



Classification : Specification for Compressor		Written By	Buncha Sungklum	
		Approved By	Dumrongsak Sompradit	
Subject : BN52YELMT	Issued Date		2011-10-25	Revised D
	Document No.		SPC07O1360.02	
1.Compressor data				
Type		Scroll		
Displacement	cm³/rev.	52.0		
	in³/rev.	3.2		
2.Motor data				
Motor type		Three phase induction motor		
Motor protection		External		
Nominal output	W	3700		
Number of pole		2		
Nominal revolution	rpm	2900		
LRA	A	67 (at 400V 50Hz)		
Insulation class		E		
Motor resistance (20 °C)	Ohm	2.12		
3.Refrigerant				
Type		R-410A		
4.Oil				
Type		FV50S		
Charge amount	L (in³)	2.10 (128.1)		
5.Mass (include.oil)	kg (lbs)	47.4 (104.5)		
6.Compressor power source				
Rated voltage	V	380-415 (±10%)		
Rated frequency	Hz	50 (±2%)		
Phase	Ø	3		
7.Performance				
Refrigerating capacity (±5%)	W	13900		
	BTU/hr	47427		
Motor input (±5%)	W	4360		
COP	W/W	3.19		
EER	BTU/hr.W	10.88		
Current	A	7.5		
Note: Conditions		ARI		
Evaporating temp.	°C (°F)	7.2 (45.0)		
Condensing temp.	°C (°F)	54.4 (129.9)		
Return gas temp.	°C (°F)	18.3 (64.9)		
Ambient temp.	°C (°F)	35.0 (95.0)		
Liquid temp.	°C (°F)	46.0 (114.8)		
Power source	V/Hz	400/50		
Cooling performance curve		SCI-CPDB006		
8.Lowest starting voltage	V	Drop 304		
Please follow to the general specification for BN (VHIK-71680(T))				



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Outline drawing	SC01F114	
Wiring diagram	CS01F037	
Crank case heater		38 W
Terminal parts accessories		
Terminal parts assy	CS01F449	
Terminal cover	SC25C057H01	1 pce.
Mounting accessories		
Mounting parts	CS01F401	
Rubber mount	SC31D032H01	4 pcs.



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Pressure <table><tr><td>Condensing</td><td>4.15 MPaG [602 psiG] or less</td></tr><tr><td>Evaporating</td><td>0.30 ~ 1.05 MPaG [43.5~152.3 psiG]</td></tr><tr><td>Compression ratio</td><td>1.8 ~ 8.0</td></tr><tr><td>Abnormal rise in pressure</td><td>5.9 MPaG [855.7 psiG] or less</td></tr></table> Temperature <table><tr><td>Condensing</td><td>Under 65 °C</td></tr><tr><td>Evaporating temperature</td><td>-20 ~ 12 °C</td></tr><tr><td>Discharge gas (max)</td><td>120 °C</td></tr><tr><td>Suction gas superheat</td><td>Must be more than 0 °C - No liquid-back</td></tr><tr><td>Discharge gas superheat</td><td>10 °C or more</td></tr><tr><td>Outdoor ambient temp.</td><td>Under 43 °C</td></tr></table> Electrical <table><tr><td>Reverse phase (rotation)</td><td>Not possible</td></tr></table> ON / OFF <table><tr><td>ON/OFF frequency</td><td>Less than 250,000 cycles</td></tr><tr><td>ON/OFF cycle</td><td>-The ON/OFF cycle shall be a maximum of 10 times/hour. -OFF time shall be the time until the high side and low side pressure reach to balance pressure (more than 3 minutes)</td></tr></table> Piping stress <table><tr><td></td><td>3.5 kg/mm² or less at start and stop condition (1.8 kg/mm² during operation)</td></tr></table> Refrigerant circuit <table><tr><td>Maximum refrigerant charge</td><td>7 kg</td></tr><tr><td></td><td>No accumulator <2 kg</td></tr><tr><td>Piping vibration</td><td>Maximum 0.8 mm.</td></tr><tr><td>Inclination of compressor</td><td>Within 5°</td></tr></table>			Condensing	4.15 MPaG [602 psiG] or less	Evaporating	0.30 ~ 1.05 MPaG [43.5~152.3 psiG]	Compression ratio	1.8 ~ 8.0	Abnormal rise in pressure	5.9 MPaG [855.7 psiG] or less	Condensing	Under 65 °C	Evaporating temperature	-20 ~ 12 °C	Discharge gas (max)	120 °C	Suction gas superheat	Must be more than 0 °C - No liquid-back	Discharge gas superheat	10 °C or more	Outdoor ambient temp.	Under 43 °C	Reverse phase (rotation)	Not possible	ON/OFF frequency	Less than 250,000 cycles	ON/OFF cycle	-The ON/OFF cycle shall be a maximum of 10 times/hour. -OFF time shall be the time until the high side and low side pressure reach to balance pressure (more than 3 minutes)		3.5 kg/mm ² or less at start and stop condition (1.8 kg/mm ² during operation)	Maximum refrigerant charge	7 kg		No accumulator <2 kg	Piping vibration	Maximum 0.8 mm.	Inclination of compressor	Within 5°
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