

Plant Design Registration Certificate

Work Health & Safety Act 2011
Work Health & Safety Regulation 2017

Registration holder

Danfoss (Australia) Proprietary Limited

ABN: 93004385997

ACN: 004385997

Design registration number

PDPRE7001360/23

Date issued

13 Dec 2023

Plant Design description

Plant type: Pressure Vessel

Model / Identification number / Name: Accumulator

Manufacturer: Danfoss

Vessel type: Refrigeration and air-conditioning vessel

Hazard level: D

Design pressure (kPag): 8000

Minimum temperature (C): -45

Maximum temperature (C): 50

Number of chambers: 1

Maximum volume (L): 7.2

Minimum volume (L): 7.2

Technical details

Drawing details: Accumulator for condensing unit LCA000Z093

Technical standards: JIS B8240 - 2015

Year of design: 2020



END PLATE (UPPER,LOWER)	SSA372A279A,SSA372A279A	THICKNESS 6.2 mm	END PLATE CALCULATION METHOD METHOD OF DISH SHAPE	BODY CALCULATION METHOD METHOD OF INSIDE DIAMETER
COEFFICIENT OF SHAPE	W	—	1.00	
ALLOWABLE TENSILE STRESS	σ_a	N/mm ²	130	
WELDING EFFICIENCY	η	—	1	
CORROSION ALLOWANCE	α	mm	1	
MIN. THICKNESS	t	mm	5.01	
SHELL PLATE (BODY)	SSA371A262A	THICKNESS 9.3 mm	$t = \frac{P \cdot R \cdot W}{2 \cdot \sigma_a \cdot \eta - 0.2 \cdot P} + \alpha$ P : DESIGN PRESSURE R : RADIUS OF CENTER r : RADIUS OF CORNER W : $\frac{1}{4} (3 + \sqrt{\frac{R}{r}})$ σ_a : ALLOWABLE TENSILE STRESS η : WELDING EFFICIENCY α : CORROSION ALLOWANCE	$t = \frac{P \cdot D_i}{2 \cdot \sigma_a \cdot \eta - 1.2 \cdot P} + \alpha$ P : DESIGN PRESSURE D_i : INSIDE DIAMETER σ_a : ALLOWABLE TENSILE STRESS η : WELDING EFFICIENCY α : CORROSION ALLOWANCE
ALLOWABLE TENSILE STRESS	σ_a	N/mm ²	78	
WELDING EFFICIENCY	η	—	1	
CORROSION ALLOWANCE	α	mm	1	
MIN. THICKNESS	t	mm	9.01	

MODEL TYPE		HCCV1001E HCCV1001EA OP-UPACO15COP04E			
ISSUE		CLASSIFICATION			
		SPECIFICATION(ACCUMULATOR)			
OKADA		DWG NO.		REV. MARK	PAGE
231110		LCA000Z093		/ \	1 / 1