



**SIAM COMPRESSOR
INDUSTRY CO., LTD.**



**HVAC
Compressor**



Refrigerant



Inverter



Injection



Scroll



DNK

R410A Inverter Compact Scroll Compressor with Injection

Compact Scroll Compressors (D Series) are the latest series of SCI scroll compressor, which is a choice of the energy-saving inverter compressors with injection (R-410A), ranging from 1.5 kW. – 21 kW. Forming in a compact shell size and lightweight type, SCI D-series inverter compressor can effectively generate high efficiency at high performance and efficiency A+++ at hot water 35°C and A++ at hot water 55°C according to EN14825 in average zone.

Through all these facts, there's no doubt that SCI inverter compact scroll compressor is definitely suitable for a variety of applications, especially for high efficiency heat pumps.



High COP

COP 3.15 at Heating Condition*



Compact size & Light weight

Only 24 kg.



Optimize performance matching with SCI Driver

By Mitsubishi Electric Technology

*for DNK36

■ SCI Compact Inverter Scroll Line-up

Compact Inverter Scroll D Series	Refrigerant	Capacity	[kW]	1	5	9	13	17	21	25	29	33
			[KBTU]	3.40	10.2	17.1	23.9	30.7	37.5	44.4	51.2	58.0
R-410A	DNK (Injection) ^A	DNB (without Injection) ^B	[Performance range bars]									
			[Performance range bars]									
R-32	DVB (without Injection) ^B		[Performance range bar]									

A @ Heating Condition : CT = 50°C, ET = -7°C, SC = 4K, SH = 5K

B @ ARI Condition

■ Specifications of R-410A Inverter Compact Scroll Compressor Injection

Models	Capacity Range			Performance at 60 rps				Weight (kgs.)	
	(min ~ max)			Capacity		Input			COP.
	Watt	Kcal/Hr.	BTU/Hr.	W	BTU/Hr.	Watt	Amps	(w/w)	(BTU/Hr.*w)

a) DC Inverter 200 Volt

DNK22FACMT (15-120RPS)	1,627~12,790	1,398~10,997	5,551~43,641	6,300	21,496	2,100	6.20	3.00	10.24	22.9
DNK28FAAMT (15-120RPS)	2,030~16,035	1,745~13,787	6,926~54,713	7,760	26,477	2,540	11.70	3.05	10.41	23.9
DNK36FAAMT (15-120RPS)	2,562~20,640	2,202~17,747	8,741~70,426	10,250	34,973	3,250	14.60	3.15	10.76	23.9

b) DC Inverter 400 Volt

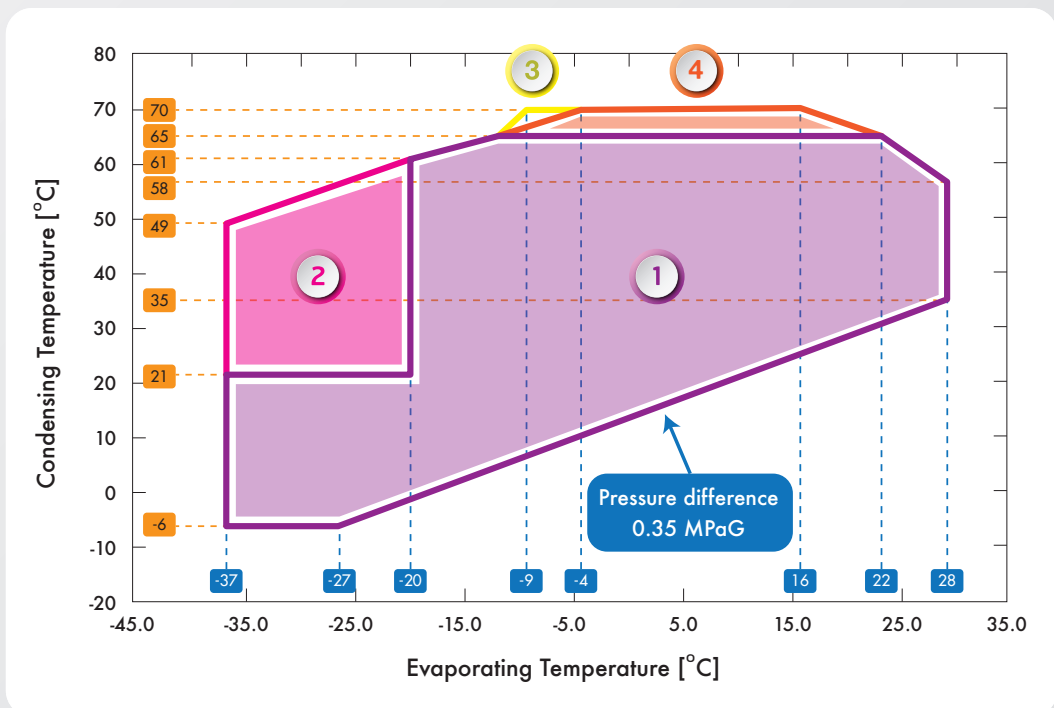
DNK22FAFMT (15-120RPS)	1,627~12,790	1,398~10,997	5,551~43,641	6,300	22,212	2,120	6.20	2.97	10.14	22.9
DNK28FAEMT (15-120RPS)	2,030~16,035	1,745~13,787	6,926~54,713	7,650	26,102	2,580	7.20	2.97	10.12	23.9
DNK36FAEMT (15-120RPS)	2,562~20,640	2,202~17,747	8,741~70,426	10,250	34,973	3,300	14.60	3.11	10.60	23.9

Notes : 1. Testing Condition : Heating ET = -7°C, CT = 50°C, SH = 5K, SC = 4K (except DNK28FAEMT which is ARI condition)

2. For variety of oil quantity, please contact sales representative, Min - Max oil quantity is between 1,000 - 1,400 cc.

3. DVK for R-32 is on developing process

■ Operating Envelope of DNK Compressor



1 f : 15 - 120 rps
Td ≤ 120 °C

2 f : 50 - 120 rps
Td ≤ 110 °C

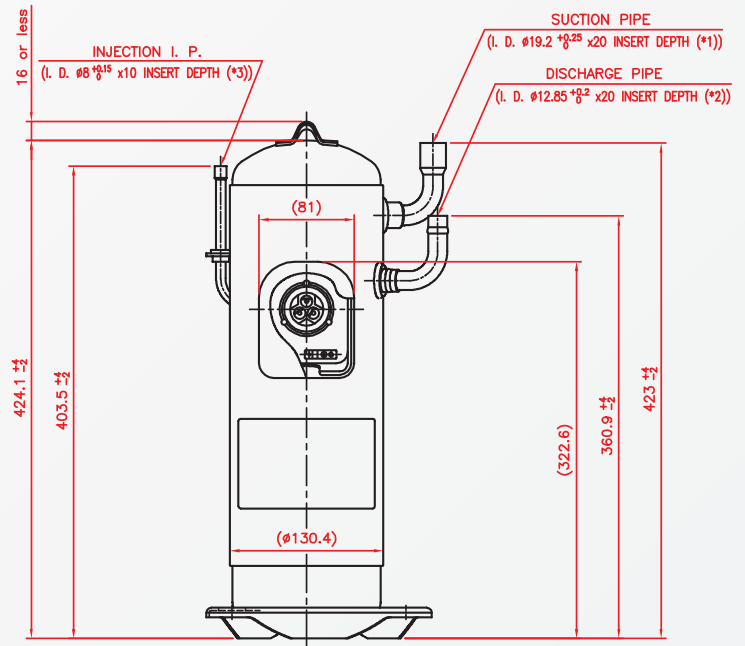
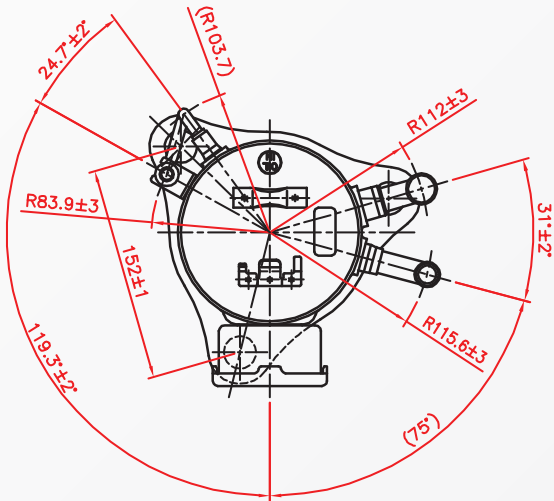
3 f : 30 - 120 rps
Td ≤ 110 °C

4 f : 15 - 120 rps
Td ≤ 110 °C

Rotational speed of injection circuit mode (DNK only)

Pressure ≤ 2.0 MPa,
Speed ≥ 50 rps.

TYPE 1



TYPE 2

