



Tecumseh



MASTERFLUX

Variable Speed DC Compressors
and Condensing Units



MASTERFLUX

Variable Speed DC Compressors and Condensing Units

Tecumseh offers a wide range of Masterflux DC powered variable speed compressors and condensing units for a variety of applications.

If you have a need for compact, high power, efficient, and lightweight compressors, Masterflux has the model for you.

Our compressors are well suited for a variety of applications covering the ordinary to the extraordinary.





Features and Benefits



SIERRA Compressor

- High efficiency, high capacity, BLDC compressor line
- Robust rotary design ideally suited for mobile & transport applications
- 400-15,000 Btu/h (114-4,400W) capacity range



CASCADE Compressor

- Low temperature compressor ideally suited for mobile applications
- High temperature models available for telecom applications
- 12/24V dual voltage models
- 24V and 48V Models
- Integrated electronic controller mounting



ECLIPSE Compressor

- Telecom Applications
- Quiet Operation
- 48V, High temperature models
- 5,600 Btu/h (1,640 W) cooling capacity
- Available in R134a



CONDENSING UNITS

- Integrated compressor controller
- 12V, 24V and 48V models (custom voltages available)
- 3,300-8,500 Btu/h (880-2500 W) capacity
- Available in R134a and R404A



Applications

Heavy Duty Trucking

With today's new emissions requirements, legislative bans, and diesel prices, idling your engine is not an option. Masterflux's line of compressors is ideally suited for battery powered no-idle applications for OEM and aftermarket systems. With our lightweight and powerful 12 and 24V compressors, you will easily be able to cool down your cab and save your engine.

Automotive

Consensus of opinion is that electric compressors represent the future of automotive air conditioning. Masterflux compressors offer the automotive industry the "future" today. Our compressors are up to 40% smaller and lighter than competing belt driven automotive compressors and are available to handle input voltages of 12 to 600 VDC to meet today's electric vehicle requirements.

Medical/Scientific

Masterflux offers compressors to meet the demands of today's medical and scientific community for the higher cooling capacity requirements outside of the range of Peltier (thermo-electric) cells. Our compressors pack up to 50x the cooling/heating power of the largest Peltier cells. Because our compressors can be powered by low DC voltage, regulatory certification is greatly simplified.

Mass Transit

Masterflux compressors offer the mass transit market a cost effective option for your comfort cooling requirements. Our DC compressors can be powered directly off of today's common Rail 74 VDC voltage bus.

Solar/Off-Grid Power

Masterflux offers a solution for DC systems running on solar, battery, or other off-grid power sources. The direct DC Masterflux hermetic compressor eliminates the need for an inverter and the inductive surge at start up associated with a traditional A/C compressor.

Military

Stealth mode in the desert. Need to keep your cool but lose your heat signature? Looking for the safety and reliability of a hermetically sealed cooling system but want to use DC power? Masterflux is again the answer to these problems. Our technology can be found in military applications from the use of chiller technology for cooling a soldier to powering thermal systems for electronic cooling.

Electronics

Getting the heat out of your electronics isn't an option, it's a necessity. Component failures double with every 18 degree F increase in temperature. With such demanding requirements for electronic cooling, Masterflux is at the forefront of the development of new cooling concepts for electronic systems.



Compressors

Three (3) series of compressors, SIERRA, ECLIPSE and CASCADE, provide the cooling range needed to cover almost any application whether it be commercial refrigeration or air conditioning.

Voltages Available (DC)*									
	12/24	24/48	24	48	80	48/100	100/150	150/300	600
Sierra	■	■		■	■	■	■	■	■
Cascade	■		■	■					
Eclipse				■					

*Custom voltage ranges are available

Refrigerant				
Code Table		Sierra	Cascade	Eclipse
Y	R134a	■	■	■
Z	R404A	■		
H	R1234yf	■		
U	R290	■	□	
M	R600a		□	

□ Models in development

Options for the Compressors

- Dual /Tandem compressor configurations for increased capacity
- S.A.E. – M.I.O. automotive fittings
- Baseplate orientation
- Custom voltage ranges
- Fold-Over Terminal (Standard or Metric)



Application Code Table		
Application Code	Evaporator Temperature	Rating Point
1	Low	-10° F (-23.3° C)
2	Medium / Commercial	+20° F (-6.7° C)
3	High / Air Conditioning	+45° F (7.2° C)

Compressor Model Naming Convention

The Masterflux model naming convention is very simple. A sample model and the breakdown of each of the parts is shown below. Please remember that a model may have several different part numbers depending on the particular configuration.

SIERRA02-0434Y3

Compressor Type

Compressor Voltage Code

Displacement (in³)

Application

Refrigerant

Voltage Code Table	
VOLTAGE CODE	NOMINAL VOLTAGE RANGE DC
01	12
02	12/24
03	24/48
04	48/100
05	100/150
06	150/300
07	150
08	300
09	420
10	600
17	48
18	24



Controllers

Each Masterflux compressor requires a Masterflux sensorless BLDC motor controller to operate. These controllers are specifically tested and tuned for with each compressor and must be used. For each model of compressor, there may be several versions of the controller to choose from.

Controller Key Functions:

- Start and run the compressor
- Provide locked-rotor protection
- Provide thermal protection and shutdown of the compressor and controller
- Vary the speed of the compressor
- Limit the power and current draw
- Provide diagnostic information
- Low voltage and high voltage shutdown

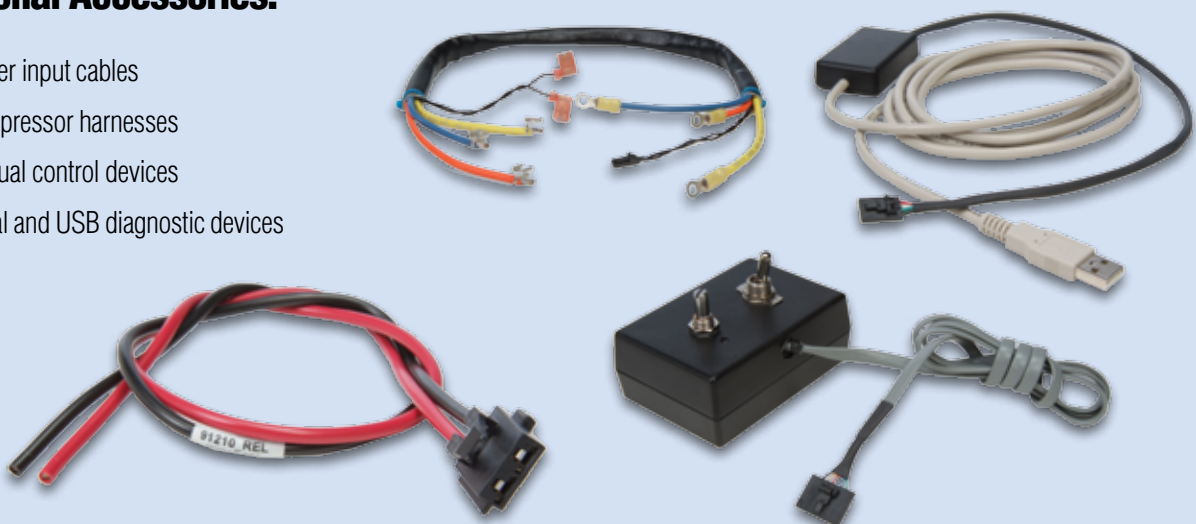
Options for the controllers:

- Custom heat sink designs
- Custom wire harness options
- IP rated enclosures
- Soft start capability
- Custom voltage ranges and trip limits



Optional Accessories:

- Power input cables
- Compressor harnesses
- Manual control devices
- Serial and USB diagnostic devices





Sierra Compressor (cont'd):

HIGH / AIR CONDITIONING: (performance rated at 7.2°C/45°F evap., 54.4°C/130°F cond., 11.1°C/20°F superheat, 8.3°C/15°F subcooling, 35°C/95°F ambient)										
Model Number	Part Number	Connection Description	Voltage	Refrigerant	Application	Capacity	Compressor Drawing	Oil (cc)	Wgt	UL
SIERRA04-0434Y3	SIERRA00135	M24 x 1.5 Suction, M22 x 1.5 Discharge Metric Fittings	48-100 V	R134a	High Temp.	1,707-6,500 BTU/hr 500-1,904 Watts	SIERRA00135	290	10.8 lbs 5.1 kg	No
SIERRA04-0434H3	SIERRA00097	#10 Suction, #8 Discharge SAE MIO Fittings	48-100 V	R1234yf	High Temp.	1,595-6,320 BTU/hr 467-1,852 Watts	DCMX07-001	290	10.8 lbs 5.1 kg	No
SIERRA05-0434Y3	SIERRA00028	3/8" Suction, 5/16" Discharge Copper Tubes	100-150 V	R134a	High Temp.	1,785-6,375 BTU/hr 523-1,868 Watts	DCMX01-002	290	10.5 lbs 4.8 kg	No
SIERRA05-0434Y3	SIERRA00052	#10 Suction, #8 Discharge SAE MIO Fittings	100-150 V	R134a	High Temp.	1,785-6,375 BTU/hr 523-1,868 Watts	DCMX07-001	290	10.8 lbs 5.1 kg	No
SIERRA06-0434Y3	SIERRA00029	3/8" Suction, 5/16" Discharge Copper Tubes	150-300 V	R134a	High Temp.	1,626-6,500 BTU/hr 476-1,904 Watts	DCMX01-002	290	10.5 lbs 4.8 kg	No
SIERRA06-0434Y3	SIERRA00054	#10 Suction, #8 Discharge SAE MIO Fittings	150-300 V	R134a	High Temp.	1,626-6,500 BTU/hr 476-1,904 Watts	DCMX07-001	290	10.8 lbs 5.1 kg	No
SIERRA06-0434Y3	SIERRA00057	3/8" Suction, 5/16" Discharge Copper Tubes	150-300 V	R134a	High Temp.	1,626-6,500 BTU/hr 476-1,904 Watts	DCMX01-002	290	10.5 lbs 4.8 kg	No
SIERRA02-0716Y3	SIERRA00034	1/2" Suction, 5/16" Discharge Copper Tubes	12-24 V	R134a	High Temp.	2,840-10,050 BTU/hr 832-2,945 Watts	DCMX02-002	355	14.7 lbs 6.6 kg	No
SIERRA02-0716Y3	SIERRA00061	#10 Suction, #8 Discharge SAE MIO Fittings	12-24 V	R134a	High Temp.	2,840-10,050 BTU/hr 832-2,945 Watts	DCMX03-002	355	15 lbs 6.8 kg	No
SIERRA02-0716Y3	SIERRA00063	#10 Suction, #8 Discharge SAE MIO Fittings	12-24V	R134a	High Temp.	2,840-10,050 BTU/hr 832-2,945 Watts	DCMX12-001	355	15 lbs 6.8 kg	No
SIERRA02-0716Y3	SIERRA00083	#10 Suction, #8 Discharge SAE MIO Fittings	12-24 V	R134a	High Temp.	2,840-10,050 BTU/hr 832-2,945 Watts	DCMX19-001	355	14.7 lbs 6.6 kg	No
SIERRA02-0716Y3	SIERRA00149	M24 x 1.5 Suction, M22 x 1.5 Discharge Metric Fittings	12-24 V	R134a	High Temp.	2,840-10,050 BTU/hr 832-2,945 Watts	DCMX37-002	355	14.7 lbs 6.6 kg	No
SIERRA02-0716Y3	SIERRA00151	#10 Suction, #8 Discharge SAE MIO Fittings, Fold-Over Terminals	12-24 V	R134a	High Temp.	2,840-10,050 BTU/hr 832-2,945 Watts	DCMX38-002	355	15 lbs 6.8 kg	No
SIERRA02-0716Y3	SIERRA00084	#10 Suction, #8 Discharge, 90° SAE MIO Fittings	12-24 V	R134a	High Temp.	2,840-10,050 BTU/hr 832-2,945 Watts	DCMX20-001	355	15 lbs 6.8 kg	No
SIERRA02-0716Y3	SIERRA00146	#10 Suction, #8 Discharge, 90° SAE MIO Fittings, Fold-Over Terminals	12-24 V	R134a	High Temp.	2,840-10,050 BTU/hr 832-2,945 Watts	DCMX36-002	355	15 lbs 6.8 kg	No
SIERRA02-0716Y3	SIERRA00090	1/2" Suction, 5/16" Discharge Tubes	12-24V	R134a	High Temp.	2,840-10,050 BTU/hr 832-2,945 Watts	DCMX02-001	355	14.7 lbs 6.6 kg	No
SIERRA02-0716Y3	SIERRA00094	1/2" Suction, 5/16" Discharge Tubes	12-24V	R134a	High Temp.	2,840-10,050 BTU/hr 832-2,945 Watts	DCMX23-001	355	14.7 lbs 6.6 kg	No
SIERRA02-0716Y3	SIERRA00134	3/8" Suction, 5/16" Discharge Copper Tubes; Fold-Over Terminals (Metric)	12-24V	R134a	High Temp.	2,840-10,050 BTU/hr 832-2,945 Watts	DCMX24-002	355	14.7 lbs 6.6 kg	No
SIERRA03-0716Y3	14948357	1/2" Suction, 5/16" Discharge Copper Tubes	24-48 V	R134a	High Temp.	2,840-11,300 BTU/hr 832-3,311 Watts	DCMX02-002	355	14.7 lbs 6.6 kg	Yes



Sierra Compressor (cont'd):

HIGH / AIR CONDITIONING: (performance rated at 7.2°C/45°F evap., 54.4°C/130°F cond., 11.1°C/20°F superheat, 8.3°C/15°F subcooling, 35°C/95°F ambient)										
Model Number	Part Number	Connection Description	Voltage	Refrigerant	Application	Capacity	Compressor Drawing	Oil (cc)	Wgt	UL
SIERRA03-0716Y3	SIERRA00065	#10 Suction, #8 Discharge SAE MIO Fittings	24-48 V	R134a	High Temp.	2,840-11,300 BTU/hr 832-3,311 Watts	DCMX03-002	355	15 lbs 6.8 kg	Yes
SIERRA03-0716Y3	SIERRA00093	1/2" Suction, 5/16" Discharge Copper Tubes	24-48V	R134a	High Temp.	2,840-11,300 BTU/hr 832-3,311 Watts	DCMX02-002	355	14.7 lbs 6.6 kg	Yes
SIERRA03-0982Y3	SIERRA00010	1/2" Suction, 5/16" Discharge Copper Tubes	24-48 V	R134a	High Temp.	3,950-15,461 BTU/hr 1,157-4,530 Watts	DCMX01-004	290	14.1 lbs 6.4 kg	Yes
SIERRA03-0982Y3	14943161	#10 Suction, #8 Discharge SAE MIO Fittings	24-48 V	R134a	High Temp.	3,950-15,461 BTU/hr 1,157-4,530 Watts	DCMX07-002	290	14.4 lbs 6.5 kg	Yes
SIERRA03-0982Y3	SIERRA00035	1/2" Suction, 5/16" Copper Tubes, High Capacity	24-48 V	R134a	High Temp.	3,950-15,461 BTU/hr 1,157-4,530 Watts	DCMX01-004	290	14.1 lbs 6.4 kg	Yes
SIERRA03-0982Y3	14946230	#10 Suction, #8 Discharge SAE MIO Fittings, High Capacity	24-48 V	R134a	High Temp.	3,950-15,461 BTU/hr 1,157-4,530 Watts	DCMX07-002	290	14.4 lbs 6.5 kg	Yes
SIERRA03-0982Y3	SIERRA00058	#10 Suction, #8 Discharge SAE MIO Fittings, High Capacity, Dual	24-48 V	R134a	High Temp.	3,950-15,461 BTU/hr 1,157-4,530 Watts	DCMX11-002	290	14.7 lbs 6.7 kg	Yes
SIERRA03-0982U3	SIERRA00122	#10 Suction, #8 Discharge SAE MIO Fittings, High Capacity, Dual	24-48 V	R290	High Temp.	4,800-19,700 BTU/hr 1,413-5,768 Watts	DCMX11-002	390	14.4 lbs 6.5 kg	No
SIERRA03-0982U3	SIERRA00107	1/2" Suction, 5/16" Discharge Copper Tubes, High Capacity	24-48V	R290	High Temp.	4,800-19,700 BTU/hr 1,413-5,768 Watts	DCMX01-004	290	14.1 lbs 6.4 kg	No
SIERRA03-0982U3	SIERRA00119	#10 Suction, #8 Discharge SAE MIO Fittings, High Capacity	24-48V	R290	High Temp.	4,800-19,700 BTU/hr 1,413-5,768 Watts	DCMX07-002	290	14.4 lbs 6.5 kg	No
SIERRA03-0982Y3	SIERRA00120	#10 Suction, #8 Discharge SAE MIO Fittings, Fold-Over Terminals	24-48V	R134a	High Temp.	3,950-15,461 BTU/hr 1,157-4,530 Watts	DCMX27-002	290	14.4 lbs 6.5 kg	Yes
SIERRA03-0982Y3	SIERRA00121	3/8" Suction, 5/16" Discharge Copper Tubes, High CAP, Fold-Over Terminals	24-48V	R134a	High Temp.	3,950-15,461 BTU/hr 1,157-4,530 Watts	DCMX27-002	290	14.4 lbs 6.5 kg	Yes
SIERRA03-0982Y3	SIERRA00125	#10 Suction, #8 Discharge SAE MIO Fittings, High CAP, Fold-Over Terminals	24-48V	R134a	High Temp.	3,950-15,461 BTU/hr 1,157-4,530 Watts	DCMX33-002	290	14.4 lbs 6.5 kg	Yes
SIERRA03-0982U3	SIERRA00139	3/8" Suction, 5/16" Discharge Copper Tubes, High CAP, Fold-Over Terminals (Metric)	24-48V	R290	High Temp.	4,800-19,700 BTU/hr 1,413-5,768 Watts	DCMX33-002	290	14.4 lbs 6.5 kg	No
SIERRA03-0982U3	SIERRA00140	#10 Suction, #8 Discharge SAE MIO Fittings, Dual, High CAP, Fold-Over Terminals (Metric)	24-48V	R290	High Temp.	4,800-19,700 BTU/hr 1,413-5,768 Watts	DCMX34-002	390	14.7 lbs 6.6 kg	No
SIERRA03-0982U3	SIERRA00142	#10 Suction, #8 Discharge SAE MIO Fittings, High CAP, Fold-Over Terminals (Metric)	24-48V	R290	High Temp.	4,800-19,700 BTU/hr 1,413-5,768 Watts	DCMX27-002	290	14.4 lbs 6.5 kg	No
SIERRA17-0982Y3	SIERRA00031	1/2" Suction, 5/16" Discharge Copper Tubes	48 V	R134a	High Temp.	4,160-8,090 BTU/hr 1,219-2,375 Watts	DCMX01-004	290	14.1 lbs 6.4 kg	Yes
SIERRA17-0982U3	SIERRA00123	1/2" Suction, 5/16" Discharge Copper Tubes	48 V	R290	High Temp.	4,824-10,872 BTU/hr 1,413-3,186 Watts	DCMX01-004	290	14.1 lbs 6.4 kg	No





Sierra Compressor (cont'd):

HIGH / AIR CONDITIONING: (performance rated at 7.2°C/45°F evap., 54.4°C/130°F cond., 11.1°C/20°F superheat, 8.3°C/15°F subcooling, 35°C/95°F ambient)										
Model Number	Part Number	Connection Description	Voltage	Refrigerant	Application	Capacity	Compressor Drawing	Oil (cc)	Wgt	UL
SIERRA17-0982U3	SIERRA00124	#10 Suction, #8 Discharge SAE MIO Fittings	48 V	R290	High Temp.	4,824-10,872 BTU/hr 1,413-3,186 Watts	DCMX07-002	290	14.1 lbs 6.4 kg	No
SIERRA04-0982Y3	SIERRA00068	#10 Suction, #8 Discharge SAE MIO Fittings, Dual	48-72 V	R134a	High Temp.	4,160-15,200 BTU/hr 1,219-4,454 Watts	DCMX07-002	290	14.4 lbs 6.5 kg	No
SIERRA04-0982Y3	SIERRA00080	#10 Suction, #8 Discharge SAE MIO Fittings, Dual	48-72V	R134a	High Temp.	4,160-15,200 BTU/hr 1,219-4,454 Watts	DCMX07-002	290	14.7 lbs 6.7 kg	No
SIERRA04-0982Y3	SIERRA00088	#10 Suction, #8 Discharge SAE MIO Fittings, Dual	48-72V	R134a	High Temp.	4,160-15,200 BTU/hr 1,219-4,454 Watts	DCMX07-002	290	14.7 lbs 6.7 kg	No
SIERRA04-0982Y3	SIERRA00011	1/2" Suction, 5/16" Discharge Copper Tubes	48-100 V	R134a	High Temp.	4,160-15,200 BTU/hr 1,219-4,454 Watts	DCMX01-004	290	14.1 lbs 6.4 kg	No
SIERRA04-0982Y3	14949801	#10 Suction, #8 Discharge SAE MIO Fittings	48-100 V	R134a	High Temp.	4,160-15,200 BTU/hr 1,219-4,454 Watts	DCMX07-002	290	14.4 lbs 6.5 kg	No
SIERRA05-0982Y3	SIERRA00012	1/2" Suction, 5/16" Discharge Copper Tubes	100-150 V	R134a	High Temp.	3,909-15,170 BTU/hr 1,163-4,190 Watts	DCMX01-004	290	14.1 lbs 6.4 kg	No
SIERRA05-0982Y3	SIERRA00055	#10 Suction, #8 Discharge SAE MIO Fittings	100-150 V	R134a	High Temp.	3,970-15,170 BTU/hr 1,163-4,190 Watts	DCMX07-002	290	14.4 lbs 6.5 kg	No
SIERRA06-0982Y3	SIERRA00013	1/2" Suction, 5/16" Discharge Copper Tubes	150-300 V	R134a	High Temp.	3,909-15,170 BTU/hr 1,145-4,445 Watts	DCMX01-004	290	14.1 lbs 6.4 kg	No
SIERRA06-0982Y3	14944727	#10 Suction, #8 Discharge SAE MIO Fittings	150-300 V	R134a	High Temp.	3,909-15,170 BTU/hr 1,145-4,445 Watts	DCMX07-002	290	14.4 lbs 6.5 kg	No
SIERRA06-0982Y3	14950068	#10 Suction, #8 Discharge SAE MIO Fittings	150-300V	R134a	High Temp.	3,909-15,170 BTU/hr 1,145-4,445 Watts	DCMX07-002	290	14.4 lbs 6.5 kg	No
SIERRA06-0982Y3	SIERRA00081	#10 Suction, #8 Discharge SAE MIO Fittings, Dual	150-300 V	R134a	High Temp.	3,909-15,170 BTU/hr 1,145-4,445 Watts	DCMX11-002	290	14.7 lbs 6.7 kg	No
SIERRA06-0982Y3	SIERRA00095	#10 Suction, #8 Discharge SAE MIO Fittings (w/ 90° Fittings)	150-300V	R134a	High Temp.	3,909-15,170 BTU/hr 1,145-4,445 Watts	DCMX24-002	290	14.4 lbs 6.5 kg	No
SIERRA10-0982Y3	SIERRA00114	#10 Suction, #8 Discharge SAE MIO Fittings (Twin Configuration)	600V	R134a	High Temp.	3,909-15,170 BTU/hr 1,145-4,445 Watts	DCMX11-003	390	14.4 lbs 6.5 kg	No
SIERRA10-0982Y3	SIERRA00072	#10 Suction, #8 Discharge SAE MIO Fittings	600 V	R134a	High Temp.	3,909-15,170 BTU/hr 1,145-4,445 Watts	DCMX07-002	290	14.4 lbs 6.5 kg	No



Sierra Compressor (cont'd):

MEDIUM / REFRIGERATOR: (performance rated at -6.7°C/20°F evap., 48.9°C/120°F cond., 11.1°C/60°F superheat, 0°C/0°F subcooling, 35°C/95°F ambient)										
Model Number	Part Number	Connection Description	Voltage	Refrigerant	Application	Capacity	Compressor Drawing	Oil (cc)	Wt	UL
SIERRA02-0434Y2	SIERRA00082	3/8" Suction, 5/16" Discharge Copper Tubes	12-24 V	R134a	Medium Temp.	968-3,282 BTU/hr 179-575 Watts	DCMX01-002	290	10.5 lbs 4.8 kg	No
SIERRA03-0434Y2	SIERRA00077	3/8" Suction, 5/16" Discharge Copper Tubes	24-48 V	R134a	Medium Temp.	968-3,282 BTU/hr 179-575 Watts	DCMX01-002	290	10.5 lbs 4.8 kg	No
SIERRA04-0434Y2	SIERRA00070	3/8" Suction, 5/16" Discharge Copper Tubes	48-100 V	R134a	Medium Temp.	968-3,282 BTU/hr 179-575 Watts	DCMX01-002	290	10.5 lbs 4.8 kg	No
SIERRA05-0434Z2	SIERRA00056	3/8" Suction, 5/16" Discharge Copper Tubes	100-150 V	R404A	Medium Temp.	1,430-5,200 BTU/hr 420-1,500 Watts	DCMX01-002	290	10.5 lbs 4.8 kg	No
SIERRA05-0982Z2	SIERRA00089	1/2" Suction, 5/16" Discharge Copper Tubes	100-150 V	R404A	Medium Temp.	2,960-10,700 BTU/hr 867-3,133 Watts	DCMX01-004	290	14.1 lbs 6.4 kg	No

LOW / FREEZER: (performance rated at -23°C/-10°F evap., 48.9°C/120°F cond., 27.4°C/50°F superheat, 0°C/0°F subcooling, 35°C/95°F ambient)										
Model Number	Part Number	Connection Description	Voltage	Refrigerant	Application	Capacity	Compressor Drawing	Oil (cc)	Wt	UL
SIERRA02-0434Y1	SIERRA00030	3/8" Suction, 5/16" Discharge Copper Tubes	12-24 V	R134a	Low Temp.	445-1,534 BTU/hr 121-437 Watts	DCMX01-002	290	10.5 lbs 4.8 kg	No
SIERRA02-0434Z1	SIERRA00069	3/8" Suction, 5/16" Discharge Copper Tubes	12-24 V	R404A	Low Temp.	720-2,600 BTU/hr 210-765 Watts	DCMX01-002	290	10.5 lbs 4.8 kg	No
SIERRA03-0434Z1	SIERRA00049	3/8" Suction, 5/16" Discharge Copper Tubes	24-48 V	R404A	Low Temp.	720-2,600 BTU/hr 210-765 Watts	DCMX01-002	290	10.5 lbs 4.8 kg	No
SIERRA03-0982Z1	SIERRA00027	1/2" Suction, 5/16" Discharge Copper Tubes	24-48 V	R404A	Low Temp.	1,700-6,150 BTU/hr 500-1,508 Watts	DCMX01-004	290	14.1 lbs 6.4 kg	No
SIERRA03-0982Z1	SIERRA00141	#10 Suction. #8 Discharge SAE MIO Fittings	24-48V	R404A	Low Temp.	1,700-6,150 BTU/hr 500-1,508 Watts	DCMX07-002	290	14.4 lbs 6.5 kg	No
SIERRA04-0982Z1	SIERRA00073	1/2" Suction, 5/16" Discharge Copper Tubes	48-100 V	R404A	Low Temp.	1,700-6,150 BTU/hr 500-1,508Watts	DCMX01-004	290	14.1 lbs 6.4 kg	No



Sierra Controller:

Controller Number	Nominal Voltage Range	Description	Compressor Models	Controller Drawing	Wiring Diagram	Manual Control Device	Power Input Cable	Comp. Harness	UL
025A0122	12-24 VDC	Full Cables, 9-30 VDC	SIERRA02-0434XX	DGMX0020	DEMXX0020	030A0117	91210	N/A	No
025F0095	12-24 VDC	No Cables, 9-30 VDC		DGMX0022	DEMXX0020	030A0117	N/A	040A0095	No
025A0180	12-24 VDC	Full Cables, 9-30 VDC		DGMX0020	DEMXX0020	030A0117	91210	N/A	No
025F0219	12-24 VDC	No Cables, Flanged Heatsink 9-30 VDC		DGMX0055	DEMXX0020	030A0117	N/A	040A0095	No
025A0134	12-24 VDC	Full Cables, 9-30 VDC	SIERRA02-0716XX	DGMX0021	DEMXX0020	030A0117	14955303	N/A	No
025F0200	12-24 VDC	No Cables, 9-30 VDC		DGMX0022	DEMXX0020	030A0117	N/A	040A0095	No
025F0218	12-24 VDC	No Cables, Flanged Heatsink 9-30 VDC		DGMX0055	DEMXX0020	030A0117	N/A	040A0095	No
025A0215	12-24 VDC	Full Cables, Dual, 9-30 VDC		DGMX0021	DEMXX0033	030A0117	14955303	N/A	No
025A0145	24-48 VDC	Full Cables, 19-59.9 VDC	SIERRA03-0434XX SIERRA03-0716XX SIERRA03-0982XX	DGMX0030	DEMXX0010	030A0043	040A0020	N/A	Yes
025F0199	24-48 VDC	No Cables, 19-59.9 VDC		DGMX0052	DEMXX0010	030A0043	040A0020	040A1210	No
025F0149	24-48 VDC	No Cables, Flanged Heatsink 19-59.9 VDC		DGMX0031	DEMXX0010	030A0043	N/A	040A0120	Yes
025F0129	24-48 VDC	No Cables, 19-59.9 VDC		DGMX0033	DEMXX0010	030A0043	N/A	040A0120	Yes
025A0148	24-48 VDC	Short Cables, 19-59.9 VDC		DGMX0029	DEMXX0010	030A0043	91210	91209	Yes
025A0165	24-48 VDC	Short Cables, Soft Start 19-59.9 VDC		DGMX0029	DEMXX0010	030A0043	91210	91209	Yes
025F0216	24-48 VDC	No Cables, Flanged Heatsink, Dual, 19-59.9 VDC		DGMX0031	DEMXX0023	030A0043	N/A	040A0120	Yes
025A0185	24-48 VDC	Short Cables, Dual, 19-59.9 VDC		DGMX0029	DEMXX0023	030A0043	91210	91209	Yes
025A0150	48 VDC	Full Cables, 37-59.9 VDC	SIERRA04-0434XX SIERRA04-0982XX SIERRA17-0434XX SIERRA17-0982XX	DGMX0030	DEMXX0010	030A0043	040A0020	N/A	Yes
025A0220	48 VDC	Full Cables, Soft Start 37-59.9 VDC		DGMX0030	DEMXX0010	030A0043	040A0020	N/A	Yes
025F0158	48 VDC	No Cables, Flanged Heatsink 37-59.9 VDC		DGMX0031	DEMXX0010	030A0043	N/A	040A0120	Yes
025F0152	48 VDC	No Cables, 37-59.9 VDC		DGMX0033	DEMXX0010	030A0043	N/A	040A0120	Yes
025A0153	48 VDC	Short Cables, 37-59.9 VDC		DGMX0029	DEMXX0010	030A0043	91210	91209	Yes
025F0135	80 VDC	No Cables, Flanged Heatsink, 60-97 VDC		DGMX0026	DEMXX02	030A0117	N/A	040A0095	No
025F0164	80 VDC	No Cables, Flanged Heatsink, 60-97 VDC		DGMX0051	DEMXX02	030A0117	N/A	040A0095	No
025F0139	80 VDC	No Cables, 60-97 VDC		DGMX0042	DEMXX02	030A0117	N/A	040A0095	No
025F0202	80 VDC	No Cables, Dual, 60-97 VDC		DGMX0042	DEMXX0032	030A0117	N/A	040A0095	No
025F0062-04	100 VDC	No Cables, 55-110 VDC		DGMX008	DEMXX06	030A0138	N/A	14942832	No
025F0140-04	100 VDC	No Cables, Flanged Heatsink 55-110 VDC		DGMX012	DEMXX06	030A0138	N/A	14942832	No
025F0140-05	100 VDC	No Cables, Flanged Heatsink, 75-125 VDC		DGMX012	DEMXX06	030A0138	N/A	14942832	No
025F0140-07	100 VDC	No Cables, 70-145 VDC	DGMX012	DEMXX0006	030A0138	N/A	14942832	No	

Sierra Controller (cont'd):

Controller Number	Nominal Voltage Range	Description	Compressor Models	Controller Drawing	Wiring Diagram	Manual Control Device	Power Input Cable	Comp. Harness	UL
025F0140-01	100-150 VDC	No Cables, Flanged Heatsink, 90-165 VDC	SIERRA05-0434XX SIERRA05-0982XX	DGMX012	DEMXX06	030A0138	N/A	14942832	No
025F0062-01	100-150 VDC	No Cables, 90-165 VDC		DGMX008	DEMXX06	030A0138	N/A	14942832	No
025F0140-06	100-150 VDC	No Cables, Flanged Heatsink 90-260 VDC		DGMX012	DEMXX06	030A0138	N/A	14942832	No
025F0062-02	150-300 VDC	No Cables, 115-325 VDC	SIERRA06-0434XX SIERRA06-0982XX	DGMX008	DEMXX06	030A0138	N/A	14942832	No
025F0140-02	150-300 VDC	No Cables, Flanged Heatsink 115-325 VDC		DGMX012	DEMXX06	030A0138	N/A	14942832	No
025F0062-03	150-300 VDC	No Cables, 120-420 VDC		DGMX008	DEMXX06	030A0138	N/A	14942832	No
025F0140-03	150-300 VDC	No Cables, Flanged Heatsink 120-420 VDC		DGMX012	DEMXX06	030A0138	N/A	14942832	No
025F0188-03	150-300 VDC	No Cables, Flanged Heatsink, Dual, 120-420 VDC		DGMX012	DEMXX0034	030A0138	N/A	14942832	No
025F0195	600 VDC	No Cables, Flanged Heatsink, 470-750 VDC	SIERRA10-0982XX	DGMX0054	DEMXX06	030A0138	N/A	14942832	No
025F0248	600 VDC	Dual 600 VDC		DGMX0054	DEMXX0041	030A0138	N/A	14942832	No

Sierra Condensing Unit:

Model	Part Number	Application	Refrigerant	VDC	Capacity	Amps	Wgt
SIERRA01-0434Y3XA	14959753	High Temp./Air Cooled	R134a	12	3,079 BTU/hr 902 Watts	32.8	33.5lb/15.2kg
SIERRA01-0716Y3XA	2E375-1	High Temp./Air Cooled	R134a	12	5,981 BTU/hr 1,753 Watts	49.2	36.6lb/16.6kg
SIERRA18-0434Y3XA	14959772	High Temp./Air Cooled	R134a	24	3,305 BTU/hr 968 Watts	17.7	33.5lb/15.2kg
SIERRA18-0982Y3XA	14964281	High Temp./Air Cooled	R134a	24	8,486 BTU/hr 2,485 Watts	36.2	36lb/16.3kg
SIERRA17-0982Y3XA	14964492	High Temp./Air Cooled	R134a	48	8,026 BTU/hr 2,350 Watts	18.2	37lb/16.8kg
SIERRA17-0982Z1XA	2B1175-1	Low Temp./Air Cooled	R404A	48	3,961 BTU/hr 1,160 Watts	19.7	37lb/16.8kg

Eclipse Compressor:

HIGH / AIR CONDITIONING: (performance rated at 7.2°C/45°F evap., 54.4°C/130°F cond., 11.1°C/20°F superheat, 8.3°C/15°F subcooling, 35°C/95°F ambient)										
Model Number	Part Number	Connection Description	Voltage	Refrigerant	Application	Capacity	Compressor Drawing	Oil (cc)	Wgt	UL
ECLIPSE17-0885Y3	ECLIPSE0001	3/8" Suction, 3/8" Discharge	48V	R134a	High Temp.	6,000 BTU/hr 1,758 Watts	DCMX26	280	23.4 lbs 10.6 kg	No

Eclipse Controller:

Controller Number	Nominal Voltage Range	Description	Compressor Models	Controller Drawing	Wiring Diagram	UL
025F0241	48VDC	No Cables, 30-60 VDC	ECLIPSE 17-XXXXY3	DGMX0065	DEMXX0039	No



Cascade Compressor:

LOW / FREEZER: (performance rated at -23°C/-10°F evap., 54.4°C/130°F cond., 11.1°C/20°F superheat, 8.3°C/15°F subcooling, 35°C/95°F ambient)										
Model Number	Part Number	Connection Description	Voltage	Refrigerant	Application	Capacity	Compressor Drawing	Oil (cc)	Wgt	UL/CE
CASCADE17-0146Y1	CASCADE0001	5/16" Suction, 5/16" Discharge Copper Tubes, Mobile	12V-24 V, 48V	R134a	Low Temp.	106-237 BTU/hr 31-69 Watts	DCMX14-001	263	14.2 lbs 6.4 kg	Yes
CASCADE17-0231Y1	CASCADE0002	5/16" Suction, 5/16" Discharge Copper Tubes, Mobile	12V-24 V, 48V	R134a	Low Temp.	190-444 BTU/hr 56-130 Watts	DCMX14-002	263	14.2 lbs 6.4 kg	Yes

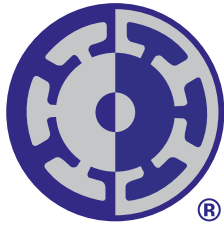
HIGH / AIR CONDITIONING: (performance rated at 7.2°C/45°F evap., 54.4°C/130°F cond., 11.1°C/20°F superheat, 8.3°C/15°F subcooling, 35°C/95°F ambient)										
Model Number	Part Number	Connection Description	Voltage	Refrigerant	Application	Capacity	Compressor Drawing	Oil (cc)	Wgt	UL/CE
CASCADE17-0306Y3	CASCADE0003	1/4" Suction, 3/16" Discharge Copper Tubes, Stationary	24V, 48V	R134a	High Temp.	983-2,274 BTU/hr 288-666 Watts	DCMX17	270	14.8 lbs 6.7 kg	Yes
CASCADE17-0244Y3	CASCADE0004	1/4" Suction, 3/16" Discharge Copper Tubes, Stationary	24V, 48V	R134a	High Temp.	1,475 BTU/hr 432 Watts	DCMX17	270	14.8 lbs 6.7 kg	Yes
CASCADE17-192Y3	CASCADE0005	1/4" Suction, 3/16" Discharge Copper Tubes, Stationary	24V, 48V	R134a	High Temp.	1,150 BTU/hr 337 Watts	DCMX17	270	14.8 lbs 6.7 kg	Yes
CASCADE17-0342Y3	CASCADE0006	1/4" Suction, 3/16" Discharge Copper Tubes, Stationary	24V, 48V	R134a	High Temp.	2,050 BTU/hr 600 Watts	DCMX17	270	14.8 lbs 6.7 kg	Yes
CASCADE17-0306Y3	CASCADE1003	1/4" Suction, 3/16" Discharge Copper Tubes, Mobile	24V, 48V	R134a	High Temp.	983-2,274 BTU/hr 288-666 Watts	DCMX17	270	14.8 lbs 6.7 kg	Yes
CASCADE17-0244Y3	CASCADE1004	1/4" Suction, 3/16" Discharge Copper Tubes, Mobile	24V, 48V	R134a	High Temp.	1,475 BTU/hr 432 Watts	DCMX17	270	14.8 lbs 6.7 kg	Yes
CASCADE17-192Y3	CASCADE1005	1/4" Suction, 3/16" Discharge Copper Tubes, Mobile	24V, 48V	R134a	High Temp.	1,150 BTU/hr 337 Watts	DCMX17	270	14.8 lbs 6.7 kg	Yes
CASCADE17-0342Y3	CASCADE1006	1/4" Suction, 3/16" Discharge Copper Tubes, Mobile	24V, 48V	R134a	High Temp.	2,050 BTU/hr 600 Watts	DCMX17	270	14.8 lbs 6.7 kg	Yes

Cascade Controller:

Controller Number	Nominal Voltage Range	Description	Compressor Models	Controller Drawing	Wiring Diagram	UL/CE
030F0121	12-24 VDC	Compressor Mounted Controller, 9.6-31.5 VDC	CASCADE17-XXXXY1	DGMX0044	DEMX0024	Yes
030F0137	48 VDC	Compressor Mounted Controller, 36-60 VDC	CASCADE17-XXXXY1 CASCADE17-XXXXY3	DGMX0050	DEMX0028	Yes
030F0152	24 VDC	Compressor Mounted Controller, 19-30 VDC	CASCADE17-XXXXY3	DGMX0050	DEMX0028	No
030F0175	48 VDC	Compressor Mounted Controller, 39-60 VDC; Flat Heatsink	CASCADE17-XXXXY1 CASCADE17-XXXXY3	DGMX0082	DEMX0028	Yes
030F0176	24 VDC	Compressor Mounted Controller, 39-60 VDC; Flat Heatsink	CASCADE17-XXXXY3	DGMX0082	DEMX0028	Yes

Cascade Condensing Unit:

Model Number	Part Number	Application	Refrigerant	Voltage	Capacity	Amps	Wgt
CASCADE02-0146Y1XA	2A900-1	Low Temp./Air Cooled	R134a	12V 24V	269 BTU/hr (79 W) 234 BTU/hr (67 W)	5.9 2.8	20lb/9.1kg
CASCADE02-0231Y1XA	2A901-1	Low Temp./Air Cooled	R134a	12V 24V	474 BTU/hr (134 W) 462 BTU/hr (135 W)	9.4 4.2	20lb/9.1kg



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INDIA
Tel. int +91 40 3011 6971

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