosures)

Kits	Description	Contact Blocks included		Catalog Number	Price
		NO	NC		
	START Pushbutton Green, Non-illuminated, momentary, with legend ①②	1	0	XHPB-BT4-XNP	174
	STOP Pushbutton Red, Non-illuminated, momentary, with legend ①②	0	1	XHPB-BT5-XNP	174
	DUAL Pushbutton Non-illuminated, momentary	1	1	XHDPB-BT1A	340
	OFF-ON Selector Switch Non-illuminated, maintained, with legend	1	0	XHSS-1-BT4-XNP/OFF-ON	297
	HAND-AUTO Selector Switch Non-illuminated, maintained, with legend	1	1	XHSS-1-BT1A-XNP/HAND-AUTO	313
	HAND-OFF-AUTO Selector Switch Non-illuminated, maintained, with legend	2	0	XHSS-3-BT2-XNP/HAND-OFF-AUTO	313
	FWD-OFF-REV Selector Switch Non-illuminated, maintained, with legend	2	0	XHSS-3-BT2-XNP/FWD-OFF-REV	313
	RED EMERGENCY STOP Pushbutton Non-illuminated, maintained push-pull, with legend	1	1	XHPPM-BT1A-XNP/ESTOP	786
	Mechanical RESET Pushbutton	0	0	XRB	105
	GUARDED Pilot Light ③ 120V incandescent, screw terminations	Amber Blue Clear Green Red White		XLAT-GH XLBT-GH XLCT-GH XLGT-GH XLRT-GH XLWT-GH	283
	PUSHBUTTON LOCKOUT - Accessory Padlock device to activate pushbutton	~		XHPL	166
	OPERATOR PROTECTIVE BOOT Rubber push button cap	Green Red		XBG XBR	56
	OPERATOR PROTECTIVE BOOT Rubber selector switch cap	Black		XBSB	56
	COMBINATION BREATHER/DRAIN ④ Install on top of enclosure for Breather Install in bottom of enclosure for Drain	Stainless steel		XDBH2	86

① Legend Plates are anodized aluminum with engraved letters on black background (XNP).
② STOP has red background. START has green background.

③ One of the NPSM hole locations on the A7 dimensional enclosure could create the need for a short pilot light. Refer to factory for details.
④ Requires purchase of 2 pcs for application of both Breather and Drain.