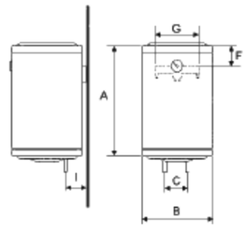
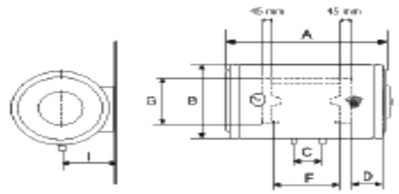
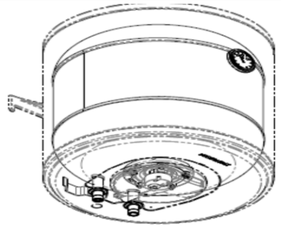
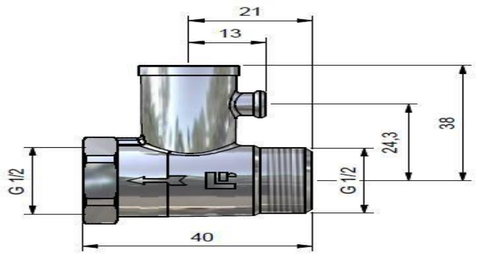
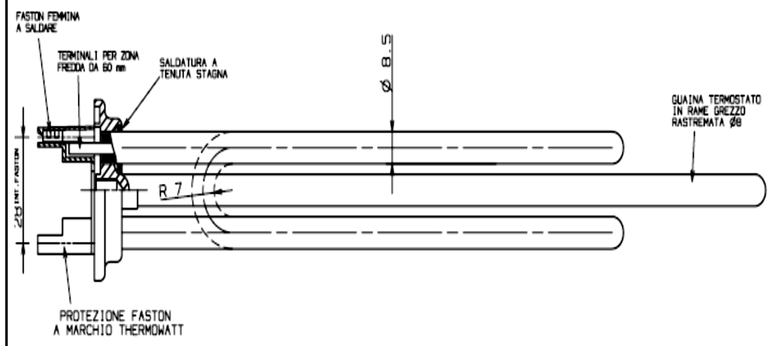
TECHNICAL SUBMITTAL WATER HEATERS

REFERENCE	TECHNICAL DESCRIPTION	NOTES
TYPE	STORAGE WATER HEATER 30-200L	
	COWH-SFVWM1.2-1.80W COWH-SFHWM1.21.80W	
BRAND	CALFREDDO	
ORIGIN	MADE IN ITALY	
DIMENSIONS VERTICAL WATER HEATERS		**VERTICAL MODEL** / **A MM** / **B MM** / **C MM** / **F MM** / **G MM** / **I MM** COWH-SFVWM1.2-180 / 700 / 460 / 100 / 130 / 350 / 130 **WEIGHT 80 L** / **NET** 21 KGS / **GROSS** 23 KGS
DIMENSIONS HORIZONTAL WATER HEATERS		**HORIZONTAL MODEL** / **A MM** / **B MM** / **C MM** / **D MM** / **F MM** / **G MM** / **I MM** COWH-SFHWM1.2-1.180 / 700 / 460 / 100 / 145 / 330 / 350 / 240 **WEIGHT 80 L** / **NET** 21 KGS / **GROSS** 23 KGS
TANK	HOT ROLLED PICKLED UNI EN 10025-10111-5867 FE P 13, STEEL THICKNESS 15/10. THE TANK IS BUILT WITH 2 CUPS AND ONE CENTRAL CYLINDER. THICKNESS 15/10. PRESSURE RESISTANCE 8 BAR AND NORMATIVE TEST 16 BAR. EN 60 335-2-21 7.1&22.47 FLANGE OPENING 72 MM. CLOSING OF THE FLANGE WITH NUTS. EACH LOT IS SUBJECT TO DESTRUCTIVE PRESSURE TEST UP TO 16 BAR FOR 10 M NO SHOWING OF ANY LEAKAGE OR CRACKING. 6 BAR TEST PRESSURE ON 100% OF PRODUCTION BEFORE ENAMELING	
PROTECTION AGAINST CORROSION	TITANIUM GLASS ENAMELED 300 MICRONS COOKED IN OVEN 850 °C. VESSEL IS GLASS LINED ACCORDING TO DIN 4753 	EACH TANK IS TREATED WITH SAND BLASTING BEFORE ENAMELING. ENAMEL IS GIVEN WITH TITANIUM ENRICHED GLASS ENAMEL, WITH HIGH RESISTANCE TO ACID WATER, STEAM AND CORROSION. THE ENAMEL IS COOKED IN OVEN AT 850 °C
ADDITIONAL PROTECTION AGAINST CORROSION	MG ANODE WITH DENSITY 160 G/SQM OF THE ENAMELED SURFACE. EPDM GASKET FOR THE PROTECTION OF THE TANK OPENING	ALLOY EN-MAMGA16ZN3 NORMATIVE REFERENCE UNI EN 12438-2002

RELIEF SAFETY VALVE	RELIEF SAFETY VALVE SUPPLIED WITH EVERY BOILER MATERIAL: BRASS UNI EN 12165 SURFACE TREATMENT: NICKEL PLATING MAX WORKING TEMPERATURE: 100°C THREADED END: G1/2' RESISTANCE TO INTERNAL PRESSURE: UP TO 16 BAR STANDARD OPENING VALVE: 8.5 BAR	
HEATER MODEL CODE	HEATING ELEMENT: IMMERSION TYPE WITH FLANGE CONNECTION, COPPER FACED RULES: HEAT RESISTANT PLASTIC BASE. HEATING ELEMENT MADE OF NICKEL CHROMIUM WIRE EMBEDDED IN MG OXIDE AND SHEATHED IN COPPER TUBE. WATT DENSITY 6.8 W SQ. CM POWER 1200 W 220-240 V	THE CONSTRUCTION HAS BEEN MADE ACCORDING TO THE FOLLOWING EN60730-1; EN60730-2-9 72/23/CEE "ELECTRICAL MATERIAL IN LOW VOLTAGE "MODIFIED BY 93/68-99/5-2006/95 CEE 89/336/CEE "ELECTROMAGNETIC COMPATIBILITY" MODIFIED BY 92/31-93/68-93/97-2004/108 CEI-EN 6 1000-6-4 
INLET-OUTLET OF WATER	CONNECTIONS ARE ASSURED BY ½" MALE THREADS. THE DRAINING OF WARM WATER IS ASSURED BY STAINLESS STEEL PIPE. THE INLET OF COLD WATER IS REGULATED BY A JET BREAKER IN ABS WITH SPECIAL DESIGN TO REDUCE THE COLD WATER INCOMING.	THE STAINLESS STEEL 304 DRAINING PIPE IS ENCASED IN PLASTIC SLEEVE TO AVOID ANY THERMAL BRIDGE.
CONNECTION FITTING PIP	1/2" FEMALE FITTING	
HIGH TEMPERATURE LIMIT CUT-OUT WITH MANUAL RESET.	TEMPERATURE CONTROL: ADJUSTABLE IMMERSION THERMOSTAT WITH BI-METALLIC SAFETY CONTROL (AUTOMATIC) HIGH TEMPERATURE LIMIT. THE DEVICE AND ITS THERMOSTAT GRANT THE RESPECT OF EN 335-2-21 22.112 AND 24.102 WITH THE BIPOLAR SAFETY LIMIT ENSURING A WATER TEMPERATURE LOWER THAN 98°C. BIPOLAR SAFETY HAS A MANUAL RESET.	SETTING OF TEMPERATURE: 72° C SETTING OF SAFETY (WITH MANUAL RESET): 85 ° C
EXTERNAL JACKET	COLD ROLLED LOW CARBON STEEL FLAT PRODUCTS – FE P03 UNI EN 10130/10131 – THICKNESS 6/10 **PAINTING** EPOXY POWDER – COLOR: WHITE PLAIN SHINE FOR HOUSE APPLIANCES 1. THICKNESS TEST: UNI EN ISO 2360:2004 2. ADHESION : UNI EN ISO 2409:2007 3. HARDNESS PENCIL : UNI 10782:1999 4. IMPACT RESISTANCE : UNI EN ISO 6272-2 :2006 5. CONICAL MANDREL : UNI EN ISO 6860:2006 6. SALT FOG : UNI EN ISO 9227 :2006 7. HUMIDISTAT: UNI EN ISO 6270:200	
THICKNESS OF SHELL INSULATION AND THERMAL CONDUCTIVITY	OUR PRODUCTS ARE INSULATED WITH PU FOAM HA 24-259-01/ISO10-002-00 THERMAL CONDUCTIVITY 0.023/0.03 = 0.766 W/SQM	THICKNESS OF THE INSULATION IS MINIMUM 2.20 CM AVERAGE SURROUNDING ALL THE BODY OF THE PRODUCT.

<table>
<tr><td>NAMEPLATE</td><td>THE NAMEPLATE CORRESPONDS TO EN 60 335-2-21</td><td>EACH PRODUCT HAS A SERIAL NUMBER WITH EASY REFERENCE TO THE MONTH AND YEAR OF PRODUCTION</td></tr>
<tr><td>HEATING TIME AND ENERGY CONSUMPTION</td><td>
<table>
<tr><th>VERTICAL MODEL</th><th>HEATING ELEMENT</th><th>KWH/24H</th></tr>
<tr><td>COWH-SFVWM1.2-180W</td><td>1200 W</td><td>1.06</td></tr>
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<tr><td>HOT WATER L/H AND 24H</td><td>80 LT 1.2 KW = 51.60 L/H</td><td>80 LT = 1238 L/24H</td></tr>
<tr><td>FASTENING TO THE WALL</td><td>EACH PRODUCT IS EQUIPPED WITH A WALL BRACKET ABLE TO SUPPORT THE FULL WEIGHT OF PRODUCT.
IT IS ENOUGH USE NUTS AND BOLTS IN 2 FIXATION POINTS</td><td></td></tr>
<tr><td>INFORMATION</td><td>EACH PRODUCT IS EQUIPPED WITH THERMOMETER SHOWING THE TEMPERATURE.
A SIGNAL LED LIGHT IS INDICATING THE HEATING PHASE.</td><td>EACH PRODUCT IS EQUIPPED WITH INSTALLATION MANUAL.</td></tr>
<tr><td>APPLICABLE STANDARDS

PROTECTION AGAINST SPLASHING WATER</td><td>THE PRODUCT IS CORRESPONDING TO THE EN STANDARDS AND GSO STANDARDS
IEC 60335-2-21: 2012 (Sixth Edition)
used in conjunction with
IEC 60335-1:2010 (Fifth Edition)
incl. Corr. 1:2010 and Corr. 2:2011 + A1:2013
AND EMC STANDARDS

CISPR 14-1 (Fifth Edition) + A1 + A2 in conjunction with CISPR 14-2 (Second Edition), IEC 61000-3-2 (Fourth Edition) , IEC 61000-3-3 (Third Edition)
IPX4</td><td>CB TEST CERTIFICATE N.
80 L VERTICAL WATER HEATER
AG16-0003805-02 ISSUED ON 16/11/2016

80 L HORIZONTAL WATER HEATER
AG16-0003805-04 ISSUED ON 16/11/2016
ISSUED BY IMQ</td></tr>
<tr><td>CERTIFICATES</td><td>ISO 9001 CERTIFICATE</td><td>ROHS COMPONENTS ON THE PRODUCTS.</td></tr>
<tr><td></td><td>ROUTINE TESTS</td><td>ON 100% OF THE PRODUCT AFTER ASSEMBLING OF THE ELECTRICAL PARTS AND BEFORE PACKING</td></tr>
<tr><td>FACTORY TEST</td><td>EARTH CONTINUITY UNDER IEC 60335-1 ANNEX A, ROUTINE TEST (A.1) 0,1OHM
ELECTRIC STRENGTH UNDER IEC 60335-1 ANNEX A ROUTINE TEST (A.2)
BASIC INSULATION 1000V, 50 HZ, 1 SEC
FUNCTIONAL UNDER IEC 60335-1 ANNEX A ROUTINE TEST (A.3)
CORRECT FUNCTIONING OF APPLIANCES</td><td>THEM</td></tr>
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