

## SUMMARY OF FEATURES

### Danfoss Front End feature comparison (VG8.081)

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LEGEND: Yes = ■ No = □

Danfoss Part Number	AK-SM820 C-Store	AK-SM 850 Refrig only	AK-SM 880 Full	AK-SM 880R Full	AK-AL Alarm Logger
	080z4004	080z4001	080z4008	080z4009	080z4014
<b>Hardware Platform</b>					
Box format (wall mountable), or Panel mount	■	■	■	■	■
USB (Load/Save software)	■	■	■	■	■
Color Screen with keypad	■	■	■	■	
Touch screen, no keypad					■
Battery back up for database / settings	not required	not required	not required	not required	not required
Real Time Clock (RTC)	■	■	■	■	■
<b>Licensing</b>					
Main Licenses (Lighting in all versions)	HVAC, Refrig	Refrig	HVAC, Refrig	HVAC, Refrig	
<b>Field Bus / Communications</b>					
LONWorks RS-485 (single port)	■	■	■		
LONWorks TP-78 (4 ports)				■	
Modbus RS-485 (x1 port)	■	■	■	■	
Ethernet (LAN/WAN connectivity)	■	■	■	■	■
Com-Trol I/O License included	■	■	■	■	
Akcess I/O Board compatible	□	□	□	□	
AKC-164, AKC-165 compatible	□	□	□	□	
ECI Serial Gateway compatible	□	□	□	□	
ECI DCU case controller compatible	□	□	□	□	
<b>Refrigeration Control</b>					
Suction Groups	5	12	12	12	
Compressors per suction group	3	9	9	9	
Refrig. Circuits Limit is 99 per suction group, but the total limit of 164 per controller cannot be exceeded.	29	164	164	164	
De-centralized control (Case and Pack controllers)	■	■	■	■	
Centralized control (Rack control / I/O)	■	■	■	■	
<b>HVAC Control</b>					
HVAC Units (max)	10	0	45	45	
Centralized control via I/O for RTU, AHU	■	□	■	■	
De-Centralized via MCX controller	■	□	■	■	
<b>Store Lighting Control</b>					
Lighting Zones (max)	10	30	30	30	
Centralized control via I/O	■	■	■	■	
De-Centralized Square D PowerLink, max 8. Type AS, G3, G3M	■	■	■	■	
De-Centralized MCX, max 10 (see comment)	■	■	■	■	
<b>Energy Metering</b>					
Energy meter points	32	80	80	80	
Pulse input (via AK-XM 107A module)	■	■	■	■	
Veris EH8035,EH8036 modbus	■	■	■	■	
WattNode Plus Modbus	■	■	■	■	
<b>Refrigeration Gas Detection</b>					
Leak detector inputs. Detection types: Leak, HGM-300, HGM-MZ, IR-F4-R, Leak 10v Connections via AK I/O	10	50	50	50	
<b>Miscellaneous sensors (via AK I/O)</b>					
Relay outputs	20	70	70	70	
Sensor inputs	20	70	70	70	
On/Off inputs	20	80	80	80	
Variable outputs	20	70	70	70	

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Hardware Platform					
<b>Master Control</b>					
Night Setback	■	■	■	■	
Anti-Sweat Heater control (via I/O or controller bus)	■	■	■	■	
Scheduling (Case lighting, Night setback, Shutdown, Defrost)	■	■	■	■	
<b>Calculations and Conversion Factors</b>					
Calculation points	96	96	96	96	
Conversion factors	10	10	10	10	
<b>Remote Access</b>					
Standard Web browser	■	■	■	■	
StoreView Desktop (see comment)	■	■	■	■	
SiteService App (for iPhone and Android)	■	■	■	■	
RMT (for uploads, downloads, graphics)	■	■	■	■	
<b>Simple Legend graphics</b>					
Bitmap static graphic for local screen view	■	■	■	■	
Graphics shown in StoreView Desktop	■	■	■	■	
<b>Alarm Management configuration options</b>					
# of alarms stored before being overwritten	250	250	250	250	
Email alarm output (SMTP format)	■	■	■	■	
# of alarm network connections	4	4	4	4	
Supress alarms via software	■	■	■	■	
Manual export of alarms to .csv via browser alarms screen	■	■	■	■	
Alarm Relay support (max: 5)	■	■	■	■	
<b>History (logs)</b>					
Number of history points	600	600	600	600	
Save data as .hst file	■	■	■	■	
Export .hst data to .CSV	■	■	■	■	
Sample rates	5, 30 sec, 1, 2,10, 30 mins, 1 hour	5, 30 sec, 1, 2,10, 30 mins, 1 hour	5, 30 sec, 1, 2,10, 30 mins, 1 hour	5, 30 sec, 1, 2,10, 30 mins, 1 hour	
<b>Supported Devices (via field bus)</b>					
EKC, AK-CC, AK-PC, AK2, AK I/O	■	■	■	■	
Danfoss Drives	■	■	■	■	
Danfoss SLV compressor	■	■	■	■	
Danfoss Optima Condensing Unit	■	■	■	■	
<b>System capacity</b>					
Max rack/pack controllers	5	12	12	12	
Maximum Node count. Each Communications module and AK-CC 210, 550A count as one. Each AK-CC 750 Evaporator controlled counts as one.	120	120	120	120	
Maximum I/O Point count. Add Relays and DI points; total cannot exceed 255. Add Sensors and Analog Outputs; total cannot exceed 255	■	■	■	■	
Max schedules (Case lighting, Night setback, Shutdown, Def)	100	100	100	100	
Coordinated defrost	■	■	■	■	
Shutdown - ON/Off	■	■	■	■	
Max Multiple fronts interconnected to form 'host network'	10	10	10	10	9
<b>User Authorization</b>					
Auth levels	7	7	7	7	7
Users	35	35	35	35	20
<b>Ease of Use</b>					
Offline programming via RMT	■	■	■	■	
Direct EM-800 support	■	■	■	■	
EDS support (Danfoss services)	■	■	■	■	
XML open interface	■	■	■	■	

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