

Sr. No.			Description	UOM (Wherever Applicable)	Data (Common For All Models)	KAS050.17	KAS070.17	KAS095.17	KAS120.17	KAS160.17	KAS190.17	KAS210.17	KAS240.17	KAS130.27	KAS150.27	KAS215.27	KAS245.27	KAS280.27	KAS320.27	KAS345.27	KAS375.27	KAS415.27
A			General Points																			
	1		Cooling Capacity	ton _R	Refer KCPL Chiller Selection System Software	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2		Power Consumption	kW	Refer KCPL Chiller Selection System Software	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3		Specific Power Consumption	kW/ton _R	Refer KCPL Chiller Selection System Software	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4		Co-Efficient of Performance (COP)	kW/kW	Refer KCPL Chiller Selection System Software	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5		No. of Compressors	Nos.		1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
	6		No. of Individual Refrigerant Circuits	Nos.		1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
	7		Refrigerant																			
		i	Name	-	R407C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		ii	Quantity	kg	Refer KCPL Chiller Selection System Software	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		iii	Technical Specifications	-	Refer ESP-18-19-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8		Sound Pressure Level																			
		i	Noise Level	dB	Refer ESP-18-19-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		ii	Measuring Standard	-	ANSI/AHRI Standard 575-2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9		Insulation Details																			
		i	Material	-	Closed Cell Nitrile Foam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		ii	Insulation Thickness on Various Parts	-	For Standard Temperature Range (LWT upto -10 0C)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Evaporator Shell	mm	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Evaporator Tubesheet	mm	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Evaporator Pass Partition Assembly	mm	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Evaporator Head Cover	mm	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Evaporator Support Plate	mm	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Compressor Motor Body	mm	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Suction Line Assembly	mm	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Liquid Line Assembly	mm	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		iii	Insulation Thickness on Various Parts	-	For Brine Temperature Range (LWT below -10 0C)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Evaporator Shell	mm	51 (32+19)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Evaporator Tubesheet	mm	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Evaporator Pass Partition Assembly	mm	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Evaporator Head Cover	mm	51 (32+19)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Evaporator Support Plate	mm	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Compressor Motor Body	mm	28 (19+9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Suction Line Assembly	mm	28 (19+9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Liquid Line Assembly	mm	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		iv	Density	kg/m ³	76.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		v	Thermal Conductivity	W/m.K	0.035 (at 0 0C Mean Temperature)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		vi	Standard	-	IS 14164	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		vii	Adhesive	-	Blend of Synthetic Polymers and Synthetic Resin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		viii	Insulation Specifications	-	Refer ESP-18-19-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10		Vibration																			
		i	Vibration Level	mm/sec	Less than 1.5 mm/sec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		ii	Vibration control	-	Rubber Pads (Standard) / Spring Isolators (At an Additional Cost)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		iii	Standard	-	IS 12075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11		Painting Specification																			
		i	Paint Type	-	RAL 7035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		ii	Standard	-	Coating as per KCPL Standards	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12		Overall Dimensions																			
		i	Approx. Length	mm	Refer KCPL Chiller Selection System Software	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		ii	Approx. Width	mm	Refer KCPL Chiller Selection System Software	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		iii	Approx. Height	mm	Refer KCPL Chiller Selection System Software	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13		Space Clearances Required																			
		i	Panel Side	mm		2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
		ii	Opposite to Panel Side	mm		2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
		iii	All Other Sides	mm		3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
		iv	Overhead	mm		15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000
	14		Weight																			
		i	Approx. Shipping Weight	kg	Refer KCPL Chiller Selection System Software	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		ii	Approx. Operating Weight	kg	Refer KCPL Chiller Selection System Software	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15		Cable Sizes																			
		i	Aluminum Cable	-	Refer ESP-14-15-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		ii	Copper Cable	-	Refer ESP-14-15-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B			Compressor Details																			
	1		Make	-	Kirloskar Chillers Private Limited	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2		Type / Description	-	Semi-Hermetic Twin Screw Compressor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3		Model	-	Refer KCPL Chiller Selection System Software	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4		Drive	-	Direct Driven by Rotor Shaft	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5		Capacity Control Percentage	%		100-25%	100-25%	100-25%	100-25%	100-25%	100-25%	100-25%	100-25%	100-12.5%	100-12.5%	100-12.5%	100-12.5%	100-12.5%	100-12.5%	100-12.5%	100-12.5%	100-12.5%
	6		Type of Capacity Control	-	Stepless	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7		Capacity Control Mechanism	-	Slide Valve Mechanism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8		Volumetric Ratio	-	Fixed Ratio (3.2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9		Design and Test Parameters																			
		i	Design Pressure	bar	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		ii	Test Pressure (Pneumatic)	bar	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		iii	Design Temperature	°C	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		iv	Max. Allowable Discharge Temperature	°C	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10		Bearings																			

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E			Oil Separator Details																				
	1	Type	-	Dome Type (Built in Compressor)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2	Internal Structure	-	Demister Arrangement				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3	Method of Oil Separation	-	Differential Mass Between Oil and Gas, Impact with Surfaces, Filtering of Oil-Gas Mixture				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4	Oil Heater Details																					
	i	Make	-	Kirloskar Approved Vendor				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	ii	Quantity	Nos.					1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	
	iii	Power Supply	V	230				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	iv	Rating	W	250				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
F		Oil Cooler	-	If Applicable				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1	Type	-	Plate Type				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2	Quantity	Nos.	One per Compressor				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3	Heat Duty	kW	Depends on Working Conditions				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4	Method of Cooling	-	Refrigerant Cooled				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5	Material of Construction	-	Brazed PHE, Plate Material - SS				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6	Pressure Drop																					
	i	Oil Side	bar	less than 0.5				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	ii	Refrigerant Side	bar	Proprietary Data				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
G		Evaporator Details																					
	1	Model	-	Refer KCPL Chiller Selection System Software				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2	Design Code	-	As per KCPL Standards				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3	Type	-	Shell and Tube DX Design				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4	Tube Side (Fluid)	-	Refrigerant				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5	Shell Side (Fluid)	-	Chilled Water				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6	Design Parameters																					
	i	Design Temperature (Refrigerant Side)	°C	65				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	ii	Max. Operating Pressure (Refrigerant Side)	bar	Refer ESP-07-08-107				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	iii	Design Pressure (Refrigerant Side)	bar	Refer ESP-07-08-107				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	iv	Test pressure (Refrigerant Side)	bar	Refer ESP-07-08-107				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	v	Testing method (Refrigerant Side)	-	Refer ESP-07-08-107				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	vi	No. of Passes (Refrigerant Side)	Nos.					2	2	2	2	2	1	1	1	2	2	1	1	1	1	1	
	vii	Design Temperature (Water Side)	°C	65				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	viii	Max. Operating Pressure (Water Side)	bar	Refer ESP-07-08-107				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	ix	Design Pressure (Water Side)	bar	Refer ESP-07-08-107				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	x	Test pressure (Water Side)	bar	Refer ESP-07-08-107				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	xi	Testing method (Water Side)	-	Refer ESP-07-08-107				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	xii	No. of Passes (Water Side)	Nos.	Single Pass				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	xiii	Water Velocity	m/s	Less than 3 m/s				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	xiv	Inlet Pressure	bar	Depends on Site Piping Layout (Maximum Allowable - 9.4 bar)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	xv	Evaporating Temperature	°C	Consult with Engineering Department on Case to Case Basis				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	7	Physical Data of Evaporator																					
	i	Overall Length of Evaporator	ft					6	6	9	9	9	12	12	12	9	9	12	12	12	12	12	
	ii	Shell Diameter	inch					14	16	16	18	20	18	20	20	18	18	20	22	22	24	26	
	iii	Shell Thickness	mm					8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
	iv	Approx. Shell Length	mm					1753	1753	2666	2666	2660	3552	3546	3546	2666	2666	3546	3546	3546	3546	3534	
	v	Material of Construction of Shell	-	Mild Steel				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	vi	Material Standard of Shell	-	Refer "MOC" Sheet				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	vii	Tube Type/ Nature of Tube Surface	-	Integral Helical Fins on the Outside Surface and Integral Helical Ridges on the Inside Surface				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	viii	Tube Length	mm	Refer "HX Details" Sheet				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	ix	Tube Diameter	mm	Refer "HX Details" Sheet				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	x	Tube Thickness	mm	Refer "HX Details" Sheet				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	xi	Material of Construction of Tube	-	Cu				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	xii	Material Standard of Tube	-	Refer "MOC" Sheet				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	xiii	Water Volume in Evaporator	Liter	Refer KCPL Chiller Selection System Software				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	8	Water Box Details																					
	i	Type	-	Standard - On Shell Nozzle				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	ii	Material	-	Mild Steel				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	iii	Standard (Material)	-	Refer "MOC" Sheet				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	iv	Nozzle size	NB	Refer KCPL Chiller Selection System Software				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	v	End connection	-	Standard - Victaulic Conn. (Flanged Conn. - Optional)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	vi	MOC of Water Side Gasket	-	NAM AF 120				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	vii	MOC of Refrigerant Side Gasket	-	NAM AF 159				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9	Accessories Provided																					
	i	Pressure Relief Valve	-	Spring Loaded (For Safety Valve Set Pressure Refer ESP)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	ii	Drain/Vent Valves	Inch	Plugged Connection Provided (3/8" NPT)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
H		Condenser Coil Details																					
	1	Make	-	Kirloskar Approved Vendor				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2	Type	-	Fin and Tube Design				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3	Coil Arrangement	-	V' Type				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4	Tube Side (Fluid)	-	Refrigerant				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5	Fin Side (Fluid)	-	Air				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6	Design Parameters																					
	i	Design Temperature (Refrigerant Side)	°C	100				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	ii	Max. Operating Pressure (Refrigerant Side)	bar	Refer ESP-07-08-107				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

[illegible]