

# Pump Controllers

Pump control panels for outdoor irrigation and oil well applications

C  
Simplex & Duplex Pump Panels



Sprecher + Schuh pump control panels are specifically designed to meet Combination starter requirements in demanding outdoor environmental conditions. Typical applications include irrigation and waste water treatment as well as oil well and agricultural applications.

Pump Controllers from Sprecher + Schuh offer through-the-door operators and rugged Type 3R rain-proof metal or Type 4X non-metallic enclosures. These enclosures in some cases are somewhat smaller than previous models but still with adequate room to mount a mechanical timer and other customer supplied controls.

## Three models of Pump Controllers

- **Thermal-magnetic circuit breakers (MCCB)** instead of a motor circuit protector (MCP) to comply with short-circuit requirements from UL and NEC.
- **Heavy duty fusible or non-fusible L11 disconnect switches** provide improved short-circuit protection when used with J fuses.
- **Self-protected Combination Controllers (Type E)** KTA7 models which offer superior fuseless short-circuit protection in a smaller more economical package (See page F111).

Pump panels feature our CA7 and CA9 line of contactors which are UL Listed and sized to match all the available HP sizes of motors. Alternately, we can provide NEMA Sized (CAN7) contactors, which comply with all requirements by UL and are labeled with the applicable NEMA (00, 0, 1, 2, or 3) size in our pump panels. Our MCCB models and the L11 models utilize the CEP7 solid state overload relay providing state-of-the-art overload and single-phase protection. See Section B in this catalog for a full description of these excellent motor protection relays.



Our KTA7 model utilizes the high speed current limiting capabilities providing short-circuit protection, branch-circuit disconnect, and overload protection in one compact device. See Section F in this catalog for application details for these Type E Combos.

## Standard or Customized Features

Standard pump controllers are equipped with START pushbutton and H-O-A selector switch. The entire assembly is mounted in an outdoor enclosure with provision for mounting on a pole or a wall and top conduit provisions. Oversized enclosures can be provided for each of the pump controllers to accommodate extra equipment. Our factory modification section lists many of the options that are commonly requested. A customized pump controller quotation including door-in-door (dead-front) models, reduced voltage models and models with customized control diagrams can be provided on demand by contacting your Sprecher + Schuh representative.



### Series CAPT7 and CAPT9 with Thermal-Magnetic Circuit Breaker

Maximum Horsepower Three Phase			MCCB Amps	Type 3R Rainproof Metal	D I M	Type 4X Watertight Corrosion Resistant Non-Metallic	D I M
230V	460V	575V		Catalog No.		Ⓛ Catalog No.	
				<b>CAPT</b>		<b>CAPT</b>	
2	5	~	15	7-9-*◆-TB15R0	R2	7-9-*◆-TB15C0	R/F
2	5	5	15	7-9-*◆-TBH15R0	R2	7-9-*◆-TBH15C0	R/F
~	~	7.5	20	7-9-*◆-TBH20R0	R2	7-9-*◆-TBH20C0	R/F
3	7.5	~	20	7-12-*◆-TB20R0	R2	7-12-*◆-TB20C0	R/F
3	7.5	10	20	7-12-*◆-TBH20R0	R2	7-12-*◆-TBH20C0	R/F
5	10	~	30	7-16-*◆-TB30R0	R2	7-16-*◆-TB30C0	R/F
~	~	15	35	7-23-*◆-TBH35R0	R2	7-23-*◆-TBH35C0	R/F
7.5	15	~	40	7-23-*◆-TB40R0	R2	7-23-*◆-TB40C0	R/F
10	20	25 Ⓛ	50	7-30-*◆-TB50R0	R2	7-30-*◆-TB50C0	R/F
10	20	25	50	7-30-*◆-TBH50R0	R2	7-30-*◆-TBH50C0	R/F
~	25	30 Ⓛ	60	7-37-*◆-TB60R0	R2	7-37-*◆-TB60C0	R/F
~	25	30	60	7-37-*◆-TBH60R0	R2	7-37-*◆-TBH60C0	R/F
~	30	~	70	7-43-*◆-TB70R0	R2	7-43-*◆-TB70C0	R/F
15	~	~	80	7-43-*◆-TB80R0	R2	7-43-*◆-TB80C0	R/F
20	40	40 Ⓛ	80	7-55-*◆-TB80R0	R2	7-55-*◆-TB80C0	R/F
20	40	40	80	7-55-*◆-TBH80R0	R2	7-55-*◆-TBH80C0	R/F
~	~	40 Ⓛ	80	7-60-*◆-TB80R0	R2	7-60-*◆-TB80C0	R/F
~	~	40	80	7-60-*◆-TBH80R0	R2	7-60-*◆-TBH80C0	R/F
20	40	50 Ⓛ	100	7-60-*◆-TB100R0	R2	7-60-*◆-TB100C0	R/F
20	40	50	100	7-60-*◆-TBH100R0	R2	7-60-*◆-TBH100C0	R/F
25	50	60 Ⓛ	125	7-72-*◆-TB125R0	R2	7-72-*◆-TB125C0	R/F
25	50	60	125	7-72-*◆-TBH125R0	R2	7-72-*◆-TBH125C0	R/F
30	60	~	125	7-85-*◆-TB125R0	R2	7-85-*◆-TB125C0	R/F
~	~	75 ⓁⓁ	150	7-97-*◆-TB150R0	R2	7-97-*◆-TB150C0	R/F
~	~	75 Ⓛ	150	7-97-*◆-TBH150R0	R2	7-97-*◆-TB150C0	R/F
~	75 Ⓛ	~	175	7-97-*◆-TB175R0	R2	7-97-*◆-TB175C0	R/F
~	75	~	175	9-116-*◆-TB175R0 Ⓛ	T	9-116-*◆-TB175C0 Ⓛ	R/F
40	~	100 Ⓛ	200	9-116-*◆-TB200R0 Ⓛ	T	9-116-*◆-TB200C0 Ⓛ	R/F
~	100	125 Ⓛ	225	9-146-*◆-TB225R0 Ⓛ	T	9-146-*◆-TB225C0 Ⓛ	R/F
50	~	~	250	9-146-*◆-TB250R0 Ⓛ	T	9-146-*◆-TB250C0 Ⓛ	R/F
60	125	150	300	9-190-*◆-TB300R0 Ⓛ	T	9-190-*◆-TB300C0 Ⓛ	R/F
75	150	200	350	9-205-*◆-TB350R0 Ⓛ	I	9-205-*◆-TB350C0 Ⓛ	R/F
~	175	~	400	9-265-*◆-TB400R0 Ⓛ	I	9-265-*◆-TB400C0 Ⓛ	R/F
100	200	250	450	9-265-*◆-TB450R0 Ⓛ	I	9-265-*◆-TB450C0 Ⓛ	R/F
~	~	~	500	9-305-*◆-TB500R0 Ⓛ	I	9-305-*◆-TB500C0 Ⓛ	R/F
125	250	300	600	9-305-*◆-TB600R0 Ⓛ	I	9-305-*◆-TB600C0 Ⓛ	R/F
~	~	350	600	9-370-*◆-TB600R0 Ⓛ	I	9-370-*◆-TB600C0 Ⓛ	R/F
150	300	~	700	9-370-*◆-TB700R0 Ⓛ	I	9-370-*◆-TB700C0 Ⓛ	R/F
150	~	400	700	9-400-EI-*◆-TB700R0	J	9-400-EI-*◆-TB700C0	R/F
~	350	~	800	9-400-EI-*◆-TB800R0	J	9-400-EI-*◆-TB800C0	R/F
~	~	~	800	9-460-EI-*◆-TB800R0	J	9-460-EI-*◆-TB800C0	R/F
200	400	500	1000	9-460-EI-*◆-TB1000R0	J	9-460-EI-*◆-TB1000C0	R/F
~	~	600	1000	9-580-EI-*◆-TB1000R0	R/F	9-580-EI-*◆-TB1000C0	R/F
250	500	~	1200	9-580-EI-*◆-TB1200R0	R/F	9-580-EI-*◆-TB1200C0	R/F

Larger sizes available. Contact your Sprecher + Schuh representative.

### Ordering Instructions

Specify Catalog Number	
Replace (*) with Coil Code	See page C104
Replace (◆) with O/L Relay	See pages C105-C106
Factory Modifications available	See pages C107-C111

### Pump Panel with Circuit Breaker includes:

- Contactor (with AC coil)
- Overload relay protection
- Thermal magnetic circuit breaker
- "START" momentary pushbutton
- "H-O-A" selector switch
- At minimum, 6"x10" extra back pan space
- UL type rated enclosure



CAPT7-23...

R/F - Experience has shown that applications using non-metallic enclosures often require customized pump panels (i.e. Door-in-Door or unique control circuits). Contact your Sprecher + Schuh representative for a customized price.

**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 C104 and follow the instructions for modifying Catalog Numbers.

- Ⓛ Dimensional information starts on page C122.
- Ⓛ Applicable to 600Y/347V only.
- Ⓛ The short circuit and kAIC is relegated to the contactor's 10kA. Contact your Sprecher + Schuh representative for a higher kAIC.
- Ⓛ CAPT9-116...CAPT9-370 starters are available with "EI" option for PLC interface. Change catalog number to include "-EI". Example: CAPT9-116-\*◆-TB175R0 becomes CAPT9-116-EI-\*◆-TB175R0. See page C104 for price adder.

Simplex & Duplex Pump Panels

#### Series CAPT7 and CAPT9 with Fusible Disconnect (J-Type) ②③

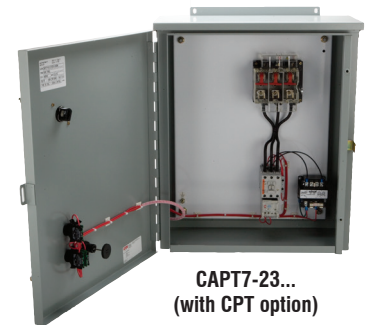
Maximum Horsepower Three Phase			Fuse Clips	Type 3R Rainproof Metal	D I M	Type 4X Watertight Corrosion Resistant Non-metallic	D I M
230V	460V	575V		Catalog No.		①	
				<b>CAPT</b>		<b>CAPT</b>	
2	5	7.5	30	7-9-*◆-JF61RO	R2	7-9-*◆-JF61CO	R/F
3	7.5	10	30	7-12-*◆-JF61RO	R2	7-12-*◆-JF61CO	R/F
5	10	15	30	7-16-*◆-JF61RO	R2	7-16-*◆-JF61CO	R/F
~	~	~	30	7-23-*◆-JF61RO	R2	7-23-*◆-JF61CO	R/F
7.5	15	15	60	7-23-*◆-JF62RO	R2	7-23-*◆-JF62CO	R/F
10	20	25	60	7-30-*◆-JF62RO	R2	7-30-*◆-JF62CO	R/F
10	25	30	60	7-37-*◆-JF62RO	R2	7-37-*◆-JF62CO	R/F
~	30	30	60	7-43-*◆-JF62RO	R2	7-43-*◆-JF62CO	R/F
15	~	~	100	7-43-*◆-JF63RO	R2	7-43-*◆-JF63CO	R/F
~	~	40	60	7-55-*◆-JF62RO	R2	7-55-*◆-JF62CO	R/F
20	40	~	100	7-55-*◆-JF63RO	R2	7-55-*◆-JF63CO	R/F
~	~	40	60	7-60-*◆-JF62RO	R2	7-60-*◆-JF62CO	R/F
20	40	50	100	7-60-*◆-JF63RO	R2	7-60-*◆-JF63CO	R/F
25	50	60	100	7-72-*◆-JF63RO	R2	7-72-*◆-JF63CO	R/F
~	~	60	100	7-85-*◆-JF63RO	R2	7-85-*◆-JF63CO	R/F
30	60	~	200	7-85-*◆-JF64RO	H	7-85-*◆-JF64CO	R/F
30	75	75	200	7-97-*◆-JF64RO	H	7-97-*◆-JF64CO	R/F
40	75	100	200	9-116-*◆-JF64RO ④	H	9-116-*◆-JF64CO ④	R/F
50	100	125	200	9-146-*◆-JF64RO ④	H	9-146-*◆-JF64CO ④	R/F
60	125	150	400	9-190-*◆-JF65RO ④	J	9-190-*◆-JF65CO ④	R/F
75	150	200	400	9-205-*◆-JF65RO ④	J	9-205-*◆-JF65CO ④	R/F
100	200	250	400	9-265-*◆-JF65RO ④	J	9-265-*◆-JF65CO ④	R/F
125	250	300	600	9-305-*◆-JF66RO ④	R/F	9-305-*◆-JF66CO ④	R/F
150	300	350	600	9-370-*◆-JF66RO ④	R/F	9-370-*◆-JF66CO ④	R/F
150	~	400	600	9-400-EI-*◆-JF66RO	R/F	9-400-EI-*◆-JF66CO	R/F
~	350	~	800	9-400-EI-*◆-JF67RO	R/F	9-400-EI-*◆-JF67CO	R/F
200	400	500	800	9-460-EI-*◆-JF67RO	R/F	9-460-EI-*◆-JF67CO	R/F

Larger sizes 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 C104 and follow the instructions for modifying Catalog Numbers.

#### Pump Panel with Disconnect Switch includes:

- Contactor (with AC coil)
- Overload relay protection
- J-type fusible disconnect switch (excluding line fuses)
- "START" momentary pushbutton
- "H-O-A" selector switch
- At minimum, 6"x10" extra back pan space
- UL type rated enclosure



CAPT7-23... (with CPT option)

R/F - Experience has shown that applications using non-metallic enclosures often require customized pump panels (i.e. Door-in-Door or unique control circuit). Contact your Sprecher + Schuh representative for a customized price.

#### Ordering Instructions

Specify Catalog Number	
Replace (*) with Coil Code	See page C104
Replace (◆) with O/L Relay	See pages C105-C106
Factory Modifications available	See pages C107-C111

- ① Dimensional information starts on page C122.
- ② Fusible combo starters use the L11 Disconnect. Fuse clips accept "J" type fuses. Power fuses not supplied.
- ③ A Red and Yellow Handle may be selected instead of the standard Gray and Black handle. Change "JF" to "LF" in catalog number.
- ④ CAT9-116...CAT9-370 starters are available with "EI" option for PLC interface. Change catalog number to include "-EI". Example: CAPT9-116-\*◆-JF64RO becomes CAPT9-116-EI-\*◆-JF64RO. See page C104 for price adder.

**Series CAPTN7 with Thermal-Magnetic Circuit Breaker**

NEMA Size	Maximum Horsepower Three Phase			MCCB Amps	Type 3R Rainproof Metal	DIM	Type 4X Watertight Corrosion Resistant Non-Metallic	DIM
	230V	460V	575V		Catalog No.		① Catalog No.	
					<b>CAPTN</b>		<b>CAPTN</b>	
00	1-1/2	2	2 Ⓢ	15	7-12-*◆-TB15R0	R2	7-12-*◆-TB15C0	R/F
	1-1/2	2	2	15	7-12-*◆-TBH15R0	R2	7-12-*◆-TBH15C0	R/F
0	2	5	5 Ⓢ	15	7-16-*◆-TB15R0	R2	7-16-*◆-TB15C0	R/F
	2	5	5	15	7-16-*◆-TBH15R0	R2	7-16-*◆-TBH15C0	R/F
	3	~	~	20	7-16-*◆-TB20R0	R2	7-16-*◆-TB20C0	R/F
	3	~	~	20	7-16-*◆-TBH20R0	R2	7-16-*◆-TBH20C0	R/F
1	7-1/2	~	~	40	7-37-*◆-TB40R0	R2	7-37-*◆-TB40C0	R/F
	~	10	~	30	7-37-*◆-TB30R0	R2	7-37-*◆-TB30C0	R/F
	~	~	10 Ⓢ	20	7-37-*◆-TB20R0	R2	7-37-*◆-TB20C0	R/F
	~	~	10	20	7-37-*◆-TBH20R0	R2	7-37-*◆-TBH20C0	R/F
2	~	~	25 Ⓢ	50	7-43-*◆-TB50R0	R2	7-43-*◆-TB50C0	R/F
	~	~	25	50	7-43-*◆-TBH50R0	R2	7-43-*◆-TBH50C0	R/F
	~	25	~	60	7-43-*◆-TB60R0	R2	7-43-*◆-TB60C0	R/F
	15	~	~	80	7-43-*◆-TB80R0	R2	7-43-*◆-TB80C0	R/F
3	20	40	50 Ⓢ	100	7-85-*◆-TB100R0	R2	7-85-*◆-TB100C0	R/F
	20	40	50	100	7-85-*◆-TBH100R0	R2	7-85-*◆-TBH100C0	R/F
	30	50	~	125	7-85-*◆-TB125R0	R2	7-85-*◆-TB125C0	R/F

**Pump Panel with NEMA label includes:**

- NEMA labeled contactor (with AC coil)
- Overload relay protection
- Appropriate disconnect means thermal magnetic circuit breaker) or J-type fusible disconnect switch (excluding line fuses)
- "START" momentary push-button
- "H-O-A" selector switch
- At minimum, 6"x10" extra back pan space
- UL type rated enclosure

R/F - Experience has shown that applications using non-metallic enclosures often require customized pump panels (i.e. Door-in-Door or unique control circuit). Contact your Sprecher + Schuh representative for a customized price.

**Series CAPTN7 with Fusible Disconnect (J-Type) ②③**

NEMA Size	Maximum Horsepower Three Phase			Fuse Clips	Type 3R Industrial Dusttight	DIM	Type 4X Watertight Corrosion Resistant Non-Metallic	DIM
	230V	460V	575V		Catalog No.		① Catalog No.	
					<b>CAPTN</b>		<b>CAPTN</b>	
00	1-1/2	2	2	30	7-12-*◆-JF61R0	R2	7-12-*◆-JF61C0	R/F
0	3	5	5	30	7-16-*◆-JF61R0	R2	7-16-*◆-JF61C0	R/F
1	~	10	10	30	7-37-*◆-JF61R0	R2	7-37-*◆-JF61C0	R/F
	7-1/2	~	~	60	7-37-*◆-JF62R0	R2	7-37-*◆-JF62C0	R/F
2	~	25	25	60	7-43-*◆-JF62R0	R2	7-43-*◆-JF62C0	R/F
	15	~	~	100	7-43-*◆-JF63R0	R2	7-43-*◆-JF63C0	R/F
3	~	50	50	100	7-85-*◆-JF63R0	R2	7-85-*◆-JF63C0	R/F
	30	~	~	200	7-85-*◆-JF64R0	H	7-85-*◆-JF64C0	R/F

**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 C104 and follow the instructions for modifying Catalog Numbers.

**Ordering Instructions**

Specify Catalog Number	
Replace (*) with Coil Code	See page C104 See pages C105-C106 See pages C107-C111
Replace (◆) with O/L Relay	
Factory Modifications available	

- ① Dimensional information starts on page C122.
- ② Fusible combo starters use the L11 Disconnect. Fuse clips accept "J" type fuses. Power fuses not supplied.
- ③ A Red and Yellow Handle may be selected instead of the standard Gray and Black handle. Change "JF" to "LF" in catalog number.
- ④ Applicable to 600Y/347V only.

**C** Simplex & Duplex Pump Panels