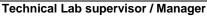
Issue No. 2	الشركة السعودية للفحص والاختبار	
Issue Date : 01/10/2020	SAUDI INSPECTION & TESTING CO. (SAITCO)	
Revision No. 2	ملحق7 - أ:ملاحق متطلبات العملية- نتائج الاختبارات مختبر الكهرباء	Saudi Inspection & Testing Co
Issue Date : 12/06/2023	Appendix 7-A: LAB process REQ. TEST RESULTS -ELECTRICAL LAB	الشركة السعودية للفحص والاختبار

Code of product in Lab :	C-138		unsgezult Jaäcsti Swidi Accreditation Testing N-T-0004 Testing N-T-0005 Testing N-T-0075	
LAB DATA		مختبر	بيانات ال	
Laboratory name	اسم المختبر	Saudi Inspection &	Testing Co.(SAITCO)	
Address	العنوان	1st Industrial Area, St. No.4,5,6,7-Riyadh		
Country	الدولة	Saudi	Arabia	
Client Data	l	لعميل	بيانات ا	
Sample Date in	تاريخ استلام العينة	14 / 06	6 / 2023	
Date or period of tests	تاريخ / فترة الاختبار	27 / 6 / 2023	04/ 07 /2023	
Date of report issue	تاريخ اصدار التقرير	04/ 07	7 /2023	
Laboratory test report number	رقم التقرير بالمختبر	E-23	30762	
Client Name	اسم العميل	Saudi cera	mics factory	
Client Address	عنوان العميل		1481, Kingdom of Saudi abia	
Client Reference No. / Date	مرجع العميل	14/06	6/2023	
No of received Samples	عدد العينات المستلمة	2		
Sample Dat		بيانات العينة		
Product description	وصف المنتج	Electric Storag	e Water Heater	
Brand name or trademark	العلامة التجارية	SAUDI C	ERAMICS	
Type or reference	النوع / المرجع	EWH-\	/15AS-S	
Country of Origin	بلد الصنع	Saudi	Arabia	
Manufacture Name	اسم المصنع	Saudi cera	mics factory	
Manufacture Address	عنوان المصنع	-	1481, Kingdom of Saudi abia	
Producto Cotosony	تصنيف المنتج	Water Heaters - E	nergy Performance	
Products Category	للشيف (لمنتج	Requirement	s and Labeling	
	· · · · · · · · · · · · ·	SASO 2884:2017 / EN	=	
Standard / TR No.	رقم المواصفة / اللائحة	50440	E-230762	
Test case verdicts			حالات الحكم على	
Conformity to articles tested		⊡Yes	□No	
Test case does not apply to the test	object	Not Applicable	N/A	
Test item does meet the requiremen	t	Pass	Р	
Test item does not meet the requirer	nent	Fail	F	
Technical Lab supervisor / Manager		-		







Paper			
F07-08-02 A	Page 1 of 8	Issued By: QGM	Approved By GM
SAITCO ,First Industrial City area ,Riya	dh Station area beside dry customs St.4,5,6,7 Building N	No.2433 , Riyadh 11427, PO 27711 , Tel : +966 11 204	3000,Fax +966 1 2042888, www saitco com.sa

Test Report No :	E-230762	Standard No:	SASO 2884	:2017
Clause	Requirem	ient -Test	Result - Remark	Verdict

4.1       Declaration of rated values       -       -       -         The declaration of the rated capacity shall be expressed only in terms of liters (I) according to the following rules       -       -       P         - rated capacity lower or equal to 14 liters as multiples of 5 liter       15L       P         - rated capacity from 15 liters as multiples of 50 W.       1.2kW (1200W)       P         The rated annual energy as a multiple of 5 kWh       550kWh       P         4.2.1       Ceneral       -       -         Minimum energy performance are based on the Water Heating Energy Efficiency       -       -         4.2.2       Declared load profile as described in Annex A       -       -         Declared load profile as described in Annex A       -       -       N/A         3XS shall not exceed 7 litres in capacity       -       N/A       N/A         XXS and XS shall not exceed 15 litres in capacity       -       N/A         Mixed Water at 40°C       65 Litres in capacity       -       N/A         Mixed Water at 40°C       65 Litres in capacity       -       N/A         AXS shall not exceed 15 litres in capacity       -       N/A       N/A         AMD       For storage water heaters with declared load profile       -       N/A         <	4	Criteria for app	olying the	Minim	าum E	Inerg	y Per	forma	ance	Stan	dard	(MEP	S)	
only in terms of liters (I) according to the following rules       -       -       P         - rated capacity lower or equal to 14 liters as multiples of 1 liter       -       N/A         - rated capacity from 15 liters as multiples of 5 liters       15L       P         The declaration of the rated power shall be expressed only in terms of watt (W) as multiples of 50 W.       1.2kW (1200W)       P         4.2.1       General       -       -         Minimum energy performance are based on the Water Heating Energy Efficiency       -       -         4.2.2       Declared load profile as described in Annex A       -       -         Declared load profiles of 3XS, XXS, XS and S       -       N/A         XXS and XS shall not exceed 7 litres in capacity       15L       P         S shall not exceed 7 litres in capacity       -       N/A         AMD       For storage water heaters with declared load profile       -         4       M_L_XL_XXL_3XL and 4XL, therequirements of mixed water At 40 °C shall be as illustrated in table below       -       -         Declared Load       M       L       XL       XXL       3XL       4XL         4.2.3       MinimumEnergy PerformanceStandard(MEPS) for WaterHeaters       -       -       -         4.40 °C shall be as illustrated in table below       -												`-	/	-
liter       Intervention       Inter							•					-		Р
The declaration of the rated power shall be expressed only in terms of watt (W) as multiples of 50 W.       1.2kW (1200W)       P         The rated annual energy as a multiple of 5 kWh       550kWh       P         4.2.1       General       -       -         Minimum energy performance are based on the Water Heating Energy Efficiency       -       -         4.2.1       General       -       -         Minimum energy performance are based on the Water Heating Energy Efficiency       -       -         4.2.2       DeclarationortheLoadProfile       -       -         Declared a load profile as described in Annex A       -       N/A         Declared load profile as described in capacity       -       N/A         XXS shall not exceed 3 litres in capacity       -       N/A         XXS shall not exceed 3 bitres in capacity       -       N/A         AMD       For storage water heaters with declared load profile       -       -         4       M.L., XL,XXL, 3XL and 4XL, therequirements of mixed water       -       -         42.3       MinimumEnergyPerformanceStandard(MEPS)forWaterHeaters       -       -         42.3       MinimumEnergyPerformanceStandard (MEPS) for Hot Water Storage Tanks       -         1.       Table 1 - MINIMUM ENERGY EFFICIENCY (ŋem) in %       P			lower or e	equal to	5 14 li	ters a	s mul	tiples	of 1			-		N/A
The declaration of the rated power shall be expressed only in terms of watt (W) as multiples of 50 W.       1.2kW (1200W)       P         The rated annual energy as a multiple of 5 kWh       550kWh       P         4.2.1       General       -       -         Minimum energy performance are based on the Water Heating Energy Efficiency       -       -         4.2.1       General       -       -         Minimum energy performance are based on the Water Heating Energy Efficiency       -       -         4.2.2       DeclarationortheLoadProfile       -       -         Declared a load profile as described in Annex A       -       N/A         Declared load profile as described in capacity       -       N/A         XXS shall not exceed 3 litres in capacity       -       N/A         XXS shall not exceed 3 bitres in capacity       -       N/A         AMD       For storage water heaters with declared load profile       -       -         4       M.L., XL,XXL, 3XL and 4XL, therequirements of mixed water       -       -         42.3       MinimumEnergyPerformanceStandard(MEPS)forWaterHeaters       -       -         42.3       MinimumEnergyPerformanceStandard (MEPS) for Hot Water Storage Tanks       -         1.       Table 1 - MINIMUM ENERGY EFFICIENCY (ŋem) in %       P		- rated capacity	from 15 lit	ers as	multi	ples c	of 5 lite	ers				15L		Р
The rated annual energy as a multiple of 5 kWh       550kWh       P         4.2.       DeterminingtheMinimumPerformance       -       -         4.2.1       General       -       -         Minimum energy performance are based on the Water       -       -       -         Heating Energy Efficiency       -       -       -       -         4.2.2       Declared a load profile as described in Annex A       -       N/A         Declared load profiles of 3XS, XXS, XS and S       -       N/A         3XS shall not exceed 7 litres in capacity       -       N/A         XXS and XS shall not exceed 15 litres in capacity       -       N/A         AMD       For storage water heaters with declared load profile       N/A         4       M_L XL, XXL, 3XL and 4XL, therequirements of mixed water       -       -         At 40 °C shall be as illustrated in table below       -       -       -         Declared Load       M       L       XL       XXL       3XL       4XL         MinimumEnergyPerformanceStandard(MEPS)forWaterHeaters       -       -       -         The water heater MEPS values are presented in Table       -       P       -         4.2.3       MinimumEnergyPerformanceStandard (MEPS) for Hot Water Storage Tanks		The declaration	of the rate	ed pow	er sh	all be			only		1.2kV	V (120	0W)	Р
4.2.1       General       -       -       -       -         Minimum energy performance are based on the Water Heating Energy Efficiency       -       -       P         4.2.2       DeclarationoftheLoadProfile       -       -       N/A         Declared load profile as described in Annex A       -       N/A         3XS shall not exceed 7 litres in capacity       -       N/A         XXS and XS shall not exceed 36 litres in capacity       -       N/A         AMD       For storage water heaters with declared load profile       -       N/A         At 40 °C shall be as illustrated in table below       -       -       -         Declared Load       M       L       XL       XXL       3XL       4XL         MinimumEnergyPerformanceStandard(MEPS)forWaterHeaters       -       -       -         The water heater MEPS values are presented in Table       -       P       P         4.2.3       Minimum Energy Performance Standard (MEPS) for Hot Water Storage Tanks       -       -         1.       -       -       -       P       P         4.2.3       Minimum energy Performance Standard (MEPS) for Hot Water Storage Tanks       -       P         1.       -       -       -       P       P<		The rated annua	al energy a	as a m	ultiple	e of 5	kWh				5	50kWł	า	Р
4.2.1       General       -       -       -       -         Minimum energy performance are based on the Water Heating Energy Efficiency       -       -       P         4.2.2       DeclarationoftheLoadProfile       -       -       N/A         Declared load profile as described in Annex A       -       N/A         3XS shall not exceed 7 litres in capacity       -       N/A         XXS and XS shall not exceed 36 litres in capacity       -       N/A         AMD       For storage water heaters with declared load profile       -       N/A         At 40 °C shall be as illustrated in table below       -       -       -         Declared Load       M       L       XL       XXL       3XL       4XL         MinimumEnergyPerformanceStandard(MEPS)forWaterHeaters       -       -       -         The water heater MEPS values are presented in Table       -       P       P         4.2.3       Minimum Energy Performance Standard (MEPS) for Hot Water Storage Tanks       -       -         1.       -       -       -       P       P         4.2.3       Minimum energy Performance Standard (MEPS) for Hot Water Storage Tanks       -       P         1.       -       -       -       P       P<	42	Determiningthe	Minimum	Perfor	mano	:e								
Minimum energy performance are based on the Water Heating Energy Efficiency       -       P         4.2.2       DeclarationoftheLoadProfile       -       -         Declared load profiles of 3XS, XXS, XS and S       -       N/A         Declared load profiles of 3XS, XXS, XS and S       -       N/A         3XS shall not exceed 7 litres in capacity       -       N/A         XXS and XS shall not exceed 15 litres in capacity       -       N/A         AMD For storage water heaters with declared load profile       -       N/A         4       M_LX_L,XXL,3XL and 4XL, therequirements of mixed water At 40 °C shall be as illustrated in table below       -       -         Declared Load Profile       M       L       XL       XXL       3XL       4XL       N/A         4.2.3       MinimumEnergyPerformanceStandard(MEPS)forWaterHeaters       -       -       P       -         1.       Table 1 - MINIMUM ENERGY EFFICIENCY (ŋ_wh) in %       P       P       -       P         4.2.4       Minimum energy performance Standard (MEPS) for Hot Water Storage Tanks       -       -       N/A         4.2.4       Minimum energy performance standard (MEPS) for Hot Water Storage Tanks       -       N/A         4.2.3       Minimum energy performance standard (MEPS) for Hot Water Storage Tanks								_						
Heating Energy Efficiency       -       N/A         Declared load profile as described in Annex A       -       -       N/A       -       N/A         3XS shall not exceed 7 litres in capacity       -       -       N/A       -       N/A         XXS and XS shall not exceed 36 litres in capacity       -       N/A       -       N/A         AMD       For storage water heaters with declared load profile       -       N/A       -       N/A         4 40 °C shall be as illustrated in table below       - <t< td=""><td></td><td></td><td>performa</td><td>nce are</td><td>e base</td><td>ed on</td><td>the W</td><td>/ater</td><td></td><td></td><td></td><td></td><td></td><td>_</td></t<>			performa	nce are	e base	ed on	the W	/ater						_
4.2.2       DeclarationoftheLoadProfile       -       -       -       -       N/A         Declared a load profile as described in Annex A       -       N/A       N/A         3XS shall not exceed 7 litres in capacity       -       N/A         XXS and XS shall not exceed 75 litres in capacity       15L       P         S shall not exceed 36 litres in capacity       -       N/A         AMD       For storage water heaters with declared load profile       N/A         4       M,X,XL,XL,3XL and 4XL, therequirements of mixed water At 40 °C shall be as illustrated in table below       -       -         Declared Load       M       L       XL       XXL       3XL       4XL         Mixed Water at 40 °C       65 L       130 L       210 L       300 L       520 L       1040 L         4.2.3       MinimumEnergyPerformanceStandard(MEPS)forWaterHeaters       -       -       P         1.       -       -       -       P       -       -         4.2.3       MinimumEnergyPerformanceStandard (MEPS) for Water Heaters       -       -       P         1.       -       -       -       -       -       -         4.2.4       MinimumEnergyPerformance Standard (MEPS) for Hot Water Storage Tanks       -												-		Р
Declared a load profile as described in Annex A       -       N/A         Declared load profiles of 3XS, XXS, XS and S       -       N/A         3XS shall not exceed 7 litres in capacity       -       N/A         XXS and XS shall not exceed 15 litres in capacity       -       N/A         AMD       For storage water heaters with declared load profile       -       N/A         4       ML,XL,XXL,3XL and 4XL, therequirements of mixed water At 40 °C shall be as illustrated in table below       -       -       -         Declared Load       M       L       XL       XXL       3XL       4XL       N/A         Mixed Water at 40 °C       65 L       130 L       210 L       300 L       520 L       1040 L       4       -       P         1.       Table 1 - MINIMUM ENERGY EFFICIENCY (ŋwh) in %       P       P       -       P       P         1.       Table 1 - MINIMUM ENERGY EFFICIENCY (ŋwh) in %       P       P       -       P       P       -       N/A       0%       -       N/A       N/A       0%       -       N/A       N/A       N/A       N/A       N/A       -       -       -       -       -       -       -       -       -       -       -       -       - <td>4.2.2</td> <td></td> <td></td> <td>file</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>-</td>	4.2.2			file								-		-
Declared load profiles of 3XS, XXS, XS and S       -       N/A         3XS shall not exceed 7 litres in capacity       -       N/A         XXS and XS shall not exceed 15 litres in capacity       -       N/A         AXD       S shall not exceed 36 litres in capacity       -       N/A         AMD       For storage water heaters with declared load profile       -       N/A         4       M,L,XL,XXL,3XL and 4XL, therequirements of mixed water At 40 °C shall be as illustrated in table below       -       -       -         Declared Load       M       L       XL       XXL       3XL       4XL       N/A         Mixed Water at 40 °C 65 L       130 L       210 L       300 L       520 L       1040 L       -       -         The water heater MEPS values are presented in Table 1.       -       -       -       P         Mixed Water at 40 °C 65 L       130 L       210 L       300 L       520 L       1040 L       42.3         MinimumEnergyPerformanceStandard(MEPS)forWaterHeaters       -       -       P       -       -         1.       Table 1 - MINIMUM ENERGY EFFICIENCY (ŋwh) in %       -       -       P       -       -         4.2.4       Minimum Energy Performance Standard (MEPS) fo					bed in	Anne	x A					-		N/A
3XS shall not exceed 7 litres in capacity       -       N/A         XXS and XS shall not exceed 15 litres in capacity       15L       P         S shall not exceed 36 litres in capacity       -       N/A         AMD       For storage water heaters with declared load profile       -       N/A         AMD       For storage water heaters with declared load profile       -       N/A         At 40 °C shall be as illustrated in table below       -       -       -         Declared Load       M       L       XL       XXL       3XL       4XL         Mixed Water at 40 °C       65 L       130 L       210 L       300 L       520 L       1040 L       -         4.2.3       MinimumEnergyPerformanceStandard(MEPS)forWaterHeaters       -       -       -       -         The water heater MEPS values are presented in Table       -       P       -       P       -         4.2.4       Minimum Energy Performance Standard (MEPS) for Hot Water Storage Tanks       -       -       nwh84.1       0%         4.2.4       Minimum Energy Performance Standard (MEPS) requirements for hot water storage tanks with capacities higher or equal to 25 liters are based on the daily thermal losses QPR.       -       N/A         Minimu sofor QPR are expressed in table 2, rounded t												-		
XXS and XS shall not exceed 15 litres in capacity       15L       P         S shall not exceed 36 litres in capacity       -       N/A         AMD       For storage water heaters with declared load profile       N/A       N/A         AMD       For storage water heaters with declared load profile       N/A       N/A         M       L       XL       XXL       3XL       4XL       N/A         Declared Load       M       L       XL       XXL       3XL       4XL       N/A         Mixed Water at 40 °C       65 L       130 L       210 L       300 L       520 L       1040 L       N/A         4.2.3 MinimumEnergyPerformanceStandard(MEPS)forWaterHeaters       -       -         The water heater MEPS values are presented in Table       -       -         Table 1 – MINIMUM ENERGY EFFICIENCY (ŋwh) in %         Declared load profile       3XS       2XS       XS       M       L       XL       2XL       3XL       4XL         M       L       XL       XL       ZXL       3XL       4XL         Mixed Water heater MEPS values are presented in Table       Mixed Mater							-					-		
S shall not exceed 36 litres in capacity       -       N/A         AMD       For storage water heaters with declared load profile       -       N/A         AMD       For storage water heaters with declared load profile       -       -       -         At 40 °C shall be as illustrated in table below       -       -       -       -         Declared Load       M       L       XL       XXL       3XL       4XL       N/A         Mixed Water at 40 °C       65 L       130 L       210 L       300 L       520 L       1040 L       -       -         4.2.3       MinimumEnergyPerformanceStandard(MEPS)forWaterHeaters       - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>bacity</td> <td></td> <td></td> <td></td> <td></td> <td>15L</td> <td></td> <td></td>							bacity					15L		
AMD       For storage water heaters with declared load profile       Image: Storage water heater water at 40 °C       Image: Storage water a						<u>in oar</u>	Juony					-		
4       M,L,XL,XXL,3XL and 4XL, therequirements of mixed water At 40 °C shall be as illustrated in table below       -	AMD					d load	d profi	le						
At 40 °C shall be as illustrated in table below       NA       NA       XL       XXL       3XL       4XL       N/A         Declared Load Profile       M       L       XL       XXL       3XL       4XL       N/A         Mixed Water at 40 °C       65 L       130 L       210 L       300 L       520 L       1040 L       1040 L       4XL       N/A         4.2.3       MinimumEnergyPerformanceStandard(MEPS)forWaterHeaters       Intervention (MEPS)forWaterHeaterS       P       <		J					•		ater			-		-
ProfileMLXLXXL3XL4XLN/AMixed Water at 40 °C65 L130 L210 L300 L520 L1040 L1040 L4.2.3MinimumEnergyPerformanceStandard(MEPS)forWaterHeatersFilePPThe water heater MEPS values are presented in TableTable 1 - MINIMUM ENERGY EFFICIENCY (ŋwh) in %PDeclared load profile3XS2XSXSN/ALXL2XL3XL4XLWater heaters energy efficiency (with or without smart controls)53556363737379797979794.2.4Minimum Energy Performance Standard (MEPS) requirements for hot water storage tanks with capacities higher or equal to 25 liters are based on the daily thermal losses QPRN/AThe limit values for QPR are expressed in table 2, rounded to 2 decimal placesN/A4.2.5Test VoltageAMDThe products shall be tested at 230V for single-phase, andApplied 230VP														
4.2.3       MinimumEnergyPerformanceStandard(MEPS)forWaterHeaters       P         The water heater MEPS values are presented in Table       P         1.       Table 1 – MINIMUM ENERGY EFFICIENCY (ŋwh) in %       Measured nwh84.1         Declared load profile       3XS       2XS       XS       S       M       L       XL       2XL       3XL       4XL         Water heaters energy efficiency (with or without smart controls)       53       55       63       63       73       73       79 <td></td> <td></td> <td>М</td> <td>L</td> <td>&gt;</td> <td>٢L</td> <td>XX</td> <td>٢L</td> <td></td> <td>3XL</td> <td></td> <td>42</td> <td>XL</td> <td>N/A</td>			М	L	>	٢L	XX	٢L		3XL		42	XL	N/A
The water heater MEPS values are presented in Table       P         Table 1 – MINIMUM ENERGY EFFICIENCY (ŋwh) in %         Declared load profile       3XS       2XS       XS       S       M       L       XL       2XL       3XL       4XL         Water heaters energy efficiency (with or without smart controls)       53       55       63       63       73       73       79       7	Mixed	d Water at 40 °C	65 L	130 L	_ 21	0 L	30	) L		520 L	-	104	40 L	
1.       Table 1 - MINIMUM ENERGY EFFICIENCY (ŋwh) in %       Measured not without smart controls)         Declared load profile       3XS       2XS       XS       S       M       L       XL       2XL       3XL       4XL         Water heaters energy efficiency (with or without smart controls)       53       55       63       63       73       73       79 <t< td=""><td>4.2.3</td><td>MinimumEnerg</td><td>yPerforma</td><td>anceS</td><td>tanda</td><td>ard(M</td><td>EPS)f</td><td>forWa</td><td>terH</td><td>eater</td><td>′S</td><td></td><td></td><td>-</td></t<>	4.2.3	MinimumEnerg	yPerforma	anceS	tanda	ard(M	EPS)f	forWa	terH	eater	′S			-
Declared load profile       3XS       2XS       XS       S       M       L       XL       2XL       3XL       4XL       4XL       1       1       XL       2XL       3XL       4XL       1			r MEPS va	lues a	re pre	esente	ed in T	able			-			Р
Declared load profile       3XS       2XS       XS       S       M       L       XL       2XL       3XL       4XL       4XL       Water       MR       L       XL       2XL       3XL       4XL       MR       L       XL       2XL       3XL       4XL       MR       L       XL       2XL       3XL       4XL       ML       ML       ML       XL       2XL       3XL       4XL       ML       ML       ML       ML       XL       2XL       3XL       4XL       ML       ML </td <td></td> <td></td> <td>Table 1 -</td> <td>- MINIM</td> <td></td> <td>IERGY</td> <td>EFFIC</td> <td>IENCY</td> <td>໌ (<b>ຖ</b>wh)</td> <td>in %</td> <td></td> <td></td> <td></td> <td>Management</td>			Table 1 -	- MINIM		IERGY	EFFIC	IENCY	໌ ( <b>ຖ</b> wh)	in %				Management
Water heaters energy efficiency (with or without smart controls)       53       55       63       63       73       73       79		Declared load	profile	3XS	2XS	XS	S	М	L	XL	2XL	3XL	4XL	
Minimum energy performance standard (MEPS) requirements for hot water storage tanks with capacities higher or equal to 25 liters are based on the daily thermal losses QPR.       -       N/A         The limit values for QPR are expressed in table 2, rounded to 2 decimal places.       -       N/A         4.2.5       Test Voltage       -       -         AMD       The products shall be tested at 230V for single-phase, and       Applied 230V       P				53	55	63	63	73	73	79	79	79	79	•
requirements for hot water storage tanks with capacities higher or equal to 25 liters are based on the daily thermal losses QPR.       -       N/A         The limit values for QPR are expressed in table 2, rounded to 2 decimal places.       -       N/A         4.2.5       Test Voltage       -       -         AMD       The products shall be tested at 230V for single-phase, and       Applied 230V       P	4.2.4	Minimum Energ	y Perforn	nance	Stan	dard		S) for	Hot	Wate	er Sto	orage	Tanks	-
higher or equal to 25 liters are based on the daily thermal losses QPR.       IN/A         The limit values for QPR are expressed in table 2, rounded to 2 decimal places.       -       N/A         4.2.5       Test Voltage       -       -         AMD       The products shall be tested at 230V for single-phase, and       Applied 230V       P														
Aligner of equal to 25 litters are based on the daily thermal losses QPR.       Image: Comparison of the daily thermal losses QPR.         The limit values for QPR are expressed in table 2, rounded to 2 decimal places.       -       N/A         4.2.5       Test Voltage       -       -         AMD       The products shall be tested at 230V for single-phase, and       Applied 230V       P												_		Ν/Δ
The limit values for QPR are expressed in table 2, rounded to 2 decimal placesN/A4.2.5Test VoltageAMDThe products shall be tested at 230V for single-phase, and Applied 230VApplied 230VP														
4.2.5       Test Voltage       -       -         AMD       The products shall be tested at 230V for single-phase, and       Applied 230V       P		The limit values		re expi	resse	d in ta	ble 2,	roun	ded			-		N/A
AMD The products shall be tested at 230V for single-phase, and Applied 230V P	405		es.											
			oll bo 44-		201/1			000	0 m al			-		-
	AMD 4	-			3UV 10	orsing	jie-ph	ase, a	and		Appli	ied 23	0V	Р

no.				
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4.3	Acceptance Criteria for Labelling and Market Surveillance						
	The energy label shall be accepted as valid when a sample unit(s) tested meets the following criteria:						
	TABLE: Acceptance (	Criteria for Labellin	g and Marke	t Surveillance		-	
	Measured Point	Acceptance Criteria	Rated	Limit	Measured Value	Verdict	
	a.)Tested Power (W)	≥ 0.90 x rated power	100014/	1080W	112014/	Р	
	b) Tested Power (W)	≤1.05 x rated power	1200W	1260W	1120W	Р	
	c) Tested thermal losses (QPR)	≤ 1.05 rated QPR, rated	-	-	-	N/A	
	d) Tested Standing loss power (S)	≤ 1.05 rated S	-	-	-	N/A	
AMD 3	e.) Capacity (L)	≥0.95 x rated Capacity	15L	≥14.25L	15L	Р	
	f.) Mixed quantity of water (V <sub>40</sub> )	≥0.97 x rated V <sub>40</sub>	-	-	-	N/A	
	g.) Tested Energy (any type)	≤1.05 x rated annual energy	550kWh	≤577.5	558kWh	Р	
	h) Tested Collector Aperture (m2)	≥ 0.98 x rated value	-	-	-	N/A	
	i) Tested Standby Power Psol;stby	≤1.03 rated Psol;stby	-	-	-	N/A	
	j) Tested Pump power consumption Psol;pump	≤1.03 rated Psol;pump	-	-	-	N/A	
	Qelec	-	2.573kWh	-	2.62kWh	-	

6	Marking and instructions		
6.1	General information	-	-
	The following information <b>shall bemarked on the</b> <b>nameplate</b> of the water-heater in English or Arabic and English	English	Ρ
	The marking shall not be on a detachable part of the unit and shall be indelible, durable and easily legible	Durable	Р
	Any information related to <b>energy performance</b> added on any part of the water heater unit or packaging shall not have any ambiguity or lead to misunderstanding of the performance of the unit	-	Ρ
6.2	Nameplate information	-	-
	The nameplate information <b>shall include</b> , for conformity to this standard the following information:	-	-
	<ul> <li>Manufacturer's name and/or trademark</li> </ul>	SAUDI CERAMICS	Р
	Country of origin	Saudi Arabia	Р
	<ul> <li>Manufacturer's model or type reference and serial number of the unit</li> </ul>	EWH-V15AS-S	Р
	Rated voltage or rated voltage range in volts (V)	220-240V	Р
	Rated frequency in hertz (Hz)	50/60Hz	Р
	<ul> <li>Rated power input in Watt (W) or kiloWatts (kW)</li> </ul>	1200W	Р
	Rated Capacity	15L	Р

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	<ul> <li>Annual standby losses (kWh/year) or daily</li> </ul>	_	N/A
	standby losses (kWh/24h), when applicable		1 1/7 (
6.3	Instruction sheet	-	-
	An instruction sheet or manual in both Arabic and English shall be delivered with each water heater	Arabic and English	Ρ
	Tables, drawings and circuit diagrams may be depicted in English only	See instruction manual	Ρ
	The instruction sheet or manual shall include the following information as a minimum:	-	-
	a) Supplier's name or trade mark	SAUDI CERAMICS	Р
	b) Supplier's model number	EWH-V15AS-S	P
	c) Declared load profile	XXS	P
	d) Energy Efficiency Class of the model	E	P
	e) Water heating energy efficiency in %	85.2%	P
	<ul> <li>f) Annual electricity consumption in kWh under average climatic condition for Saudi Arabia</li> </ul>	550kWh	P
	<ul> <li>g) If applicable, other load profiles for which the water heater is suitable to use and the corresponding water heating energy efficiency and annual electricity consumption as set out in points (e) and (f)</li> </ul>	-	N/A
	h) Thermostat temperature setting	50°C	Р
	<ul> <li>i) specific precautions that shall be taken when the water heater is assembled, installed or maintained</li> </ul>	See instruction manual	P
	j) Where Smart Control Compliance is declared as being enabled	-	N/A
	<ul> <li>k) annual electricity consumption in kWh (or mass of butane equivalent when applicable)</li> </ul>	-	N/A
	<sup>1)</sup> ) Collector aperture area in m <sup>2</sup>	-	N/A
	m) zero-loss efficiency	-	N/A
	n) First-order coefficient (W/( $m^2$ . $K^2$ )	-	N/A
	o) Second-order coefficient ( $W/(m^2, K^2)$	-	N/A
	p) Incidence angle modifier (I <sub>am</sub> )	-	N/A
	q) Storage Capacity in Liters	15L	P
	r) pump power consumption in W	-	N/A
	s) standby power consumption in W,	-	N/A
	t) Annual non-solar heat contribution Q <sub>nonsol</sub> in KWh	-	N/A
	u) Annual auxiliary electricity consumption Q <sub>aux</sub>		1 1/7 1
	In addition, for solar water heaters, the instruction sheet or manual shall include the following:	Electric storage water heater	-
	• The information specified in clause 6.2 and Table 6	-	N/A
	Dimensions of the unit	_	N/A
	Instruction for mounting and connection to the pipes		N/A
	<ul> <li>Instruction for connection to the electrical installation</li> </ul>		N/A
	• Instructions necessary for the correct operation of the unit and any special precautions to be observed to	-	N/A
	ensure its safe use and maintenance		N1/A
	Instruction for packing and unpacking the unit	-	N/A
	Instructions on unit handling and rigging	-	N/A
	Net weight of the unit (empty)	-	N/A

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ANNEX C	Calculation of the Energy Efficiency								
C.3	Calculation of the Energy Efficiency Coefficient ŋwh								
C3.1	Conventional Water Heaters and HeatPump Water Heaters								
	Qref	<b>Q</b> <sub>ref</sub>	<b>Q</b> <sub>fuel</sub>	CC	Q <sub>elec</sub>	SCF. <sub>smart</sub>	<b>Q</b> <sub>cor</sub>		
$\eta_{WH} = \frac{Q_{ref}}{(Q_{fuel} + CC.Q_{elec})(1 - SCF.smart) + Q_{cor}}$		2.10	0	1.00	2.62	0	-0.12		
(& Juei	Concellection Don Sintary + 4cor	ղ <i>wh =84.10%</i>							

C.5	Determination of the Ambient Co						
(a) for conventional water heaters using electricity:		Q <sub>elec</sub>	<b>Q</b> <sub>fuel</sub>	<b>Q</b> <sub>ref</sub>	SCF <sub>.</sub> smart	СС	k
$Q_{cor} = -k . (CC. (Q_{elec}. (1 - SCF. smart) - Q_{ref}))$		2.62	0	2.10	0	1.00	0.23
$Q_{cor} = -\kappa$ .	$(cc.(Q_{elec}.(1-5cr.smart)-Q_{ref}))$	Q <sub>cor</sub> =-0.12					
Where the k values are given in Table C1 for each load profile			2)	KS	-		

C.6 Determination of the mixed qua	ntity of water V40			
$V_{40} = V_{40;exp} \times \frac{(\theta_p - 15)}{(40 - 15)}$	The normalized value of the av temperature	$^{erage}  heta_p$	-	
(40 – 15)	Corresponds to the quantity of delivered at least 40°C during test.	water $V_{40;exp}$	-	
	V <sub>40</sub> =-			

ANNEX D	Calculation of the Annual Energy C	onsumption				
D.1	Principle for Calculation of the Ann Consumption (AECWH)			-	-	
		oray officiana				
	The annual energy is based on the er ratio <b>AEC</b> <sub>WH</sub> used for Classification ar			FFC		Р
			е	220	3kWh/y	Р
	energy Qrefused to characterize the water heaters.					
D.2	Weather Data for Saudi Arabia				-	-
	the following data are applied, in addi			-		_
	data used for test of the water heaters	s and water		Se	e table	P
	storage tanks (tables D1 and D2)					
D.3	Calculation and Presentation of the	Calculation and Presentation of the Annual Energy Consumption (AEC <sub>WH</sub> )				
D.3.1	<b>ForConventionalWaterHeaters</b>					-
		<b>Q</b> <sub>ref</sub>			ղ <b>wh;<sub>KSA</sub></b>	-
A	AEC <sub>WH</sub> = 220 x Q <sub>ref</sub> /η wh; <sub>KSA</sub>	2.10	0		82.81%	
		A	EC <sub>WH</sub> =	558kW	h/y	-
	1	ղ <i>Wh</i>	<b>ઝ</b> <sub>am</sub>	b:test	<b>∂</b> <sub>amb:KSA</sub>	-
$\eta_{WH;KSA} =$	$(1 - \eta_{uu})$ $(65 - \vartheta_{amb}, tast)$	84.10%	20	°C	24°C	-
	$1 + \left(\frac{1}{\eta_{WH}}\right) \times \left(\frac{1}{65 - \vartheta_{amb;KSA}}\right)$ $\eta W$		ղ <b>wh;<sub>KS</sub>,</b>	vh; <sub>KSA</sub> =82.81%		-
	Ambient temperature for test: $\vartheta_{amb:test}=2$	0 °C	-		-	-
	Ambient temperature for label: $\vartheta_{amb:KSA}$ =				-	-

Remarks:

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Photo No. 1 (Marking)





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Report No :			andard No	):	SASO	2884:2	017	
Clause		Requirement -Test		R	esult - Rema	ark	Verdict	
Photo no.3 (Energ Salt Saudi Inspection & بوية للفحص و الاختبار	CO د Testing Co الشركة السع		/ater H		Reference <b>est Data:</b>	E230762	2EFFS5R	00
Applicable S	itandard(s)		\$/	ASO-2884:2	017, BS EN 5	0440-2015		
Manufacture	r Country	of Origin	Мо	del	Туре	:	Sub T	ype
SAUDI CERAMI	CS SAUDI A	ARABIA	EWH-V15AS-S		Electr	ic	Stora	ige
Test Start Dat	e Testing S	top Date	Load F	rofile	Rated Po	ower	Actual Power	
6/28/2023	6/29/	2023	2)	s	W 1200	)	W 1120	
Actual Capaci	ty Rated C	anacitu	T3	TE	Ambie	nt C	mart	SCF
			15 °C	 ℃	Annoie °C	in 51	nart	SUF
Litres 15.00	Litr 15.		53.99	47.44	21.65	5	0	1
Q <sub>testelec</sub>	Q,	ef	Q	20	Q <sub>elec</sub>		Q	or .
kWh	kW		kV		kWh		kW	
2.57	2.1	10	2.1	15	2.62		-0.1	.2
Ver	. 0		n ·		n .		MEPS M	IN n ·
V <sub>full-drawing wate</sub> Litres	er Coeffi		n <sub>ele</sub> 9		<u>ղ<sub>wh</sub></u> %		%	
62.28	1.0		80.		84.10		55.0	
02.20	1.0		60.	20	04.10	,	55.0	
η <sub>wh;KSA</sub>	Rated	AEC	Actua	AEC	Actual A	EC <sub>WH</sub> E	fficienc	y Class
%	kW	h/y	kW	h/y	kWh/	ý	0	
82.81	55		548				C	

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			Table 3 – I	ENERGY EFFI	CIENCY CLA	SSIFICATION	as per DECL	ARED LOAD	PROFILE			
		Energ	y Efficiency	in %					84	.10		
	_		LOAD PROFILE									
Bar Color	Energy	Class	3XS	2XS	XS	s	м	L	XL	2XL	3XL	4XL
Dark Green	Î	А	95	100	105	105	210	300	300	300	300	300
Green	ب	В	87	89	97	97	140	160	160	160	160	180
ight Green	5	с	77	79	87	87	93	95	98	110	110	110
'ellow	د	D	69	71	79	79	87	87	92	93	93	93
Drange	ه	E	61	63	71	71	80	80	86	86	86	86
Red	و	F	53	55	63	63	73	73	79	79	79	79
Dark Red	;	G	45	47	55	55	65	65	71	71	71	71
nufacturer's mai	nual (product	technical da	ta sheet) 🗖 (	C-Customer re	quirements .							
nufacturer's man rule of acceptanc rule of rejection i	nual (product e is based on is based on: T	t technical da : The measur he measured	ta sheet) 🔲 ed value fulfil value does no	C-Customer re ls the requiren ot achieve the	equirements . nent accordin required acco	☐ ☑ g to the accep rding to the a	tance criterio	n, taking into	account the u	ncertainty val	ue in the meas	surement
nufacturer's man rule of acceptanc rule of rejection i he sample passed he sample passed	nual (product e is based on: is based on: T d all the abov ed all the tes	t technical da : The measured he measured e-mentioned its mentione	ta sheet) 🔲 ed value fulfil value does no tests in accord d above in ac	C-Customer re Is the requiren ot achieve the dance with the ccordance with	equirements . nent accordin required acco e requirement h the require	☐ ☑ g to the accep rrding to the a ts of the produ	tance criterio cceptance crit	n, taking into erion, taking i	account the u nto account t	ncertainty val	ue in the meas	surement
inufacturer's man rule of acceptanc rule of rejection i he sample passed he sample passe rements of the p esult is for the sa	nual (product e is based on: is based on: T d all the abov ed all the tes roduct menti imple referre	t technical da : The measure he measurec e-mentioned sts mentione soned in the a	ta sheet) ed value fulfil value does no tests in accorr d above in ac uttached stand	C-Customer re Is the requiren ot achieve the dance with the ccordance with lard specificati s been tested	equirements . nent accordin required acco e requirement h the require ions. only and is on	g to the accep rding to the accep rding to the a ts of the produ ments for the	tance criterio cceptance crit ct 2 product, exc	n, taking into erion, taking i rept for the	account the u nto account the u 	ncertainty val he uncertainty here the mea	ue in the meas value in the r sured value o	surement
nufacturer's man rule of acceptanc rule of rejection i he sample passed he sample passe rements of the p esult is for the sa editation statues	nual (product e is based on: is based on: T d all the abov ed all the tes roduct menti imple referre	t technical da : The measure he measurec e-mentioned sts mentione soned in the a	ta sheet) ed value fulfil value does no tests in accorr d above in ac uttached stand	C-Customer re Is the requiren ot achieve the dance with the ccordance with lard specificati s been tested	equirements . nent accordin required acco e requirement h the require ions.	g to the accep rding to the accep rding to the a ts of the produ ments for the	tance criterio cceptance crit ct 2 product, exc	n, taking into erion, taking i rept for the	account the u nto account the u 	ncertainty val	ue in the meas value in the r sured value o	surement
nufacturer's man ule of acceptanc ule of rejection i ne sample passed ne sample passe rements of the p esult is for the sa ditation statues NRK :	nual (product e is based on is based on: T d all the abov ed all the tes roduct menti imple referre :	t technical da The measured e-mentioned ts mentioned ioned in the a d to in the re	ta sheet) 🗌 ( ed value fulfil value does no tests in accorr d above in ac uttached stand port, which ha	C-Customer re ls the requiren ot achieve the dance with the coordance with lard specificati s been tested All tests ar	equirements . nent accordin required acco e requirement h the require ions. only and is on e accredit : [	g to the accep rding to the accep rding to the ar ts of the produ ments for the ly representat	tance criterio cceptance crit ct 2 product, exc	n, taking into erion, taking i rept for the	account the u nto account the u 	ncertainty val he uncertainty here the mea	ue in the meas value in the r sured value o	surement
nufacturer's man ule of acceptanc ule of rejection i ne sample passed ne sample passe rements of the p esult is for the sa ditation statues NRK :	nual (product e is based on is based on: T d all the abov ed all the tes roduct menti imple referre :	t technical da The measured e-mentioned ts mentioned ioned in the a d to in the re	ta sheet) 🗌 ( ed value fulfil value does no tests in accorr d above in ac uttached stand port, which ha	C-Customer re ls the requiren ot achieve the dance with the coordance with lard specificati s been tested All tests ar	equirements . ment accordin required acco e requirement h the require ions. only and is on e accredit :	g to the accep rding to the accep rding to the ar ts of the produ ments for the ly representat	tance criterio cceptance crit cct 2 product, exc ive of itself.	n, taking into erion, taking i rept for the	account the u nto account the test w	ncertainty val he uncertainty here the mea	ue in the meas value in the r sured value o	surement neasureme
nufacturer's man ule of acceptanc ule of rejection i ne sample passed rements of the p result is for the sa ditation statues NRK : COPY OF THE C	nual (product e is based on is based on: T d all the abov ed all the tes roduct menti imple referre :	t technical da The measured e-mentioned ts mentioned ioned in the a d to in the re	ta sheet) 🗌 ( ed value fulfil value does no tests in accorr d above in ac attached stand port, which ha	C-Customer re Is the requiren ot achieve the dance with the coordance with lard specificati s been tested of All tests ar ED BY THE LAI Inspecter	equirements . ment accordin required acco e requirement h the require ions. only and is on e accredit :	g to the accep rding to the accep rding to the ar ts of the produ ments for the ly representat	tance criterio cceptance crit cct 2 product, exc ive of itself.	n, taking into erion, taking i cept for the	account the u nto account the 	ncertainty val he uncertainty here the mea	ue in the meas value in the r sured value c	surement neasureme
	nual (product e is based on is based on: T d all the abov ed all the tes roduct menti imple referre : ONTROL TES	t technical da The measured e-mentioned ts mentioned ioned in the a d to in the re	ta sheet) 🗌 ( ed value fulfil value does no tests in accorr d above in ac attached stand port, which ha	C-Customer re ls the requiren ot achieve the dance with the coordance with lard specificati s been tested of All tests ar ED BY THE LA	equirements . ment accordin required acco e requirement h the require ions. only and is on e accredit :	g to the accep rding to the accep rding to the ar ts of the produ ments for the ly representat	tance criterio cceptance crit cct 2 product, exc ive of itself.	n, taking into erion, taking i cept for the	account the u nto account the 	ncertainty val he uncertainty here the mea	ue in the meas value in the r sured value c	surement neasureme



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