

HD5000 Microprocessor Based Diesel Engine Fire Pump Controller

Options List

Consult Factory for Pricing

* August 2010 * Replaces July 2010

Standard Controller

Model HD5000 microprocessor based diesel engine fire pump controller, with automatic start on pressure drop, selectable for automatic or manual stop, weekly test, time and date stamped event history/data logging, available for 120VAC and 240VAC, 12 and 24V DC, 50 and 60 Hertz. Specify AC voltage, DC voltage, Frequency and options when ordering.

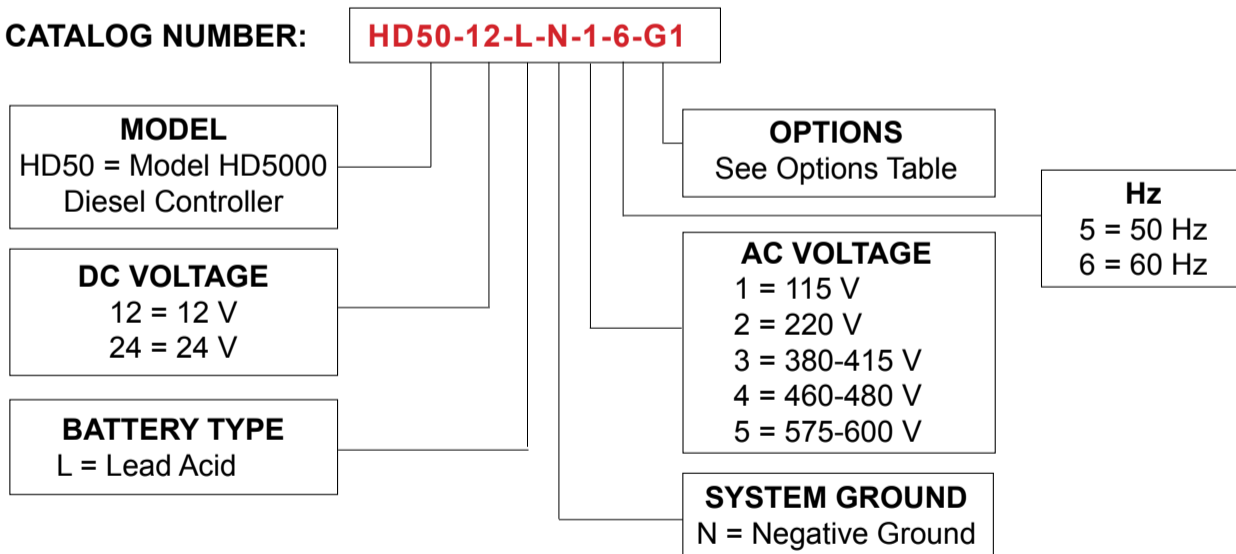
UL Listed controllers are rated 290 PSI with Type 2 enclosures only

FM Approved and CE marked controllers are rated 600 PSI and come standard in a Type 4 enclosure.

12VDC, lead acid batteries, negative ground, 120 VAC or 240VAC, 50HZ or 60 HZ	
24VDC, lead acid batteries, negative ground, 120 VAC or 240VAC, 50HZ or 60 HZ	
Option	Description
C2	Control transformer, 380-415VAC, 50/60Hz (mounted external)
C3	Control transformer, 460-480 VAC, 50/60Hz (mounted external)
C4	Control transformer, 575-600 VAC, 50/60Hz (mounted external)
D	Export packing
E1	Low fuel level switch, specify tank diameter, shipped loose
E2	Low/High fuel level switch, specify tank diameter, shipped loose
F1	Tropicalization
-	Space heater with thermostat or humidistat, not required, controller is self anti condensating
G3	Low pump room temperature switch
J2	Type 4X 316 Stainless Steel enclosure (available on FM Approved and CE marked controllers only)
K1	600 PSI plumbing suitable for sea water (standard rating on FM/CE controllers)
K2	Low suction pressure switch
L2	CE label, built to CE requirements
M1	Alarm Relay Board - provides 8 additional relay outputs with Form-C contact, and 8 additional alarm inputs. Up to two additional Alarm Relay Boards can be furnished per controller
P	Printer
R	Internal light kit
S1	Low Zone - for series pumping, standard feature that must be enabled through keypad
S2	High Zone - for series pumping, standard feature that must be enabled through keypad
PS	AC-DC power supply
T	Mounting leg kit
V	Spanish Language version

EXAMPLE CATALOG NUMBER:

HD50-12-L-N-1-6-G1



Example: HD5012LN1G1

HD5000 Microprocessor Type Diesel Fire Pump Controller, for use with 12 Volt, lead acid batteries, negative ground, 115 Volts AC, 60 HZ, with option (G1) low fuel level switch



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Horsepower Ratings

This table summarizes the major electrical & horsepower configurations that are available. For special configurations consult the factory.

Full Service Fire Pump Controllers Normal Source

Voltage	Hz	HP Range	Withstand Rating <i>Amps Symmetrical</i>
208	50/60	15-200	100,000 †
220/240	50/60	15-200	100,000 †
380/415	50/60	15-350	100,000 †
440/480	50/60	15-400	100,000 †

Alternate Source (Gen-Set)

Voltage	Hz	HP Range	Withstand Rating <i>Amps Symmetrical</i>
208	50/60	15-25	42,000 †
		30-60	50,000 †
		75-125	65,000 †
		150-200	100,000 †

Alternate Source (Gen-Set) Cont'd

Voltage	Hz	HP Range	Withstand Rating <i>Amps Symmetrical</i>
220/240	50/60	15-30	42,000 †
		40-60	50,000 †
		75-125	65,000 †
		150-200	100,000 †
380/415	50/60	15-50	42,000 †
		60-100	50,000 †
		125-200	65,000 †
		250-350	100,000 †
440/480	50/60	15-60	42,000 †
		75-125	50,000 †
		150-250	65,000 †
		300-400	100,000 †

Temperature Range - 41°F (5°C) to 104°F (40°C); Optional 130°F/55°C Rating Available
† Consult Factory for higher ratings.

Controller Selection Chart

This table summarizes the starting characteristics of the controls.

For specific information, please request specification sheets from the factory.

Model Number	Type of Starting	Motor Requirements	Starting Characteristics			Description of Operation
			Voltage @ Motor	Line Current	Starting Torque	
LXi-2100	Solid State Soft Start/Stop	Standard Motor	0-100%	45-100%	0-100%	Motor is started with reduced voltage via SCR's in each phase to limit inrush and provide smooth stepless acceleration to full speed and deceleration to full stop greatly reduces water hammer.
LXi-2200	Full Voltage (Across-the-line)	Standard Motor	100%	100%	100%	Motor is started Across-the-Line with no additional impedance nor special connections to reduce inrush or starting torque.
LXi-2300	Autotransformer	Standard Motor	Taps at 80%, 65%, 50%	64% 42% 25%	64% 42% 25%	Motor is started with 3 phase autotransformer in primary to limit inrush. Multiple taps (manually set) provide variable starting characteristics. Closed circuit transition to full speed.
LXi-2400	Primary Resistor	Standard Motor	50%	50%	25%	Motor is started with resistance in each phase to limit inrush. Closed circuit transition to full speed.
LXi-2600	Manual - Secondary Resistor Special Regulated	Wound Rotor Motor	100%	25-50%	25-50%	Motor is started with resistance in the secondary rotor circuit to limit inrush and to regulate multiple speed points. Built per application to provide acceleration and speed control.
LXi-2700	Part-Winding	Special Motor w/ Part Winding	100%	65%	48%	Motor is started on one part of its 2 windings to limit inrush. Closed circuit transition to second winding at full speed.
LXi-2800	Wye-Delta Closed Transition	6 or 12 Lead Delta Wound Motor	100%	33%	33%	Motor is started connected Wye to reduce voltage across windings and reduce inrush. Closed circuit transition to Delta winding/full speed.
LXi-2900	Wye-Delta Open Transition	6 to 12 Lead Delta Wound Motor	100%	33%	33%	Motor is started connected Wye to reduce voltage across windings and reduce inrush. Open circuit transition to Delta winding/full speed.



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Option Symbol	Description
Pressure Recorders	
	LXi controllers inherently record pressure as part of the event data logging feature. The pressure history can be downloaded to a lap top computer or printer.
Local Alarms and Contacts for remote Indication All contacts include one normally open and closed form "C" contact	
R1	Pump room temperature alarm with thermostat, light and contact Pump run light
R3	Pump run contacts (2 sets of form "C" contacts are standard)
R5	Phase/power failure contacts (2 sets of form "C" contacts are standard)
R6	Low system pressure contacts Low system pressure light
R8	Pump fail to start contacts Pump fail to start light
R10	Phase reversal contacts (2 sets of form "C" contacts are standard) Phase reversal light
R12	Pump overload contacts
R14	Reservoir low contacts (initiating switch not included)
R15	Reservoir low light (initiating switch not included)
R16	Low suction pressure contact (initiating switch not included) Low suction pressure light (initiating switch not included)
	Common trouble contacts
R19	Common trouble light
R20	Common trouble audible alarm
R21	Transfer switch contacts, 1-N.O. contact on Normal and Emergency
R22	Power failure light (Requires separate 120V supply)
	Annunciator group - provides visible indication of the following conditions Low pressure, local start, remote start, emergency manual start lockout on, pump run, & run timer on.
RC	Chicago code - provides built in audible alarm for phase / control power failure, phase reversal, pump run, with alarm silence switch.
Miscellaneous	
	Lamp test pushbutton
V	Printer
W	Audible alarm
Y	Low Suction Pressure switch, installed and wired for low suction shutdown
X	Special option
Special Labeling	
S1	ULC / CSA labels
S2	New York City MEA label
S3	Foam service - pressure switch not included, requires N/C contact to start pump
S4	Foam service - pressure switch included

Prices subject to change without notice.

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* **LXi-1** Model Numbers indicate no transfer switch.



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