APPLICATION NO.

Kingdom of Bahrain		مملكة البحرين
Electricity & Water Authority		هيئة الكهرباء والماء
Electricity & Water Conservation Directorate	Z. A.	إدارة ترشيد الكهرباء والماء

Clie	nt Name:		Phon	e No.:		e-mail:
Bldg	. No. Road No.		Bloc	k No.		Area:
Engi	neering Office Name:		Phor	ne No.:		e-mail:
Building Type:			No	of floors:		
•	Thermal Transmittance (U-	Value) for I 		r	R	
Sr.	_	Density	Thickness (I)	<u>m.k</u>	\mathbf{m}^2 .k	Notes
No.	used	kg/m³	m	W	w	11000
1-						
2-						
3-						
4-						
5-						
6-						
7-						
8- 9-						
9- 10-						
	Total thermal resistances for ma	<u>l</u> aterials used	in Roof (R_T) :			
U-	Value = W/m. ² °	C				
Clie	nt's Name In C	harge Engi	 neer	E	 Ingineering	g Office
& S	ignature Nan	ne & Signat	ture	Sta	amp & Sig	nature

Kingdom of Bahrain	مملكة البحرين
Electricity & Water Authority	هيئة الكهرباء والماء
Electricity & Water Conservation Directorate	إدارة ترشيد الكهرباء والماء

• Thermal Transmittance (U-Value) for Air-conditioned floors/ceilings exposed to non air-conditioned spaces

Sr. No.	Description of materials used	Density kg/m³	Thickness (I) m	r <u>m.k</u> w	R <u>m².k</u> w	Notes	
1-							
2-							
3-							
4-							
5-							
6-							
7-							
8-							
9-							
10-							
11-							
12-							
13-							
	Total thermal resistance for materials used in Wall (R _T):						

U-Value =	W/m. ² °C		
Client's Name & Signature		In Charge Engineer Name & Signature	Engineering Office Stamp & Signature
Electricity & Wat	er Authority A	 pproval	Date of Approval

Kingdom of Bahrain	مملكة البحرين
Electricity & Water Authority	هيئة الكهرباء والماء
Electricity & Water Conservation Directorate	إدارة ترشيد الكهرباء والماء

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• Thermal Transmittance (U-Value) for external Walls with Blocks

Sr. No.	Description of materials used	Density kg/m ³	Thickness (I) m	r <u>m.k</u> w	R <u>m².k</u> w	Notes
1-						
2-						
3-						
4-						
5-						
6-						
7-						
8-						
9-						
10-						
11-						
12-						
13-						
	Total thermal resistance for					

U-Value = W/m.² °C

Client's Name In Charge Engineer & Engineering Office & Signature Name & Signature Stamp & Signature

Electricity & Water Authority Approval

Date of Approval

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Kingdom of Bahrain	مملكة البحرين
Electricity & Water Authority	هيئة الكهرباء والماء
Electricity & Water Conservation Directorate	إدارة ترشيد الكهرياء والماء

• Thermal Transmittance (U-Value) for Concrete/ Shear Walls

Sr. No.	Description of materials used	Density kg/m ³	Thickness (I) m	r <u>m.k</u> w	R <u>m².k</u> w	Notes	
1-							
2-							
3-							
4-							
5-							
6-							
7-							
8-							
9-							
10-							
11-							
12-							
13-							
	Total thermal resistance for materials used in Wall (R _T):						

Total thermal resistance for materials used in Wall (R_T):

U-Value =	W/m. ² °C		
Client's Name & Signature		In Charge Engineer Name & Signature	Engineering Office Stamp & Signature
Electricity & Wat	er Authority A	pproval	Date of Approval

Kingdom of Bahrain		مملكة البحرين
Electricity & Water Authority		هيئة الكهرباء والماء
Electricity & Water Conservation Directorate	The second second	إدارة ترشيد الكهرباء والماء

• Thermal Transmittance (U-Value) for External Columns

Sr. No.	Description of materials used	Density kg/m ³	Thickness (I) m	r <u>m.k</u> w	R m².k w	Notes	
1-							
2-							
3-							
4-							
5-							
6-							
7-							
8-							
9-							
10-							
11-							
12-							
13-							
	Total thermal resistance for materials used in Wall (R _T):						

Total ther	mal resistance	for materials used in Wall (R_T) :	
U-Value =	W/m. ² °C		
Client's Name & Signature		In Charge Engineer Name & Signature	Engineering Office Stamp & Signature
Electricity & Wate	r Authority A	Approval	Date of Approval

Kingdom of Bahrain	Salar I	مملكة البحرين
Electricity & Water Authority		هيئة الكهرباء والماء
Electricity & Water Conservation Directorate		إدارة ترشيد الكهرباء والماء

• Thermal Transmittance (U-Value) for External Beams

Sr. No.	Description of materials used	Density kg/m ³	Thickness (I) m	r <u>m.k</u> w	R m².k w	Notes
1-						
2-						
3-						
4-						
5-						
6-						
7-						
8-						
9-						
10-						
11-						
12-						
13-						
	Total thermal resistance for	materials 1	used in Wall	$(\mathbf{R}_{\mathbf{T}})$:		

U-Value =	w/m. ² °C	
Client's Name & Signature	In Charge Engineer Name & Signature	Engineering Office Stamp & Signature
Electricity & Water Au	hority Approval	Date of Approval

Kingdom of Bahrain	مملكة البحرين
Electricity & Water Authority	هيئة الكهرباء والماء
Electricity & Water Conservation Directorate	إدارة ترشيد الكهرياء والماء

• Thermal Transmittance (U-Value) for Spandrel Area of Curtain Wall

Sr. No.	Description of materials used	Density kg/m ³	Thickness (I) m	r <u>m.k</u> w	R <u>m².k</u> w	Notes
1-						
2-						
3-						
4-						
5-						
6-						
7-						
8-						
9-						
10-						
11-						
12-						
13-						
T-	Total thermal resistance for	materials ı	used in Wall	(R _T):		

U-Value =	W/m.² °C	
Client's Name & Signature	In Charge Engineer Name & Signature	Engineering Office Stamp & Signature
Electricity & Water Au	ıthority Approval	Date of Approval

Kingdom of Bahrain		مملكة البحرين
Electricity & Water Authority		هيئة الكهرباء والماء
Electricity & Water Conservation Directorate	200	إدارة ترشيد الكهرياء والماء

• Thermal Transmittance (U-Value) for walls of light wells/shafts/voids

Sr. No.	Description of materials used in Walls	Density kg/m³	Thickness (I) m	r <u>m.k</u> w	R <u>m².k</u> w	Notes
1-						
2-						
3-						
4-						
5-						
6-						
7-						
8-						
9-						
10-						
11-						
12-						
13-						
	Total thermal resistance for	materials ı	used in Wall	$(\mathbf{R}_{\mathbf{T}})$:	_	

U-Value =	W/m. ² °C			
Client's Name & Signature		In Charge Engineer Name & Signature	_	ineering Office p & Signature
Electricity & Wat	er Authority A	pproval	 Dat	e of Approval

Kingdom of Bahrain	مملكة البحرين
Electricity & Water Authority	هيئة الكهرياء والماء
Electricity & Water Conservation Directorate	إدارة ترشيد الكهرباء والماء

•	Thermal	Transmittance	(<i>U-Value</i>)	for
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(specify the type of wall)

Sr. No.	Description of materials used in Exterior Walls	Density kg/m ³	Thickness (I) m	r <u>m.k</u> w	R m².k w	Notes
1-						
2-						
3-						
4-						
5-						
6-						
7-						
8-						
9-						
10-						
11-						
12-						
13-					_	
	Total thermal resistance for materials used in Wall (R _T):					

U-Value =	W/m. ² °C		
Client's Name & Signature	In charge E Name & Sig	_	Engineering Office Stamp & Signature
Electricity & Wate	er Authority Approval		Date of Approval

Kingdom of Bahrain	مملكة البحرين
Electricity & Water Authority	هيئة الكهرباء والماء
Electricity & Water Conservation Directorate	دارة ترشيد الكهرباء والماء

Glass Selection Details

Location	Windows & Doors	Curtain Wall	Sky Light	Total Glass Area (M²)	Total Surface Area (M²)	Glass %
Glass Area (M ²)						

	GLASS MAKE/DESCRIPTION/COATING SURFCE #		THICKNESS (mm)			SUMMER U-	SHADING	LIGHT
LOCATION	OUTER GLASS INNER	INNER GLASS	OUTER	AIR	INNER	VALUE	COEFFICI	TR
		INVER GENOS	GLASS	SPACE	GLASS	(W/M ^{2 O} C)	ENT (SC)	%
WINDOWS &								
DOORS								
CURTAIN								
WALLS								
SKY LIGHT								

I hereby state that all information in the attached tables and documents is correct and I confirm that I will comply with Thermal Insulation Order no. (8 /99) for the construction of this building.

Client's Name
In Charge Engineer
Engineering Office

& Signature

Name & Signature

Stamp & Signature

Electricity & Water Authority Approval

Date of Approval