

# COOLING TOWER SPECIFICATIONS SHEET

## LCP COUNTER FLOW TYPE

CONTRACTOR	Daeil Aqua Co., Ltd.	ITEM NO.	
MANUFACTURER	Daeil Aqua Co., Ltd.	PREPARED BY	

## DESIGN & OPERATING CONDITIONS

Model No. ....	LCP - 150CT	Relative Humidity .....	80%
Cooling Capacity .....	585000 kcal/hr	Evaporation Loss .....	0.72%
Water Flow Rate per Cell.....	117 m <sup>3</sup> /hr (1,950.0 LPM)	Drift Loss .....	0.002%
In / Out Let Water Temp. ....	37.0 / 32.0 °C	Number of Cell per Body.....	1
Dry / Wet Bulb Temp. ....	29.9 / 27.0 °C	Number of Body.....	1

## PHYSICAL DATA

Nominal Cell Length .....	2280	mm	Tower Inlet /Outlet Pipe Size .....	150A
Nominal Cell Width .....	2280	mm	Make-Up Size .....	40A
Overall Tower Length .....	2380	mm	Overflow .....	65A
Overall Tower Width .....	2420	mm	Drain .....	80A
Fan Deck Height .....	3015	mm		
Overall Tower Height .....	3715	mm		

## MATERIAL OF CONSTRUCTIONS

Frameworks .....	SS400 + HDG
Cold Water Basin .....	FRP
Casing .....	FRP
Fan Deck .....	FRP
Fan Cylinder .....	FRP
Fill Support .....	SS400 + HDG
Cold Water Basin Supports .....	SS400 + HDG
Mech. Equipment Base .....	SS400 + HDG
Fan Deck Access Ladder .....	SS400 + HDG

## MATERIAL OF COMPONENTS

Anti-Vortex Box .....	FRP
Fill .....	PVC
Water Spray Nozzle .....	ABS
Water Distribution Piping .....	PVC
Drift Eliminator .....	PVC
Fan Drive Shaft Pulley .....	FC200
Motor Shaft Pulley .....	FC200
Bolts/Nuts/Washers .....	STS 304
Anchor Bolt .....	SS400
Anchor Bolt to be Furnished by <input checked="" type="checkbox"/> Maker <input type="checkbox"/> Owner	

## MECHANICAL EQUIPMENT

### AXIAL FLOW FAN

Number of Fan per Cell .....	1	set
Type of Model .....	Axial Flow	
Manufacturer .....	Daeil Aqua Co., Ltd.	
Fan Diameter .....	1700	mm
Number of Fan Blades .....	6	ea
Fan Speed .....	469.6	RPM
Tip Speed .....	41.80	m/sec

Fan BHP .....	3.199 kW
Fan Total Efficiency .....	67.4%
Air Volume per Fan .....	949.9 CMM
Fan Blade Material .....	AL-Alloy
Fan Hub Material .....	AL-Alloy

### SPEED REDUCER

Type .....	V-Belt
Manufacturer .....	Daeil Aqua Co., Ltd.
Model of Fan Drive Shaft Pulley .....	1602B
Model of Motor Shaft Pulley .....	452B
Belt Number .....	BP74

Number of Reductions .....	1
Reduction Ratio .....	3.520 : 1

### ELECTRIC MOTOR

Type .....	Vertical, TEFC
Manufacturer .....	Hyundai or Eq.
Rated Power .....	3.7 kW
Full Load Speed .....	1740 RPM

AC Voltage .....	440
Phase .....	3
Number of Pole .....	4

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MANUFACTURER	Daeil Aqua Co., Ltd.	PREPARED BY	

## DESIGN & OPERATING CONDITIONS

Model No. ....	<b>LCP - 150CT x 2 CELLS</b>	Relative Humidity .....	<b>80%</b>
Cooling Capacity .....	<b>1170000</b> kcal/hr	Evaporation Loss .....	<b>0.72%</b>
Water Flow Rate per Cell.....	<b>234 m<sup>3</sup>/hr (3,900.0 LPM)</b>	Drift Loss .....	<b>0.002%</b>
In / Out Let Water Temp. ....	<b>37.0 / 32.0 °C</b>	Number of Cell per Body.....	<b>2</b>
Dry / Wet Bulb Temp. ....	<b>29.9 / 27.0 °C</b>	Number of Body.....	<b>1</b>

## PHYSICAL DATA

Nominal Cell Length .....	<b>2280</b>	mm	Tower Inlet /Outlet Pipe Size .....	<b>150A</b>
Nominal Cell Width .....	<b>2280</b>	mm	Make-Up Size .....	<b>40A</b>
Overall Tower Length .....	<b>4760</b>	mm	Overflow .....	<b>65A</b>
Overall Tower Width .....	<b>2420</b>	mm	Drain .....	<b>80A</b>
Fan Deck Height .....	<b>3205</b>	mm		
Overall Tower Height .....	<b>3905</b>	mm		

## MATERIAL OF CONSTRUCTIONS

Frameworks .....	<b>SS400 + HDG</b>
Cold Water Basin .....	<b>FRP</b>
Casing .....	<b>FRP</b>
Fan Deck .....	<b>FRP</b>
Fan Cylinder .....	<b>FRP</b>
Fill Support .....	<b>SS400 + HDG</b>
Cold Water Basin Supports .....	<b>SS400 + HDG</b>
Mech. Equipment Base .....	<b>SS400 + HDG</b>
Fan Deck Access Ladder .....	<b>SS400 + HDG</b>

## MATERIAL OF COMPONENTS

Anti-Vortex Box .....	<b>FRP</b>
Fill .....	<b>PVC</b>
Water Spray Nozzle .....	<b>ABS</b>
Water Distribution Piping .....	<b>PVC</b>
Drift Eliminator .....	<b>PVC</b>
Fan Drive Shaft Pulley .....	<b>FC200</b>
Motor Shaft Pulley .....	<b>FC200</b>
Bolts/Nuts/Washers .....	<b>STS 304</b>
Anchor Bolt .....	<b>SS400</b>
Anchor Bolt to be Furnished by <input checked="" type="checkbox"/> Maker <input type="checkbox"/> Owner	

## MECHANICAL EQUIPMENT

### AXIAL FLOW FAN

Number of Fan per Cell .....	<b>1</b>	set	Fan BHP .....	<b>3.199</b> kW
Type of Model .....	<b>Axial Flow</b>		Fan Total Efficiency .....	<b>67.4%</b>
Manufacturer .....	<b>Daeil Aqua Co., Ltd.</b>		Air Volume per Fan .....	<b>949.9</b> CMM
Fan Diameter .....	<b>1700</b>	mm	Fan Blade Material .....	<b>AL-Alloy</b>
Number of Fan Blades .....	<b>6</b>	ea	Fan Hub Material .....	<b>AL-Alloy</b>
Fan Speed .....	<b>469.6</b>	RPM		
Tip Speed .....	<b>41.80</b>	m/sec		

### SPEED REDUCER

Type .....	<b>V-Belt</b>	Number of Reductions .....	<b>1</b>
Manufacturer .....	<b>Daeil Aqua Co., Ltd.</b>	Reduction Ratio .....	<b>3.520 : 1</b>
Model of Fan Drive Shaft Pulley .....	<b>1602B</b>		
Model of Motor Shaft Pulley .....	<b>452B</b>		
Belt Number .....	<b>BP74</b>		

### ELECTRIC MOTOR

Type .....	<b>Vertical, TEFC</b>		AC Voltage .....	<b>220/380/440V</b>
Manufacturer .....	<b>Hyundai or Eq.</b>		Phase .....	<b>3</b>
Rated Power .....	<b>3.7</b> kW		Number of Pole .....	<b>4</b>
Full Load Speed .....	<b>1740</b> RPM			

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## LCP COUNTER FLOW TYPE

CONTRACTOR	Daeil Aqua Co., Ltd.	ITEM NO.	
MANUFACTURER	Daeil Aqua Co., Ltd.	PREPARED BY	

## DESIGN & OPERATING CONDITIONS

Model No. ....	LCP - 150CT x 3 CELLS	Relative Humidity .....	80%
Cooling Capacity .....	1755000 kal/hr	Evaporation Loss .....	0.72%
Water Flow Rate per Cell.....	351 m <sup>3</sup> /hr (5,850.0 LPM)	Drift Loss .....	0.002%
In / Out Let Water Temp. ....	37.0 / 32.0 °C	Number of Cell per Body.....	3
Dry / Wet Bulb Temp. ....	29.9 / 27.0 °C	Number of Body.....	1

## PHYSICAL DATA

Nominal Cell Length .....	2280	mm	Tower Inlet /Outlet Pipe Size .....	150A
Nominal Cell Width .....	2280	mm	Make-Up Size .....	40A
Overall Tower Length .....	7140	mm	Overflow .....	65A
Overall Tower Width .....	2420	mm	Drain .....	80A
Fan Deck Height .....	3295	mm		
Overall Tower Height .....	3995	mm		

## MATERIAL OF CONSTRUCTIONS

Frameworks .....	SS400 + HDG
Cold Water Basin .....	FRP
Casing .....	FRP
Fan Deck .....	FRP
Fan Cylinder .....	FRP
Fill Support .....	SS400 + HDG
Cold Water Basin Supports .....	SS400 + HDG
Mech. Equipment Base .....	SS400 + HDG
Fan Deck Access Ladder .....	SS400 + HDG

## MATERIAL OF COMPONENTS

Anti-Vortex Box .....	FRP
Fill .....	PVC
Water Spray Nozzle .....	ABS
Water Distribution Piping .....	PVC
Drift Eliminator .....	PVC
Fan Drive Shaft Pulley .....	FC200
Motor Shaft Pulley .....	FC200
Bolts/Nuts/Washers .....	STS 304
Anchor Bolt .....	SS400
Anchor Bolt to be Furnished by <input checked="" type="checkbox"/> Maker <input type="checkbox"/> Owner	

## MECHANICAL EQUIPMENT

### AXIAL FLOW FAN

Number of Fan per Cell .....	1	set
Type of Model .....	Axial Flow	
Manufacturer .....	Daeil Aqua Co., Ltd.	
Fan Diameter .....	1700	mm
Number of Fan Blades .....	6	ea
Fan Speed .....	469.6	RPM
Tip Speed .....	41.80	m/sec

Fan BHP .....	3.199 kW
Fan Total Efficiency .....	67.4%
Air Volume per Fan .....	949.9 CMM
Fan Blade Material .....	AL-Alloy
Fan Hub Material .....	AL-Alloy

### SPEED REDUCER

Type .....	V-Belt
Manufacturer .....	Daeil Aqua Co., Ltd.
Model of Fan Drive Shaft Pulley .....	1602B
Model of Motor Shaft Pulley .....	452B
Belt Number .....	BP74

Number of Reductions .....	1
Reduction Ratio .....	3.520 : 1

### ELECTRIC MOTOR

Type .....	Vertical, TEFC
Manufacturer .....	Hyundai or Eq.
Rated Power .....	3.7 kW
Full Load Speed .....	1740 RPM

AC Voltage .....	220/380/440V
Phase .....	3
Number of Pole .....	4

# COOLING TOWER SPECIFICATIONS SHEET

## LCP COUNTER FLOW TYPE

CONTRACTOR	Daeil Aqua Co., Ltd.	ITEM NO.	
MANUFACTURER	Daeil Aqua Co., Ltd.	PREPARED BY	

## DESIGN & OPERATING CONDITIONS

Model No. ....	LCP - 150CT x 4 CELLS	Relative Humidity .....	80%
Cooling Capacity .....	2340000 kal/hr	Evaporation Loss .....	0.72%
Water Flow Rate per Cell.....	468 m <sup>3</sup> /hr (7,800.0 LPM)	Drift Loss .....	0.002%
In / Out Let Water Temp. ....	37.0 / 32.0 °C	Number of Cell per Body.....	4
Dry / Wet Bulb Temp. ....	29.9 / 27.0 °C	Number of Body.....	1

## PHYSICAL DATA

Nominal Cell Length .....	2280	mm	Tower Inlet /Outlet Pipe Size .....	150A
Nominal Cell Width .....	2280	mm	Make-Up Size .....	40A
Overall Tower Length .....	9520	mm	Overflow .....	65A
Overall Tower Width .....	2420	mm	Drain .....	80A
Fan Deck Height .....	3415	mm		
Overall Tower Height .....	4115	mm		

## MATERIAL OF CONSTRUCTIONS

Frameworks .....	SS400 + HDG
Cold Water Basin .....	FRP
Casing .....	FRP
Fan Deck .....	FRP
Fan Cylinder .....	FRP
Fill Support .....	SS400 + HDG
Cold Water Basin Supports .....	SS400 + HDG
Mech. Equipment Base .....	SS400 + HDG
Fan Deck Access Ladder .....	SS400 + HDG

## MATERIAL OF COMPONENTS

Anti-Vortex Box .....	FRP
Fill .....	PVC
Water Spray Nozzle .....	ABS
Water Distribution Piping .....	PVC
Drift Eliminator .....	PVC
Fan Drive Shaft Pulley .....	FC200
Motor Shaft Pulley .....	FC200
Bolts/Nuts/Washers .....	STS 304
Anchor Bolt .....	SS400
Anchor Bolt to be Furnished by <input checked="" type="checkbox"/> Maker <input type="checkbox"/> Owner	

## MECHANICAL EQUIPMENT

### AXIAL FLOW FAN

Number of Fan per Cell .....	1	set
Type of Model .....	Axial Flow	
Manufacturer .....	Daeil Aqua Co., Ltd.	
Fan Diameter .....	1700	mm
Number of Fan Blades .....	6	ea
Fan Speed .....	469.6	RPM
Tip Speed .....	41.80	m/sec

Fan BHP .....	3.199 kW
Fan Total Efficiency .....	67.4%
Air Volume per Fan .....	949.9 CMM
Fan Blade Material .....	AL-Alloy
Fan Hub Material .....	AL-Alloy

### SPEED REDUCER

Type .....	V-Belt
Manufacturer .....	Daeil Aqua Co., Ltd.
Model of Fan Drive Shaft Pulley .....	1602B
Model of Motor Shaft Pulley .....	452B
Belt Number .....	BP74

Number of Reductions .....	1
Reduction Ratio .....	3.520 : 1

### ELECTRIC MOTOR

Type .....	Vertical, TEFC
Manufacturer .....	Hyundai or Eq.
Rated Power .....	3.7 kW
Full Load Speed .....	1740 RPM

AC Voltage .....	220/380/440V
Phase .....	3
Number of Pole .....	4

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## LCP COUNTER FLOW TYPE

CONTRACTOR	Daeil Aqua Co., Ltd.	ITEM NO.	
MANUFACTURER	Daeil Aqua Co., Ltd.	PREPARED BY	

## DESIGN & OPERATING CONDITIONS

Model No. ....	<b>LCP - 150CT x 5 CELLS</b>	Relative Humidity .....	<b>80%</b>
Cooling Capacity .....	<b>2925000</b> kcal/hr	Evaporation Loss .....	<b>0.72%</b>
Water Flow Rate per Cell.....	<b>585 m<sup>3</sup>/hr (9,750.0 LPM)</b>	Drift Loss .....	<b>0.002%</b>
In / Out Let Water Temp. ....	<b>37.0 / 32.0 °C</b>	Number of Cell per Body.....	<b>5</b>
Dry / Wet Bulb Temp. ....	<b>29.9 / 27.0 °C</b>	Number of Body.....	<b>1</b>

## PHYSICAL DATA

Nominal Cell Length .....	<b>2280</b>	mm	Tower Inlet /Outlet Pipe Size .....	<b>150A</b>
Nominal Cell Width .....	<b>2280</b>	mm	Make-Up Size .....	<b>40A</b>
Overall Tower Length .....	<b>11900</b>	mm	Overflow .....	<b>65A</b>
Overall Tower Width .....	<b>2420</b>	mm	Drain .....	<b>80A</b>
Fan Deck Height .....	<b>3415</b>	mm		
Overall Tower Height .....	<b>4115</b>	mm		

## MATERIAL OF CONSTRUCTIONS

Frameworks .....	<b>SS400 + HDG</b>
Cold Water Basin .....	<b>FRP</b>
Casing .....	<b>FRP</b>
Fan Deck .....	<b>FRP</b>
Fan Cylinder .....	<b>FRP</b>
Fill Support .....	<b>SS400 + HDG</b>
Cold Water Basin Supports .....	<b>SS400 + HDG</b>
Mech. Equipment Base .....	<b>SS400 + HDG</b>
Fan Deck Access Ladder .....	<b>SS400 + HDG</b>

## MATERIAL OF COMPONENTS

Anti-Vortex Box .....	<b>FRP</b>
Fill .....	<b>PVC</b>
Water Spray Nozzle .....	<b>ABS</b>
Water Distribution Piping .....	<b>PVC</b>
Drift Eliminator .....	<b>PVC</b>
Fan Drive Shaft Pulley .....	<b>FC200</b>
Motor Shaft Pulley .....	<b>FC200</b>
Bolts/Nuts/Washers .....	<b>STS 304</b>
Anchor Bolt .....	<b>SS400</b>
Anchor Bolt to be Furnished by <input checked="" type="checkbox"/> Maker <input type="checkbox"/> Owner	

## MECHANICAL EQUIPMENT

### AXIAL FLOW FAN

Number of Fan per Cell .....	<b>1</b>	set
Type of Model .....	<b>Axial Flow</b>	
Manufacturer .....	<b>Daeil Aqua Co., Ltd.</b>	
Fan Diameter .....	<b>1700</b>	mm
Number of Fan Blades .....	<b>6</b>	ea
Fan Speed .....	<b>469.6</b>	RPM
Tip Speed .....	<b>41.80</b>	m/sec

Fan BHP .....	<b>3.199</b> kW
Fan Total Efficiency .....	<b>67.4%</b>
Air Volume per Fan .....	<b>949.9</b> CMM
Fan Blade Material .....	<b>AL-Alloy</b>
Fan Hub Material .....	<b>AL-Alloy</b>

### SPEED REDUCER

Type .....	<b>V-Belt</b>
Manufacturer .....	<b>Daeil Aqua Co., Ltd.</b>
Model of Fan Drive Shaft Pulley .....	<b>1602B</b>
Model of Motor Shaft Pulley .....	<b>452B</b>
Belt Number .....	<b>BP74</b>

Number of Reductions .....	<b>1</b>
Reduction Ratio .....	<b>3.520 : 1</b>

### ELECTRIC MOTOR

Type .....	<b>Vertical, TEFC</b>	
Manufacturer .....	<b>Hyundai or Eq.</b>	
Rated Power .....	<b>3.7</b>	kW
Full Load Speed .....	<b>1740</b>	RPM

AC Voltage .....	<b>220/380/440V</b>
Phase .....	<b>3</b>
Number of Pole .....	<b>4</b>