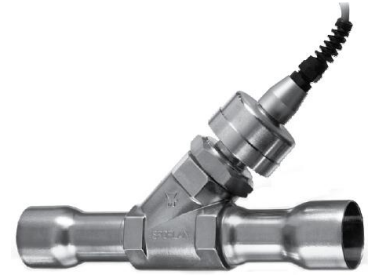


# ELECTRIC EVAPORATOR CONTROL VALVES

## Sporlan Electric Evaporator Control Valves

### CDS Series

Airefrig Part Number	Valve Type	Connections	Cable Length	List Price Excl GST
CDS758	CDS7	5/8 ODF Straight	10 ft	\$923.93
CDS978FO	CDS9	7/8 ODF Straight		\$762.00
CDS9118FO		1 1/8 ODF Straight		\$774.93
CDS17138	CDS17	1 3/8 ODF Straight		\$740.90
CDS17138FO				P.O.A.



Note: Valves with suffix "FO" are supplied "Fully Open" prior to 1<sup>st</sup> power up.

### Features

- Step motor operated for precise control
- High resolution drive assembly
- Tight seating valve for suction applications
- Corrosion resistant materials used throughout
- Field proven reliability
- Low power consumption
- Balanced port design
- Compatibility tested with most CFC, HCFC and HFC refrigerants and oils
- Self lubricating materials used for long life
- High linear force output

### Selection Example

Refrigerant: R-407C  
 Condensing Temperature: 43°C  
 Liquid Temperature: 15°C  
 Evaporator Temperature: -5°C  
 Evaporator Capacity: 21 KW

To select a valve for the system conditions listed above, look at the capacity tables below. The leftmost set of columns lists the capacities for the valves when used on R-407C systems.

To apply a valve with a minimum pressure drop, the 0.03 BAR column should be used. Note that for an evaporator of -5°C, a CDS-16 with a capacity of 20.7 KW would be required for this application. A more economical approach would be to use the CDS-9 with a capacity of 22.3 KW at 0.1 BAR pressure drop, if the higher pressure drop can be tolerated.

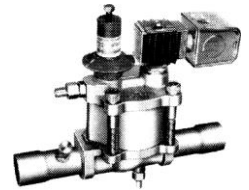
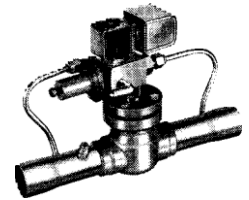
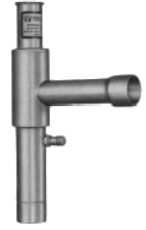
### Suction Capacity - KW

Valve Type	Evap Temp (°C)	R407C						R410A						R404A (R507)						R134A					
		Pressure Drop Across Valve (BAR)						Pressure Drop Across Valve (BAR)						Pressure Drop Across Valve (BAR)						Pressure Drop Across Valve (BAR)					
		0.03	0.06	0.1	0.2	0.4	0.7	0.03	0.06	0.1	0.2	0.4	0.7	0.03	0.06	0.1	0.2	0.4	0.7	0.03	0.06	0.1	0.2	0.4	0.7
CDS-7	5	8.71	12.3	15.7	21.9	30.1	38.0	11.3	15.9	20.5	28.7	40.0	51.6	8.34	11.8	15.1	21.2	29.3	37.4	7.09	9.95	12.7	17.6	23.7	29.0
	0	7.89	11.1	14.2	19.8	27.0	33.7	10.3	14.6	18.7	26.3	36.5	46.9	7.59	10.7	13.7	19.2	26.4	33.6	6.39	8.97	11.4	15.7	21.0	25.2
	-5	7.13	10.0	12.8	17.7	24.0	29.6	9.45	13.3	17.1	23.9	33.1	42.4	6.88	9.69	12.4	17.3	23.8	30.0	5.74	8.04	10.2	14.0	18.4	21.5
	-10	6.41	9.0	11.5	15.8	21.2	25.7	8.61	12.1	15.6	21.7	29.9	38.0	6.22	8.75	11.2	15.6	21.2	26.5	5.14	7.18	9.12	12.4	15.9	18.1
	-15	5.74	8.04	10.3	14.0	18.6	22.0	7.81	11.0	14.1	19.6	26.9	33.8	5.59	7.86	10.1	13.9	18.8	23.2	4.58	6.37	8.06	10.8	13.6	14.7
	-20	5.11	7.15	9.09	12.4	16.1	18.4	7.05	9.91	12.7	17.6	24.0	29.8	5.01	7.03	8.99	12.4	16.6	20.1	4.05	5.62	7.08	9.36	11.4	11.8
	-25	4.53	6.32	8.01	10.8	13.7	15.0	6.33	8.9	11.4	15.7	21.2	25.9	4.47	6.26	7.98	10.9	14.5	17.1	3.57	4.93	6.16	7.99	9.28	9.3
-30	4.00	5.55	6.99	9.28	11.4	11.9	5.66	7.94	10.1	13.9	18.5	22.1	3.96	5.54	7.04	9.57	12.4	14.3	3.12	4.28	5.3	6.7	7.29	7.29	
CDS-9	5	15.1	21.3	27.4	38.3	53.1	68.0	19.5	27.5	35.5	49.9	69.8	90.9	14.4	20.4	26.2	36.8	51.3	66.4	12.3	17.3	22.2	30.9	42.2	53.1
	0	13.7	19.3	24.8	34.6	47.7	60.8	17.9	25.3	32.5	45.7	63.8	82.8	13.1	18.5	23.9	33.4	46.5	59.9	11.1	15.6	20.0	27.7	37.7	46.8
	-5	12.4	17.4	22.3	31.1	42.7	54.0	16.4	23.1	29.7	41.7	58.1	75.1	11.9	16.8	21.6	30.3	41.9	53.7	9.97	14.0	17.9	24.7	33.3	40.8
	-10	11.1	15.6	20.0	27.9	38.0	47.5	14.9	21.0	27.0	37.9	52.7	67.8	10.8	15.2	19.5	27.2	37.6	47.9	8.92	12.5	16.0	22.0	29.2	35.1
	-15	9.96	14.0	17.9	24.8	33.5	41.3	13.5	19.1	24.5	34.3	47.4	60.7	9.7	13.7	17.5	24.4	33.5	42.4	7.95	11.1	14.2	19.3	25.4	29.6
	-20	8.88	12.5	15.9	21.9	29.3	35.4	12.2	17.2	22.1	30.8	42.5	53.9	8.69	12.2	15.7	21.8	29.7	37.1	7.05	9.84	12.5	16.9	21.7	24.4
	-25	7.88	11.0	14.1	19.2	25.3	29.9	11.0	15.5	19.8	27.6	37.8	47.5	7.75	10.9	13.9	19.3	26.1	32.2	6.22	8.65	10.9	14.6	18.3	19.4
-30	6.95	9.71	12.3	16.7	21.6	24.5	9.82	13.8	17.7	24.5	33.3	41.3	6.88	9.65	12.3	17.0	22.7	27.5	5.45	7.55	9.48	12.5	15.0	15.2	
CDS-16	5	25.3	35.6	45.7	63.6	87.0	109	32.7	46.2	59.4	83.3	116	149	24.2	34.2	43.9	61.4	84.8	108	20.6	28.9	36.9	50.9	68.3	83.0
	0	22.9	32.2	41.3	57.3	77.9	96.9	30.0	42.3	54.4	76.2	106	136	22.0	31.1	39.9	55.6	76.5	97.0	18.6	26.0	33.2	45.5	60.4	71.9
	-5	20.7	29.1	37.2	51.4	69.3	84.9	27.4	38.7	49.7	69.5	96.0	122	20.0	28.1	36.1	50.2	68.7	86.4	16.7	23.3	29.7	40.4	52.8	61.2
	-10	18.6	26.1	33.3	45.8	61.1	73.5	25.0	35.2	45.2	63.0	86.6	110	18.1	25.4	32.5	45.1	61.4	76.3	14.9	20.8	26.4	35.7	45.7	51.0
	-15	16.7	23.3	29.7	40.6	53.4	62.6	22.7	31.9	40.9	56.9	77.7	97.4	16.3	22.8	29.2	40.4	54.4	66.7	13.3	18.5	23.3	31.2	38.8	41.2
	-20	14.9	20.7	26.3	35.7	46.0	52.1	20.5	28.8	36.9	51.1	69.2	85.6	14.6	20.4	26.1	35.9	47.8	57.5	11.8	16.3	20.5	26.9	32.3	33.0
	-25	13.2	18.3	23.2	31.1	39.0	42.0	18.4	25.8	33.0	45.5	61.0	74.2	13.0	18.2	23.1	31.6	41.6	48.8	10.3	14.3	17.8	22.9	26.1	26.1
-30	11.6	16.1	20.2	26.7	32.4	33.2	16.4	23.0	29.4	40.2	53.3	63.2	11.5	16.1	20.4	27.7	35.7	40.5	9.05	12.4	15.3	19.1	20.4	20.4	
CDS-17	5	27.4	38.6	49.6	69.4	96.0	123	35.4	50.0	64.4	90.5	127	164	26.2	37.0	47.6	66.8	93.0	120	22.3	31.4	40.2	55.9	76.3	95.4
	0	24.8	35.0	44.9	62.7	86.3	110	32.5	45.8	59.0	82.9	116	150	23.9	33.6	43.3	60.6	84.2	108	20.1	28.3	36.2	50.1	67.9	83.9
	-5	22.4	31.6	40.5	56.4	77.2	97.1	29.7	41.9	53.9	75.6	105	136	21.6	30.5	39.2	54.8	75.8	96.9	18.1	25.4	32.5	44.7	60.0	72.9
	-10	20.2	28.4	36.3	50.4	68.5	85.2	27.1	38.1	49.1	68.7	95.3	122	19.6	27.5	35.4	49.4	68.0	86.3	16.2	22.7	28.9	39.7	52.5	62.0
	-15	18.1	25.4	32.5	44.8	60.4	73.9	24.5	34.6	44.4	62.1	85.8	109	17.6	24.8	31.8	44.2	60.6	76.2	14.4	20.2	25.7	34.9	45.5	52.4
	-20	16.1	22.6	28.8	39.6	52.7	63.2	22.2	31.2	40.1	55.9	76.8	97.1	15.8	22.2	28.4	39.4	53.6	66.7	12.8	17.8	22.6	30.4	38.8	42.8
	-25	14.3	20.0	25.5	34.7	45.5	52.9	19.9	28.0	35.9	50.0	68.2	85.3	14.1	19.8	25.3	34.9	47.0	57.6	11.3	15.7	19.7	26.3	32.4	33.9
-30	12.6	17.6	22.3	30.1	38.6	43.1	17.8	25.0	32.0	44.4	60.0	74.0	12.5	17.5	22.3	30.7	40.9	49.0	9.87	13.7	17.1	22.3	26.4	26.6	

# EVAPORATOR PRESSURE REGULATORS

## Sporlan Evaporator Pressure Regulating Valves

Airefrig Part Number	Connection Inches	Maximum Test Pressure	Adjustment Range		List Price Excl GST
ORIT612MF	1/2" Flare	300 psig	30 to 100 psig		\$335.13
ORIT612ODS	1/2" Solder	300 psig	30 to 100 psig		\$334.56
ORIT658MF	5/8" Flare	300 psig	30 to 100 psig		P.O.A.
ORIT605058ODS	5/8" Solder	300 psig	0 to 50 psig		\$315.26
X106ORIT658OD	5/8" Solder	400 psig	30 to 100 psig		\$357.59
ORIT605078ODS	7/8" Solder	300 psig	0 to 50 psig		\$356.37
X106ORIT678OD	7/8" Solder	400 psig	30 to 100 psig		\$372.15
ORIT1078ODS	7/8" Solder	200 psig	30 to 100 psig		\$498.54
ORIT10050118ODS	1 1/8" Solder	200 psig	0 to 50 psig		\$565.62
X106ORIT10118OD	1 1/8" Solder	400 psig	30 to 100 psig		\$541.02
ORIT10050138ODS	1 3/8" Solder	200 psig	0 to 50 psig		\$566.74
X106ORIT10138OD	1 3/8" Solder	400 psig	30 to 100 psig		\$540.05
SORIT12	1 1/8" Solder	450 psig	0 to 100 psig	Less Coil (Requires MKC1E)	\$1,091.00
SORIT15	1 3/8" Solder				\$1,177.65
SORIT20	1 5/8" Solder				\$1,670.49
SORITPI313S	1 5/8" Solder	400 psig			\$1,548.59
SORITPI413S	1 5/8" Solder				P.O.A.
SORITPI517S	2 1/8" Solder				\$1,730.13



## Danfoss Evaporator Pressure Regulating Valves

Airefrig Part Number	Model Number	Connection Inches	Maximum Test Pressure	Adjustment Range	List Price Excl GST
34L0023	KVP12	1/2" Solder	406 psig	0 to 79 psig	\$446.22
34L0029	KVP15	5/8" Solder	406 psig	0 to 79 psig	\$446.22
34L0025	KVP22	7/8" Solder	406 psig	0 to 79 psig	\$471.14
34L0026	KVP28	1 1/8" Solder	371 psig	0 to 79 psig	\$727.51
34L0032	KVP35	1 3/8" Solder	371 psig	0 to 79 psig	\$749.74

Factory Setting: 29 psig

Maximum Working Pressure: 203 psig



# CRANKCASE PRESSURE REGULATORS

## Sporlan Crankcase Pressure Regulating Valves

Airefrig Part Number	Connection Sizes Inches	Maximum Test Pressure	Adjustment Range	List Price Excl GST
CRO606012MF	1/2" Flare	300 psig	0 to 60 psig	\$314.80
CRO606012ODS	1/2" Solder			\$364.06
CRO606058MF	5/8" Flare			\$267.33
CRO606058ODS	5/8" Solder			\$335.02
CROT606058ODS	5/8" Solder			\$373.16
CROT606078ODS	7/8" Solder			\$290.45
CROT10060118ODS	1 1/8" Solder	200 psig		\$410.36
CROT10060138ODS	1 3/8" Solder			\$518.62
CROT63011012ODS	1/2" Solder	300 psig	30 to 110 psig	\$383.00
CROT63011058ODS	5/8" Solder			\$287.09
CROT63011078ODS	7/8" Solder			\$291.42
CROT630110118OD	1 1/8" Solder			\$408.83



T indicates access valve on Inlet connection

## Danfoss Crankcase Pressure Regulating Valves

Airefrig Part Number	Model Number	Connection Inches	Maximum Test Pressure	Adjustment Range	List Price Excl GST
34L0043	KVL12	1/2" Solder	319 psig	3 to 87 psig	\$386.61
34L0049	KVL15	5/8" Solder	319 psig	3 to 87 psig	\$386.61
34L0045	KVL22	7/8" Solder	319 psig	3 to 87 psig	\$459.73
34L0046	KVL28	1 1/8" Solder	371 psig	3 to 87 psig	\$582.37
34L0052	KVL35	1 3/8" Solder	371 psig	3 to 87 psig	\$631.75



Factory Setting: 29 psig

Maximum Working Pressure: 203 psig