



KAISHAN COMPRESSOR USA, LLC

TECHNICAL DATA - VARIABLE SPEED COMPRESSORS

KCA MODEL KRSP400-100V KRSP400-115V KRSP400-125V KRSP400-150V

GENERAL DATA

ACFM	2047	1947	1747	1498
Full load pressure (psig)	100	115	125	150
Motor HP	400	400	400	400

AIR END DATA

Air end model	Patented SKY 5/6 profile			
Number of thrust bearings (male/female)	4/3	4/3	4/3	4/3
Drive type	Direct	Direct	Direct	Direct
Bearing manufacturer	SKF only	SKF only	SKF only	SKF only

COOLING DATA (AIR)

Ambient temperature rating (min/max)	32/104	32/104	32/104	32/104
Max. static back pressure	6mmH2O	6mmH2O	6mmH2O	6mmH2O
Cooling fan capacity (cfm)	85250	85250	85250	85250
Approach temperature	15.1	15.1	15.1	15.1
Heat rejected (BTU/HR)	916287	916287	916287	916287

COOLING DATA (Water)

Type of heat exchangers	Tube and shell			
Approach temperature F	15 Degrees			
Heat rejected into cooling water (BTU/HR)	916287	916287	916287	916287
Maximum inlet temperature	≤90	≤90	≤90	≤90
Minimum cooling water flow 70 (F)	77 gpm	77 gpm	77 gpm	77 gpm
Minimum cooling water flow 90 (F)	132 gpm	132 gpm	132 gpm	132 gpm
Water pressure drop (psi)	16	16	16	16

COMPRESSOR CFM

COMPRESSOR CFM AT 100%	2047	1947	1747	1498
COMPRESSOR CFM AT 70%	1433	1363	1223	1048
COMPRESSOR CFM AT 60%	1228	1168	1048	899
COMPRESSOR CFM AT 50%	1024	974	874	749
COMPRESSOR CFM AT 40%	819	779	699	599
COMPRESSOR CFM AT 25%	512	487	437	374

COMPRESSOR PACKAGE KW

COMPRESSOR PACKAGE KW AT 100%	367.0	368.3	367.5	370.5
COMPRESSOR PACKAGE KW AT 70%	242.2	243.1	242.6	244.5
COMPRESSOR PACKAGE KW AT 60%	212.9	213.6	213.2	214.9
COMPRESSOR PACKAGE KW AT 50%	176.2	176.8	176.4	177.8
COMPRESSOR PACKAGE KW AT 40%	143.1	143.6	143.3	144.5

COMPRESSOR PACKAGE KW AT 25%	91.8	92.1	91.9	92.6
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COMPRESSOR SPECIFIC POWER

COMPRESSOR SPECIFIC POWER AT 100%	17.9	18.9	21.0	24.7
COMPRESSOR SPECIFIC POWER AT 70%	16.9	17.8	19.8	23.3
COMPRESSOR SPECIFIC POWER AT 60%	17.3	18.3	20.3	23.9
COMPRESSOR SPECIFIC POWER AT 50%	17.2	18.2	20.2	23.7
COMPRESSOR SPECIFIC POWER AT 40%	17.5	18.4	20.5	24.1
COMPRESSOR SPECIFIC POWER AT 25%	17.9	18.9	21.0	24.7



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ELECTRICAL DATA

Electrical enclosure rating	NEMA1	NEMA1	NEMA1	NEMA1
Enclosure type (drive and fan)	TEFC	TEFC	TEFC	TEFC
Insulation class (drive and fan)	F	F	F	F
Drive motor efficiency	96.2%	96.2%	96.2%	96.2%
Service Factor	1.20	1.20	1.20	1.20
Fan motor HP #1	20.0	20.0	20.0	20.0

FULL LOAD PACKAGE AMPS

Full load package amps 460V/60HZ	508	508	508	508
Full load package amps 575V/60HZ	444	444	444	444

FILTRATION AND LUBRICATION DATA

Air filter micron rating	5µm	5µm	5µm	5µm
Fluid filter micron rating	23µm	23µm	23µm	23µm
Fluid carryover (PPM)	<3	<3	<3	<3

COMPRESSOR COOLING FLUID DATA

Fluid capacity (A/C) (Gal)	35.2	35.2	35.2	35.2
Fluid normal life expectancy (HR)	8000	8000	8000	8000

SOUND LEVEL

Sound Level (A/C)	80	80	80	80
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PACKAGE INFORMATION

Discharge connections	DN 125	DN 125	DN 125	DN 125
Condensate connections	NPT 1/4"	NPT 1/4"	NPT 1/4"	NPT 1/4"
Length (in)	168	168	168	168
Width (in)	89	89	89	89
Height (in)	89	89	89	89
Weight (lbs) (A/C)	18120	18120	18120	18120
Estimated shipping weight (lbs)	18422	18422	18422	18422

PRODUCT FEATURES

Motor brand	Marathon or Weg
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Starter and controls brand
Variable speed drive
Enclosure/Cabinet type
Inlet filter type
Cooling fan type (A/C)
Internal piping

Siemens or Schnieder
Yaskowa or Schnieder
Low sound
Heavy duty
Centrifugal
Stainless steel

Effective 7-2-18