

# ScrollPak

Scrollpak Condensing Units Powered by Copeland

SPC Ver 2.2



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## Scrollpak Condensing Units Powered by Copeland

Scrollpak uses advance scroll technologies from Copeland coupled with Eden G4's latest heat transfer technologies setting a new standard of efficiency and reliability for Condensing Units. Scrollpak offers outstanding solution in commercial refrigeration application.

### Features

- Compact and sophisticated outlook
- Fully assembled and ready to be installed to save on assembly and applied cost
- Scrollpak uses Scroll compressor designed for low noise and minimum vibration operation
- Wide operating range
  - LT and MT from -30°C to +5°C evaporating temperature
  - Same unit for either MT or LT Cold Room application
  - Reduce inventory for distributors and contractors
- Best-in-class Scroll Compressor efficiency and reliability
  - Up to 30% annual electrical savings from COP improvement as compared with reciprocating systems.
  - 70% fewer moving parts than reciprocating compressor
  - Superior liquid handling

### Accessories

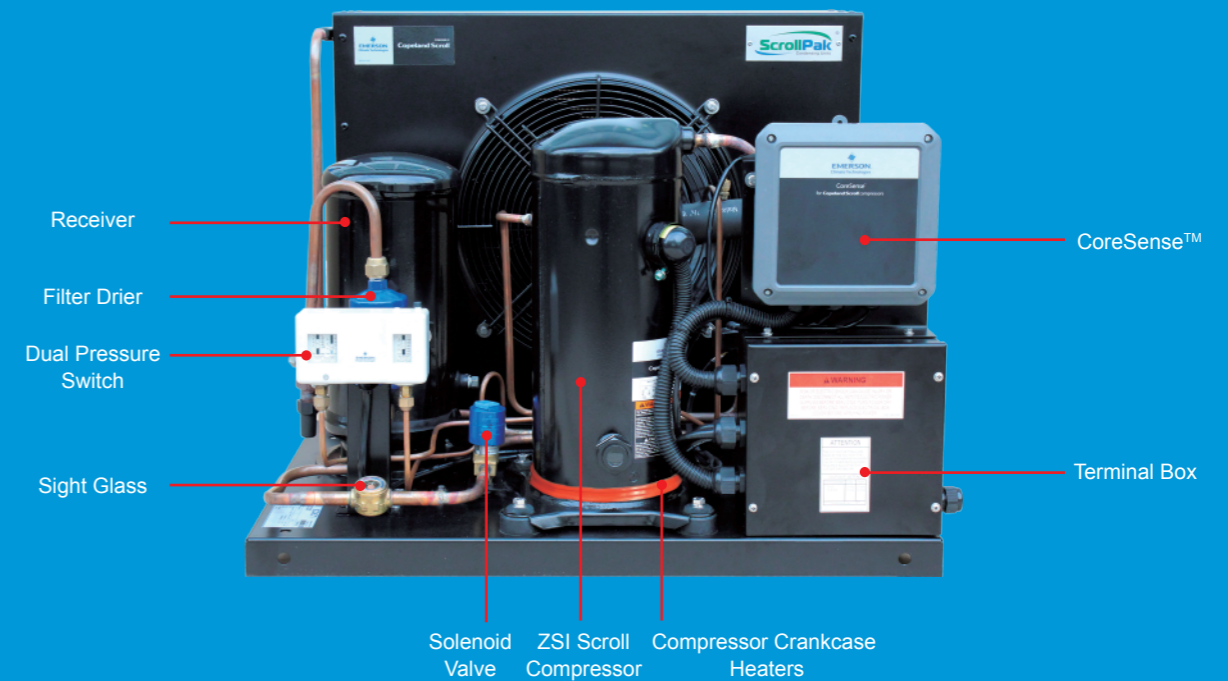
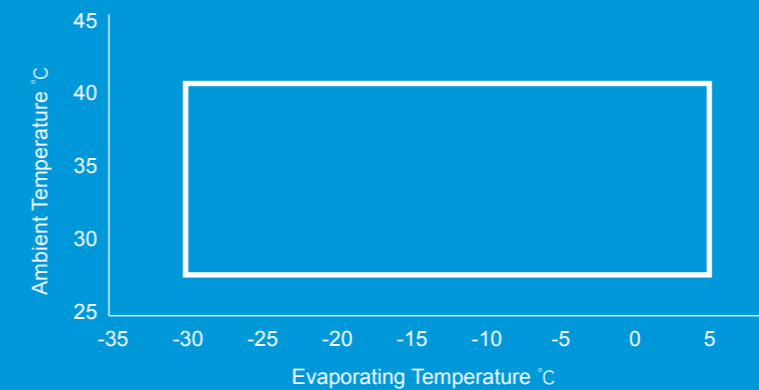
- Built-in CoreSense™ liquid injection control
  - Ensure low temperature operation reliability
  - Onboard control for liquid injection by sensing discharge line temperature (DLT)
  - Direct communication function by using LED inside CoreSense™
- Liquid receiver
- Liquid line solenoid valve
- Sight glass/moisture indicator
- Liquid line filter drier
- Dual pressure switch
- Compressor contactor
- Terminal box
- Compressor crankcase heaters



### Optional

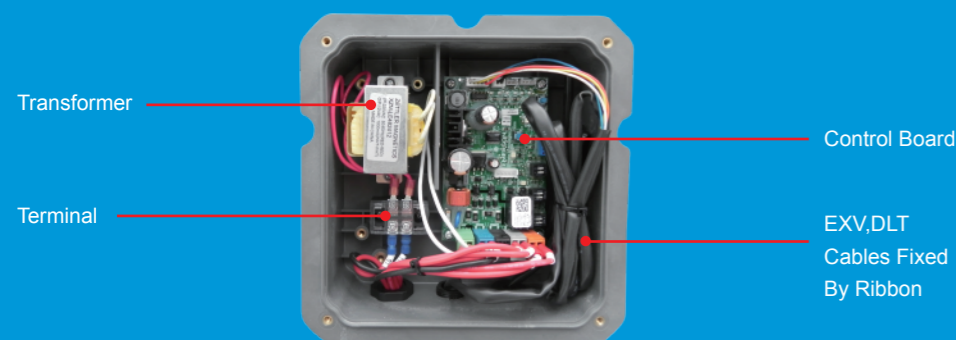
- Passivated corrosion protection fins (for installations in robust environments)
- Factory fitted liquid line valves
- Factory fitted oil separator
- Factory fitted suction accumulator

### Operating Range



## CoreSense™ Functions

- The board will be used to turn off/on the compressor based on demand signal from low pressure switch & thermostat
- The board will control liquid injection by driving the EXV based on DLT sensor readings. The board has two modes to control liquid injection:
  - Manual mode
  - Auto mode
- The board provides diagnosis for DLT sensor status



LED Display	Description
1 (Yellow Green)	LED Blinking Pattern Indicates DLT Sensor Status
2 (Yellow Green)	LED 2 & LED 3 Combination And Blinking Patterns Indicate EXV Opening Or Closing
3 (Yellow Green)	LED 2 & LED 3 Blink Once When Entering Or Exiting EXV Manual Operation
4 (Red)	LED 4 Turns On As An Alarm When Triggered By Any Of The Following: 1) DLT Overheat Protection 2) DLT Sensor Open Circuit 3) DLT Sensor Short Circuit 4) DLT Sensor Under Detection Range 5) DLT Sensor Over Detection Range 6) DLT Sensor Failure At 130°C Or Above

## Nomenclature

SPC030S.T.D31HA.00

- 00 - Optionals
- HA - High Ambient
- 1 - Number of Fan
- 3 - Size of Fan Motor in (mm) (3-350mm,4-400mm)
- D - Condenser Platform
- T - Three Phase, P-Single Phase
- S - Compressor Family
- 030 - Nominal Capacity (HP)
- C - Copeland
- SP - Scrollpak

## Performance Data Capacity(kW)

R404A  
50Hz

Model	Nominal Power (HP)	Ambient Temperature (°C)	SCT (°C)	Refrigerating Capacity Q (kW)				Evaporating Temperature (°C)			
				-30	-25	-20	-15	-10	-5	0	5
SPC020B.P.B31	2	35	47	—	—	2.00	2.51	3.10	3.80	4.65	5.60
		38	50	—	—	—	2.34	2.90	3.60	4.35	5.25
		41	53	—	—	—	2.16	2.70	3.35	4.10	4.95
SPC020B.P.C31HA	2	35	44	—	—	2.15	2.68	3.30	4.05	4.90	5.90
		38	47	—	—	2.00	2.51	3.10	3.80	4.65	5.60
		41	50	—	—	—	2.34	2.90	3.60	4.35	5.25
SPC020B.T.B31	2	35	47	—	—	1.76	2.32	2.95	3.65	4.50	5.45
		38	50	—	—	—	2.11	2.70	3.40	4.15	5.05
		41	53	—	—	—	1.89	2.45	3.10	3.85	4.70
SPC020B.T.C31HA	2	35	44	—	—	1.95	2.52	3.15	3.90	4.80	5.80
		38	47	—	—	1.76	2.32	2.95	3.65	4.50	5.45
		41	50	—	—	—	2.11	2.70	3.40	4.15	5.05
SPC020S.P.B31	2	35	47	1.33	1.69	2.12	2.65	3.28	4.02	4.89	5.89
		38	50	1.23	1.56	1.97	2.47	3.06	3.77	4.59	5.55
		41	53	—	1.45	1.83	2.29	2.85	3.51	4.29	5.21
SPC020S.P.C31HA	2	35	44	1.43	1.81	2.28	2.84	3.50	4.28	5.19	6.23
		38	47	1.33	1.69	2.12	2.65	3.28	4.02	4.89	5.89
		41	50	1.23	1.56	1.97	2.47	3.06	3.77	4.59	5.55
SPC020S.T.B31	2	35	47	1.28	1.61	2.01	2.49	3.05	3.71	4.47	5.34
		38	50	1.17	1.49	1.87	2.31	2.84	3.45	4.16	4.96
		41	53	—	1.36	1.72	2.14	2.63	3.19	3.84	4.58
SPC020S.T.C31HA	2	35	44	1.38	1.73	2.15	2.66	3.26	3.97	4.78	5.71
		38	47	1.28	1.61	2.01	2.49	3.05	3.71	4.47	5.34
		41	50	1.17	1.49	1.87	2.31	2.84	3.45	4.16	4.96
SPC025B.P.B31	2.5	35	47	—	—	2.32	2.90	3.60	4.40	5.40	6.50
		38	50	—	—	—	2.70	3.35	4.15	5.05	6.10
		41	53	—	—	—	2.49	3.10	3.85	4.70	5.75
SPC025B.P.C31HA	2.5	35	44	—	—	2.48	3.10	3.85	4.70	5.70	6.90
		38	47	—	—	2.32	2.90	3.60	4.40	5.40	6.50
		41	50	—	—	—	2.70	3.35	4.15	5.05	6.10
SPC025B.T.B31	2.5	35	47	—	—	2.42	3.05	3.75	4.60	5.60	6.80
		38	50	—	—	—	2.82	3.50	4.30	5.25	6.40
		41	53	—	—	—	2.60	3.25	4.00	4.90	6.00
SPC025B.T.C31HA	2.5	35	44	—	—	2.60	3.25	4.00	4.90	5.95	7.20
		38	47	—	—	2.42	3.05	3.75	4.60	5.60	6.80
		41	50	—	—	—	2.82	3.50	4.30	5.25	6.40
SPC030S.T.C31	3	35	47	1.84	2.18	2.78	3.47	4.28	5.22	6.32	7.59
		38	50	1.65	1.99	2.55	3.21	3.97	4.86	5.90	7.12
		41	53	1.48	1.81	2.34	2.96	3.68	4.52	5.50	6.66
SPC030S.T.D31HA	3	35	44	1.65	2.39	3.02	3.75	4.60	5.59	6.74	8.08
		38	47	1.48	2.18	2.78	3.47	4.28	5.22	6.32	7.59
		41	50	—	1.99	2.55	3.21	3.97	4.86	5.90	7.12

Capacity based on 11°C Suction Superheat with no Sub-Cooling  
Eden cannot guarantee performance of the Condensing Units if non-standard motors are used  
CoreSense™ will not be offered in those models

## Performance Data Capacity(kW)

R404A  
50Hz

Model	Nominal Power (HP)	Ambient Temperature (°C)	SCT (°C)	Refrigerating Capacity Q (kW)				Evaporating Temperature (°C)			
				-30	-25	-20	-15	-10	-5	0	5
SPC035S.T.C31	3.5	35	47	2.19	2.86	3.61	4.47	5.49	6.71	8.19	9.97
		38	50	2.05	2.69	3.39	4.20	5.16	6.32	7.72	9.44
		41	53	—	2.51	3.17	3.92	4.82	5.91	7.25	8.89
SPC035S.T.D31HA	3.5	35	44	2.32	3.03	3.82	4.73	5.80	7.09	8.64	10.50
		38	47	2.19	2.86	3.61	4.47	5.49	6.71	8.19	9.97
		41	50	2.05	2.69	3.39	4.20	5.16	6.32	7.72	9.44
SPC040S.T.D31	4	35	47	2.89	3.63	4.51	5.55	6.76	8.16	9.77	11.60
		38	50	2.70	3.39	4.21	5.17	6.30	7.61	9.12	10.85
		41	53	—	3.16	3.91	4.80	5.84	7.06	8.46	10.05
SPC040S.T.E42HA	4	35	44	3.08	3.87	4.81	5.92	7.21	8.70	10.40	12.40
		38	47	2.89	3.63	4.51	5.55	6.76	8.16	9.77	11.60
		41	50	2.70	3.39	4.21	5.17	6.30	7.61	9.12	10.85
SPC050S.T.D31	5	35	47	3.13	4.10	5.16	6.36	7.80	9.54	11.65	14.25
		38	50	2.95	3.88	4.87	6.01	7.35	8.99	11.00	13.45
		41	53	—	3.62	4.55	5.61	6.88	8.42	10.30	12.65
SPC050S.T.E42HA	5	35	44	3.30	4.32	5.43	6.70	8.22	10.05	12.30	14.95
		38	47	3.13	4.10	5.16	6.36	7.80	9.54	11.65	14.25
		41	50	2.95	3.88	4.87	6.01	7.35	8.99	11.00	13.45
SPC060S.T.E42	6	35	47	3.93	4.99	6.24	7.74	9.51	11.60	14.05	16.90
		38	50	3.66	4.66	5.84	7.25	8.93	10.90	13.25	16.00
		41	53	—	4.32	5.43	6.75	8.33	10.20	12.40	15.00
SPC060S.T.F42HA	6	35	44	4.20	5.31	6.64	8.21	10.10	12.30	14.85	17.85
		38	47	3.93	4.99	6.24	7.74	9.51	11.60	14.05	16.90
		41	50	3.66	4.66	5.84	7.25	8.93	10.90	13.25	16.00

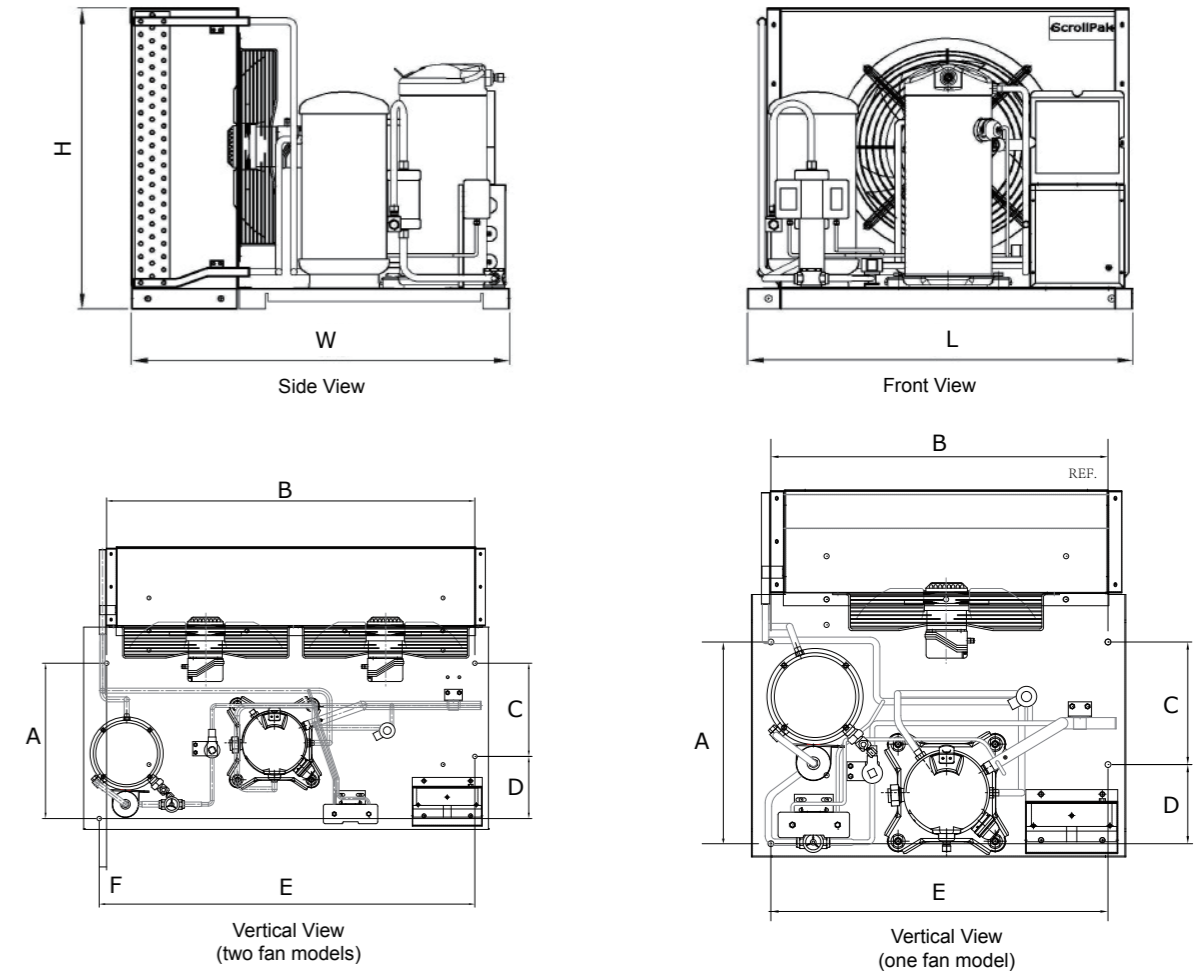
Capacity based on 11°C Suction Superheat with no Sub-Cooling  
Eden cannot guarantee performance of the Condensing Units if non-standard motors are used



Model	Compressor Model	Condenser Platform	Nominal Input Rating (HP)	Compressor Electrical Rating	Number of Fans	Fan Diameter (mm)	Fan Electrical Rating	Total Motor Rating (W)	Fan Motor Current Rating (A)	Rated Load Ampere (A)	Locked Rotor Ampere (A)	Receiver Volume (L)	Suction Line (In)	Liquid Line (In)
SPC020B.P.B31	ZB15KCE-PFJ	B31	2.0	220/240V-1-50Hz	1	350	230V-1-50Hz	210	0.91	13.2	58	4	3/4	1/2
SPC020B.P.C31HA	ZB15KCE-PFJ	C31	2.0	220/240V-1-50Hz	1	350	230V-1-50Hz	210	0.91	13.2	58	4	3/4	1/2
SPC020B.T.B31	ZB15KCE-TFD	B31	2.0	380/420V-3-50Hz	1	350	230V-1-50Hz	210	0.91	5	26	4	3/4	1/2
SPC020B.T.C31HA	ZB15KCE-TFD	C31	2.0	380/420V-3-50Hz	1	350	230V-1-50Hz	210	0.91	5	26	4	3/4	1/2
SPC020S.P.B31	ZSI06KQE-PFZ	B31	2.0	220/240V-1-50Hz	1	350	230V-1-50Hz	210	0.91	13.0	57	4	3/4	3/8
SPC020S.P.C31HA	ZSI06KQE-PFZ	C31	2.0	220/240V-1-50Hz	1	350	230V-1-50Hz	210	0.91	13.0	57	4	3/4	3/8
SPC020S.T.B31	ZSI06KQE-TFM	B31	2.0	380/420V-3-50Hz	1	350	230V-1-50Hz	210	0.91	5.6	40	4	3/4	3/8
SPC020S.T.C31HA	ZSI06KQE-TFM	C31	2.0	380/420V-3-50Hz	1	350	230V-1-50Hz	210	0.91	5.6	40	4	3/4	3/8
SPC025B.P.B31	ZB19KCE-PFJ	C31	2.5	220/240V-1-50Hz	1	350	230V-1-50Hz	210	0.91	14.6	61	4	3/4	1/2
SPC025B.P.C31HA	ZB19KCE-PFJ	B31	2.5	220/240V-1-50Hz	1	350	230V-1-50Hz	210	0.91	14.6	61	4	3/4	1/2
SPC025B.T.B31	ZB19KCE-TFD	C31	2.5	380/420V-3-50Hz	1	350	230V-1-50Hz	210	0.91	5	32	4	3/4	1/2
SPC025B.T.C31HA	ZB19KCE-TFD	B31	2.5	380/420V-3-50Hz	1	350	230V-1-50Hz	210	0.91	5	32	4	3/4	1/2
SPC030S.T.C31	ZSI09KQE-TFM	C31	3.0	380/420V-3-50Hz	1	350	230V-1-50Hz	210	0.91	5.6	40	6	7/8	3/8
SPC030S.T.D31HA	ZSI09KQE-TFM	D31	3.0	380/420V-3-50Hz	1	350	230V-1-50Hz	210	0.91	5.6	40	6	7/8	3/8
SPC035S.T.C31	ZSI11KQE-TFM	C31	3.5	380/420V-3-50Hz	1	350	230V-1-50Hz	210	0.91	8.0	52	6	7/8	3/8
SPC035S.T.D31HA	ZSI11KQE-TFM	D31	3.5	380/420V-3-50Hz	1	350	230V-1-50Hz	210	0.91	8.0	52	6	7/8	3/8
SPC040S.T.D31	ZSI14KQE-TFM	D31	4.0	380/420V-3-50Hz	1	350	230V-1-50Hz	210	0.91	9.0	52	6	7/8	1/2
SPC040S.T.E42HA	ZSI14KQE-TFM	E42	4.0	380/420V-3-50Hz	2	400	230V-1-50Hz	380	0.61	9.0	52	8	7/8	1/2
SPC050S.T.D31	ZSI15KQE-TFM	D31	5.0	380/420V-3-50Hz	1	350	230V-1-50Hz	210	0.91	10.0	52	6	7/8	1/2
SPC050S.T.E42HA	ZSI15KQE-TFM	E42	5.0	380/420V-3-50Hz	2	400	230V-1-50Hz	380	0.91	10.0	52	8	7/8	1/2
SPC060S.T.E42	ZSI18KQE-TFM	E42	6.0	380/420V-3-50Hz	2	400	230V-1-50Hz	380	0.61	11.0	74	8	7/8	1/2
SPC060S.T.F42HA	ZSI18KQE-TFM	F42	6.0	380/420V-3-50Hz	2	400	230V-1-50Hz	380	0.61	11.0	74	8	7/8	1/2

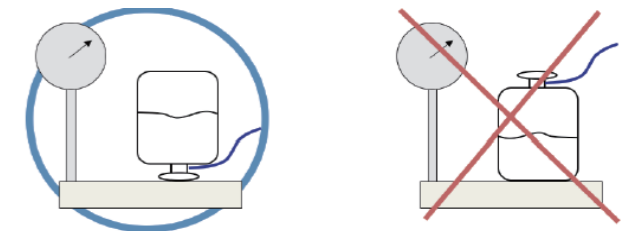
Model	Size (mm)													Weight* (kg)
	A	B	C	D	E	F	H	W	L	H*	W*	L*		
SPC020B.P.B31	260	640	105	155	640	—	480	584	716	520	614	746	81	
SPC020B.P.C31HA	395	660	240	155	660	—	534	720	733	574	750	763	87	
SPC020B.T.B31	260	640	105	155	640	—	480	584	716	520	614	746	81	
SPC020B.T.C31HA	395	660	240	155	660	—	534	720	733	574	750	763	87	
SPC020S.P.B31	260	640	105	155	640	—	480	584	716	520	614	746	80	
SPC020S.P.C31HA	395	660	240	155	660	—	534	720	733	574	750	763	86	
SPC020S.T.B31	260	640	105	155	640	—	480	584	716	520	614	746	80	
SPC020S.T.C31HA	395	660	240	155	660	—	534	720	733	574	750	763	86	
SPC025B.P.B31	260	640	105	155	640	—	480	584	716	520	614	746	83	
SPC025B.P.C31HA	395	660	240	155	660	—	534	720	733	574	750	763	89	
SPC025B.T.B31	260	640	105	155	640	—	480	584	716	520	614	746	83	
SPC025B.T.C31HA	395	660	240	155	660	—	534	720	733	574	750	763	89	
SPC030S.T.C31	395	660	240	155	660	—	534	720	733	574	750	763	88	
SPC030S.T.D31HA	395	660	240	155	660	—	584	720	733	624	750	763	91	
SPC035S.T.C31	395	660	240	155	660	—	534	720	733	574	750	763	95	
SPC035S.T.D31HA	395	660	240	155	660	—	584	720	733	624	750	763	98	
SPC040S.T.D31	395	660	240	155	660	—	584	720	733	624	750	763	98	
SPC040S.T.E42HA	400	948	240	160	967	20	557	724	1040	597	754	1070	134	
SPC050S.T.D31	395	660	240	155	660	—	584	720	733	624	750	763	100	
SPC050S.T.E42HA	400	948	240	160	967	20	557	724	1040	597	754	1070	134	
SPC060S.T.E42	400	948	240	160	967	20	557	724	1040	597	754	1070	147	
SPC060S.T.F42HA	400	948	240	160	967	20	557	724	1040	597	754	1070	151	

\* Packed Dimensions/Weight



Caution

- Charge liquid into high side of system.
- Do not vapor charge the system through the suction, otherwise compressor will overheat.
- If top up is necessary, bleed some liquid refrigerant into low side when the compressor is running.



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