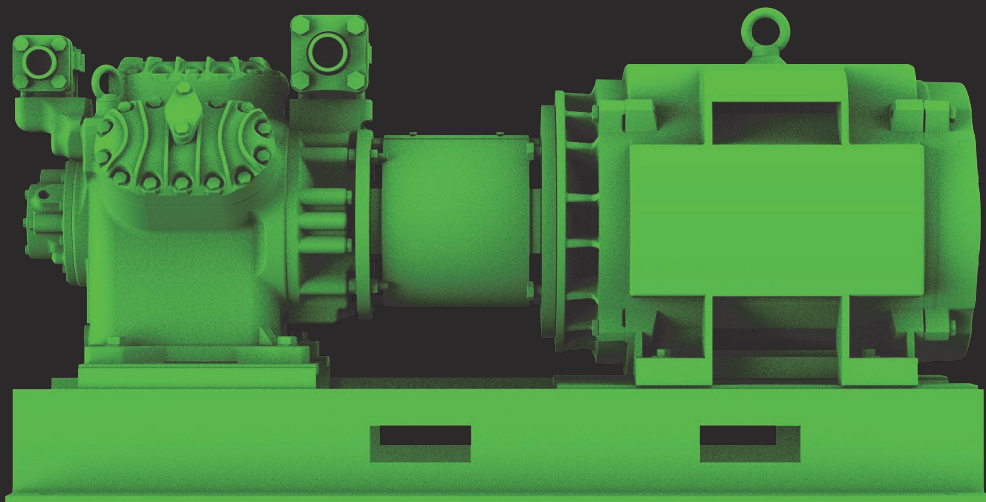




RECIPROCATING MOTOR COMPRESSOR ASSEMBLY

RD





TECHNICAL FEATURES (RD)

Compressor

- Highly efficient reciprocating piston design
- Extremely robust valve plate design
- Crankshaft with special surface finish, optimized piston shape and chromium-plated piston rings guarantee low frictional losses and long service life.
- Pressure oil lubrication by means of reversible gear pump.
- Shaft seal cooled by a pressurized oil stream and also by the return gas flow resulting in excellent stability and thermal load.
- Unloading of cylinder heads via blocked suction
- Speed range:
 - 2T.2(Y)/W2TA .. 4G.2(Y)/W4GA: 750 RPM - 1,750 RPM
 - 6H.2(Y)/W6HA .. 6F.2(Y)/W6FA: 900 RPM - 1,750 RPM
- Max. pressure (LP/HP): 275 / 400 psi
- Suction and discharge shut-off valves
- Built-in pressure relief valve for 4G.2(Y)/W4GA...6F.2(Y)/W6FA

Refer to KP-525 for more information on compressor and performance data

Motor

- NEMA premium efficiency C-face motor
- Nominal 1,800 rpm at 60Hz
- Wide range of motors and compressor combinations available
 - Smaller motor ranges suitable for booster applications
- Enclosure Option:
 - TEFC (Totally Enclosed Fan Cooled) / IP 55 enclosure. Can be used for indoor/outdoor applications. Inverter rated at 20:1 for constant torque. Premium quality motor.
 - ODP (Open Drip Proof) / IP23 enclosure. Typically used for indoor applications only. Inverter rated at 4:1 for constant torque

Motor Options (Contact factory for item number configuration)

- Thermistors embedded in windings of motor
- Recommended for use with VFD:
 - NEMA Frames 404/5 and larger: Insulated bearings and grounding of the shaft through Aegis ring
 - NEMA Frames 364/5 and smaller: Grounding of the shaft through Aegis ring
- Heaters embedded in windings of motors

Assembly

- Compressor and motor mounted on rigid frame and connected via a direct drive coupling and coupling housing.
- Frame:
 - Rigid structural steel frame (6 x 3.5 x 3/8" base)
 - Forklift holes for ease of transportation
 - Machined mounting surface to ensure shaft alignment.
- Optional Heavy Duty Frame (Contact factory for item number configuration):
 - 6 x 3 x 3/8" Rectangular structural tubing base (in lieu of angle base). Must be welded in place.
- Robust direct drive couplings and coupling housings

MODEL NUMBER DESIGNATION

R	D	W	4	G	A	-	0	5	0	2	L	A
---	---	---	---	---	---	---	---	---	---	---	---	---

Model

R = Reciprocating compressor

R	D	W	4	G	A	-	0	5	0	2	L	A
---	---	---	---	---	---	---	---	---	---	---	---	---

Drive type

D = Direct drive

B = Belt drive

R	D	W	4	G	A	-	0	5	0	2	L	A
---	---	---	---	---	---	---	---	---	---	---	---	---

Compressor model

E.g.: 4G2Y, W4NA, ...

R	D	W	4	G	A	-	0	5	0	2	L	A
---	---	---	---	---	---	---	---	---	---	---	---	---

Horsepower

3 digits required

R	D	W	4	G	A	-	0	5	0	2	L	A
---	---	---	---	---	---	---	---	---	---	---	---	---

Voltage and motor type

1 = 208-230/3/60; TEFC/IP55

2 = 208/230-460/3/60; TEFC/IP55

4 = 440-480/3/60; TEFC/IP55

5 = 575/3/60; TEFC/IP55

6 = 208-230/3/60; ODP/IP23

7 = 208/230-460/3/60; ODP/IP23

8 = 440-480/3/60; ODP/IP23

9 = 575/3/60; ODP/IP23

R	D	W	4	G	A	-	0	5	0	2	L	A
---	---	---	---	---	---	---	---	---	---	---	---	---

Terminal box mount (looking at the shaft)

L = Left mount

R = Right mount

T = Top mount

R	D	W	4	G	A	-	0	5	0	2	L	A
---	---	---	---	---	---	---	---	---	---	---	---	---

Variant

A = Ammonia (NH₃) compressor

Note: Additional suffix may exist for BOM variations



COMPRESSOR/MOTOR HORSEPOWER COMBINATIONS

Compressor Model	TEFC/ODP Motor (HP)	NEMA Frame Size	Compressor Shaft Diameter	Motor Shaft Diameter	Drive Package	Coupling Type	RPM Range
2T.2, W2TA, 2N.2, W2NA	3	182TC	32 mm	1-1/8"	125-1101-09	KK211	750-1750
	5	184TC		1-3/8"	125-1101-11		
	7.5	213TC					
	10	215TC					
4T.2, W4TA, 4P.2, W4PA, 4N.2, W4NA	7.5	213TC	42 mm	1-3/8"	125-1102-11	KK-420	
	10	215TC		1-5/8"	125-1102-13		
	15	254TC					
	20	256TC					
4H.2, W4HA, 4G.2, W4GA, 6H.2, W6HA, 6G.2, W6GA, 6F.2, W6FA	15	254TC	Tapered	1-5/8"	125-1103-13	KK-630	
	20	256TC		1-7/8"	125-1103-15		
	25	284TC					
	30	286TC		2-1/8"	125-1103-17		
	40	324TC					
	50	326TC					
	60	364/5TC		2-3/8"	125-1103-19		
75							
							4 Cyl: 750-1750 6 Cyl: 900-1750

MOTOR DATA—ODP

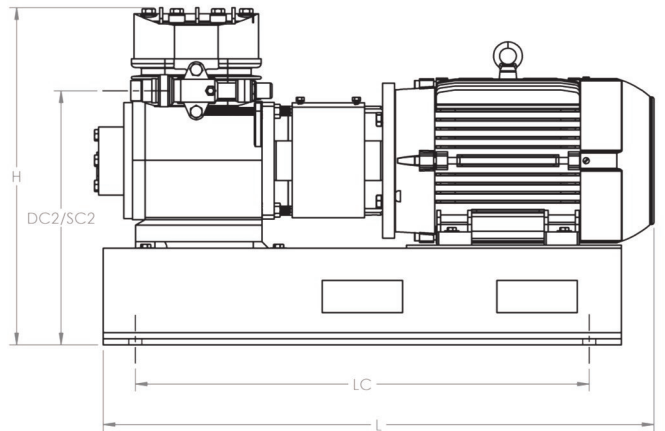
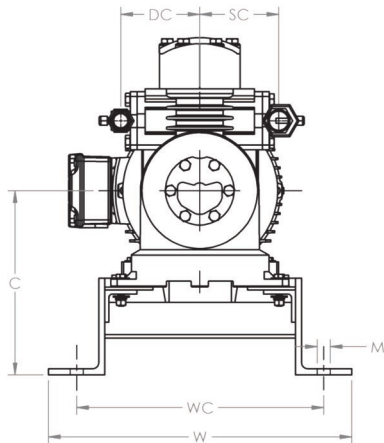
Compressor Model Series	HP	KW	NEMA Frame Size	Rated Speed	Service Factor	FL Amps (A)	Locked Rotor Current (I _L /I _n)	FL Efficiency (%)	Full Load Torque (ft.lb)	Degree of Protection
2T.2 ... 2N.2	3	2.2	182TC	1765	1.15	3.9	8.4	89.5	8.8	IP21
	5	3.7	184TC	1760	1.15	6.3	7.2	89.5	14.8	IP21
	7.5	5.5	213/5TC	1770	1.15	9.1	7.2	90.2	22.0	IP21
	10	7.5		1770	1.15	12.4	7.0	91.7	29.4	IP21
4T.2 ... 4N.2	7.5	5.5	213/5TC	1770	1.15	9.1	7.2	90.2	22.0	IP21
	10	7.5		1770	1.15	12.4	7.0	91.7	29.4	IP21
	15	11	254TC	1775	1.15	18.3	6.7	93.0	44.0	IP23
	20	15	256TC	1770	1.15	24.7	6.3	93.0	58.7	IP23
4H.2 ... 6F..2	15	11	254TC	1775	1.15	18.3	6.7	93.0	44.0	IP23
	20	15	256TC	1770	1.15	24.7	6.3	93.0	58.7	IP23
	25	18.5	284TC	1770	1.15	29.9	6.7	93.6	73.4	IP23
	30	22	286TC	1770	1.15	35.4	6.7	94.1	88.1	IP23
	40	30	324TC	1775	1.15	48.2	6.2	94.1	117.0	IP23
	50	37	326TC	1775	1.15	61.4	6.3	94.5	146.0	IP23
	60	45	364/5TC	1780	1.15	69.9	6.7	95.0	175.0	IP23
75	55	1780		1.15	85.5	6.7	95.0	219.0	IP23	

MOTOR DATA—TEFC

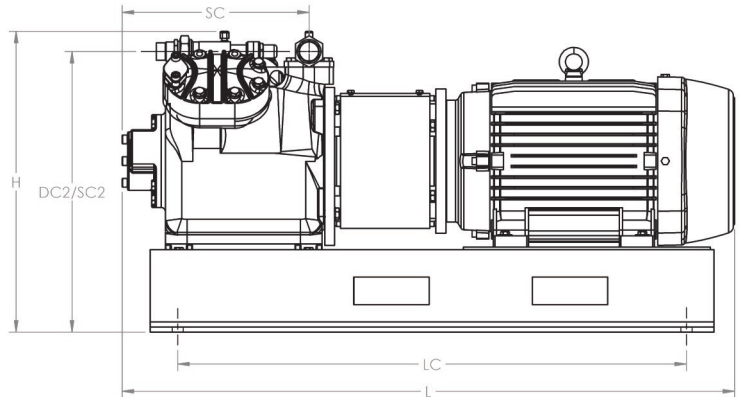
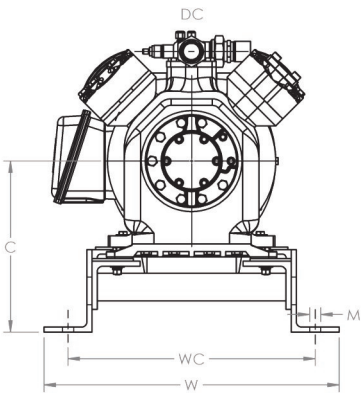
Compressor Model Series	HP	KW	NEMA Frame Size	Rated Speed	Service Factor	FL Amps (A)	Locked Rotor Current (I _L /I _n)	FL Efficiency (%)	Full Load Torque (ft.lb)	Degree of Protection
2T.2 ... 2N.2	3	2.2	182TC	1760	1.25	3.9	8.1	89.5	8.8	IP55
	5	3.7	184TC	1755	1.25	6.5	7.1	89.5	14.8	IP55
	7.5	5.5	213TC	1765	1.25	9.0	7.1	91.7	22.0	IP55
	10	7.5	215TC	1760	1.25	12.4	6.4	91.7	29.4	IP55
4T.2 ... 4N.2	7.5	5.5	213TC	1765	1.25	9.0	7.1	91.7	22.0	IP55
	10	7.5	215TC	1760	1.25	12.4	6.4	91.7	29.4	IP55
	15	11	254TC	1765	1.25	18.0	6.4	92.4	44.0	IP55
	20	15	256TC	1765	1.25	24.1	6.5	93.0	58.7	IP55
4H.2 ... 6F..2	15	11	254TC	1765	1.25	18.0	6.4	92.4	44.0	IP55
	20	15	256TC	1765	1.25	24.1	6.5	93.0	58.7	IP55
	25	18.5	284TC	1775	1.25	29.5	6.2	93.6	73.4	IP55
	30	22	286TC	1765	1.25	35.1	6.1	93.6	88.1	IP55
	40	30	324TC	1775	1.25	48.2	6.1	94.1	117.0	IP55
	50	37	326TC	1775	1.25	59.2	6.2	94.5	146.0	IP55
	60	45	364/5TC	1775	1.25	68.3	6.6	95.0	175.0	IP55
75	55	1775		1.25	84.1	6.4	95.4	219.0	IP55	

DIMENSIONAL DRAWINGS

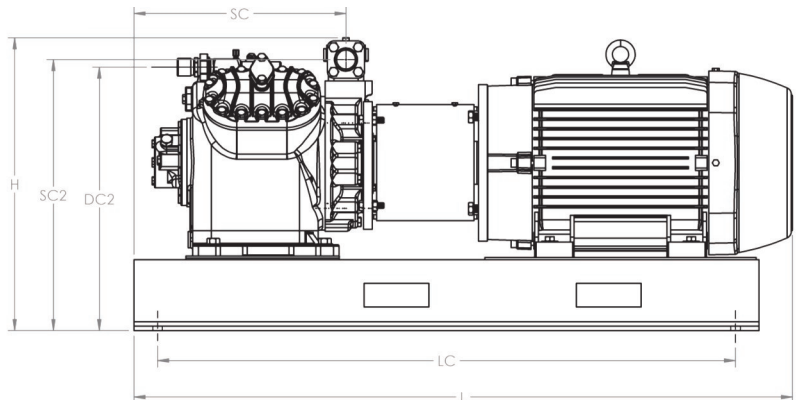
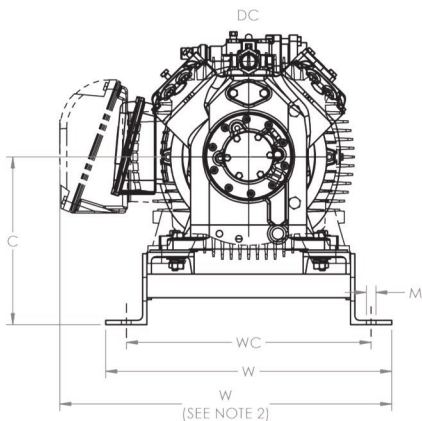
2T.2, 2T2Y, 2T2Q, W2TA, 2N.2, 2N2Y, 2N2Q, W2NA



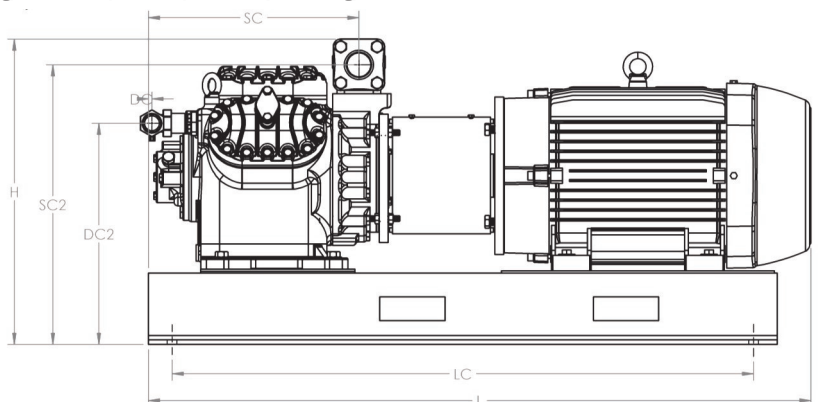
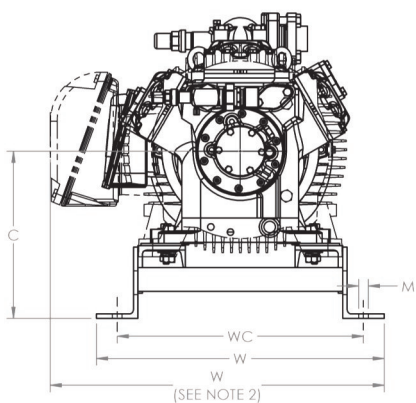
4T.2, 4T2Y, 4T2Q, W4TA, 4P.2, 4P2Y, 4P2Q, W4PA, 4N.2, 4N2Y, 4N2Q, W4NA



4H.2, 4H2Y, 4H2Q, W4HA, 4G.2, 4G2Y, 4G2Q, W4GA



6H.2, 6H2Y, 6H2Q, W6HA, 6G.2, 6G2Y, 6G2Q, W6GA, 6F.2, 6F2Y, 6F2Q, W6FA



DIMENSIONAL DRAWINGS

Model Number	Dimensions (in)													
	L	W	H	LC	WC	DC	DC2	SC	SC2	C	M			
2N.2-2T.2 (182TC ODP)	32.25	18.88	20.18	28.25	15.38	3.98	15.03	3.34	15.03	10.69	0.81			
2N.2-2T.2 (182TC TEFC)														
2N.2-2T.2 (184TC ODP)	33.26													
2N.2-2T.2 (184TC TEFC)	32.83													
2N.2-2T.2 (213TC ODP)	32.80													
2N.2-2T.2 (213TC TEFC)	33.36													
2N.2-2T.2 (215TC ODP)	32.80													
2N.2-2T.2 (215TC TEFC)	34.81													
4G.2-4H.2 (254TC ODP)	49.30	22.50	23.03	45.30	19.00	3.85	20.53	18.15	21.18	12.44				
4G.2-4H.2 (254TC TEFC)	49.80					4.35		18.65		12.47				
4G.2-4H.2 (256TC ODP)	49.30					3.85		18.15		12.44				
4G.2-4H.2 (256TC TEFC)	51.13					4.35		18.65						
4G.2-4H.2 (284TC ODP)	49.30		23.78				3.05	21.28	17.35	21.93		13.19		
4G.2-4H.2 (284TC TEFC)	50.97													
4G.2-4H.2 (286TC ODP)	49.38													
4G.2-4H.2 (286TC TEFC)	52.47													
4G.2-4H.2 (324TC ODP)	53.00	24.25	24.78	49.00	20.75	3.67	22.28	17.97	22.93	14.19				
4G.2-4H.2 (324TC TEFC)	54.35		24.94											
4G.2-4H.2 (326TC ODP)	53.00		24.78											
4G.2-4H.2 (326TC TEFC)	55.82													
4G.2-4H.2 (364-365TC ODP)	53.66	28.33	27.39	49.00	20.75	2.79	23.28	17.09	24.52	15.19				
4G.2-4H.2 (364-365TC TEFC)	58.34	28.04	25.78											
4N.2-4T.2 (213TC ODP)	37.71	21.50	20.87	31.00	18.00	2.48	19.41	13.61	19.41	11.44				
4N.2-4T.2 (213TC TEFC)	38.27													
4N.2-4T.2 (215TC ODP)	37.71													
4N.2-4T.2 (215TC TEFC)	39.72													
4N.2-4T.2 (254TC ODP)	43.10										20.41	20.41	12.44	
4N.2-4T.2 (254TC TEFC)														
4N.2-4T.2 (256TC ODP)														
4N.2-4T.2 (256TC TEFC)														
6F.2 (254TC ODP)	49.30	22.50	23.93	45.30	19.00	1.99	21.26	18.10	21.77	12.44				
6F.2 (254TC TEFC)	49.40					2.49		18.60		12.47				
6F.2 (256TC ODP)	49.30					1.99		18.10		12.44				
6F.2 (256TC TEFC)	51.13					2.49		18.60						
6F.2 (284TC ODP)	50.01		24.68						1.89	22.01	22.52	13.19		
6F.2 (284TC TEFC)	51.68													
6F.2 (286TC ODP)	50.09													
6F.2 (286TC TEFC)	53.18													
6F.2 (324TC ODP)	53.08	24.25	25.68	49.00	20.75	1.89	23.01	18.00	23.52	14.19				
6F.2 (324TC TEFC)	54.43	24.55												
6F.2 (326TC ODP)	53.08	24.25												
6F.2 (326TC TEFC)	55.90													
6F.2 (364-365TC ODP)	54.62	28.33	27.39	49.00	20.75		24.01		24.52	15.19				
6F.2 (364-365TC TEFC)	59.30	28.04	26.68											
6G.2-6H.2 (254TC ODP)	49.81	22.50	23.93	45.30	19.00	0.99	16.85		21.76	12.44				
6G.2-6H.2 (254TC TEFC)	49.41												12.47	
6G.2-6H.2 (256TC ODP)	49.81												12.44	
6G.2-6H.2 (256TC TEFC)	51.14													
6G.2-6H.2 (284TC ODP)	50.61		24.68								17.60	18.43	22.51	13.19
6G.2-6H.2 (284TC TEFC)	52.28													
6G.2-6H.2 (286TC ODP)	50.69													
6G.2-6H.2 (286TC TEFC)	53.78													
6G.2-6H.2 (324TC ODP)	53.69	24.25	25.68	49.00	20.75		18.60		23.51	14.19				
6G.2-6H.2 (324TC TEFC)	55.04													
6G.2-6H.2 (326TC ODP)	53.69													
6G.2-6H.2 (326TC TEFC)	56.51													
6G.2-6H.2 (364-365TC ODP)	55.22	28.33	27.39	49.00	20.75		19.60		24.51	15.19				
6G.2-6H.2 (364-365TC TEFC)	59.91	28.04	26.68											



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