

R290 Compact Inverter Scroll for Heating Application Specifications

DPB Inverter Compact Scroll for R290

Models	Capacity Range						Performance at 60 rps						Weight (kgs.)	Oil (cc.)	Drawing Number	STD.
	(min ~ max)						Capacity		Input		COP.	EER.				
	Watt	Kcal/hr		BTU/hr		W	BTU/hr	Watt	Amps	(w/w)	(Btu/hr*w)					
a) DC Inverter 200 Volt																
Horizontal Suction	Min	Max	Min	Max	Min	Max										
DPB28FB3MT (15-120RPS)	2,140	8,130	1,840	6,990	7,302	27,740	4,390	14,979	1,430	5.20	3.07	10.47	21.9	900	18	
DPB36FF3MT (15-110RPS)	1,790	11,400	1,539	9,802	6,107	38,897	5,800	19,790	1,700	5.80	3.41	11.64	21.9	900	17	
DPB52FB1MT (15-120RPS)	1,860	18,270	1,599	15,709	6,346	62,337	8,400	28,661	2,450	7.80	3.43	11.70	22.7	900	17	
b) DC Inverter 400 Volt																
Horizontal Suction	Min	Max	Min	Max	Min	Max										
DPB28FC3MT (15-120RPS)	2,150	8,120	1,849	6,982	7,336	27,705	4,390	14,979	1,430	5.20	3.07	10.47	22.1	900	18	
DPB36FC6MT (20-120RPS)	2,720	10,470	2,339	9,002	9,281	35,724	5,520	18,834	1,800	4.46	3.07	10.46	23.4	900	18	
DPB52FA1MT (20-120RPS)	2,610	18,270	2,244	15,709	8,905	62,337	8,400	28,661	2,450	7.80	3.43	11.70	22.7	900	17	

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

R290 Inverter Scroll for Heating Application Specifications

APB Inverter Compact Scroll for R290

Models	Capacity Range						Performance at 60 rps						Weight (kgs.)	Oil (cc.)	Drawing Number	STD.
	(min ~ max)						Capacity		Input		COP.	EER.				
	Watt	Kcal/hr		BTU/hr		W	BTU/hr	Watt	Amps	(w/w)	(Btu/hr*w)					
a) DC Inverter 200 Volt																
Horizontal Suction	Min	Max	Min	Max	Min	Max										
APB33FABMT (15-120RPS)	1,100	10,430	946	8,968	3,753	35,587	5,100	17,401	1,650	5.90	3.09	10.55	30.4	900	50	UL
APB42FABMT (15-120RPS)	1,510	14,120	1,298	12,140	5,152	48,177	6,200	21,154	2,200	8.70	2.82	9.62	30.3	900	50	
APB52FABMT (15-120RPS)	2,570	17,500	2,210	15,047	8,769	59,710	7,800	26,614	2,610	9.20	2.99	10.20	30.5	900	50	
b) DC Inverter 400 Volt																
Horizontal Suction	Min	Max	Min	Max	Min	Max										
APB33FAAMT (15-120RPS)	1,100	10,550	946	9,071	3,753	35,997	5,100	17,401	1,720	4.00	2.97	10.12	30.7	900	50	
APB42FAAMT (15-120RPS)	1,500	14,120	1,290	12,140	5,118	48,177	6,200	21,154	2,200	4.70	2.82	9.62	30.3	900	50	
APB52FAAMT (15-120RPS)	1,830	17,490	1,573	15,038	6,244	59,676	7,800	26,614	2,620	5.60	2.98	10.16	30.5	900	50	
Vertical Suction	Min	Max	Min	Max	Min	Max										
APB87FEAMT (20-120RPS)	4,130	28,240	3,551	24,281	14,092	96,355	14,200	48,450	4,340	9.10	3.27	11.16	37.3	900	13	
APB100FA1MT (20-120RPS)	4,740	32,460	4,075	27,909	16,173	110,754	15,850	54,080	5,100	13.30	3.11	10.60	38.3	1,300	24	

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

R290 Fixed Speed Scroll for Heating Application Specifications

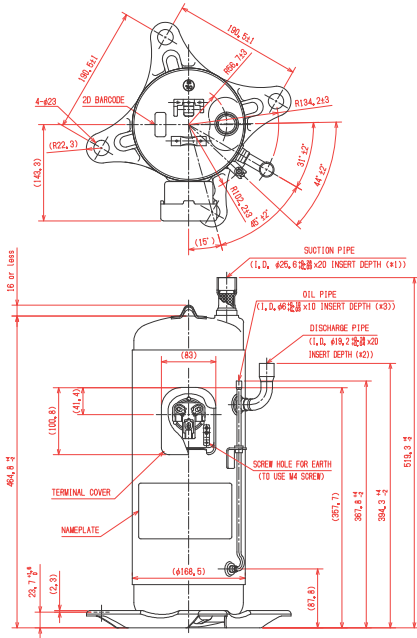
APH Fixed Speed Scroll for R290

Models	Capacity			Input		Nominal Output		COP. (w/w)	EER. (Btu/hr*w)	Run Cap. (mF/VAC)	Weight (kgs.)	Oil (cc.)	Drawing Number
	W	Kcal/hr	BTU/hr	Watt	Amps	HP	KW.						
a) Electrical 50 Hz : 220 - 240 Volt : 1 Phase													
Horizontal Suction													
APH42VAAMT	5,140	4,419	17,538	1,770	8.09	2.5	1.90	2.90	9.91	45 / 420	33.3	900	28
APH52VAAMT	6,690	5,743	22,792	2,070	9.74	3.2	2.35	3.23	11.03	50 / 420	35.2	900	28
APH60VAAMT	7,720	6,629	26,307	2,440	11.70	3.6	2.70	3.16	10.80	60 / 450	35.4	900	28
b) Electrical 50 Hz : 380 - 415/460 Volt : 3 Phases													
Horizontal Suction													
APH42YAAMT	5,140	4,419	17,538	1,720	8.09	2.5	1.90	2.99	10.20	-	33.3	2,300	28
APH52YAAMT	6,690	5,752	22,826	2,070	9.74	3.2	2.35	3.23	11.03	-	35.2	2,300	28
APH60YAAMT	7,720	6,638	26,341	2,440	11.70	3.6	2.70	3.16	10.80	-	35.4	2,300	28
APH73YAAMT	9,390	8,074	32,039	2,910	5.33	4.7	3.50	3.23	11.01	-	35.4	2,300	28

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

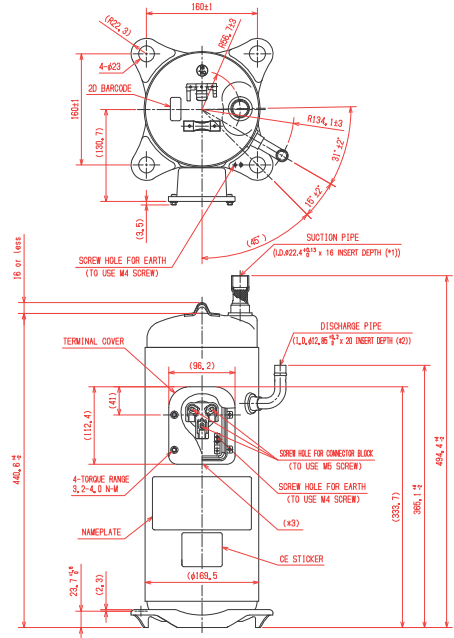
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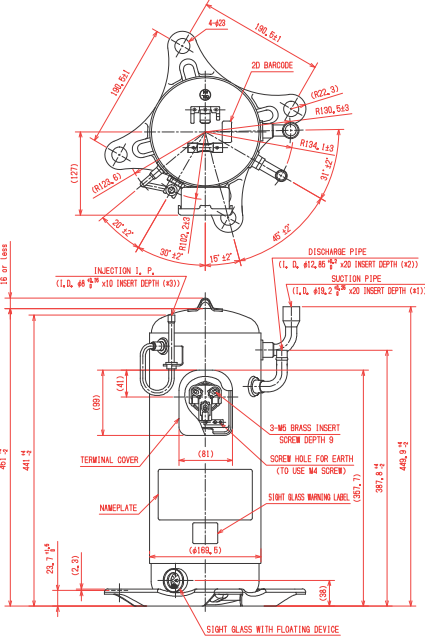
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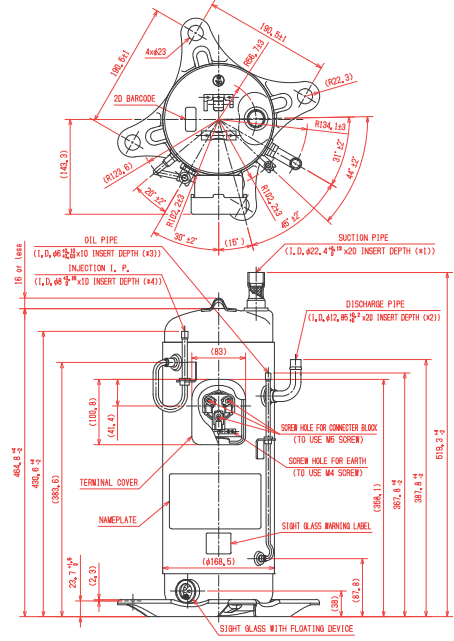
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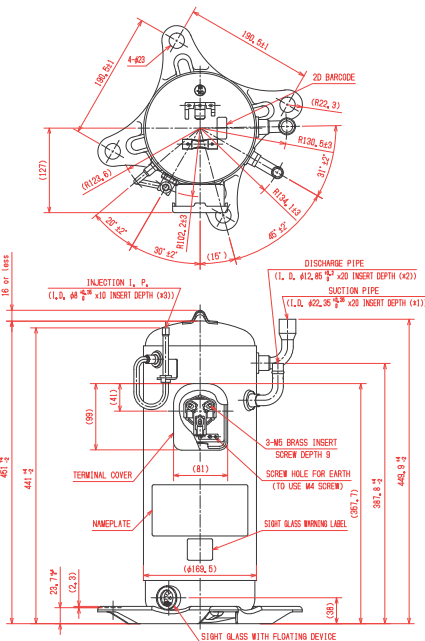
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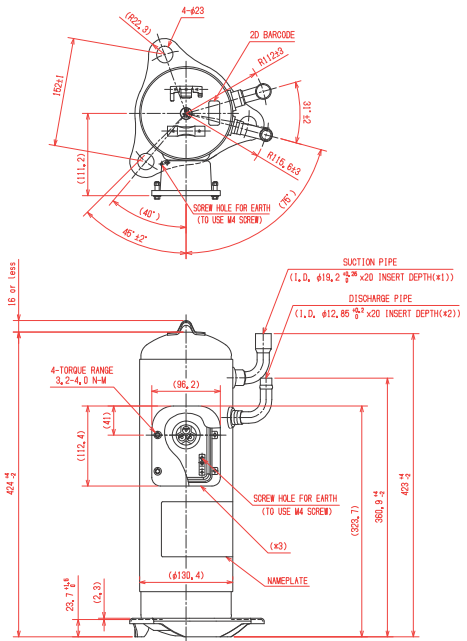
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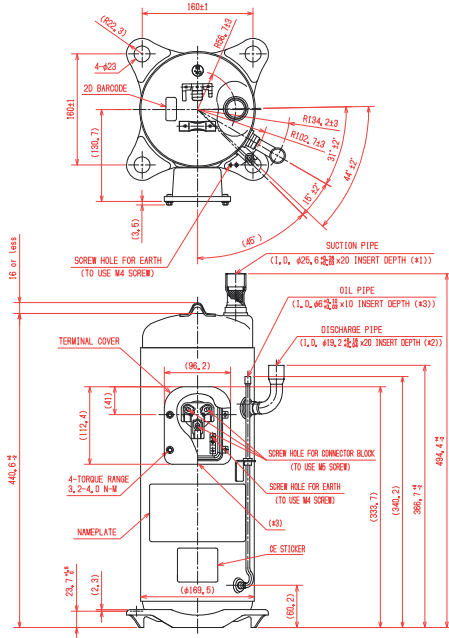
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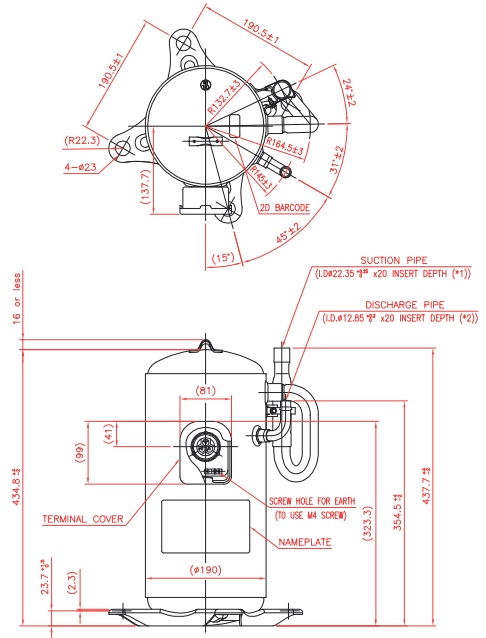
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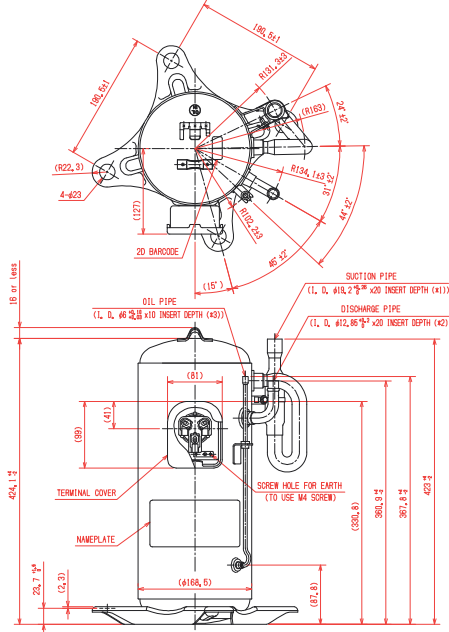
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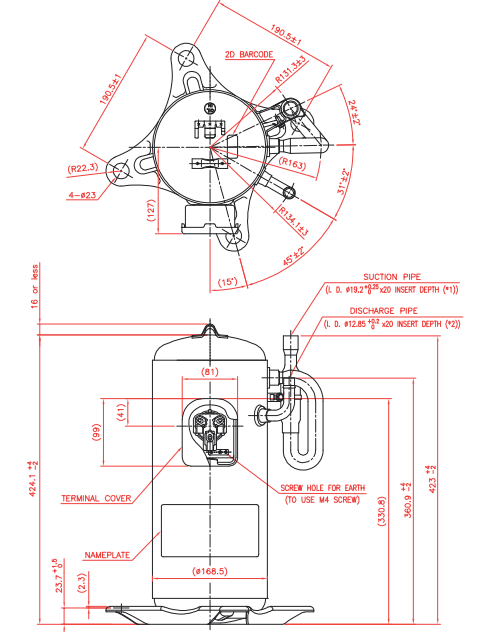
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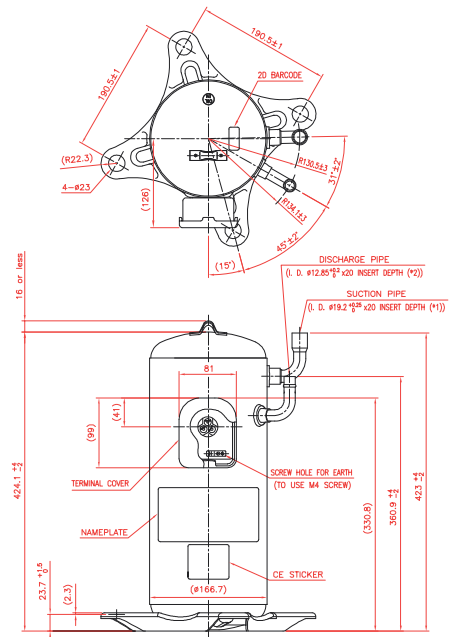
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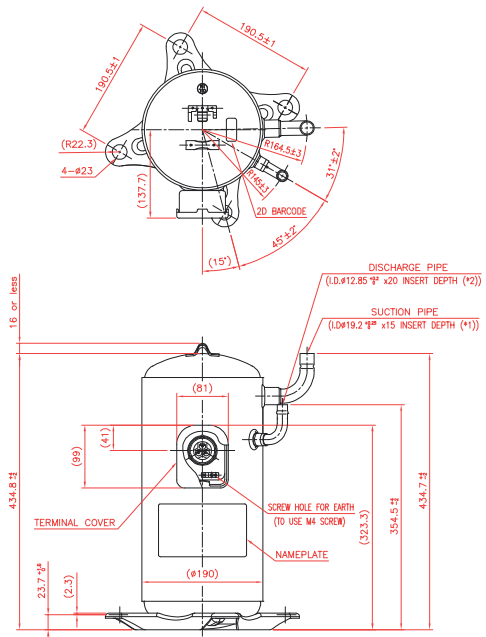
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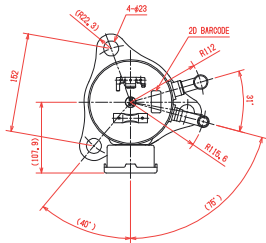
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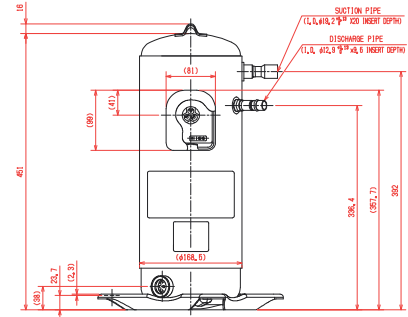
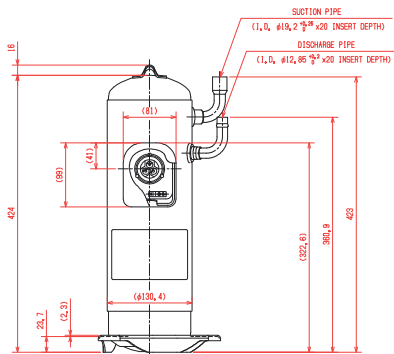
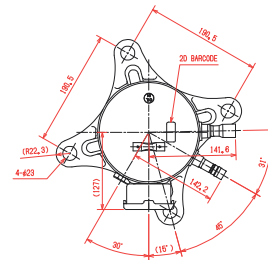
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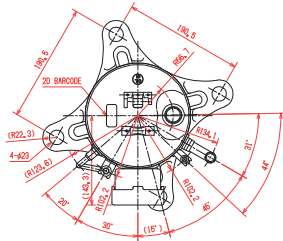
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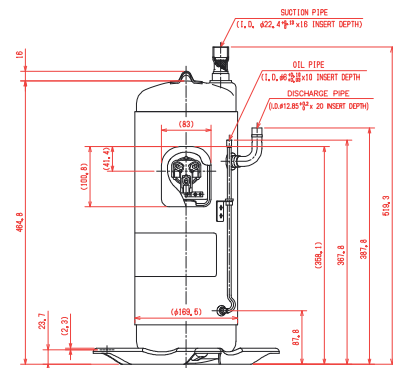
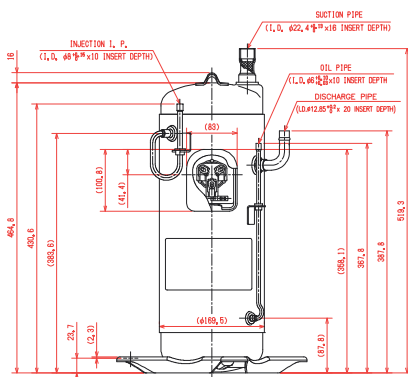
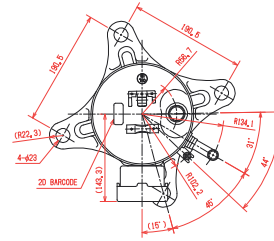
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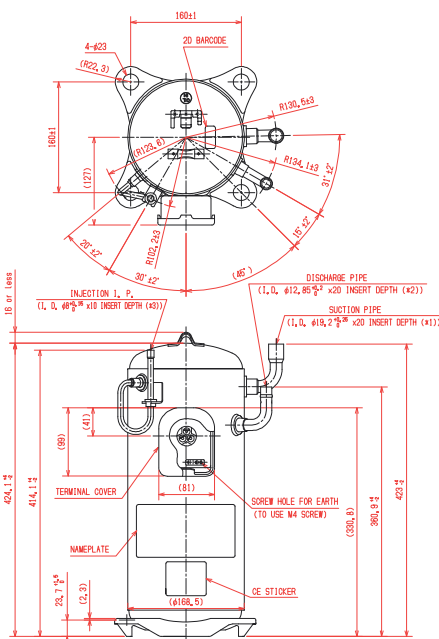
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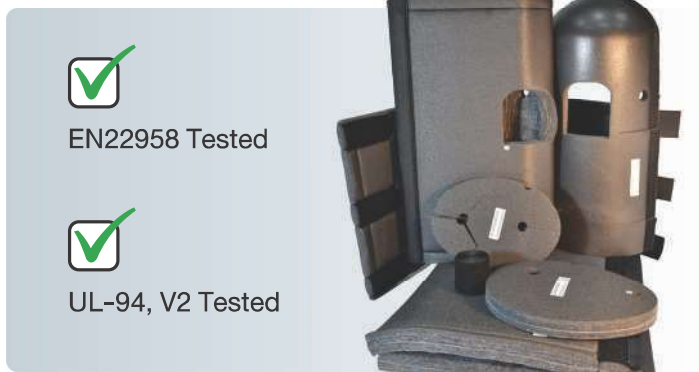
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SC01F968



Thermoacoustic shell

Features



EN22958 Tested

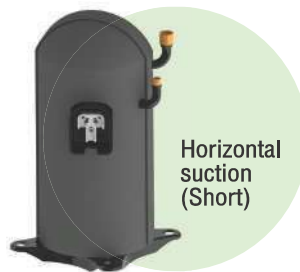


UL-94, V2 Tested

Thermo-Acoustic Shell

- **Up to 10 dB noise reduction**
Taking care by creating a quieter place
- **9% more heating capacity**
An effortless way to improve heating performance
- **Testing under UL-94, V2**
Safer from fire
- **Good for most applications**
Ex. heat pump, Refrigeration, CCAC etc.

• Model for A-Series



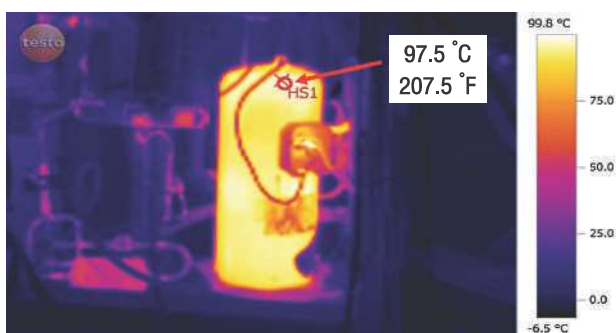
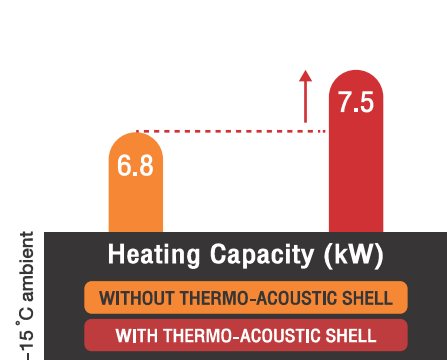
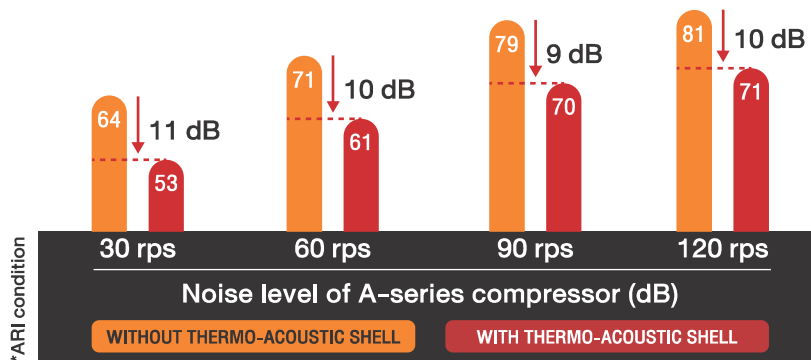
• Model for D-Series



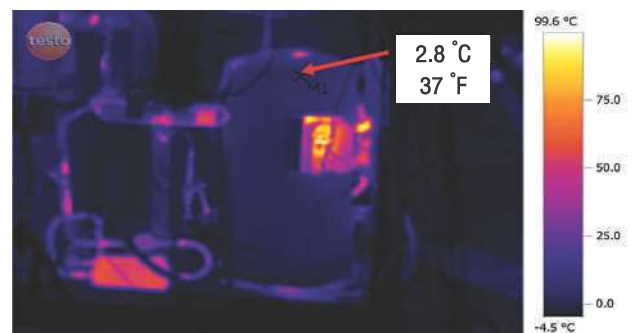
Sound & Heating Performance

10 dB QUIETER FOR ALMOST ALL SPEET RANGE!

9% MORE HEATING CAPACITY



Without insulation



Thermoacoustic Shell

MUTO-Oil Separator

As crucial as oxygen to living things, compressor oil must be supplied sufficiently and managed effectively.

“MUTO-Oil Separator”, the technology patented to SCI, is excellent in crafted design and precise performance for optimum complement with SCI compressors. This patented multi-tube technology will help in the separation of oil from refrigerant and manage external-oil return in real time with highest efficiency at 99% oil separation.

The MUTO oil separator technology also eliminates the need for oil pre-charging, as well as require less oil refill in the system, allowing you to maximize the unit's efficiency.

Features

- Easy installation and service
- Superior efficiency 99%
- Light weight
- No pre-charge oil
- Use centrifugal principle
- External oil return managemant



Oil Separator

MUTO-X XX X X X

Product name:

MUTO : Multi - Tube Oil Separator

Nominal shell diameter:

A : Diameter 76 mm

Maximum cooling capacity at ARI Condition:

20 : 20 kW

40 : 40 kW

Expansion device:

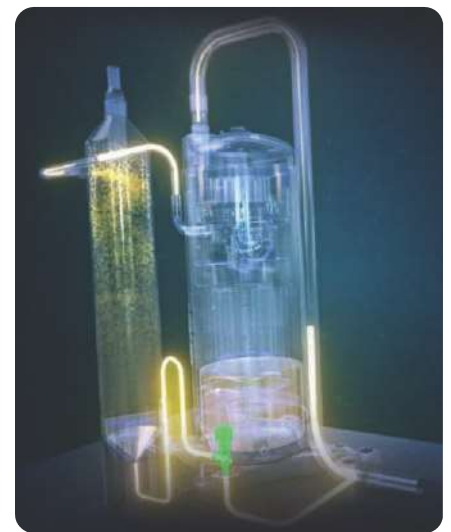
N : None expansion device inside

Leg type:

3 : 3 legs

Air tightness test pressure:

5 : 5 MPaG



Specifications

- Maximum working pressure 5 MPaG
- CE marked per PED 97/83EC
- Certified by UL certification (MUTO-A4053N)

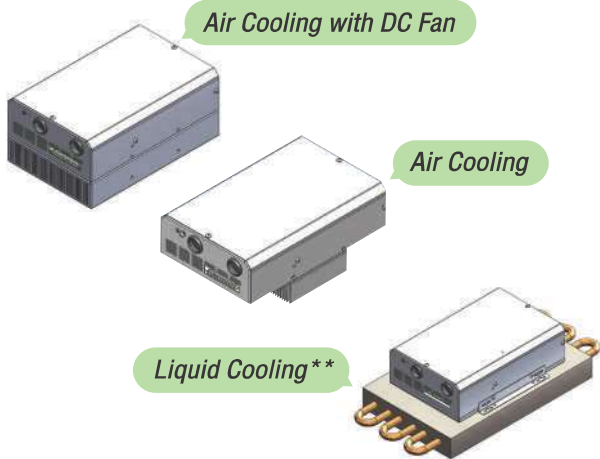


Type	Refrigerant	Height (mm)	Weight (kg)	Stroke (CC)		Recommend expansion size	
				Inverter compressor	Fixed speed compressor	Orifice (in)	Cap tube (mm)
MUTO-A2053N	HCFC,	362	1.5	≤ 33	≤ 66	0.032	0.044" x 1,300
MUTO-A4053N	HFC, HFO	522	2.2	33 - 78	66 - 128	0.032	0.055" x 1,200

SCI Inverter Drive

- ▶ Complete Matching between driver & Compressor
- ▶ Package Solution

Standard



Optional

Noise Filter

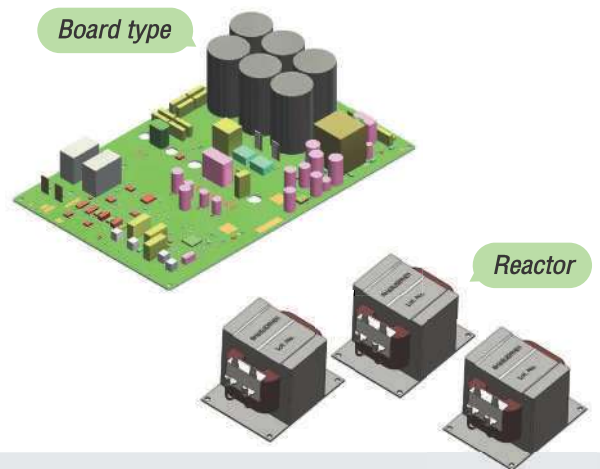
EMC Standard : IEC61800-3

- Emission Class C1
- Radiation Class B (Household)

Leakage Current <3mA

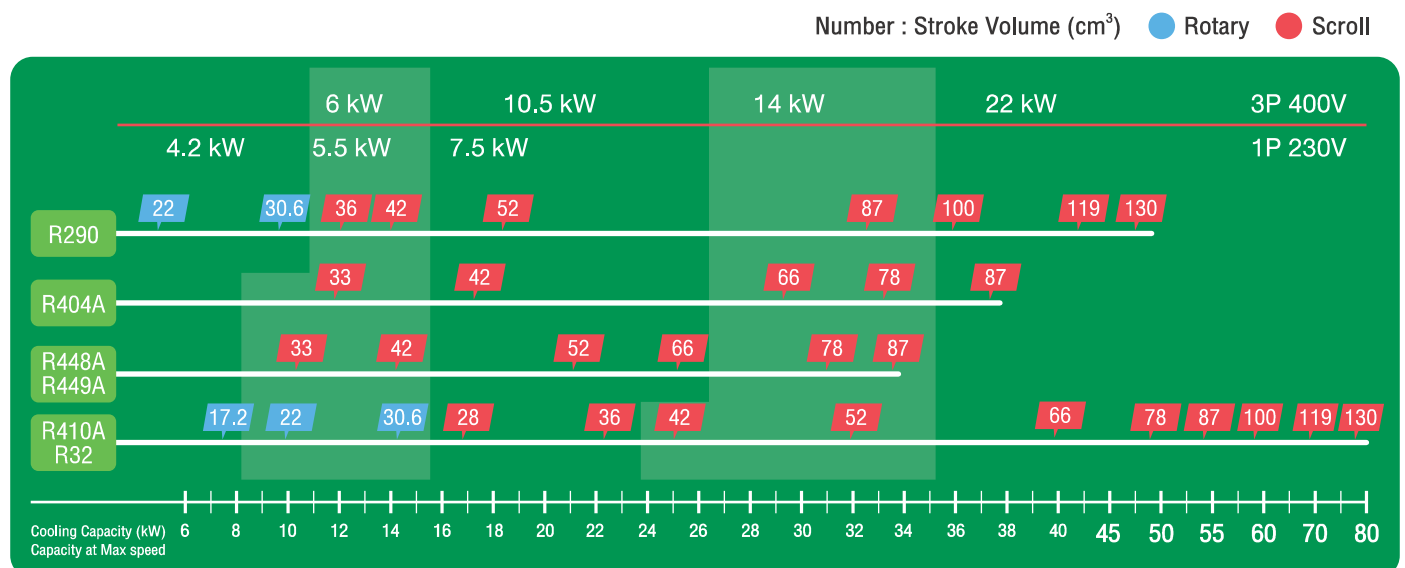
Feature

- Operating temperature -20°C to $+60^{\circ}\text{C}$, 2 to 95% RH (Non-condensing, Non-freezing)
- Efficiency more than 95%
- Low harmonic distortion (Power factor up to 0.99)
- Built-in Overcurrent protection
- Built-in Compressor control envelop
- Built-in Motor Heat function
- Built-in Oil management control
- Water/Refrigerant loop cooling for liquid cooling type



- AC Reactor (3pcs/set) : IEC61000-3-2 ($\leq 16\text{A}$ input)
- DC Reactor (1pc/set) : IEC61000-3-12 ($\leq 75\text{A}$ input)

SCI Inverter Drive Line-up



Testing condition : ARI

“Specifications subject
to **change**
without notice”



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INDUSTRY CO., LTD.**



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