



# Application Specific Controllers

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Design Item											
Model Number	HFS	HFS-2	HFS-2Q	HFS-3	HFS-4	HFS-J	HGC-2	PLD, Power-Line	HAU / LCU	HAD	PTD
Function	Fan Control						Generator Controller	Multi Function Controller	Analog Proportional Valve Driver		
Used For	Closed loop Systems	Closed loop w/ <i>reversing</i>		Open Loop	Open Loop	Closed loop w/ J1939 & <i>reversing</i>	Monitors the AC line voltage from the generator	Open or Closed loop Control; HP Limiter, Speed Control	Open loop (EDC Valves – LCU)	Open loop	Open loop
# Coils	Single	Single		Single	Single	Single	Single	Single (S/W Select) or Dual	Single	Dual	Single
Control Input	(3) Thermistor, (2) Digital	(3) Thermistor, (1) Digital		Low Freq. PWM engine ECU fan speed signal	Low Freq. PWM engine ECU fan speed signal	(3) J1939, (2) Thermistor, (2) Digital	Frequency: 100 to 250 VAC (RMS), 50/60 Hz	4 to 20mA, 0V to +5V, 0V to +10V & Pulse	-5V to +5V, 0V to 5V, 0V to 10V, 4 to 20 mA		0 to 10VDC OR 4 to 20mA
Coil Current	0 to 3.3 A	0 to 3.3 A		1,200 mA, 12V 600 mA, 24V		0 to 3.3 A	600mA, 1.2A, 2.5A	0 to 3.0 Amps	HAU: 31 mA to 5.0A LCU: 31 mA to 250 mA	31 mA to 5.0A	1,200 mA @ 12V 600 mA @ 24V
Voltage Range	10.0 to 32.0 VDC	10.0 to 32.0 VDC		12V & 24V nominal	10 to 32 VDC	10.0 to 32.0 VDC, J1455	9.0 to 28.0 VDC	10.0 to 32 VDC	10.0 to 32.0 VDC		12V & 24V nominal
Connector Kit	999-10088	Included	999-10163	N/A		999-10155	999-10073	-	-	-	N/A
Connector	12-Pin Deutsch	Weidmuller	WeatherPack	3M cable to DIN 43650	12" long Deutsch DT06-2S to valve 18" long flying leads input	12-Pin Deutsch	8-Pin Deutsch	Opt WeatherPack	Opt WeatherPack		3M cable to DIN 43650
Customer Programmable	Y	Y		N/A	N/A	Y	Y	Y	-	-	N/A
Diagnostic onboard LED's	Y	Y		Y	N	Y	Y	Y	Y	Y	Y
Mobile Equipment	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y
Opto3000	Y	Y		N/A	N/A	Y	999-10166	Y	-	-	N/A
Software P/N:	023-00182	023-00196		N/A	N/A	023-00218	023-00228	023-00206	NA	NA	N/A
Reference output	-	-		N/A	N/A	-	-	4.5 V @ 25 mW	9 V @ 100 mW		+8VDC @ 5mA
PWM Output	1	1		1	1	1	1	1 or 2	1	2	1
CE Compliance	Yes	Yes		Yes	Yes	Yes	Pending	Pending	N	N	Yes
Sealing	Designed to meet IP68	Designed to meet IP68 (Conn. derate)		IP67	IP67	Designed to meet IP68	Designed to meet IP67	Designed to meet IP65	Designed to meet IP65		IP67
Temperature, Operating	-40 to +75 Deg C	-40 to +75 Deg C		-20 to +70 C	-20 to +70 C	-40 to +75 Deg C	-40 to +75 Deg C	-40 to +75 Deg C	-20 to +60 Deg C		-20 to +70 C
Physical	94 L x 94 W x 13 H mm	94 L x 94 W x 13 H mm		94 L x 94 W x 13 H mm	69 x 33 x 41 mm	94 L x 94 W x 13 H mm	94 L x 94 W x 13 H mm	94 L x 94 W x 13 H mm	70 L x 70 W x 10 H mm	94 L x 94 W x 10 H mm	94 L x 94 W x 13 H mm