

**T ECH NEWS**

Issued by:  
**Technical**

Support

**Subject :** QCO Complied PA –High Static Pressure Duct (Cooling only) with R-22 and R-410A Refrigerant

**Applicable Model:** 5TR~14 TR FD-GRV Series (Refer below Table)

**Objective:**

Introduction of QCO Complied Series of PA –High Static Pressure Duct (Cooling only) with R-22 Refrigerant.

**Benefits:** Improvement in Product Specifications & Components specifications.

**QCO Complied High Static Pressure Duct (Cooling only) with R-22 Refrigerant**



<b>R-22</b>			
Capacity(TR)	5	7.5	10
Models			
Capacity(TR)	14(**2C)		
Models			



All Critical Components of ACs are now equipped with ISI mark



**BIS CERTIFIED**

PA-QCO License No : 8400168615

**Key Highlighting features**

- High performance even at high ambient temperature(48°C)
- Best in class Air Conditioning Components
- Under voltage and over voltage protection (373+/-5V and 460 +/- 5V)
- Phase reverse protection
- Pre-charged refrigerant
- Phase Loss Protection
- Provision of Fresh air intake for healthy living

**Product Availability from Aug~Sep-2023**

\*\*2C-Double Compressor

## Advantage of High Performance Components

Components Name	Image	Benefits
Compressor		Energy Efficient <b>Scroll Compressor</b> can work up to <b>65 deg C</b> condensing temperature. <b>Smooth and quiet</b> operation .
ODU FAN		Aerodynamic design propeller fan which Improves air flow distribution thus increasing heat transfer rate in condenser
Motor		<b>High performance motors</b> provided with overload protector for motor safety.
HP/LP Switch		High & Low pressure protection switches.
Heat Exchanger		<b>7mm tubes</b> cover more area as compared to <b>3/8" HE</b> , thus increasing heat transfer area which <b>increases cooling capacity during high ambient &amp; Performance</b> . Blue Fin Condenser and Hydrophilic special coating on the fin of the heat exchanger <b>prevents corrosion, extending the life of the unit.</b>
TEV		TEVs are precise and function well at wide range of ambient temperatures ( <b>19~35 deg C</b> )
Drier		<b>Function:</b> Protect the refrigerant system from liquid and solid contaminants. Good Quality of drier ensures <b>High moisture absorption</b>
Stop Service Valve		<b>Function:</b> Stop valve is used to connect indoor and outdoor units . <b>Good Quality</b> of stop Valve ensures <b>high Reliability</b>
Metallic PCB Box		Metallic PCB Box ensures <b>safety from Fires</b>
Remote (Wired/ Wireless)		Elegant Look <b>Wide LCD screen</b> Error code display <b>Filter cleaning reminder</b>

## Model Number & Capacity Comparison:-

Existing Series PA R-22 Duct					QCO Complied R-22 Duct				
Model Number-IDU	IDU Mfg. Base	Model Number-ODU	ODU Mfg. Base	TR	Model Number-IDU	IDU Mfg. Base	Model Number-ODU	ODU Mfg. Base	TR
FD65DSV16	DAIPL	R65DSY16	DAIPL	5.5	FD60GRV16	DAIPL	R60GRY16	DAIPL	5.0
FD100DSV16		R100DSY16		8.5	FD90GRV16		R90GRY16		7.5
FD130DSV16		R130DSY16		11	FD120GRV16		R120GRY16		10
FD200DSY16		R100DSY16x2		16.7	FD180GRY16		R90GRY16x2		14

## Technical Specifications: QCO Complied PA –High Static Pressure Duct (Cooling only)

HIGH STATIC DUCT TYPE COOLING ONLY (R-22)						
		PA Duct R-22(With QCO)				
		5 TR	7.5 TR	10TR	14TR	
Model Name	Indoor unit	FD60GRV16	FD90GRV16	FD120GRV16	FD180GRY16	
	Outdoor unit	R60GRY16	R90GRY16	R120GRY16	R90GRY16X2	
Power supply (V/Ph/Hz)		415/3/50	415/3/50	415/3/50	415/3/50	
Nominal Cooling Capacity		BTU/Hr	60000	90000	120000	167979
Nominal Cooling Capacity		kW	17.6	26.38	35.17	49.23
Power Input		Watt	6450	9500	13000	19510
COP		w/w	2.73	2.78	2.71	2.52
Running Current		A	11	17	18	34
Refrigerant		...	R-22	R-22	R-22	R-22
Indoor Unit	Airflow rate (H/M/L)	CFM-H	2000	3000	4000	6000
		CFM-M	1800	2700	3600	5400
		CFM-L	1620	2430	3240	4860
	High (Static Pressure)	Pa	50	50	60	80
	Sound Pressure level (H)	dba	53	53	57	59
	Dimensions IDU (HxWxD)	mm	450x1170x700	450x1560x700	470x1700x940	590x1845x1145
	Packing Dimensions IDU (HxWxD)	mm	465x1370x720	585x1780x740	620x1930x990	760x2130x1250
Machine weight		kg	60	90	125	175
Outdoor Unit	Condensate Drain Size	mm	40.5			
	Dimensions (HxWxD)	mm	930x1025x410	930x1200x550	930x1650x620	930x1200x550
	Packing Dimensions (HxWxD)	mm	1080x1170x470	1080x1350x620	1088x1846x720	1080x1350x620
	Machine weight	kg	92	139	160	139
Piping connections	Type		Liquid flared & Gas Brazed			
	Liquid (Flare)	mm	12.7	12.7	15.9	12.7
	Gas (Braze)	mm	22.2	28.58	34.92	28.58
	Refrigerant Pre Charge (at 7.5m Pipe Length)	mm	4.0	6	9.1	6.0(x2)

**NOTE :** FD180GRY16 comes with 2 Nos. of R90GRY16, where standard gas charge is 6.0kg/unit. Extra 0.7Kg should be charged for standard pipe length in each unit during installation in field.

It is here by inform you all that we had already released this information Via [Tech News DAIPL-TS-A64](#) about QCO Complied PA Duct with R-410 Refrigerant in the Month of June 2020, and this product is available in the market w.e.f August 2020.

**Subject :** PA –High Static Pressure Duct (Cooling only) with R-410A Refrigerant

**Applicable Model:** 5.5 TR~16.5 TR FDR-FRV Series (Refer below Table)

**Objective:**

Introduction of New series of PA –High Static Pressure Duct (Cooling only) with R-410A Refrigerant.

**Benefits:** Improvement in Product Specifications & Components specifications.

**PA –High Static Pressure Duct (Cooling only) with R-410A Refrigerant**



R-410A			
Capacity(TR)	5.5	8.5	11(*1C)
Models			
Capacity(TR)	10.8(**2C)		16.5
Models			



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BIS CERTIFIED

PA-QCO License No : 8400168615

**Key Highlighting features**

- High performance even at high ambient temperature(48°C)
- Best in class Air Conditioning Components
- Under voltage and over voltage protection
- Phase reverse protection
- Pre-charged refrigerant
- Phase Loss Protection
- Phase imbalance voltage
- Provision of Fresh air intake for healthy living

\*1C-with Single Compressor, \*\*2C-Double Compressor

## QCO Complied Model details with Capacity in TR

Below given models are available in absolute Capacity as given in Table .

QCO Complied PA R-410A Duct				
Model Number-IDU	IDU Mfg. Base	Model Number-ODU	ODU Mfg. Base	TR
FDR65FRV16	DAIPL	RR65FRY16	DAIPL	5.5
FDR100FRV16		RR100FRY16		8.5
FDR130FRV16		RR130FRY16		11
FDR130FRV162		RR65FRY16X2		10.8
FDR200FRY16		RR100FRY16X2		16.5

### Technical Specifications: PA –High Static Pressure Duct (Cooling only)

		5.5 TR	8.5TR	11.0 TR	10.8 TR	16.5 TR			
Model	Indoor Unit	FDR65FRV16	FDR100FRV16	FDR130FRV16	FDR130FRV162	FDR200FRY16			
	Outdoor Unit	RR65FRY16	RR100FRY16	RR130FRY16	RR65FRY16(2NO)	RR100FRY16(2NO)			
Nominal Cooling Capacity	Btu/Hr	66000	102000	132000	129600	198000			
	KW	19.3	29.9	38.7	38.0	58.0			
Nominal Total Input Power (Cooling)		W	6400	11000	14600	13000	21600		
Running Current		A	11	19	23	22	38		
Power Source		V/Ph/Hz	415/3/50						
Refrigerant Type		---	R-410A						
INDOOR UNIT	Control	Operation	---				Wired Control		
		High	cfm	2200	3400	4400	4400	6600	
		Medium	cfm	2045	3100	3850	3850	5800	
		Low	cfm	1890	2800	3330	3330	5000	
		High	Pa	50	50	60	60	80	
	Sound Pressure Level (H)		dBA	51	52	54	54	59	
	Unit Dimension		Height x Width x Depth	mm	450 x 1170 x 700	450 x 1660 x 700	470 x 1700 x 940	470 x 1700 x 940	590 x 1885 x 1145
	Packing Dimension		Height x Width x Depth	mm	465 x 1370 x 720	585 x 1880 x 740	620 x 1930 x 990	620 x 1930 x 990	755 x 2130 x 1250
	Unit Weight		kg	60	95	125	130	175	
	Condensate Drain Size		mm	40.5					
OUTDOOR	Unit Dimension		Height x Width x Depth	mm	930 x 1025 x 410	930 x 1200 x 550	930 x 1650 x 620	930 x 1025 x 410	930 x 1200 x 550
	Packing Dimension		Height x Width x Depth	mm	1080 x 1170 x 470	1080 x 1350 x 620	1088 x 1846 x 720	1080 x 1170 x 470	1080 x 1350 x 620
	Unit Weight		kg	96	147	173	96	147	
	Pipe Connection	Type		---	Liquid (Flared) & Gas (Brazed)				
		Size	Liquid	mm	12.7	12.7	15.9	12.7	12.7
			Gas	mm	22.2	28.6	28.6	22.2	28.6
Refrigerant Pre-Charged (At 7.5m Pipe Length)		kg	4.4	5.7	8	2 X 4.4	2 X 5.9*		

**NOTE : FDR200FRY16 comes with 2 Nos. of RR100FRY16, where standard gas charge is 5.7kg/unit. Extra 0.2Kg should be charged for standard pipe length in each unit during installation in field.**