

Softstarters

Description

- Wide main voltage range, 200 - 690 VAC
- Wide control voltage range, 100 - 250 V, 50/60 Hz
- Current ratings 30 to 1050 A (In Line) and 52 - 1800 A (Inside Delta)
- Same unit can be used for both In Line and Inside Delta connection
- Premium adjustable Softstarter functions like start/stop ramp, kick start, jog, step down voltage and sequential starts
- Current limit adjustable between 200% to 500% of motor FLA
- Thermistor (PTC) supervision of motor winding
- Real time clock
- Logging of last 20 events with time stamp
- Prepared for Field-bus communication
- Programmable electronic overloads: Classes 10A, 10, 20 & 30
- Locked rotor protection
- Motor underload protection
- Phase imbalance protection
- Phase reversal protection



General information

Catalog number explanation

Open & enclosed

Open

PST B 370 600 - 70

Softstarter
Type PST

Bypass
No digit – No integrated bypass
B – Integrated bypass

6

Current rating

UL / IEC	UL / IEC
30 – 28/30	210 – 192/210
37 – 34/37	250 – 248/250
44 – 42/44	300 – 302/300
50 – 54/50	370 – 361/370
72 – 68/72	470 – 480/470
85 – 80/85	570 – 590/570
105 – 104/105	720 – 720/720
142 – 130/142	840 – 840/840
175 – 156/175	1050 – 1062/1050

Control voltage
70 – 100 – 250 V, 50/60 Hz

Line voltage
600 – 208/230/480/600 V
690 – 690 V ①

Enclosed

T 100 D F 1 – 48 D A

Soft starter settings
T – Type PST Enclosed

010 – 10	125 – 125	800 – 800
015 – 15	150 – 150	900 – 900
020 – 20	200 – 200	1000 – 1000
025 – 25	250 – 250	1200 – 1200
030 – 30	300 – 300	1400 – 1400
040 – 40	350 – 350	1500 – 1500
050 – 50	400 – 400	1600 – 1600
060 – 60	450 – 450	1700 – 1700
075 – 75	500 – 500	1800 – 1800
100 – 100	600 – 600	

Connection type
L – Inline
D – Inside Delta

Combination type
No digit – non-combination
F – fusible disconnect
B – thermal magnetic circuit breaker
M – magnetic only breaker
N – non-fusible disconnect

Enclosure
1 – NEMA 1
2 – NEMA 12 ②
3 – NEMA 3R ③
4 – NEMA 4 ④
X – NEMA 4x stainless steel ⑤

Options ①

- A – Start-stop pushbutton
- B – Across the line rated (AC3) contactor with emergency bypass control
- C – 2 position selector switch
- D – 3 position selector switch
- E – Pilot light
- F – Start-stop pushbutton and pilot light
- H – 2 position selector switch and pilot light
- J – 3 position selector switch and pilot light
- M – Shunt rated (AC1) bypass contactor
- W – Isolation contactor

Fuse clip

- | | |
|-------------------------|--------------------------|
| A – 30A, 600V, Class J | H – 1200A, 600V, Class L |
| B – 60A, 600V, Class J | J – 1600A, 600V, Class L |
| C – 100A, 600V, Class J | K – 2000A, 600V, Class L |
| D – 200A, 600V, Class J | L – 2500A, 600V, Class L |
| E – 400A, 600V, Class J | M – 3000A, 600V, Class L |
| F – 600A, 600V, Class J | N – 4000A, 600V, Class L |
| G – 800A, 600V, Class L | |

Circuit Breaker Amp Ratings

- | | | | | |
|--------|---------|---------|----------|----------|
| D – 15 | M – 70 | W – 225 | E – 700 | N – 3000 |
| E – 20 | N – 80 | X – 250 | F – 800 | |
| F – 25 | P – 90 | Y – 300 | G – 900 | |
| G – 30 | R – 100 | Z – 350 | H – 1000 | |
| H – 35 | S – 125 | A – 400 | J – 1200 | |
| J – 40 | T – 150 | B – 450 | K – 1600 | |
| K – 50 | U – 175 | C – 500 | L – 2000 | |
| L – 60 | V – 200 | D – 600 | M – 2500 | |

MCP/MAG Only Rating

- | | | |
|--------|---------|----------|
| A – 3 | E – 50 | J – 400 |
| B – 5 | F – 100 | K – 600 |
| C – 10 | G – 150 | L – 800 |
| D – 25 | H – 225 | M – 1200 |

Line voltage

- 20: 208V 120V control voltage
- 23: 230V 120V control voltage
- 38: 380V 220V control voltage
- 41: 415V 220V control voltage
- 48: 480V 120V control voltage
- 60: 600V 120V control voltage

① For more options, see page 6.27

② Bypass contactor required when integrated bypass is not included.

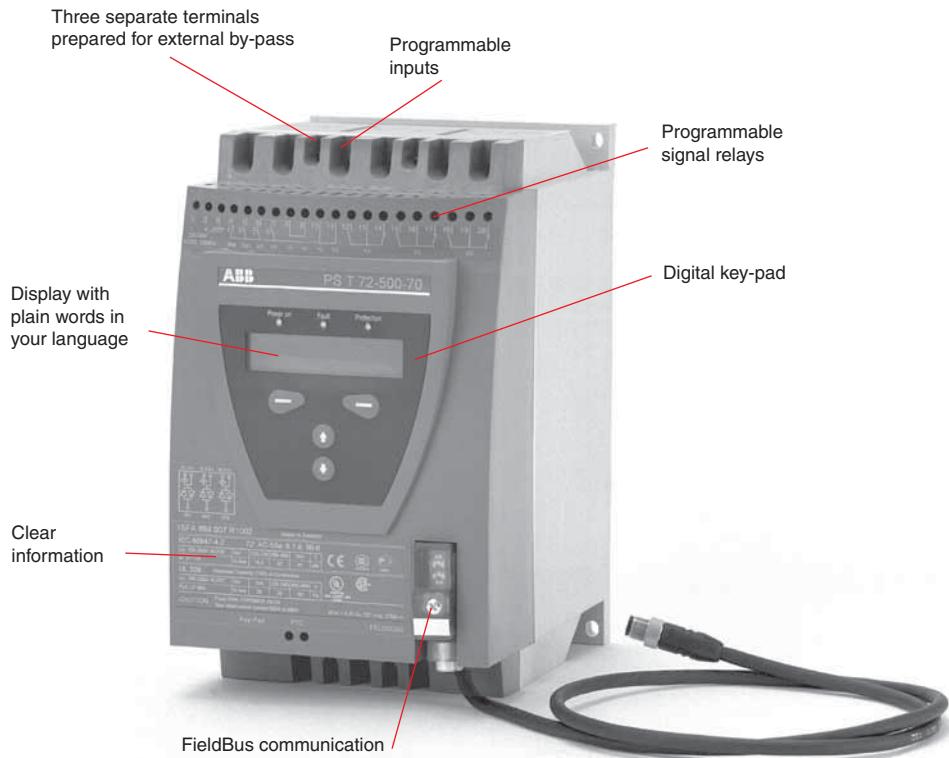
③ Add 30% to the list price.

General information

Application and description

Softstarters
Type PST

6



Application

The PST range is a microprocessor based softstarter designed with the latest technology for soft start and soft stop of motors. The PST Softstarter has several advanced motor protection features as standard. The four button key pad and the logic structure of the menu makes the installation, commissioning and operation easy. It is possible to choose between 12 different languages.

The PST Softstarter can be used with or without a by-pass contactor. The larger sizes, PSTB370 – PSTB1050, include a built-in by-pass contactor.

The PST Softstarter can be selected according to the rated motor power in normal duty applications like pumps, compressors, elevators, escalators, short conveyor belts and bow thrusters.

Digital display

Your business is going global. Shouldn't your motor control go global, too? The PST display gives you information presented in plain words — in your language. You can choose between almost a dozen languages including English, German, Italian, Chinese, Finnish, Swedish, French, Spanish, Dutch, Russian, Turkish and Portuguese. On the PST display, you get all the information you need to set up, adjust and trouble-shoot. This makes the PST extremely easy to handle and reduces the risk of misinterpretations.

At any time, you can read output current, output voltage, number of starts, total run time and motor temperature on the display. If a fault should occur, this is also indicated on the display. The fault messages are presented in clear text in the selected language.



In-Line and Inside Delta connection of PST30 - 1050



General information

Application and description

Four button keypad

The PST employs the same basic user concept as today's advanced mobile telephones. Using the four buttons on the keypad, you can easily adjust your own start and stop profile and motor protection functions for any type of application. There are standard settings for many common applications including pumps, conveyors, fans, mixers and compressors for quick and easy set up.

You can also set the advanced warning parameters to allow potential problems to be identified before real problems occur. A password protection function is available to prevent unauthorized changes to the programming.

Remote four button keypad

6 This optional remote keypad is an extended HMI (human-machine interface) for all PST(B) softstarters. The remote keypad allows you to access all functions from the PST(B) on the outside of the enclosure door.

The interface/display is exactly the same as the one on the softstarter (working in parallel with the one on the product). Used as a handheld device, it is easy to set up parallel softstarter units as you can copy data from one softstarter unit and download to another.

The keypad kit includes all necessary details for assembling: 3 screws, 10 ft. communication cable, installation instructions and a drilling plan.

The keypad has the following approvals: UL Type 1, 12, Indoor 4/4X.

Starting several motors

You can store as many as three different starting parameter sets for optimal sequence start of three different motors. You can use this function for two or three speed motors as well.

Integrated advanced motor protection

Inside the PST Softstarter, you will find useful features for advanced motor and softstarter protection, including: programmable overload protection, high current, underload, phase imbalance, phase reversal, thyristor overload protection, and bypass monitoring to ensure proper by-pass operation.

Programmable signal relays

All PST units have three programmable signal relays where each relay can signal Run, Top of Ramp or Event. The Event setting can be used to signal fault protections or warnings. The supervisory functions monitor not only software and critical softstarter functionality but also phase loss and out of frequency range.

Integrated by-pass contactor

On the larger sizes (PSTB370 – PSTB1050), there is an integrated ABB AF contactor. This gives you advantages in terms of cost-saving, (less investment in fans, cables, time), space saving (more compact soft starter; no fan that takes up space), and last but not least, energy saving. With a by-pass contactor you can reduce the power losses during normal run by 90% or more.

For the smaller PST below 370A, which are not equipped with built-in contactors, the units have double connections for the main terminals on the line side. The extra terminals are used to connect an external by-pass contactor in order to enable the integrated protection functions.



PSTB1050 with integrated by-pass contactor.

Fieldbus communication

The PST Softstarter has a built-in interface on the front for connection of the ABB FieldBusPlug used for fieldbus communication. Through this interface, it is possible to control the softstarter, achieve status information, upload and download parameters. The interface between the softstarter and the FieldBusPlug is always the same. Independently of PST Softstarter size or delivery date, it is possible to connect to any fieldbus protocol later on since this is defined in the Field-BusPlug itself. The following protocols are currently available: AS-I, DeviceNet and Profibus DP. To connect the PST Softstarter to a fieldbus system, you need the accessories described on pages 6.33 to 6.34 as well as specific software for PLC set-up, which is available on the ABB web site; see the Resources section at the bottom of the Softstarter product page at www.abb-control.com/products/softstarters.htm.

Open In-Line, Inside Delta 7.5 – 1800 HP



PST72-600-70



PST142-600-70



PST175-600-70



PSTB370-600-70



PSTB570-600-70

Connected In-Line ①



Maximum motor current	Maximum horsepower						Weight (lbs.)	Catalog number
	UL	IEC	208V	240V	380V	480V		
28	30	7.5	10	15	20	25	9	PST30-600-70
34	37	10	10	20	25	30	9	PST37-600-70
42	44	10	15	25	30	40	11	PST44-600-70
54	50	15	20	30	40	50	11	PST50-600-70
68	72	20	25	40	50	60	22	PST72-600-70
80	85	25	30	50	60	75	22	PST85-600-70
104	105	30	40	60	75	100	27	PST105-600-70
130	142	40	50	75	100	125	33	PST142-600-70
156	175	50	60	100	125	150	44	PST175-600-70
192	210	60	75	125	150	200	49	PST210-600-70
248	250	75	100	150	200	250	49	PST250-600-70
302	300	100	100	150	250	300	53	PST300-600-70
361	370	125	150	200	300	350	84	PSTB370-600-70
480	470	150	200	300	400	500	93	PSTB470-600-70
590	570	200	250	350	500	600	97	PSTB570-600-70
720	720	250	300	450	600	700	119	PSTB720-600-70
840	840	300	350	500	700	800	124	PSTB840-600-70
1062	1050	400	450	600	900	1000	137	PSTB1050-600-70

Connected Inside Delta ①



Maximum motor current	Maximum horsepower						Weight (lbs.)	Catalog number
	UL	IEC	208V	240V	380V	480V		
42	51	10	15	30	30	40	9	PST30-600-70
54	64	15	20	40	40	50	9	PST37-600-70
72	76	20	25	50	50	60	11	PST44-600-70
80	86	25	30	50	60	75	11	PST50-600-70
104	124	30	40	75	75	100	22	PST72-600-70
130	148	40	50	75	100	125	22	PST85-600-70
156	181	50	60	100	125	150	27	PST105-600-70
192	245	60	75	150	150	200	33	PST142-600-70
248	303	75	100	200	200	250	44	PST175-600-70
302	363	100	100	200	250	300	49	PST210-600-70
361	433	125	150	250	300	350	49	PST250-600-70
480	519	150	200	300	400	500	53	PST300-600-70
590	640	200	250	400	500	600	84	PSTB370-600-70
720	814	250	300	500	600	700	93	PSTB470-600-70
840	987	300	350	600	700	800	97	PSTB570-600-70
1247	1247	400	500	800	1000	1200	119	PSTB720-600-70
1454	1454	500	600	900	1200	1500	124	PSTB840-600-70
1839	1818	600	700	1000	1500	1800	137	PSTB1050-600-70

① Different frame sizes are separated by rules.

Enclosed
NEMA 1, 12
In-Line, 5 – 1000 HP

Connected In-Line 

Max. motor current		Maximum horsepower					NEMA1, 480V	NEMA1, 600V		NEMA12, 480V	NEMA12, 600V	
UL	IEC	208V	240V	380V	480V	600V	Catalog Number	Catalog Number	List Price	Catalog Number	Catalog Number	List Price
18	18	5 —	5 —	10 —	10 —	15 —	T010L1-48 —	T015L1-60 —	\$ 1655	T010L2-48M —	T015L2-60M —	\$ 1905
28	30	7.5 —	10 —	15 —	20 —	25 —	T020L1-48 —	T025L1-60 —	1655	T020L2-48M —	T025L2-60M —	1930
34	37	10 —	10 —	20 —	25 —	30 —	T025L1-48 —	T030L1-60 —	1685	T025L2-48M —	T030L2-60M —	2085
42	44	10 —	15 —	25 —	30 —	40 —	T030L1-48 —	T040L1-60 —	1715	T030L2-48M —	T040L2-60M —	2165
54	50	15 —	20 —	30 —	40 —	50 —	T040L1-48 —	T050L1-60 —	2055	T040L2-48M —	T050L2-60M —	2555
68	72	20 —	25 —	40 —	50 —	60 —	T050L1-48 —	T060L1-60 —	2080	T050L2-48M —	T060L2-60M —	2630
80	85	25 —	30 —	50 —	60 —	75 —	T060L1-48 —	T075L1-60 —	2705	T060L2-48M —	T075L2-60M —	3355
104	105	30 —	40 —	60 —	75 —	100 —	T075L1-48 —	T100L1-60 —	2735	T075L2-48M —	T100L2-60M —	3460
130	142	40 —	50 —	75 —	100 —	125 —	T100L1-48 —	T125L1-60 —	3875	T100L2-48M —	T125L2-60M —	4775
156	175	50 —	60 —	100 —	125 —	150 —	T125L1-48 —	T150L1-60 —	3920	T125L2-48M —	T150L2-60M —	5170
192	210	60 —	75 —	125 —	150 —	200 —	T150L1-48 —	T200L1-60 —	4370	T150L2-48M —	T200L2-60M —	5770
248	250	75 —	100 —	150 —	200 —	250 —	T200L1-48 —	T250L1-60 —	4850	T200L2-48M —	T250L2-60M —	6550
302	300	100 —	100 —	150 —	250 —	300 —	T250L1-48 —	T300L1-60 —	5080	T250L2-48M —	T300L2-60M —	7830
361	370	125 —	150 —	200 —	300 —	350 —	T300L1-48M① —	T350L1-60M① —	6260	T300L2-48M① —	T350L2-60M① —	6910
414	400	— —	— —	250 —	350 —	400 —	T350L1-48M① —	T400L1-60M① —	7700	T350L2-48M① —	T400L2-60M① —	8450
480	470	150 —	200 —	300 —	400 —	500 —	T400L1-48M① —	T500L1-60M① —	7700	T400L2-48M① —	T500L2-60M① —	8550
590	570	200 —	250 —	350 —	500 —	600 —	T500L1-48M① —	T600L1-60M① —	9350	T500L2-48M① —	T600L2-60M① —	10,350
720	720	250 —	300 —	450 —	600 —	700 —	T600L1-48M① —	T700L1-60M① —	10,830	T600L2-48M① —	T700L2-60M① —	11,830
840	840	300 —	350 —	500 —	700 —	800 —	T700L1-48M① —	T800L1-60M① —	12,900	T700L2-48M① —	T800L2-60M① —	14,000
960	—	350 —	400 —	— —	800 —	900 —	T800L1-48M① —	T900L1-60M① —	21,000	T800L2-48M① —	T900L2-60M① —	22,300
1062	1050	400 —	450 —	600 —	900 —	1000 —	T900L1-48M① —	T1000L1-60M① —	21,000	T900L2-48M① —	T1000L2-60M① —	22,300

① Includes integrated shunt rated (AC1) bypass contactor as standard. For across the line rated (AC3) bypass contactors, see page 6.30.

**Enclosed
NEMA 1, 12
Inside Delta, 7.5 – 1800 HP**

Softstarters
Type PST

Connected Inside Delta



Max. motor current		Maximum horsepower					NEMA1, 480V	NEMA1, 600V		NEMA12, 480V	NEMA12, 600V	
UL	IEC	208V	240V	380V	480V	600V	Catalog Number	Catalog Number	List Price	Catalog Number	Catalog Number	List Price
28	30	7.5 —	10 —	15 —	20 —	25 —	T020D1-48 —	T025D1-60 —	\$ 1655	T020D2-48M —	T025D2-60M —	\$ 1905
34	37	10 —	10 —	20 —	25 —	30 —	T025D1-48 —	T030D1-60 —	1655	T025D2-48M —	T030D2-60M —	1905
42	44	10 —	15 —	25 —	30 —	40 —	T030D1-48 —	T040D1-60 —	1655	T030D2-48M —	T040D2-60M —	1930
54	50	15 —	20 —	30 —	40 —	50 —	T040D1-48 —	T050D1-60 —	1685	T040D2-48M —	T050D2-60M —	2085
68	72	20 —	25 —	40 —	50 —	60 —	T050D1-48 —	T060D1-60 —	1715	T050D2-48M —	T060D2-60M —	2165
80	85	25 —	30 —	50 —	60 —	75 —	T060D1-48 —	T075D1-60 —	2055	T060D2-48M —	T075D2-60M —	2555
104	105	30 —	40 —	60 —	75 —	100 —	T075D1-48 —	T100D1-60 —	2080	T075D2-48M —	T100D2-60M —	2630
130	142	40 —	50 —	75 —	100 —	125 —	T100D1-48 —	T125D1-60 —	2705	T100D2-48M —	T125D2-60M —	3355
156	175	50 —	60 —	100 —	125 —	150 —	T125D1-48 —	T150D1-60 —	2735	T125D2-48M —	T150D2-60M —	3460
192	210	60 —	75 —	125 —	150 —	200 —	T150D1-48 —	T200D1-60 —	3875	T150D2-48M —	T200D2-60M —	4775
248	250	75 —	100 —	150 —	200 —	250 —	T200D1-48 —	T250D1-60 —	3920	T200D2-48M —	T250D2-60M —	5120
302	300	100 —	100 —	150 —	250 —	300 —	T250D1-48 —	T300D1-60 —	4370	T250D2-48M —	T300D2-60M —	5770
361	370	125 —	150 —	200 —	300 —	350 —	T300D1-48 —	T350D1-60 —	4850	T300D2-48M —	T350D2-60M —	6550
414	400	— —	— —	250 —	350 —	400 —	T350D1-48 —	T400D1-60 —	5080	T350D2-48M —	T400D2-60M —	7830
480	470	150 —	200 —	300 —	400 —	500 —	T400D1-48 —	T500D1-60 —	5080	T400D2-48M —	T500D2-60M —	7830
590	570	200 —	250 —	350 —	500 —	600 —	T500D1-48M① —	T600D1-60M① —	6260	T500D2-48M① —	T600D2-60M① —	6910
720	720	250 —	300 —	450 —	600 —	700 —	T600D1-48M① —	T700D1-60M① —	7700	T600D2-48M① —	T700D2-60M① —	8550
840	840	300 —	350 —	500 —	700 —	800 —	T700D1-48M① —	T800D1-60M① —	9350	T700D2-48M① —	T800D2-60M① —	10,350
960	—	350 —	400 —	— —	800 —	900 —	T800D1-48M① —	T900D1-60M① —	10,830	T800D2-48M① —	T900D2-60M① —	12,130
1062	1050	400 —	450 —	600 —	900 —	1000 —	T900D1-48M① —	T1000D1-60M① —	10,830	T900D2-48M① —	T1000D2-60M① —	12,130
1247	1215	400 —	500 —	800 —	1000 —	1200 —	T1000D1-48M① —	T1200D1-60M① —	10,830	T1000D2-48M① —	T1200D2-60M① —	12,130
1454	1370	500 —	600 —	900 —	1200 —	1500 —	T1200D1-48M① —	T1500D1-60M① —	12,900	T1200D2-48M① —	T1500D2-60M① —	14,650
1839	1823	600 —	700 —	1200 —	1500 —	1800 —	T1500D1-48M① —	T1800D1-60M① —	21,000	T1500D2-48M① —	T1800D2-60M① —	22,750

① Includes integrated shunt rated (AC1) bypass contactor as standard. For across the line rated (AC3) bypass contactors, see page 6.30.

Enclosed
NEMA 1, Combination
In-Line, 5 – 1000 HP

Connected In-Line 

							NEMA1, 480V Circuit breaker	NEMA1, 600V Circuit breaker		NEMA1, 480V Fused disconnect	NEMA 1, 600V Fused disconnect	
Max. motor current		Maximum horsepower					Catalog Number	Catalog Number	List Price	Catalog Number	Catalog Number	List Price
UL	IEC	208V	240V	380V	480V	600V						
18	18	5 —	5 —	10 —	10 —	— 15	T010LB1-48E —	T015LB1-60E —	\$ 2055	T010LF1-48A —	T015LF1-60A —	\$ 2055
28	30	7.5 —	10 —	15 —	20 —	— 25	T020LB1-48J —	T025LB1-60J —	2065	T020LF1-48B —	T025LF1-60B —	2065
34	37	10 —	10 —	20 —	25 —	— 30	T025LB1-48K —	T030LB1-60K —	2110	T025LF1-48B —	T030LF1-60B —	2110
42	44	10 —	15 —	25 —	30 —	— 40	T030LB1-48L —	T040LB1-60L —	2315	T030LF1-48C —	T040LF1-60C —	2315
54	50	15 —	20 —	30 —	40 —	— 50	T040LB1-48N —	T050LB1-60N —	2655	T040LF1-48C —	T050LF1-60C —	2655
68	72	20 —	25 —	40 —	50 —	— 60	T050LB1-48R —	T060LB1-60R —	2680	T050LF1-48C —	T060LF1-60C —	2680
80	85	25 —	30 —	50 —	60 —	— 75	T060LB1-48S —	T075LB1-60S —	3705	T060LF1-48D —	T075LF1-60D —	3705
104	105	30 —	40 —	60 —	75 —	— 100	T075LB1-48T —	T100LB1-60T —	3735	T075LF1-48D —	T100LF1-60D —	3735
130	142	40 —	50 —	75 —	100 —	— 125	T100LB1-48V —	T125LB1-60V —	5075	T100LF1-48D —	T125LF1-60D —	5075
156	175	50 —	60 —	100 —	125 —	— 150	T125LB1-48X —	T150LB1-60X —	5720	T125LF1-48E —	T150LF1-60E —	5720
192	210	60 —	75 —	125 —	150 —	— 200	T150LB1-48Y —	T200LB1-60Y —	6170	T150LF1-48E —	T200LF1-60E —	6170
248	250	75 —	100 —	150 —	200 —	— 250	T200LB1-48A —	T250LB1-60Z —	6650	T200LF1-48E —	T250LF1-60E —	6650
302	300	100 —	100 —	150 —	250 —	— 300	T250LB1-48B —	T300LB1-60B —	7580	T250LF1-48F —	T300LF1-60F —	7580
361	370	125 —	150 —	200 —	300 —	— 350	T300LB1-48DM① —	T350LB1-60CM① —	8860	T300LF1-48FM① —	T350LF1-60FM① —	8860
414	400	— —	— —	250 —	350 —	— 400	T350LB1-48EM① —	T400LB1-60DM① —	11,300	T350LF1-48FM① —	T400LF1-60FM① —	11,300
480	470	150 —	200 —	300 —	400 —	— 500	T400LB1-48FM① —	T500LB1-60EM① —	11,800	T400LF1-48GM① —	T500LF1-60GM① —	11,800
590	570	200 —	250 —	350 —	500 —	— 600	T500LB1-48GM① —	T600LB1-60GM① —	14,550	T500LF1-48HM① —	T600LF1-60H① —	14,550
720	720	250 —	300 —	450 —	600 —	— 700	T600LB1-48JM① —	T700LB1-60JM① —	16,030	T600LF1-48HM① —	T700LF1-60H① —	16,030
840	840	300 —	350 —	500 —	700 —	— 800	T700LB1-48KM① —	T800LB1-60JM① —	19,400	T700LF1-48JM① —	T800LF1-60J① —	19,400
960	—	350 —	400 —	— —	800 —	— 900	T800LB1-48KM① —	T900LB1-60KM① —	27,500	T800LF1-48JM① —	T900LF1-60J① —	27,500
1062	1050	400 —	450 —	600 —	900 —	— 1000	T900LB1-48KM① —	T1000LB1-60KM① —	28,200	T900LF1-48KM① —	T1000LF1-60K① —	28,200

① Includes integrated shunt rated (AC1) bypass contactor as standard. For across the line rated (AC3) bypass contactors, see page 6.30.

**Enclosed
NEMA 1, Combination
Inside Delta, 7.5 – 1900 HP**

Softstarters
Type PST

Connected Inside Delta



Maximum horsepower							NEMA1, 480V Circuit breaker	NEMA1, 600V Circuit breaker		NEMA1, 480V Fused disconnect	NEMA 1, 600V Fused disconnect		
Max. motor current	UL	IEC	208V	240V	380V	480V	600V	Catalog Number	Catalog Number	List Price	Catalog Number	Catalog Number	List Price
28	30	7.5	10	15	20	—	25	T020DB1-48J —	— T025DB1-60J	\$ 2065	T020DF1-48B —	— T025DF1-60B	\$ 2065
34	37	10	10	20	25	—	30	T025DB1-48K —	— T030DB1-60K	2080	T025DF1-48B —	— T030DF1-60B	2080
42	44	10	15	25	30	—	40	T030DB1-48L —	— T040DB1-60L	2255	T030DF1-48C —	— T040DF1-60C	2255
54	50	15	20	30	40	—	50	T040DB1-48N —	— T050DB1-60N	2285	T040DF1-48C —	— T050DF1-60C	2285
68	72	20	25	40	50	—	60	T050DB1-48R —	— T060DB1-60R	2315	T050DF1-48C —	— T060DF1-60C	2315
80	85	25	30	50	60	—	75	T060DB1-48S —	— T075DB1-60S	3055	T060DF1-48D —	— T075DF1-60D	3055
104	105	30	40	60	75	—	100	T075DB1-48T —	— T100DB1-60T	3080	T075DF1-48D —	— T100DF1-60D	3080
130	142	40	50	75	100	—	125	T100DB1-48V —	— T125DB1-60V	3905	T100DF1-48D —	— T125DF1-60D	3905
156	175	50	60	100	125	—	150	T125DB1-48X —	— T150DB1-60X	4535	T125DF1-48E —	— T150DF1-60E	4535
192	210	60	75	125	150	—	200	T150DB1-48Y —	— T200DB1-60Y	5675	T150DF1-48E —	— T200DF1-60E	5675
248	250	75	100	150	200	—	250	T200DB1-48A —	— T250DB1-60Z	5720	T200DF1-48E —	— T250DF1-60E	5720
302	300	100	100	150	250	—	300	T250DB1-48B —	— T300DB1-60B	6870	T250DF1-48F —	— T300DF1-60F	6870
361	370	125	150	200	300	—	350	T300DB1-48D —	— T350DB1-60C	7450	T300DF1-48F —	— T350DF1-60F	7450
414	400	—	—	250	350	—	400	T350DB1-48E —	— T400DB1-60D	8680	T350DF1-48F —	— T400DF1-60F	8680
480	470	150	200	300	400	—	500	T400DB1-48F —	— T500DB1-60E	9180	T400DF1-48G —	— T500DF1-60G	9180
590	570	200	250	350	500	—	600	T500DB1-48GM① —	— T600DB1-60GM①	11,460	T500DF1-48HM① —	— T600DF1-60HM①	11,460
720	720	250	300	450	600	—	700	T600DB1-48JM① —	— T700DB1-60JM①	12,900	T600DF1-48HM① —	— T700DF1-60HM①	12,900
840	840	300	350	500	700	—	800	T700DB1-48KM① —	— T800DB1-60JM①	15,850	T700DF1-48JM① —	— T800DF1-60JM①	15,850
960	—	350	400	—	800	—	900	T800DB1-48KM① —	— T900DB1-60KM①	17,330	T800DF1-48JM① —	— T900DF1-60JM①	17,330
1062	1050	400	450	600	900	—	1000	T900DB1-48KM① —	— T1000DB1-60KM①	18,030	T900DF1-48KM① —	— T1000DF1-60KM①	18,030
1247	1215	400	500	800	1000	—	1200	T1000DB1-48LM① —	— T1200DB1-60LM①	20,830	T1000DF1-48KM① —	— T1200DF1-60KM①	20,830
1454	1370	500	600	900	1200	—	1500	T1200DB1-48MM① —	— T1500DB1-60MM①	22,900	T1200DF1-48LM① —	— T1500DF1-60LM①	22,900
1839	1823	600	700	1200	1500	—	1800	T1500DB1-48NM① —	— T1800DB1-60NM①	33,500	T1500DF1-48NM① —	— T1800DF1-60NM①	33,500

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① Includes integrated shunt rated (AC1) bypass contactor as standard. For across the line rated (AC3) bypass contactors, see page 6.30.