



GDK110 FS

50Hz

CCN: 47782778001
 Rev: A
 ECN: 1467100
 Sheet: 3 of 8
 Date: Jul-2022

Model		GDK110FS-7A	GDK110FS-8A	GDK110FS-10A	GDK110FS-12.5A
GENERAL PERFORMANCE DATA					
Rated discharge Pressure		7.0 barg	8.0	10.0	12.5
Maximum Operating Pressure	(2)	7.2 barg	8.2	10.2	12.7
Minimum Operating Pressure		4.5 barg	4.5	4.5	4.5
Maximum Operating Ambient Temperature		46 °C	46	46	46
Minimum Operating Ambient Temperature		2 °C	2	2	2
Maximum System Temperature Setting		109 °C	109	109	109
Nominal Power – Main Motor	(3)	110 kW	110	110	110
Main Motor Efficiency	(1)	95.2%	95.2%	95.2%	95.2%
Capacity FAD	(1)	20.6 m³/min	20.0	17.6	15.3
Package Input Power with Fan – Air Cooled	(4)	125.7 kW	126.0	126.7	122.4
Specific Power – Air Cooled	(4)(5)	6.1 kW/m³/min	6.3	7.2	8.0
SOUND LEVEL					
Noise Level Standard Package – Air Cooled	(6)	Sound Pressure - dB(A)	76	76	76
Noise Level Standard Package – Air Cooled		Sound Power - dB(A)	94	94	94
OIL CARRY OVER		mg/m³	≤3	≤3	≤3
COOLING DATA (• Maximum Ambient Temperature & Maximum Discharge Pressure)					
Heat Removal (Oil Cooler)		kW	103.0	103.0	103.0
Heat Removal (Oil and Aftercooler)		kW	128.4	128.4	128.4
Permitted Additional Static Pressure		Pa	30	30	30
Fan Air Flow		m³/min	434.0	434.0	434.0
Fan Motor Nominal Power		kW	2.3	2.3	2.3
Cooling Air Temperature Rise@46°C		°C	27	27	27
Aftercooler CTD	(7)	°C	12	12	12
AIR END DATA					
Male Rotor Speed		RPM	3231	3124	2824
Tip Speed Rotor		m/sec	32.8	31.7	28.7
Full Load Shaft Power		kW	117.7	119.9	121.0
COOLANT LUBRICATION DATA					
Total Coolant Capacity – Air Cooled	(12)	litres	87.0	87.0	87.0
PIPING CONNECTIONS					
Air Discharge	(8)	Inches G	3 INCH (FEMALE)	3 INCH (FEMALE)	3 INCH (FEMALE)
Coolant Drain – Hose Size		Inches NPT	0.5 (FEMALE)	0.5 (FEMALE)	0.5 (FEMALE)
Diameter of Power Inlet		mm (Inches)	120 (4.7)	120 (4.7)	120 (4.7)
DIMENSIONS AND WEIGHT					
Length, Width, Height		mm	2300*1500*1700	2300*1500*1700	2300*1500*1700
Net Weight – Air Cooled		kg	2250	2250	2250
GA Drawing Number – Air Cooled			47783075001	47783075001	47783075001
ELECTRICAL DATA					
Motor Protection	(13)			TEFC, IP55	
Motor Number of Poles				2	
Motor Insulation Class / Temperature Rise				Class F, 155°C	
Full Load Package Current – Air Cooled	(9)				
		Amps @ 380V		238	
		Amps @ 400V		226	
		Amps @ 415V		218	
Main Motor Locked Rotor Current	(14)				
		Amps @ 380V		2570	
		Amps @ 400V		2713	
		Amps @ 415V		2812	
Package Power Factor				0.91	
Electrical Installation					
Recommended Supply Cable Size	(10)				
		mm²/Cu (Kcmil) @ 380V		185	
		mm²/Cu (Kcmil) @ 400V		185	
		mm²/Cu (Kcmil) @ 415V		185	
Maximum Recommended Fuse Rating	(10)(11)				
		Amps @ 380V		400	
		Amps @ 400V		400	
		Amps @ 415V		400	

Notes:

- FAD (Free Air Delivery) is full package performance including all losses. Tested per ISO 1217 : 2009 Annex C
- Maximum pressure at package discharge, value at which compressor will stop when unit operating at maximum target pressure
- IE3 efficiency motor
- Measured at rated capacity and rated pressure
- Specific power guaranteed in accordance with ISO 1217 : 2009 Annex C
- Measured in free field conditions per ISO 2151 using Parallelepiped Method; ducted inlet and outlet, with + 3 dB(A) tolerance
- CTD based on 100°F/38°C inlet air at 40% Relative Humidity (For alternate conditions contact Gardner Denver)
- 'G' Thread for domestic standard
- Maximum current includes 5% additional current due to fouled filters and elements
- 90°C copper cables. Always apply local electrical codes for sizing cables and system protection
- Time delay fuse recommended. Apply local electrical codes for fuse sizing
- Coolant volumes listed are approximate. See operator manual for coolant fill procedure
- 50Hz (±2%) motor voltage tolerance: (400V)±10%
- Star-Delta starting current inrush is about 33% of direct starting current
- During the Star-Delta open-starting transition, the in-rush current value could instantaneously peak from 1.8 to 2.8 times the noted Locked-Rotor-Amperage (LRA) values

Product Improvement is a continuing goal at Gardner Denver. Design and specifications are subject to change without notice or obligation.