

2.6.4 能力表

(1) 能力一覧表

単位 W(kcal/h)(50/60Hz)

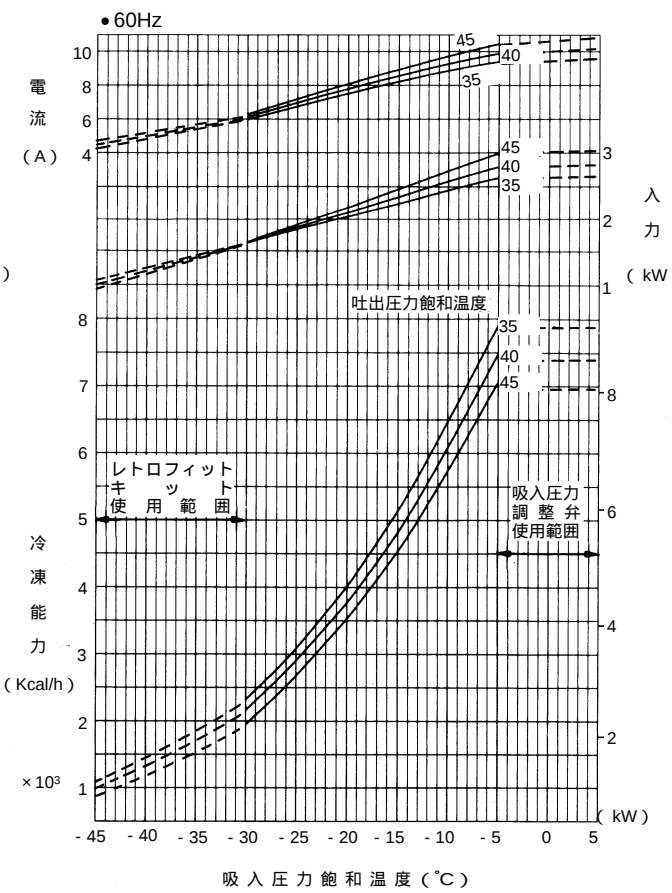
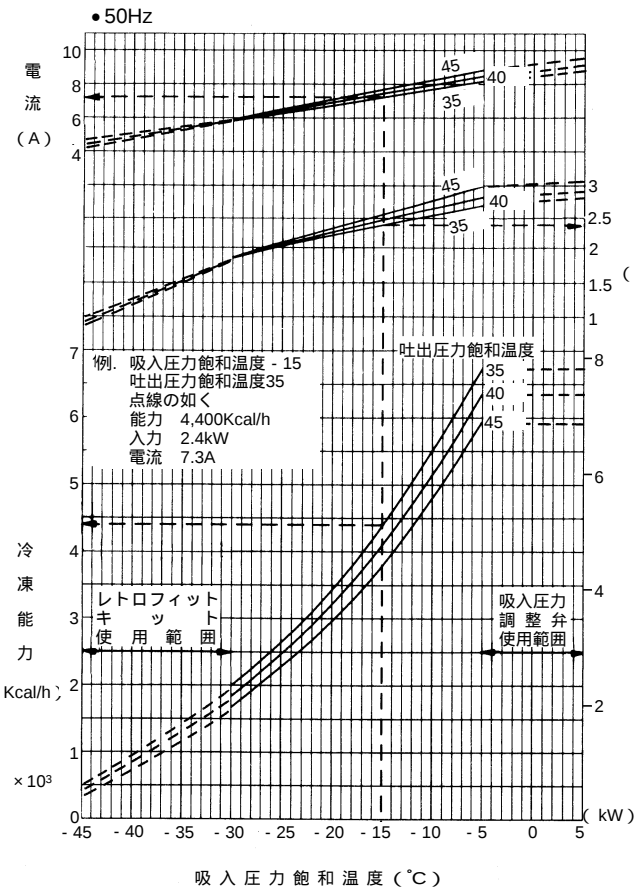
形式	吐出圧力飽和温度(°C)	吸入圧力飽和温度(°C)											
		-45	-40	-35	-30	-25	-20	-17	-15	-10	-5	0	5
ARU222W	35	520/760 (450/650)	930/1160 (800/1000)	1630/1860 (1400/1600)	2330/2730 (2000/2350)	3080/3600 (2650/3100)	4010/4710 (3450/4050)	4650/5350 (4000/4600)	5120/5930 (4400/5100)	6400/7380 (5500/6350)	7850/9070 (6750/7800)	7850/9070 (6750/7800)	7850/9070 (6750/7800)
	40	410/520 (350/450)	870/990 (750/850)	1450/1570 (1250/1350)	2150/2500 (1850/2150)	2850/3370 (2450/2900)	3720/4360 (3200/3750)	4360/5060 (3750/4350)	4770/5580 (4100/4800)	5990/6980 (5150/6000)	7380/8600 (6350/7400)	7380/8600 (6350/7400)	7380/8600 (6350/7400)
ARU302W	35	930/1050 (800/900)	1630/1740 (1400/1500)	2270/2620 (1950/2250)	3080/3550 (2650/3050)	4070/4770 (3500/4100)	5290/6160 (4550/5300)	6100/7090 (5250/6100)	6630/7730 (5700/6650)	8260/9590 (7100/8250)	10120/11740 (8700/10100)	10120/11740 (8700/10100)	10120/11740 (8700/10100)
	40	810/930 (700/800)	1400/1570 (1200/1350)	2030/2330 (1750/2000)	2850/3310 (2450/2850)	3780/4420 (3250/3800)	4940/5760 (4250/4950)	5700/6630 (4900/5700)	6280/7270 (5400/6250)	7790/9070 (6700/7800)	9530/11160 (8200/9600)	9530/11160 (8200/9600)	9530/11160 (8200/9600)
ARU372W	35	1400/1630 (1200/1400)	2210/2440 (1900/2100)	3140/3490 (2700/3000)	4070/4710 (3500/4050)	5350/6720 (4600/5350)	6980/8080 (6000/6950)	7970/9300 (6850/8000)	8660/10120 (7450/8700)	10700/12440 (9200/10700)	13080/15230 (11250/13100)	13080/15230 (11250/13100)	13080/15230 (11250/13100)
	40	1220/1400 (1050/1200)	2030/2210 (1750/1900)	2910/3200 (2500/2750)	3840/4420 (3300/3800)	5060/5870 (4350/5050)	6570/7620 (5650/6550)	7500/8720 (6450/7500)	8200/9530 (7050/8200)	10170/11800 (8750/10150)	12440/14480 (10700/12450)	12440/14480 (10700/12450)	12440/14480 (10700/12450)
ARU552W	35	2090/2910 (1800/2500)	3370/4190 (2900/3600)	5130/5810 (4100/5000)	6340/7670 (5450/6600)	8430/10170 (7250/8750)	10930/13200 (9400/11350)	12970/15470 (11150/13300)	15060/16690 (12050/14350)	17790/20990 (15300/18050)	21980/25870 (18900/22250)	21980/25870 (18900/22250)	21980/25870 (18900/22250)
	40	1630/1980 (1400/1700)	2910/3550 (2500/3050)	4360/5230 (3750/4500)	5990/7150 (5150/6150)	7910/9480 (6800/8150)	10290/12330 (8850/10600)	12150/14480 (10450/12450)	13200/15640 (11350/13450)	16690/19710 (14350/16950)	20580/24240 (17700/20850)	20580/24240 (17700/20850)	20580/24240 (17700/20850)
ARU752W	35	3490/4130 (3000/3550)	5230/6800 (4500/5350)	6980/8370 (6000/7200)	9130/10810 (7850/9300)	12150/14300 (10450/12300)	15760/18600 (13550/16000)	18550/21690 (15950/18650)	20060/23310 (17250/20050)	25170/29130 (21650/25050)	30870/35700 (26550/30700)	30870/35700 (26550/30700)	30870/35700 (26550/30700)
	40	3020/3600 (2600/3100)	4710/5580 (4050/4800)	6510/7730 (5600/6650)	8600/10170 (7400/8750)	11400/13490 (9800/11600)	14830/17500 (12750/15050)	17440/20410 (15000/17550)	18900/21920 (16250/18850)	23720/27380 (20400/23550)	29190/33550 (25100/28850)	29190/33550 (25100/28850)	29190/33550 (25100/28850)
ARU1052W	35	5000/5990 (4300/5150)	6740/8140 (5800/7000)	8900/10700 (7650/9200)	12330/14420 (10600/12400)	16400/19130 (14100/16450)	21280/24830 (18300/21350)	24650/28720 (21200/24700)	26510/30870 (22800/26550)	32730/38140 (28150/32800)	39650/46400 (34100/39900)	39650/46400 (34100/39900)	39650/46400 (34100/39900)
	40	4530/5230 (3900/4500)	6510/7670 (5600/6600)	8840/10350 (7600/8900)	11630/13550 (10000/11650)	15470/18020 (13300/15500)	20060/23370 (17250/20100)	23260/27090 (20000/23300)	25060/29420 (21550/25300)	31050/36050 (26700/31000)	37790/44070 (32500/37900)	37790/44070 (32500/37900)	37790/44070 (32500/37900)

備考(1) 吸入圧力飽和温度 -20 以下の能力はレトロフィットキット(RFK130M)を使用した場合の値を示します。

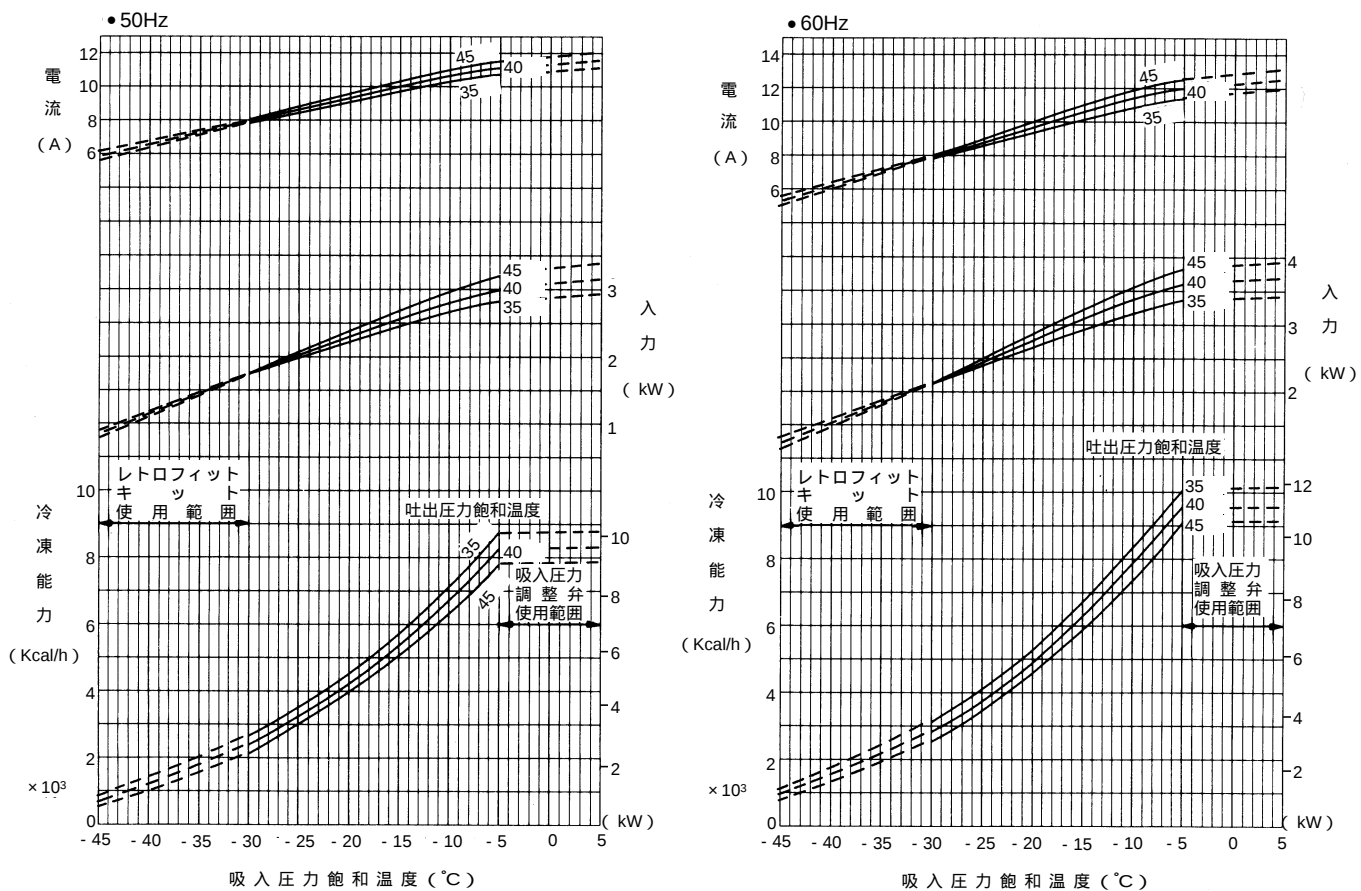
(2) 吸入圧力飽和温度 -5 以上の能力は吸入圧力調整弁を使用した場合の値を示します。

(2) 能力表

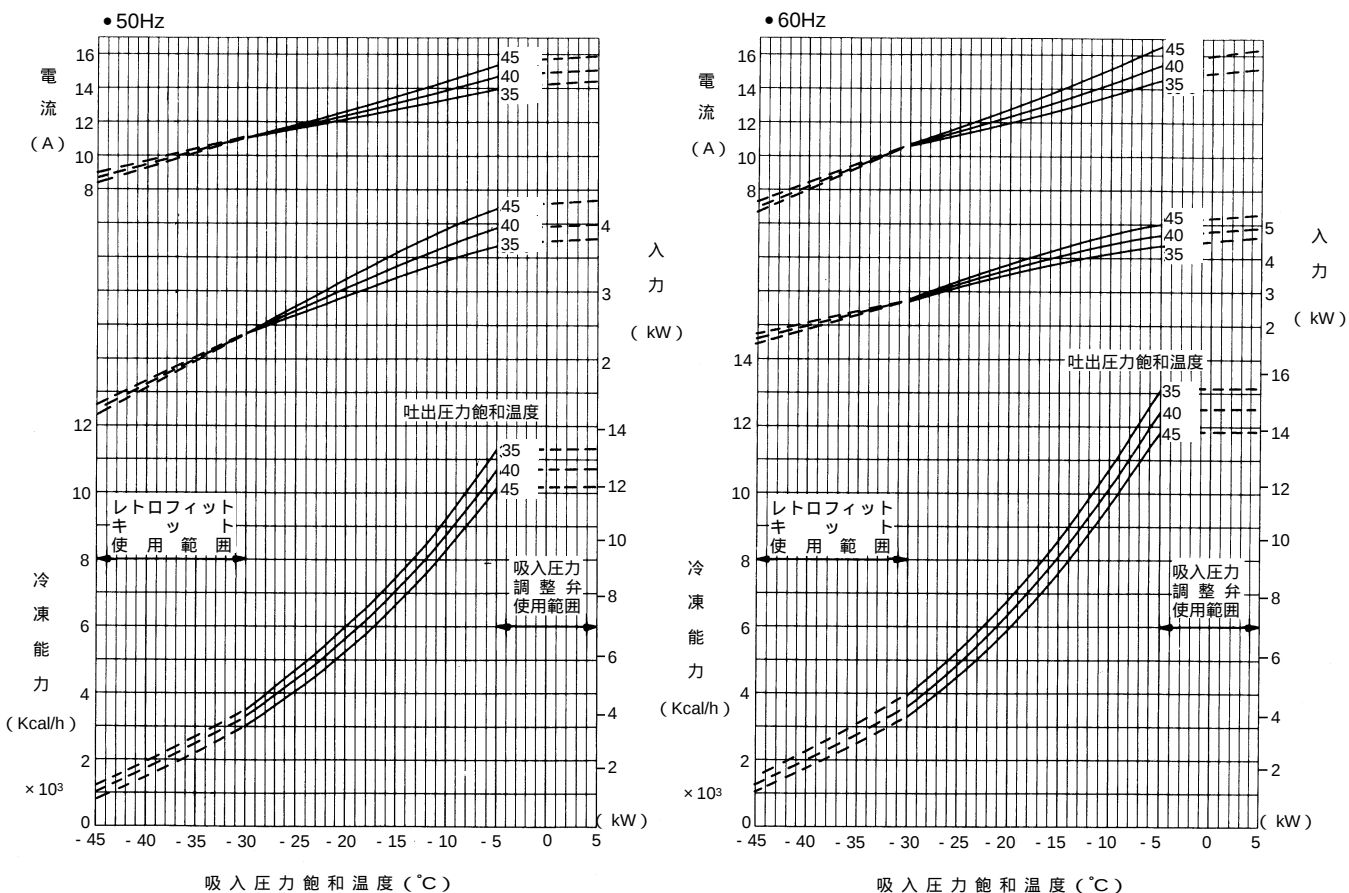
ARU222W



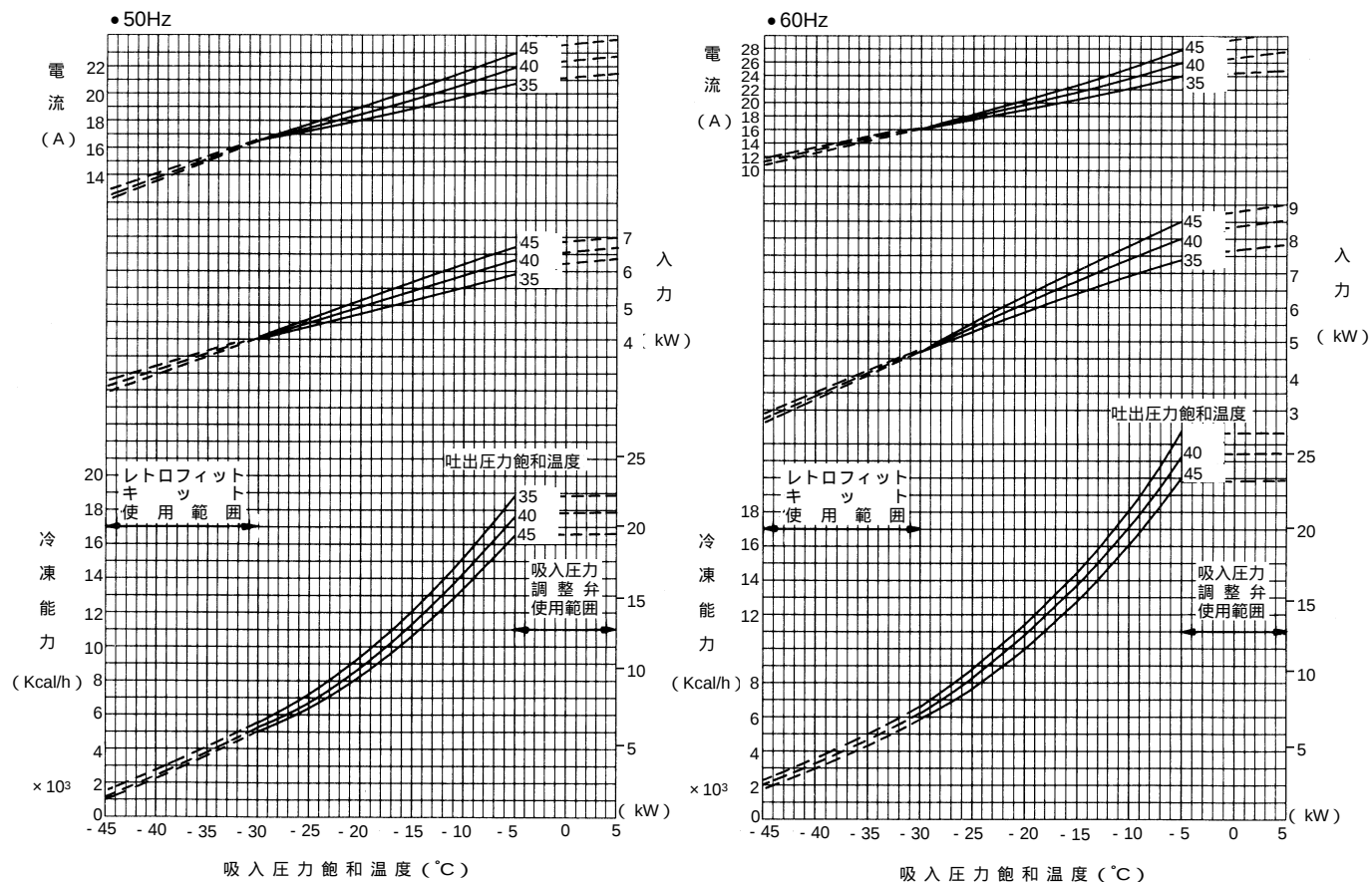
ARU302W



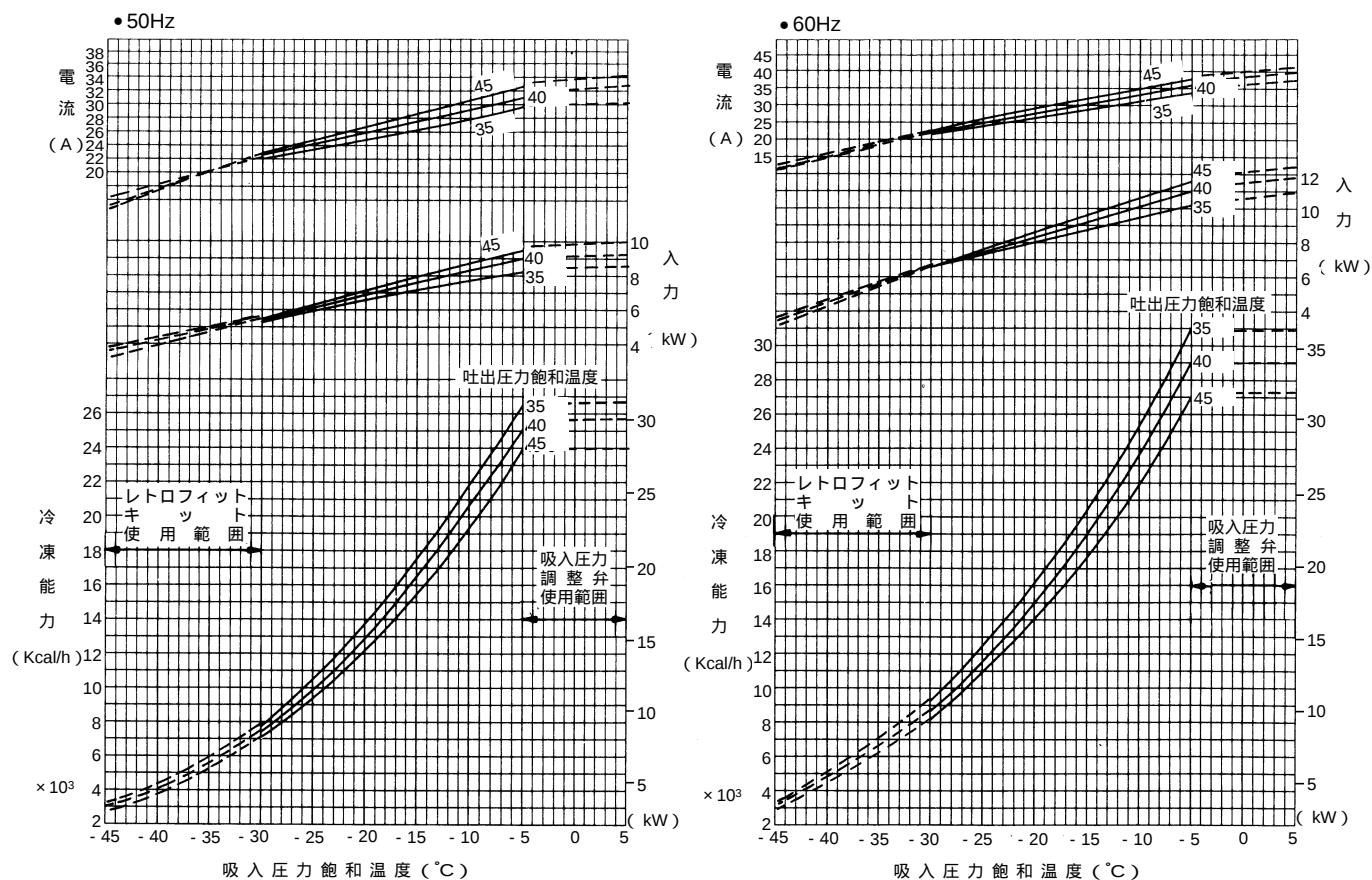
ARU372W



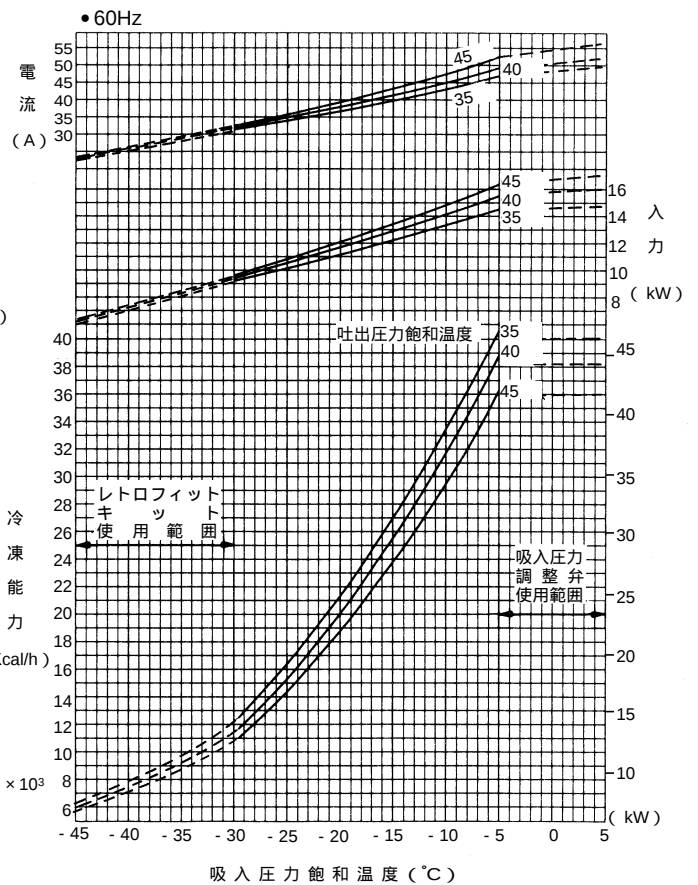
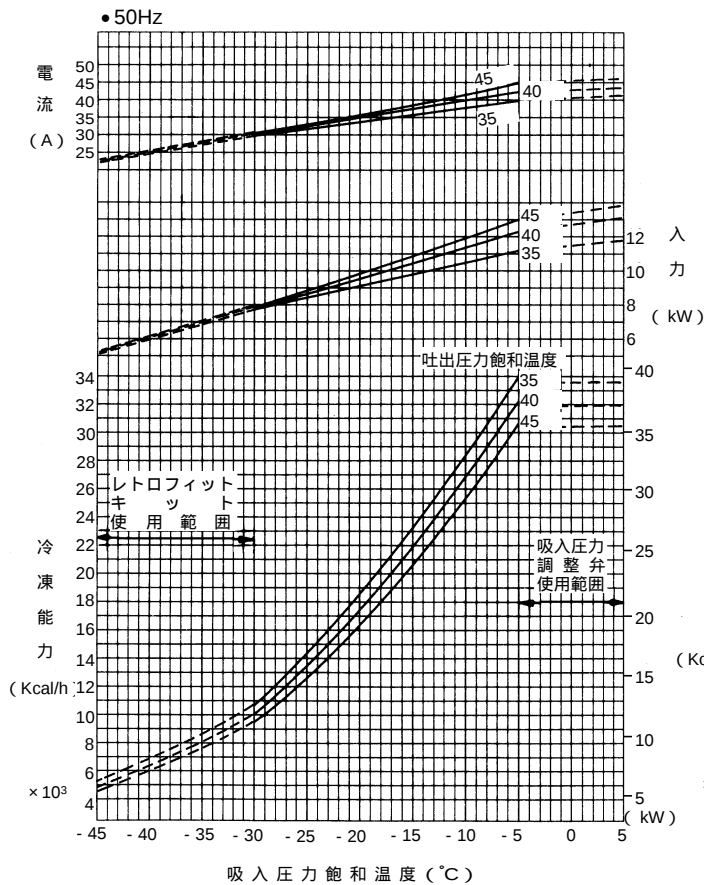
ARU552W



ARU752W



ARU1052W



(3) 凝縮器特性

(a) 凝縮器の各種特性 (冷却水量, 水頭損失等) の求め方

例 ARU372W 60Hz

- ・冷 媒 R22
- ・入 口 水 温 $T_{wi} = 32$
- ・吸入圧力飽和温度 $CSST = -15$
- ・吐出圧力飽和温度 $CT = 45$
- ・クーリングタワー使用

次の手順で求めてください。

ARU372Wの能力表より冷凍能力Qおよび入力Pを求めます。

$Q = 7700 \text{ kcal/h}$

$P = 4.3 \text{ kW}$

冷却水量、出口水温および水頭損失を求めます。

a 凝縮器放熱量 Q_c は

$$Q_c = Q + 860P = 7700 + 860 \times 4.3 = 11398 \text{ kcal/h}$$

b 凝縮負荷Fは

$$F = \frac{Q_c}{CT - T_{wi}} = \frac{11398}{45 - 32} = 876 \text{ kcal/h} \cdot \text{deg}$$

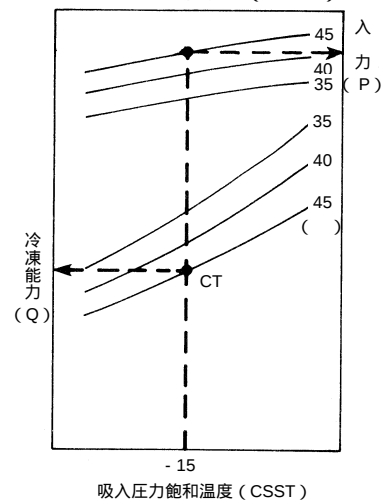
c ARU372W凝縮器性能表より凝縮負荷Fと汚れ係数0.0002

より冷却水量 $G_w = 44 \text{ l/min}$ 水頭損失 $\Delta P = 18 \text{ kPa}$

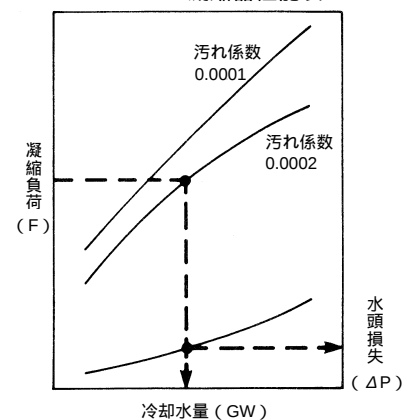
d 冷却水出口温度 T_{wo} は

$$T_{wo} = T_{wi} + \frac{Q_c}{60G_w} = 32 + \frac{11398}{60 \times 44} = 36.3$$

ARU372W能力表(60Hz)

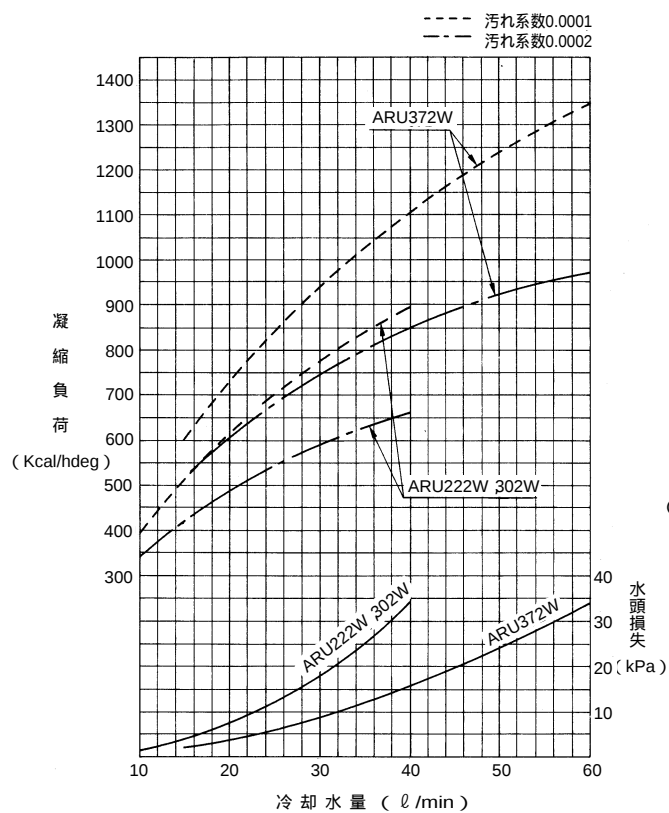


ARU372W凝縮器性能表



(b) 凝縮器性能

ARU222W , ARU302W , ARU372W



ARU552W , ARU752W , ARU1052W

