



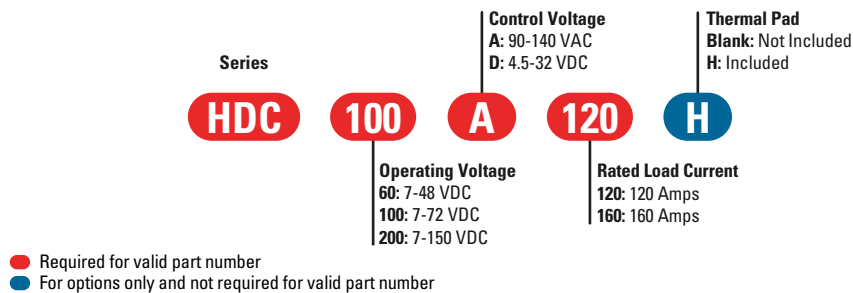
## HDC Series

- Ratings of 120A and 160A @ 48, 72 & 150 VDC
- LED Status Indicator
- Heavy Duty Stud Terminals
- AC or DC control
- Micro Seconds Turn-On and Off times
- Low On-State Voltage Drop
- PWM to 1 kHz for DC Input Models

### PRODUCT SELECTION

Control Voltage	120A	160A
4.5-32 VDC	HDC60D120, HDC100D120, HDC200D120	HDC60D160, HDC100D160, HDC200D160
90-140 VAC	HDC60A120, HDC100A120, HDC200A120	HDC60A160, HDC100A160, HDC200A160

### AVAILABLE OPTIONS



### OUTPUT SPECIFICATIONS <sup>(1)</sup>

Description	HDC60x120	HDC60x160	HDC100x120	HDC100x160	HDC200x120	HDC200x160
Operating Voltage [Vdc]	7-48	7-48	7-72	7-72	7-150	7-150
Blocking Voltage [Vdc]	60	60	100	100	200	200
Rated Load Current [A] <sup>(2)</sup>	120	160	120	160	120	160
Rated Load Current {UL 508 Motor Controller} [FLA]					17 FLA / 2 HP	25 FLA / 3 HP
Rated Load Current {IEC 60947-4-1 DC-1} [Adc] <sup>(4, 5)</sup>	120 (≤ 48 VDC)	160 (≤ 48 VDC)	120 (≤ 72 VDC)	160 (≤ 72 VDC)	120 (≤ 150 VDC)	160 (≤ 150 VDC)
Rated Load Current {IEC 60947-4-1 DC-3} [FLA] <sup>(4, 5)</sup>	17 (≤ 48 VDC)	25 (≤ 48 VDC)	17 (≤ 72 VDC)	25 (≤ 72 VDC)	17 (≤ 150 VDC)	25 (≤ 150 VDC)
Minimum Load Current [mA]	2.5	2.5	2.5	2.5	2.5	2.5
Maximum Surge Current (10ms) [Adc]	360	470	360	470	1200	1600
Maximum Off-State Leakage Current @ Rated Voltage [mA]	0.1	0.1	0.15	0.15	0.2	0.2
Maximum On-State Voltage Drop @ Rated Current [VDC]	0.53	0.56	0.52	0.56	0.72	0.64
Thermal Resistance Junction to Case [Rjc] [°C/W]	0.42	0.36	0.42	0.36	0.25	0.23
Maximum On-State Resistance @ Rated Current (RDS-ON) [mOhms]	4.32	3.5	4.32	3.5	6.0	4.0
Wire Size max (solid/stranded) [AWG/ IEC mm <sup>2</sup> ]	2/0 / 67.4	2/0 / 67.4	2/0 / 67.4	2/0 / 67.4	2/0 / 67.4	2/0 / 67.4
Output Terminal Nut Torque Range [in lb (Nm)]	225-300 (25.4-33.9)	225-300 (25.4-33.9)	225-300 (25.4-33.9)	225-300 (25.4-33.9)	225-300 (25.4-33.9)	225-300 (25.4-33.9)
Maximum PWM (Hz) <sup>(3)</sup>	1000	1000	1000	1000	1000	1000

### INPUT SPECIFICATIONS <sup>(1)</sup>

Description	HDC60D & HDC100D	HDC60A & HDC100A	HDC200D	HDC200A
Control Voltage Range	4.5-32 VDC	90-140 VAC	4.5-32 VDC	90-140 VAC
Must Turn-Off Voltage	4.2 VDC	35 VAC	4.2 VDC	35 VAC
Minimum Input Current @ Minimum Voltage (for on-state)	23 mA	31 mA	23 mA	31 mA
Maximum Input Current @ Maximum Voltage	45 mA	33 mA	45 mA	33 mA
Nominal Input Impedance	Current Regulated	Current Regulated	Current Regulated	Current Regulated
Maximum Turn-On Time at min voltage	90.5 μs	6 ms	92 μs	6 ms
Maximum Turn-On Time at max voltage	8.5 μs	4 ms	12.0 μs	4 ms
Maximum Turn-Off Time at min voltage	145 μs	9.2 ms	195 μs	9.2 ms
Maximum Turn-Off Time at max voltage	330 μs	9.2 ms	405 μs	9.2 ms
Terminal Type / size in (mm)	QC / 0.187 (4.75)	QC / 0.187 (4.75)	QC / 0.187 (4.75)	QC / 0.187 (4.75)