

The Intelligent Motor Start Solution

5 - 2,000 HP; 200 - 440 V, 380 - 690 V

DIGISTART

D3

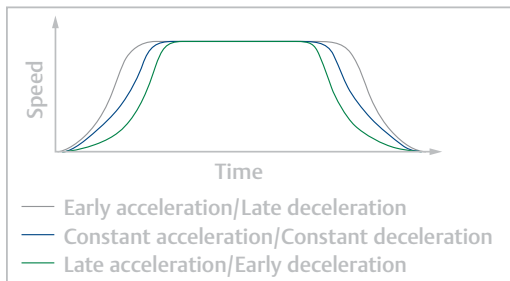


The Digistart D3 is the first intelligent soft start solution to offer “Adaptive Control,” a new technology that provides an unprecedented level of control over acceleration and deceleration.

Flexible

Adjustable busbars on 360 A units (no internal bypass models only) and higher can be configured in any combination of top/bottom power and motor connections to reduce cable costs and panel space requirements.

Adaptive Control — Industry-Leading Motor Start Control



This innovative control method controls motor current and acceleration allowing the user to select between early, constant or late acceleration/deceleration depending upon the application requirements. The system then monitors motor performance by analyzing each start and adjusting accordingly to maintain optimum control.

Best-In-Class Operator Interface

Intuitive, informative and easy-to-read LCD alphanumeric and graphing keypad provides the ultimate in ease-of-use with built-in wizards for easy commissioning, real-time performance monitoring and event logging. Other features include status LEDs, individual phase monitoring and multiple-language support.



Ratings, Specifications and Options

Ratings

Size	Duty	Normal		Medium	Heavy	Severe	Starts per Hour
	% FLA	300%		350%	400%	450%	
	Start Time	10 seconds		15 seconds	20 seconds	30 seconds	
	Model	(HP @ 460 V)	(A)	(A)	(A)	(A)	
1A	D3-1x-0023-B-C1	15	23	20	17	15	10
	D3-1x-0043-B-C1	30	43	37	31	26	
	D3-1x-0053-B-C1	40	53	53	46	37	
1B	D3-1x-0076-B-C1	60	76	64	55	47	6
	D3-1x-0097-B-C1	75	97	82	69	58	
	D3-1x-0105-B-C1	75	105	105	95	78	
2	D3-1x-0145-B-C1	100	145	123	106	90	6
	D3-1x-0170-B-C1	125	170	145	121	97	
	D3-1x-0220-B-C1	150	220	210	178	148	
3	D3-1x-0255-B-C1	200	255	231	201	176	6
	D3-1x-0350-B-C1	300	350	306	266	230	
	D3-1x-0425-B-C1	350	425	371	321	276	
4	D3-1x-0500-B-C1	400	500	445	383	326	6
	D3-16-0700-B-C1	600	700	592	512	438	
	D3-16-0820-B-C1	700	820	705	606	516	
	D3-16-0920-B-C1	800	920	804	684	571	
	D3-16-1000-B-C1	900	1000	936	796	664	
No Internal Bypass*							
4	D3-1x-0360-N-C1	300	360	360	310	263	6
	D3-1x-0430-N-C1	350	430	430	368	309	
	D3-1x-0650-N-C1	500	650	650	561	455	
	D3-16-0790-N-C1	700	790	790	714	579	
	D3-16-0930-N-C1	800	930	930	829	661	
5	D3-16-1200-N-C1	1000	1200	1200	1200	1071	6
	D3-16-1410-N-C1	1250	1410	1410	1319	1114	
	D3-16-1600-N-C1	1400	1600	1600	1600	1353	

Notes: x=4 for 200 to 440 Vac, 6 for 380 to 690 Vac B=internal bypass, N=no internal bypass
 *Ratings for No Internal Bypass only valid for installations with external bypass contactor

Options

Order Code	Description
D3-KEYPAD-MOUNT	Allows keypad to be remote-mounted up to 3m from soft starter; when panel-mounted, keypad is IP65 rated
D3-FINGERGUARD-G2B	Provides IP20 protection for models D3-2x-0145-B-C1 to D3-2x-0220-B-C1
D3-FINGERGUARD-G3B	Provides IP20 protection for models D3-2x-0255-B-C1 to D3-2x-0425-B-C1
D3-FINGERGUARD-G4B	Provides IP20 protection for models D3-2x-0500-B-C1 to D3-2x-1000-B-C1
D3-I/O	Provides additional 2 x digital inputs, 3 x relay outputs, 1 x analog input and 1 x analog output
D3-RTD&GND-FAULT	The RTD (resistive temperature device) and GND (ground fault protection) card provides additional 6 x PT100 RTD inputs and 1 x ground fault input
Fieldbus Order Code	Description
DIGISTART-MODBUS	Modbus RTU Interface for Digistart D3 and Digistart D2
DIGISTART-PROFIBUS	PROFIBUS DP Interface for Digistart D3 and Digistart D2
DIGISTART-DEVICENET	DeviceNet Interface for Digistart D3 and Digistart D2
DIGISTART-USB	USB Interface for Digistart D3 and Digistart D2
DIGISTART-ETHERNET-MODBUS-TCP	Modbus TCP/IP Interface for Digistart D3 and Digistart D2
DIGISTART-ETHERNET-IP	EtherNet/IP Interface for Digistart D3 and Digistart D2
DIGISTART-PROFINET-RT	PROFINET RT Interface for Digistart D3 and Digistart D2

Dimensions

Size	Height (H)	Width (W)	Depth (D)	Weight
1A	11.6 in (294.6 mm)	6.2 in (156.4 mm)	7.7 in (196 mm)	7.1 lbs (3.2 kg)
1B	11.6 in (294.6 mm)	6.2 in (156.4 mm)	8.9 in (226 mm)	10.6 lbs (4.8 kg) max
2	17.2 in (438 mm)	11.1 in (282 mm)	10.0 in (254 mm)	35.3 lbs (16 kg)
3	18.1 in (460 mm)	15.5 in (394 mm)	11.2 in (284 mm)	55.1 lbs (25 kg)
4	27.3 in* (694 mm*)	16.9 in (430 mm)	11.9 in (302 mm)	118 lbs (53.5 kg) max
5	34.8 in* (884 mm*)	22.6 in (574 mm)	14.3 in (364 mm)	309 lbs (140 kg)
Fieldbus Option Dimensions				
	6.2 in (157.5 mm)	1.4 in (35.6 mm)	3.5 in (88.9 mm)	0.6 lbs (0.3 kg)

*Maximum height inclusive of busbar

Specifications

Start Modes	
Constant Current/Current Limit, Current Ramp, Adaptive and Kickstart	
Stop Modes	
Coast To Stop, TVR Soft Stop, Adaptive, DC brake	
General	
Current Range	23 to 1600 A (nominal)
Motor Connection	In-line or inside delta
Bypass	Integrated internal or external
Supply	
Voltage D3-x4-xxxx-x-xx	200 to 440 Vac (±10%)
Voltage D3-x6-xxxx-x-xx	380 to 690 Vac (±10%)
Control Voltage	110 to 210 Vac (+10% / -15%) or 220 to 440 Vac (+10% / -15%)
Supply Frequency	45 to 66 Hz
Inputs	
Inputs	Active 24 Vdc, 8 mA approx
Start	Normally open
Stop	Normally closed
Reset	Normally open or closed
Programmable Inputs	
Input A	Normally open or closed
Input B	Normally open or closed
Motor Thermistor	
RTD/PT100	
Outputs	
Relay outputs	10 A at 250 Vac resistive 5 A at 250 Vac, AC15 pf 0.3
Run Relay	Normally Open
Programmable Outputs	
Relay A	Normally open
Relay B	Changeover
Relay C	Changeover
Analog Output	0-20 or 4-20 mA
24 Vdc Output	
Environmental	
RoHS Compliant	Standard
Protection	
D3-1x-0023-B-C1 to D3-1x0105-B-C1	IP20
D3-2x-0145-B-C1 to D3-5x-1600-N-C1	IP00
Operating Temperature	14 to 104 °F (-10 to 40° C), max 140 °F (60 °C) with derating
Storage Temperature	-13 to 140 °F (-25 to 60° C)
Humidity	5 to 95% relative
Conformal Coating	Standard

