



ENGINEERING DATA SHEET

Doc. No.: TI.EDS-108
Version: 2.1

BOOSTERS

Date: 2-7-2022

MODEL	N 60-G					N 153-G					N 253-G				
Inlet Pressure [psig]	45	75	110	145	190	45	75	110	145	190	45	75	110	145	190
I. COMPRESSOR DATA:															
Inlet Conditions															
Capacity at various discharge pressures [cfm]															
145 psig	7.1	12.0	18.4			17	27.2	40.3			27.5	46.6	68.5		
215 psig	5.7	10.9	17.3	24.0		13.4	23.7	36.7	49.4		24.4	43.4	65.0	86.9	
290 psig		9.5	16.3	22.6	30.7		20.1	32.8	45.9	61.9	20.1	39.9	61.8	83.7	110.9
360 psig			14.8	21.2	29.0			29.3	42.4	57.6		36.7	58.6	80.2	107.7
435 psig			13.4	19.8	27.9			25.8	38.8	54.0			55.4	77.0	104.2
500 psig			12.4	18.7	26.5			22.2	34.9	50.5			52.6	74.5	101.7
580 psig									31.4	47.0				70.6	97.8
650 psig														67.5	94.6
II. MOTOR DATA:															
Rated Drive Motor Horsepower at various discharge pressures [HP]															
145 psig	3	3	3			3	3	3			10	10	10		
215 psig	3	3	3	3		3	3	3	3		10	10	10	10	
290 psig		3	3	3	3		5	5	5	5	10	10	10	10	10
360 psig			3	3	3			5	5	5		10	10	10	10
435 psig			3	3	3			5	5	5			15	15	15
500 psig			3	3	3			5	5	5			15	15	15
580 psig									5	5				15	15
650 psig														15	15
Max. Drive Motor Amps [FLA] 3 Phases 460 V 60 Hz															
	3.75					3.75 (3 HP), 6.0 (5 HP)					11.4 (10HP), 17.6 (15HP)				
Drive Motor Nominal Speed [rpm]															
	3600					3600					3600				
Drive Motor Full Load Efficiency [%]															
	86.5%					86.5% (3 HP), 88.5 (5 HP)					90.2% (10HP), 91.0% (15HP)				
Insulation Class															
	F					F					F				
Motor Enclosure Type															
	TEFC					TEFC					TEFC				
IV. PUMP MODEL:															
Max. Duty Cycle															
	*					*					*				
Nominal Pump Speed [rpm]															
	1150					660					1135				
Minimum Pump Speed [rpm]															
	725					660					725				
Number of Cylinders															
	2					2					2				
V. COOLING DATA:															
Cooling System Available															
	A/C					A/C					A/C				
Standard Max. Ambient Temp. Range [F]															
	35 - 104					35 - 104					35 - 104				
Approach Temperature [K]															
inlet	45	75	110	145	190	45	75	110	145	190	45	75	110	145	190
@ discharge															
145 psig	11	17	13			5	5	5			4	4	6		
215 psig	9	19	25	23		15	10	10	5		4	4	6	9	
290 psig		20	28	33	30		15	15	11	10	4	4	6	11	19
360 psig			30	37	37			15	15	15		4	6	12	21
435 psig			31	41	43			18	18	18			6	13	22
500 psig			32	44	48			18	18	19			6	13	22
580 psig									20	20				14	22
650 psig														14	22
VI. PIPING CONNECTIONS [in.]:															
Suction Side [NPT]															
	1/2					3/4					3/4				
Air Discharge [NPT]															
	1/2					1/2					1/2				
VII. NOISE LEVEL DATA:															
Standard (w/o enclosure)															
	74					74					76				
With Super Soundproofing															
	64					64					66				
<small>[Measured in dB(A) at 1 m (approx. 40 in.) According to CAGI]</small>															
VIII. MAX. PUMP DIMENSIONS:															
Width [in.]															
	36					54 1/2					54 1/2				
Depth [in.]															
	18					28 1/2					29				
Height [in.]															
	21 1/2					32 1/2					32				
Floor Space [sq. ft.]															
	4.5					10.8					11.0				
IX. NET SHIPPING WEIGHT [lbs]:															
	154					562					639				
X. OIL SYSTEM DATA:															
Oil Type															
	VDL 150					VDL 150					VDL 150				
Oil System Capacity [liters]															
	0.25					1.5					1.5				

* To determine duty cycle, first determine ambient temperature and pressure ratio (discharge pressure / inlet pressure). Then:

Maximum Pressure Ratio (for 1-2 cylinder pumps)

Ambient Temperature	up to 85° F	from 85 to 105° F	
100% Duty Cycle	3.75	3.4	100% = 24 Hr/day
80% Duty Cycle	4	3.65	80% = 16 min/20 min
65% Duty Cycle	--	4	65% = 13 min/20 min

Electrical data may vary in accordance with motor manufacturers specifications.



ENGINEERING DATA SHEET

Doc. No.: TI.EDS-108
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BOOSTERS

Date: 2-7-2022

MODEL	N 351-G					N 502-G				
Inlet Pressure [psig]	45	75	110	145	190	45	75	110	145	190
I. COMPRESSOR DATA:										
Inlet Conditions										
Capacity at various discharge pressures [cfm]										
145 psig	42.0	70.3	102.8			55.8	91.1	131.4		
215 psig	37.8	66.4	98.5	131.0		50.1	85.5	125.7	166.0	
290 psig	32.5	62.2	94.6	127.1	167.4	42.7	79.8	120.1	160.3	210.5
360 psig		58.3	90.8	123.2	163.5		74.2	114.4	154.7	204.8
435 psig			86.9	119.0	159.6			108.8	149.0	199.5
500 psig			83.7	115.8	156.4			104.2	144.4	194.9
580 psig				111.2	151.9				137.7	188.2
650 psig				107.4	147.6				132.1	182.6
II. MOTOR DATA:										
Rated Drive Motor Horsepower at various discharge pressures [HP]										
145 psig	15	15	15			15	15	15		
215 psig	15	15	15	15		15	15	15	15	
290 psig	15	15	15	15	15	15	15	15	15	15
360 psig		15	15	15	15		15	15	15	15
435 psig			20	20	20			20	20	20
500 psig			20	20	20			20	20	20
580 psig				20	20				25	25
650 psig				20	20				25	25
Max. Drive Motor Amps [FLA] 3 Phases 460 V 60 Hz	17.6 (15 HP), 24.0 (20 HP)					17.6 (15 HP), 24.0 (20 HP), 28.1 (25 HP)				
Drive Motor Nominal Speed [rpm]	3600					3600				
Drive Motor Full Load Efficiency [%]	91.0% (15 HP), 91.0% (20 HP)					91.0% (15 HP), 91.0% (20 HP), 91.7% (25 HP)				
Insulation Class	F					F				
Motor Enclosure Type	TEFC					TEFC				
IV. PUMP MODEL:										
Max. Duty Cycle										
Nominal Pump Speed [rpm]										
145 psig	950	950	950			990	990	990		
215 psig	950	950	950	950		990	990	990	990	
290 psig	950	950	950	950	950	990	990	990	990	990
360 psig		950	950	950	950		990	990	990	990
435 psig			950	950	950			990	990	990
500 psig			950	950	950			990	990	990
580 psig				950	950				990	990
650 psig				950	950				990	990
Minimum Pump Speed [rpm]	725					725				
Number of Cylinders	2					2				
V. COOLING DATA:										
Cooling System Available										
Standard Max. Ambient Temp. Range [F]										
A/C 35 - 104										
Approach Temperature [K] @ discharge										
inlet	45	75	110	145	190	45	75	110	145	190
145 psig	3	3	5			2	3	5		
215 psig	3	3	6	9		2	3	7	10	
290 psig	3	3	7	11	13	2	3	8	11	14
360 psig		4	9	13	15		3	9	12	15
435 psig			9	15	19			10	13	15
500 psig			10	16	21			11	14	16
580 psig				17	23				16	17
650 psig				20	27				18	18
VI. PIPING CONNECTIONS [in.]:										
Suction Side [NPT]										
Air Discharge [NPT]										
3/4										
1										
3/4										
VII. NOISE LEVEL DATA:										
Standard (w/o enclosure)										
With Super Soundproofing										
[Measured in dB(A) at 1 m (approx. 40 in.) According to CAGI]										
77										
67										
62										
VIII. MAX. PUMP DIMENSIONS:										
Width [in.]										
Depth [in.]										
Height [in.]										
Floor Space [sq. ft.]										
61										
34 1/2										
40 1/2										
14.6										
62										
34 3/4										
40 1/4										
15.0										
IX. NET SHIPPING WEIGHT [lbs]:										
915										
1014										
X. OIL SYSTEM DATA:										
Oil Type										
Oil System Capacity [liters]										
VDL 150										
3										
VDL 150										
3										

* To determine duty cycle, first determine ambient temperature and pressure ratio (discharge pressure / inlet pressure). Then:

Maximum Pressure Ratio (for 1-2 cylinder pumps)

Ambient Temperature	up to 85° F	from 85 to 105° F	
100% Duty Cycle	3.75	3.4	100% = 24 Hr/day
80% Duty Cycle	4	3.65	80% = 16 min/20 min
65% Duty Cycle	--	4	65% = 13 min/20 min

Electrical data may vary in accordance with motor manufacturers specifications.



ENGINEERING DATA SHEET

Doc. No.: TI.EDS-108
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BOOSTERS

Date:
2/7/2022

MODEL	CN 7-C					CN 11-C					CN 15-C					CN 22-C				
	45	75	110	145	190	45	75	110	145	190	45	75	110	145	190	45	75	110	145	190
I. COMPRESSOR DATA:																				
Capacity at various discharge pressures [cfm]																				
Free air delivery (FAD) (1)																				
145 psig	30.4	50.5	75.6			67.8	111.6	166.7			**	**	**			**	**	**		
215 psig	27.5	47.0	72.0	97.5	128.5	60.0	103.1	157.9	213.3	281.1	**	**	**	**	**	**	**	**	**	**
290 psig		44.1	68.9	93.9	124.7		95.4	134.9	183.6	271.2		**	149.4	204.5	**		**	**	**	**
360 psig		41.7	65.7	90.4	120.8		80.5	115.1	158.2	210.8		87.6	141.3	195.6	261.7		**	**	**	**
435 psig			62.9	87.2	116.9			103.5	135.3	181.5			133.5	168.8	227.1			**	187.2	252.5
500 psig			53.7	75.2	95.7			93.2	111.9				114.8	145.9	197.1			126.1	179.4	244.0
580 psig				68.5	87.2									140.2	180.8				171.6	235.6
650 psig				62.5	79.8									135.3	165.3				164.6	227.8
II. MOTOR DATA:																				
Motor shaft power at various discharge pressures [HP]																				
145 psig	4.8	4.8	4.6			10.1	10.2	9.8			**	**	**			**	**	**		
215 psig	6.0	6.3	6.2	5.8	4.7	12.3	13.0	13.1	12.5	10.6	**	**	**	**	**	**	**	**	**	**
290 psig		7.5	7.8	7.5	6.8		15.3	14.1	13.9	14.9		**	16.1	16.1	**		**	**	**	**
360 psig		8.4	9.0	9.1	8.7		15.0	14.6	15.0	14.3		17.2	18.6	19.2	18.8		**	**	**	**
435 psig			9.9	10.5	10.3			15.3	15.4	15.4			20.6	19.2	19.4			**	21.8	22.1
500 psig			9.6	10.3	10.1			15.4	15.0				19.4	18.9	19.8			22.2	24.0	25.1
580 psig				10.5	10.5									20.2	20.6				25.7	27.6
650 psig				10.2	10.6									21.0	21.0				27.1	29.6
Rated Motor Power [Hp]																				
Package FLA [Amps]																				
Power supply: 460V/3Ph/60Hz																				
Drive Motor Nominal Speed [rpm]																				
Drive Motor Full Load Efficiency [%] (2)																				
Insulation Class																				
Motor Enclosure Type																				
IV. PUMP MODEL:																				
Max. Duty Cycle																				
Nominal Pump Speed [rpm]																				
145 psig	1200	1200	1200			1190	1190	1190			**	**	**			**	**	**		
215 psig	1200	1200	1200	1200	1200	1190	1190	1190	1190	1190	**	**	**	**	**	**	**	**	**	**
290 psig		1200	1200	1200	1200		1190	1060	1060	1190		**	1190	1190	**		**	**	**	**
360 psig		1200	1200	1200	1200		1060	950	950	950		1190	1190	1190	1190		**	**	**	**
435 psig			1200	1200	1200			900	850	850			1190	1060	1060			**	1190	1190
500 psig			1080	1080	1020			850	740				1060	950	950			1190	1190	1190
580 psig				1020	960									950	900				1190	1190
650 psig			930	900										950	850				1190	1190
Minimum Pump Speed [rpm]																				
Number of Cylinders																				
V. COOLING DATA:																				
Standard Max. Ambient Temp. Range [F]																				
Cooling System Available																				
Approach Temperature [F] (3)(4)																				
VI. PIPING CONNECTIONS [in.]:																				
Suction Side [NPT]																				
Air Discharge [NPT]																				
VII. NOISE LEVEL DATA:																				
Sound level (5)																				
VIII. MAX. PUMP DIMENSIONS:																				
Width [in.]																				
Depth [in.]																				
Height [in.]																				
Floor Space [sq. ft.]																				
IX. NET SHIPPING WEIGHT [lbs]:																				
X. OIL SYSTEM DATA:																				
Oil Type																				
Oil System Capacity [liters]																				
Top-up volume(6)																				

Foot Notes:

- (1) FAD and power consumption to ISO 1217:2009 Annex C. volumetric flow is relative to the atmospheric conditions, 68°F ambient and maximum 3280 ft. asl. Pressure values are gauge pressure. The design assumes a max. ambient temperature of 115°F and a max. compressed air inlet temperature of 115°F
- (2) Motor-efficiency meets Premium Efficiency (IE3) according to EISA
- (3) Data are valid for ambient of 68°F, 30% RH, 14.5 psia and ADT 158°F
- (4) At final gauge pressure and a compressed air inlet temperature of 9°F above ambient, valid for permissible ambient temperature
- (5) Sound pressure level according to ISO 2151 and basic standard ISO 9614-2; tolerance +/- 3 dB(A) (at max speed)
- (6) Top-up quantity between min. and max. indication at the oil sight glass
- ** Inlet pressure / Discharge pressure combination: see model with lower power



ENGINEERING DATA SHEET

Doc. No.: TLED5-108
Version: 2.1

BOOSTERS

Date:
2/7/2022

MODEL	DN 22-C					DN 30-C					DN 37-C					DN 37-C XL					DN 45-C									
	Inlet Pressure [psig]					45	75	110	145	190	45	75	110	145	190	45	75	110	145	190	45	75	110	145	190	45	75	110	145	190
I. COMPRESSOR DATA:																														
Capacity at various discharge pressures [cfm]																														
Free air delivery (FAD) (1)																														
145 psig	117.2	193.5	290.3			175.9	280.0	412.8			**	**	**			294.5	446.4	620.1			**	**	**			**	**	**		
215 psig	109.1	184.7	280.0	376.5	494.4	166.7	269.8	378.6	504.3	657.6	**	**	400.1	532.6	693.9	185.1	391.3	547.0	685.5	882.2	**	**	**	**	**	**	**	**	**	**
290 psig		176.2	271.2	346.4	455.9	245.4	349.6	443.6	580.2			260.3	389.5	520.5	642.7		284.3	451.0	597.2	772.3			**	**	**	**	**	679.1		
360 psig		167.7	247.2	320.0	401.2	211.2	303.0	408.6	510.7			**	358.4	457.0	599.3			407.9	508.5	662.2			**	**	**	**	380.0	509.6	667.1	
435 psig			213.3	277.2	369.7		278.3	357.7	463.0				330.5	422.7	525.8										**	**	**	499.7	619.4	
500 psig			192.1	239.8	304.4		253.6	340.4	428.0				**	389.2	489.1								**	**	**	**	**	461.6	546.7	
580 psig				202.7	258.5			294.5	374.7					339.0	445.7											**	**	359.5	505.7	
650 psig				179.8				251.8	343.6					**	437.2										**	**	**	469.7		
II. MOTOR DATA:																														
Motor shaft power at various discharge pressures [HP]																														
145 psig	19.2	20.4	19.8			30.3	33.4	34.6			**	**	**			44.5	48.2	50.1			**	**	**			**	**	**		
215 psig	21.7	24.4	25.7	25.5	23.7	34.2	39.0	38.3	39.4	38.6	**	**	42.6	44.2	44.1	30.6	49.4	51.6	50.1	50.5	**	**	**	**	**	**	**	**	**	**
290 psig		27.3	29.9	28.4	27.9	39.7	40.7	39.1	39.4			43.4	48.6	51.9	48.4		40.3	48.1	50.7	51.1			**	**	**	**	**	53.9		
360 psig		29.7	31.0	30.6	28.7	37.3	38.9	41.5	39.3			**	49.2	49.2	51.6			51.1	49.4	49.7			**	**	**	**	53.5	58.0	61.6	
435 psig			29.9	30.0	31.0		40.3	40.7	41.0				49.8	50.5	49.3								**	**	**	**	**	63.2	62.6	
500 psig			30.6	29.9	29.3		41.5	42.2	42.1				**	51.3	51.5								**	**	**	**	**	63.1	59.4	
580 psig				29.6	29.5			40.2	40.7					49.4	48.5											**	**	52.4	60.0	
650 psig				30.7				38.6	41.5					**	51.7										**	**	**	61.1		
Rated Motor Power [Hp]	30					40					50					50					60									
Package FLA [Amps]	42.2					53.8					63.2					63.2					76.9									
Power supply: 460V/3Ph/60Hz																														
Drive Motor Nominal Speed [rpm]	3600					3600					3600					3600					3600									
Drive Motor Full Load Efficiency [%] (2)	91.7%					92.4%					93.0%					93.0%					91.7%									
Insulation Class	F					F					F					F					F									
Motor Enclosure Type	TEFC					TEFC					TEFC					TEFC					TEFC									
IV. PUMP MODEL:																														
Max. Duty Cycle																														
Nominal Pump Speed [rpm]																														
145 psig	1317	1317	1317			1317	1317	1317			**	**	**			1243.0	1180.0	1117.0			**	**	**			**	**	**		
215 psig	1317	1317	1317	1317	1317	1317	1317	1243	1243	1243	**	**	1317	1317	1317	790.0	1054.0	1001.0	948.0	948.0	**	**	**	**	**	**	**	**	**	**
290 psig		1317	1317	1243	1243	1243	1180	1117	1117			1317	1317	1243		790.0	846.0	846.0	843.0			**	**	**	**	**	1317			
360 psig		1317	1243	1180	1117	1117	1054	1054	1001				1243	1180	1180			790.0	738.0	738.0			**	**	**	**	1317	1317	1317	
435 psig			1117	1054	1054		1001	948	1317				1180	1117	1054								**	**	**	**	**	1317	1243	
500 psig			1054	948	895		948	1317	1243					1054	1001								**	**	**	**	**	1243	1117	
580 psig				843	790			1180	1117					948	1317										**	**	**	1001	1054	
650 psig				790				1054	1054					1317									**	**	**	**	**	1001		
Minimum Pump Speed [rpm]	790					790					790					790					790									
Number of Cylinders	3					3					3					3					3									
V. COOLING DATA:																														
Standard Max. Ambient Temp. Range [F]																														
Cooling System Available																														
Approach Temperature [F] (3)(4)																														
	A/C		37 - 115	W/C		A/C		37 - 115	W/C		A/C		37 - 115	W/C		A/C		37 - 115	W/C		A/C		37 - 115	W/C		A/C		37 - 115	W/C	
	5.4			5.4		5.4			7.2		7.2			10.8		10.8			18		9			14.4						
VI. PIPING CONNECTIONS [in.]:																														
Suction Side [NPT]																														
Air Discharge [NPT]																														
VII. NOISE LEVEL DATA:																														
Sound level (5)																														
	AIR-COOLED		WATER-COOLED			AIR-COOLED		WATER-COOLED			AIR-COOLED		WATER-COOLED			AIR-COOLED		WATER-COOLED			AIR-COOLED		WATER-COOLED			AIR-COOLED		WATER-COOLED		
	79		77			79		77			79		77			79		77			79		77			79		77		
VIII. MAX. PUMP DIMENSIONS:																														
Width [in.]																														
Depth [in.]																														
Height [in.]																														
Floor Space [sq. ft.]																														
	50 1/2		50 1/2			50 1/2		50 1/2			50 1/2		50 1/2			50 1/2		50 1/2			50 1/2		50 1/2			50 1/2		50 1/2		
	72		72			72		72			72		72			72		72			72		72			72		72		
	77 1/2		77 1/2			77 1/2		77 1/2			77 1/2		77 1/2			77 1/2		77 1/2			77 1/2		77 1/2			77 1/2		77 1/2		
	25.3		25.3			25.3		25.3			25.3		25.3			25.3		25.3			25.3		25.3			25.3		25.3		
IX. NET SHIPPING WEIGHT [lbs]:																														
	AIR-COOLED		WATER-COOLED			AIR-COOLED		WATER-COOLED			AIR-COOLED		WATER-COOLED			AIR-COOLED		WATER-COOLED			AIR-COOLED		WATER-COOLED			AIR-COOLED		WATER-COOLED		
	3087		3043			3307		3043			3373		3329			3373		3329			3395		3020			3395		3020		
X. OIL SYSTEM DATA:																														
Oil Type																														
Oil System Capacity [liters]																														
Top-up volume(6)																														
	VDL 150		VDL 150			VDL 150		VDL 150			VDL 150		VDL 150			VDL 150		VDL 150			VDL 150		VDL 150			VDL 150		VDL 150		
	4.8		4.8			4.8		4.8			4.8		4.8			4.8		4.8			4.8		4.8			4.8		4.8		
	0.5		0.5			0.5		0.5			0.5		0.5			0.5		0.5			0.5		0.5			0.5		0.5		

Foot Notes

- (1) FAD and power consumption to ISO 1217:2009 Annex C. volumetric flow is relative to the atmospheric conditions, 68°F ambient and maximum 3280 ft. aasl. Pressure values are gauge pressure. The design assumes a max. ambient temperature of 115°F and a max. compressed air inlet temperature of 115°F
- (2) Motor-efficiency meets Premium Efficiency (NPE) according to EISA
- (3) Data are valid for ambient of 68°F, 30% RH, 14.5 psia and ADT 158°F
- (4) At final gauge pressure and a compressed air inlet temperature of 9°F above ambient, valid for permissible ambient temperature
- (5) Sound pressure level according to ISO 2151 and basic standard ISO 9614-2; tolerance +/- 3 dB(A) (at max speed)
- (6) Top-up quantity between min. and max. indication at the oil sight glass
- ** Inlet pressure / Discharge pressure combination: see model with lower power

